University of the Philippines – Manila
College of Arts and Sciences
Department of Physical Sciences and Mathematics

Online Medical Training System
For
Simulated Cataract Surgery

A Special Problem in partial fulfillment
Of the requirements for the degree of
Bachelor of Science in Computer Science

Submitted by

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ACCEPTANCE SHEET

The Special Problem entitled "Online Medical Training System for Simulated Cataract Surgery" prepared and submitted by Pamela Rica M. Florentino in partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science has been examined and is recommended for acceptance.

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ABSTRACT

The Online Medical Training System for Simulated Cataract Surgery is designed for providing training for the students in the field of cataract surgery. Its primary goal is to train registered medical students in performing cataract surgery using simulated surgical instruments. Through simulation of these instruments, the student learns how to incise in the junction of the clear and white outer parts of the eye, suction the damaged lens, and insert an intraocular lens (IOL) in place of the damaged lens. It also allows registered students check their training performance, download lectures posted by the medical health academician, and take practical exams. Furthermore, the system allows users to customize their own personal profile. The system likewise offers user-friendly features that allow students and the medical health academician post messages on the message board. The medical health academician can likewise check the performance of their students in the practical exams, thus providing both the student and medical health academician an essential tool in training for cataract surgery.

Keywords: **medical training system, simulation, eye surgery**

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I. INTRODUCTION

A. Background of the Study

All sensations, each perceived through a specific sense organ, are processed in the brain by a normally functioning central nervous system for their perception. Thus, our sense of sight is dependent on at least one functioning eye. The eye is an optical system that acts like a camera: the human lens is the lens that perceives the image, and the retina is the film that receives the image. Defects in this system are often called errors in refraction and are the most common types of sight problem [1]. Although a few can be corrected by prescription glasses, contact lenses, eye drops, and pills, some require a more serious, physical approach: surgery.

According to the Department of Health (DOH) and University of the Philippines-Philippine General Hospital, an estimated one million Filipinos (including adults) were blind for the year 2001. The most common causes of blindness were said to be cataract (77%), glaucoma and uncorrected aphakia (absence of a clear lens of the eye) [2]

A **cataract** is a clouding of the normally clear lens of the eye causing the patient's vision to be foggy or blurred. The natural process of aging may cause the lens to harden and turn cloudy and is usually the most common cause of cataract development [3].

In practice, ophthalmologists operate on an eye by looking through a stereoscope while steadying their hands (holding the surgical instruments) on a wrist rest that surrounds the patient's head. Medical books may provide some information on the surgical procedure but they do not provide a realistic surgical environment. Donated eyes from eye banks may be good models in terms of realism. However, they may lack the diseased state necessary for surgical training practice and at the same time, lack tissue reactivity (i.e. bending of muscles upon contact with instrument or emission of blood) [4].

B. Statement of the Problem

Most books on the anatomy of the eye contain basic discussions of the eye: functions, parts, and ailments that afflict it. Some cover discussions on the surgical steps to be taken to correct or cure such ailments. Although illustrations are presented to guide the student, these are mostly in two-dimensional (2D) thus not providing a reasonably realistic surgical environment [4].

Most of the eyes in the eye bank found to be unsuitable for cornea transplant are later used for research and study [5]. However, these eyes may lack the diseased state of the eye necessary for surgical training. It will also be difficult to evaluate whether the student was able to implement the surgery effectively since there is no tissue reactivity or feedback that can be attained from the model.

C. Objectives of the Study

To develop an online medical training system for cataract surgery with the following functions:

I. Provides the students the following functionalities:

A. Train on a simulation for cataract surgery by

1. Performing a surgery on the simulated eye

a. To create an incision in the junction of the clear and white outer parts of the eye

b. To remove the film on the lens before phacoemulsification

c. To suction the damaged lens

d. To insert an intraocular lens (IOL) in place of the damaged lens

2. Check the training performance based on

a. Length of incision

b. Proximity to actual points of incision

c. Proximity to actual size on lens to be removed

d. Clarity of surface area from suction process

e. Proximity to actual points of IOL insertion

B. Download lectures in cataract surgery

C. Take practical exams in cataract surgery

D. Update personal profile

E. Read and post messages on the message board

II. Provides the medical health academician the following functionalities:

A. Register students for an online medical training system for eye surgery

B. View profile of students and performance status in the practical exams

C. Update lectures in cataract surgery

D. Update personal profile

E. Update messages on a message board

D. Significance of the Study

The proposed application can serve as a supplemental teaching tool in ophthalmology. By creating a three-dimensional (3D) simulation of the eye, students will be more trained to work in a realistic surgical environment with a model that will specifically cater to their training needs. They need not rely entirely on memorization of step-by-step surgical procedures or 2D images and their imaginations for a scene or picture of what to do. Moreover, the student can use the tool repeatedly to practice eye cataract surgery procedures. Practical exams can also aid the medical health academician to evaluate the student's performance.

E. Scope and Limitations

In this study, the researcher will produce an online medical training system that will handle processing of student registration and of performance status based on his or her practical exams following the proceeding conditions:

1. The application is web based so that it can be accessed even outside the University.

Only duly registered students in Ophthalmology of the University of the Philippines Manila are allowed to use the system. After the student's enrollment expires (end of semester), the student's records are immediately deleted from the database by the system.

2. The system will include discussions and simulations only on cataract since this is considered to be the top cause of blindness in the country, accounting for around 77% of the blind population according to DOH and University of the Philippines-Philippine General Hospital. 3D simulations will be used for practical training and exams.

3. The system will include only a surgical simulation of phacoemulsification. It will also make use of sutureless, foldable IOL These are self-healing and will not require a period of time to be evaluated as compared to those with sutures that need to be removed at a later date.

4. Extracapsuiar extraction is excluded since it requires multiple sutures after the surgery.

5. The administering of anesthesia is excluded from the system, as well as the fitting of the artificial lens. Pre-operative physical examinations are also excluded from the system.

F. Assumptions

1. The system will assume that the students already have basic knowledge or basic "know-how" with regards to eye surgery such as stitching and cutting.

2. The faculty-in-charge of Ophthalmology in the UP College of Medicine will act as the medical health academician and the system administrator. The medical health academician is the one assigned to register the student.

3. The username of the student will be his/her student number, while for the MHA, it will be the employee number.

4. The simulated eye is assumed to be the right eye where the outer junction is at the right.

II. Review of Related Literature

Paul Fishwick said that simulation is often essential in the following cases: 1) the model is very complex with many variables and interacting components; 2) the underlying variables relationships are nonlinear; 3) the model contains random variables; 4) the model output is to be visual as in a 3D computer animation. The advantage of simulation is that a uniform model execution technique can be used to solve a large variety of systems without resorting to a "bag of tricks" where one must choose special-purpose and sometimes arcane solution methods to avoid simulation. Another important aspect of simulation is that one builds a simulation model to replicate the actual system. When one uses the closed-form approach, the model is sometimes twisted to suit the closed-form nature of the solution method rather than to accurately represent the physical system. A harmonious compromise is to tackle system modeling with a hybrid approach using both closed-form methods and simulation. [6]

In a study by Joseph P. Akpan, the impact of using a computer simulation model of an earthworm dissection as a preliminary experience to an actual dissection was examined. It was concluded from the study that simulations can be effective in putting learning experiences which were, previous to the use of simulation, too expensive, dangerous, remote, or time intensive [7].

In a virtual-reality based simulation by Székely, G., et al. for endoscopic surgery, approaches to reaching and surpassing the limits of realism in simulations have been explored by describing and analyzing the important components of virtual reality-based endoscopic simulators. The proposed technique was demonstrated by a prototype system that implements basic algorithms for VR training in gynecologic laparoscopy [4].

The LAHYSTOTRAIN is a project currently developing an advanced training system for laparoscopic/hysteroscopic procedures combining virtual reality (VR), multimedia and intelligent tutoring techniques. Traditional surgical training of minimally invasive surgery often follows the "learning by doing" rule, which sometimes proves to be insufficient. Training models available today provide only an abstract picture of the operation situation and usually fall short of reality. Specific training is necessary to

guarantee qualification of the surgeons. The project is made to overcome the current drawbacks of traditional training methods by developing a computer-assisted simulator for training and for quality control in laparoscopy and hysteroscopy using computer graphics, VR, multimedia and intelligent tutoring technology [8].

In a UK-based website titled Web-Based Surgical Simulators and Medical Education Tools, surgical training is described as largely a matter of close supervision on the apprenticeship model. There is said to be a growing requirement in training to practice techniques and operations in a way that does not put patients at any risk, and one way this can be done is using virtual reality modelling of the procedure. This site provides a resource for online surgical training and medical education tools, implemented using VRML 97 and/or JAVA [9].

The Jacob software system, designed by Marc Evers, has been built as part of the Jacob project, which is a pilot project of the Virtual Reality Valley Twente initiative. It investigates the application of virtual reality techniques and involves the design and construction of an animated agent in a 3-dimensional virtual environment. The project focuses on software engineering aspects, multimodal interaction, and the use of agent technology. He also made a report of the project to provide information needed for further development of the Jacob system. A number of technical details, including the file and directory structure, the software architecture, the event handling mechanism, and the integration of the dialogue management system were described [10].

In the Biomedical Interactive Technology Center, researchers have developed a "proof-of-concept" eye surgery simulation that provides both visual and tactile feedback while a surgeon operates on a computer model of the eye in a virtual environment. The simulator includes a stereo operating scope and a wrist rest. The surgeon interacts with a virtual eye using a virtual surgical instrument controlled by a hand held 3D position tracking stylus that continuously reports position and orientation to the computer. The tip of the stylus is connected to three motors that generate component force feedback in response to the tool-tissue interaction. The simulation includes options to change instruments, record and playback-

training sessions, reset the models, and peel away outer layers of the eye to reveal interior anatomical components. Dials allow the surgeon to rotate the model, change transparency, zoom, and adjust stereo viewing parameters. An instrument activation switch on the stylus controls actions such as opening and closing forceps and scissors [3].

III. Theoretical Framework

A. The Eye

An eye is about the size of a ping-pong ball. Light enters the eye through the pupil, and travels through the lens and the vitreous body to the optic nerve. The optic nerve carries the images to the brain for interpretation [11]. (see Figure1)

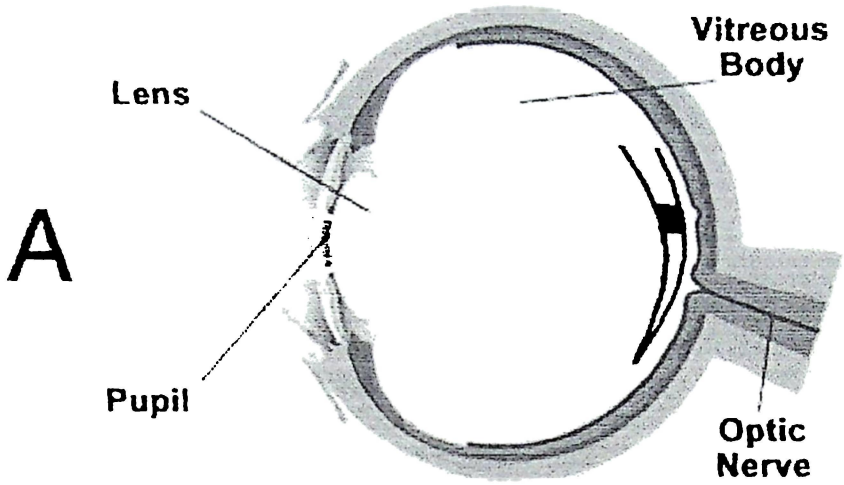

Figure 1: The Visual Pathways

The eye has three chambers known as the anterior (front), the posterior (back), and the vitreous body as shown in Figure 2. The front chamber contains aqueous humor (a watery fluid). This fluid carries nutrients to different tissues in the front of the eye. The cornea, the clear part of the eye, is located at the front of this chamber.

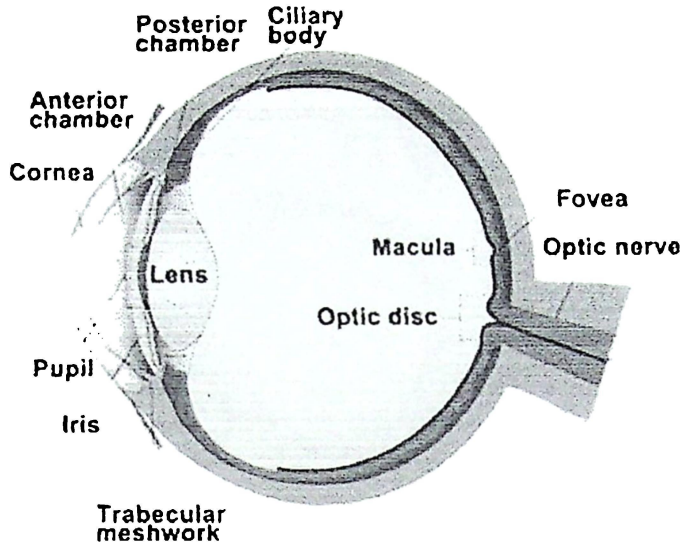

Figure 2: Anatomy of the Eye

The iris, which is the colored part of the eye, is located at the back edge of the anterior (front) chamber. The posterior (back) chamber is the smallest of the three chambers that also contains aqueous humor (a watery fluid). The lens, suspended by ligaments, is located at the front of the posterior (back) chamber and is directly behind the iris. Behind the lens is the vitreous body, which is the largest chamber of the eye. This chamber contains a thick gel-like fluid called vitreous humor, which helps maintain the shape of the eye. The ciliary body located behind the iris produces aqueous humor, which nourishes internal structures and also helps support the shape of the eye. A small area of spongy tissue, called the trabecular meshwork, allows the aqueous humor to drain from the eye. This drainage network is located where the iris and cornea meet, and is called "conventional outflow." A secondary route for drainage is called "uveoscleral outflow." When drainage doesn't keep up with production, the fluid backs up and pressure in the eye increases [11].

B. What is Cataract?

The normal human eye has a clear lens located near the front of the eye. A **cataract** is a clouding of this normally clear leans causing the patient's vision to be foggy or blurred. The natural process of

aging may cause the lens to harden and turn cloudy and is usually the most common cause of cataract development [12]. (see Figure 3)

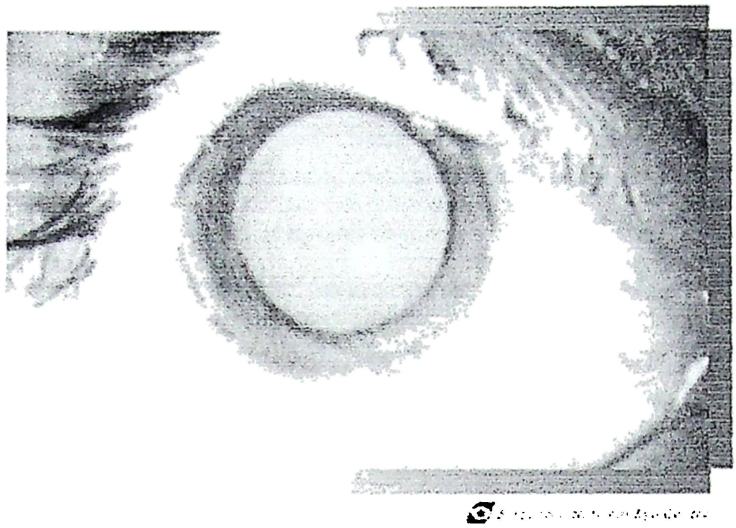

Figure 3: An eye with a cataract

Cataracts generally develop gradually over many years. Patients with cataracts may observe the following symptoms: blurred or cloudy sight, sensitivity to light with a glare or halo around objects as seen in driving, feeling as if a film is covering the eye, seeing colors that appear dull or washed out or poor depth perception. Cataracts that appear in children that are sometimes hereditary, or even present at birth, are called *congenital cataracts*. Certain infections or diseases of the eye, such as diabetes, can also cause the lens to cloud and form a *secondary cataract*. An eye injury whether from a hard blow or a chemical burn can cause a *traumatic cataract* [3]. Cataracts cannot be treated simply with stronger glasses or eye drops. The only effective treatment is cataract surgery. This involves removing the cloudy lens and replacing it with a clear lens implant (IOL).

C. Cataract Removal

Cataract removal is a procedure to remove a clouded lens (cataract) from the eye to improve vision, which almost always includes the implantation of an artificial lens. The purpose of cataract surgery is to remove the clouded lens and replace it with an artificial lens, thereby restoring clear vision [13].

Preparation - An ophthalmologist will take several measurements to assess the type of surgery needed. These tests will include an ultrasound of the eye to measure length and a measurement of the curvature of the front surface of the eye. Together, these tests help the surgeon choose the power of the artificial lens to be implanted in the eye at the time of surgery. Routine preoperative testing is often done to assess overall general health prior to cataract removal. Because cataract surgery is usually done with local anesthesia (numbing), most patients are able to undergo cataract extraction regardless of other illnesses they may have [13].

Procedure - The surgery is performed in a hospital or in an outpatient setting. Children are typically given general anesthesia to keep them deep asleep and pain-free; adults usually are awake but sedated and pain-free with local anesthesia [13]. With the help of a microscope, a small incision is made at the junction of the clear and white outer parts of the eye. The lens can be removed in several ways, depending upon the type of cataract:

- With surgical instruments, wherein the lens is extracted as a w hole (extracapsular extraction)
- With an instrument and machine that uses high frequency sound waves (ultrasonic energy) to break up the lens and suction it out (phacoemulsification)

An artificial intraocular lens (IOL) is usually inserted to help the eye focus in the absence of the removed lens. The incision may be closed with fine stitches (sutures) or may be self sealing (sutureless). If sutures are placed, they may need to be removed at a later date. The surgery typically lasts less than an hour [13].

Expectations after surgery - The operation has low risk, the pain is minimal and recovery time is short, and improvement in sight occurs in most cases. Ninety-five percent or more of all cataract surgeries result in improved vision [13].

Risks - Complications of cataract surgery are not common, and serious complications are rare. Most patients have better vision after cataract surgery [13].

Although sutures were a major advance, they have been supplanted in most cases by the use of a self-sealing incision. The shape of the incision creates a flap that takes advantage of the natural fluid pressure inside the eye to seal it shut without the need for sutures. However, according to the Steen-Hall Eye Institute, not every cataract surgery can be performed as a "No-Stitch" procedure. The decision to place a suture is made by the surgeon. The advantages of "No-Stitch" cataract surgery using a self-sealing wound include the following [14]:

- Shorter surgery time
- The ability to stop surgery at any point in the procedure
- Dramatically reduced recovery time
- Less surgically-induced astigmatism
- Less discomfort after surgery

A step by step illustration of cataract surgery is seen in Figure 4. [15]

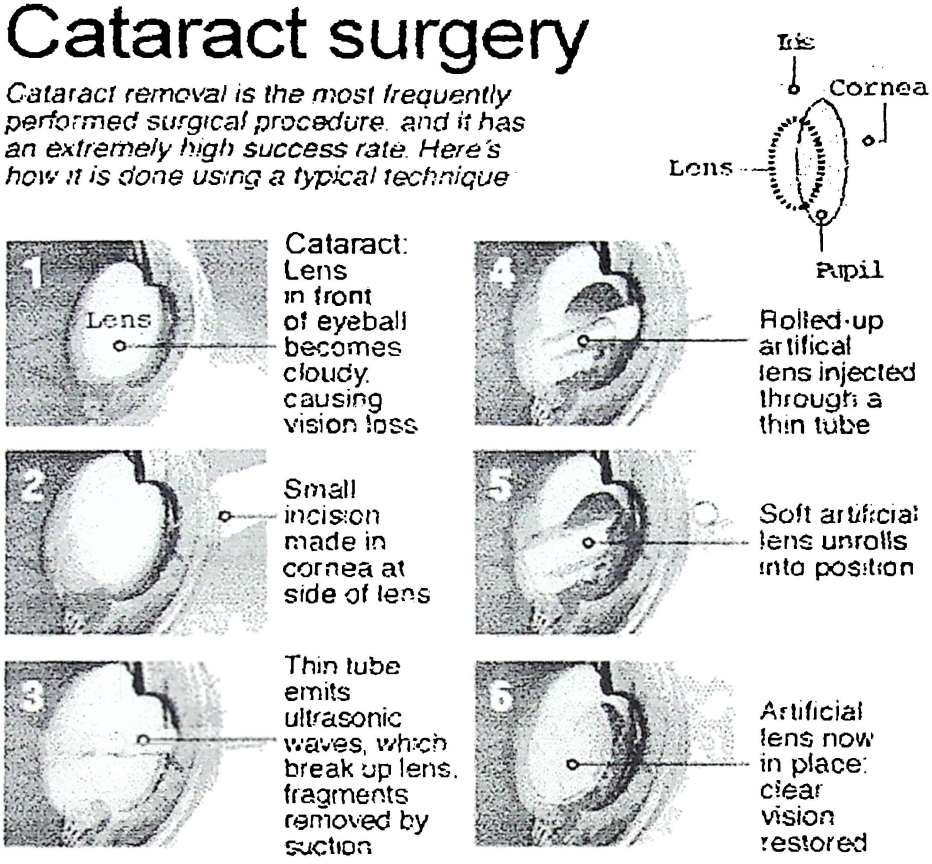

Figure 4: Cataract Surgery

D. What is Simulation?

Computer simulation is the discipline of designing a model of an actual or theoretical physical system, executing the model on a digital computer, and analyzing the execution output. Simulation embodies the principle of "learning by doing" --- to learn about the system we must first build a model of some sort and then operate the model. The use of simulation is an activity that is as natural as a child who *role-plays*. To understand reality and all of its complexity, we build artificial objects and dynamically act out roles with them. Computer simulation is the electronic equivalent of this type of role-playing and it

drives synthetic environments and virtual worlds. Within the overall task of simulation, there are three primary sub-fields: model design, model execution and model analysis (see Fig. 5) [6].

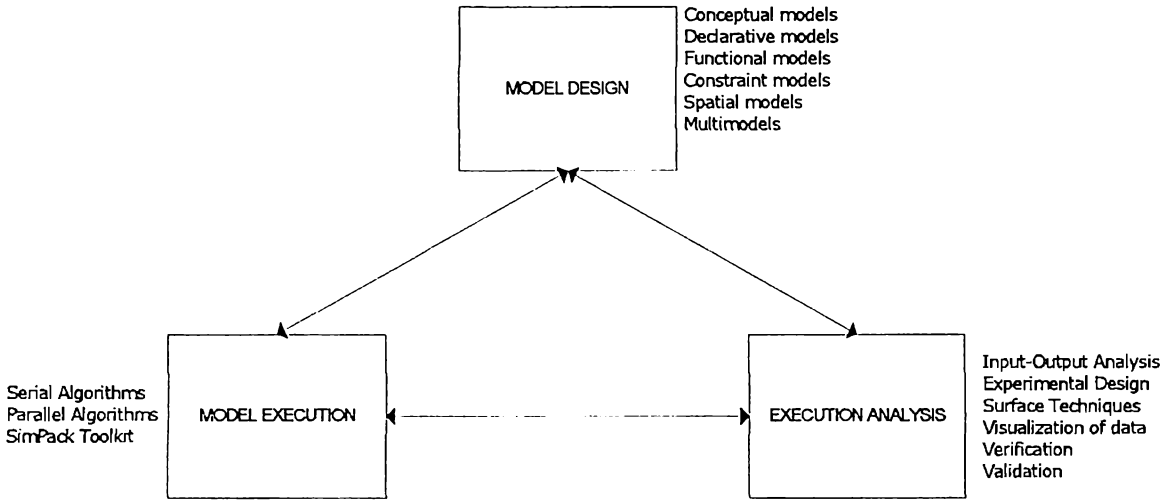

Figure 5: Sub-fields of Computer Simulation

To simulate something physical, a *mathematical model* representing that physical object is first created. Models can take many forms including declarative, functional, constraint, spatial or multimodel. A multimodel is a model containing multiple integrated models each of which represents a level of granularity for the physical system. Once a model has been developed, it is executed on a computer --- that is, a computer program which steps through time while updating the state and event variables in the mathematical model is created. There are many ways to "step through time." One can, for instance, *leap* through time using *event scheduling* or can employ small time increments using *time slicing*. The program can also be executed on a massively parallel computer. This is called *parallel and distributed simulation*. For many large-scale models, this is the only feasible way of getting answers back in a reasonable amount of time [6].

E. Medical Training System

A medical training system is considered part of systems that transfer and process information to support health care [16]. It falls under the category of healthcare information system (see Figure 6). Computer-based training systems generally include documented steps or written procedures that guide the trainee. Pictures are included at times. They include a wide variety of medical topics from a first aid to a surgery.

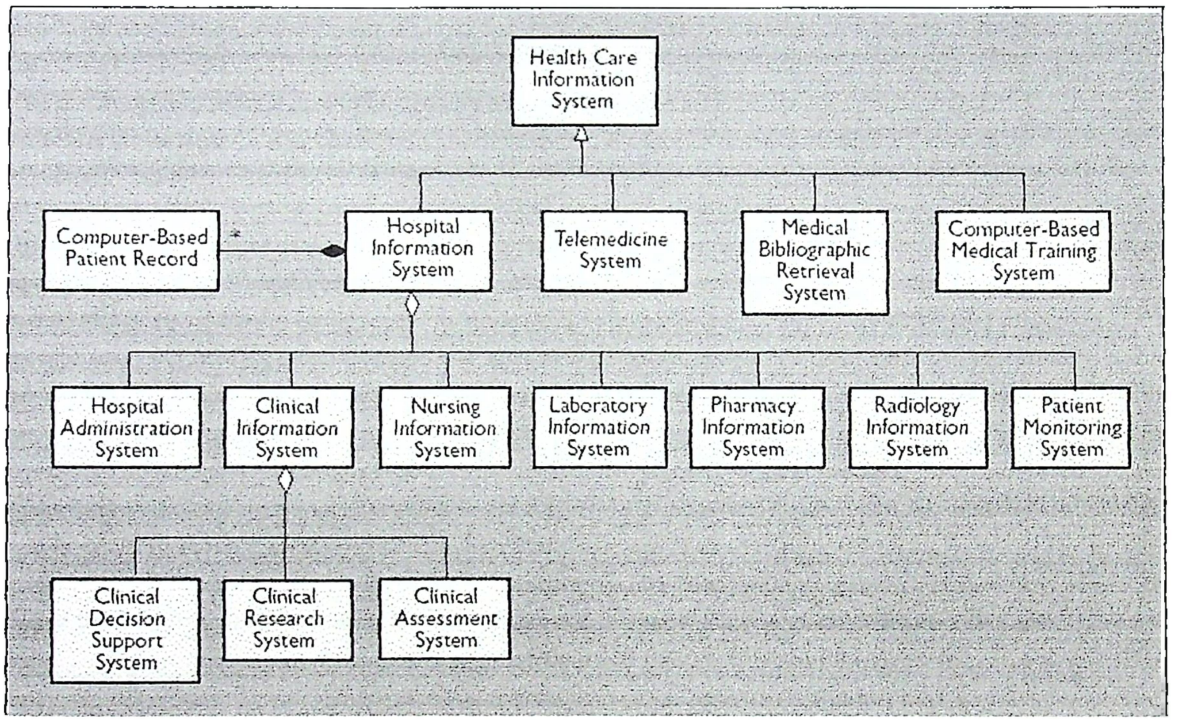

Figure 6: Taxonomy for Health Care Information Systems

F. Relational Database

A relation database is a type of database or database management system (DBMS) that stores information into tables, rows and columns of data, and conducts searches by using the data in specified columns of one table to find additional data in another table. In a relational database, the rows in each table represent an individual record and the columns represent the fields or attributes of the data. In conducting searches, a relational database matches information from one table with a corresponding field from another table to produce a third table, which contains the result of the query [17]. The relational

database management system (RDBMS) follows the relational model proposed by E.F. Codd in his seminar paper entitled "A relational model of data for large shared data banks". Relations follow the properties of relations in set theory, which includes the following characteristics [18]:

- The relation has a name that is distinct from all other relation names
- Each cell of the relation has exactly one atomic (single) value
- Each attribute has a unique name
- The values of an attribute are all from the same domain
- The order of attributes has no significance
- Each row is distinct and there are no duplicate rows
- The order of the record or tuple has no significance

G. Web Database Management System [source]

The Internet is made up of many separate but interconnected networks. The World Wide Web (*Web*, WWW, W3) provides a simple point and click interface for exploring the immense volume of pages available in the Internet. Internet standards for exchanging e-mail and publishing web pages for business use within closed networks called *intranets* are increasing in popularity. Typically, an intranet is connected to the wider public Internet through a firewall, which restricts the kind of information that can pass into and out of the intranet. In some cases, an intranet behind a firewall may be accessible only to people who are members of the same organization. We call this an extranet. The extranet provides various levels of accessibility to outsiders. This can be accessed only with the use of a valid username and password which determine what type of information the user can view. The Web consists of a network of computers, which can either act as servers, which provides information, or as clients, usually referred to as browsers, requesting information. Information on the web is presented as HTML pages and interpreted by the computer's Internet browser. HTTP (Hypertext Transfer Protocol) is the protocol that governs the exchange of information between the Web server and the browser. A unique address identifies the documents and locations within documents, which is defined as Uniform Resource Locator (URL). The web can provide users with an interface to one or more databases, which is termed as Web-DBMS or WDBMS. The traditional two-tier client-server architecture was developed to accommodate an

increasingly decentralized business environment. The client is primarily responsible for the presentation of data to the user and the server is primarily responsible for the data services to the client as shown in figure 7.

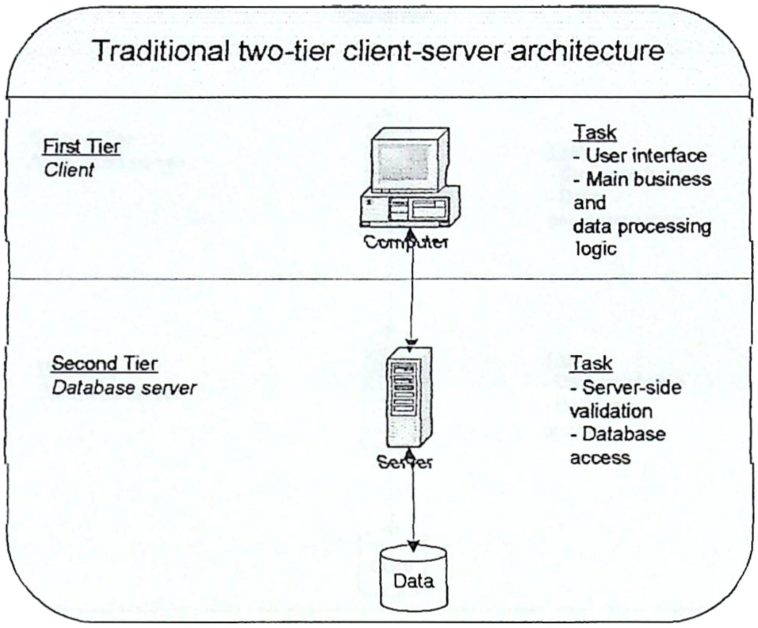

Figure 7: The traditional two-tier client-server architecture

As web applications become more and more complex and the users becoming numerous, the traditional two-tier architecture posted problems that resulted to the three-tier architecture shown in figure 8. A problem posted by the two-tier architecture is that a 'fat' client or a web server requires considerable resources on the client's computer to run effectively, which includes RAM, hard disk space, and CPU power. True enterprise scalability is therefore not achieved. To achieve this, the new architecture proposed three layers, each potentially running on a different platform [18].

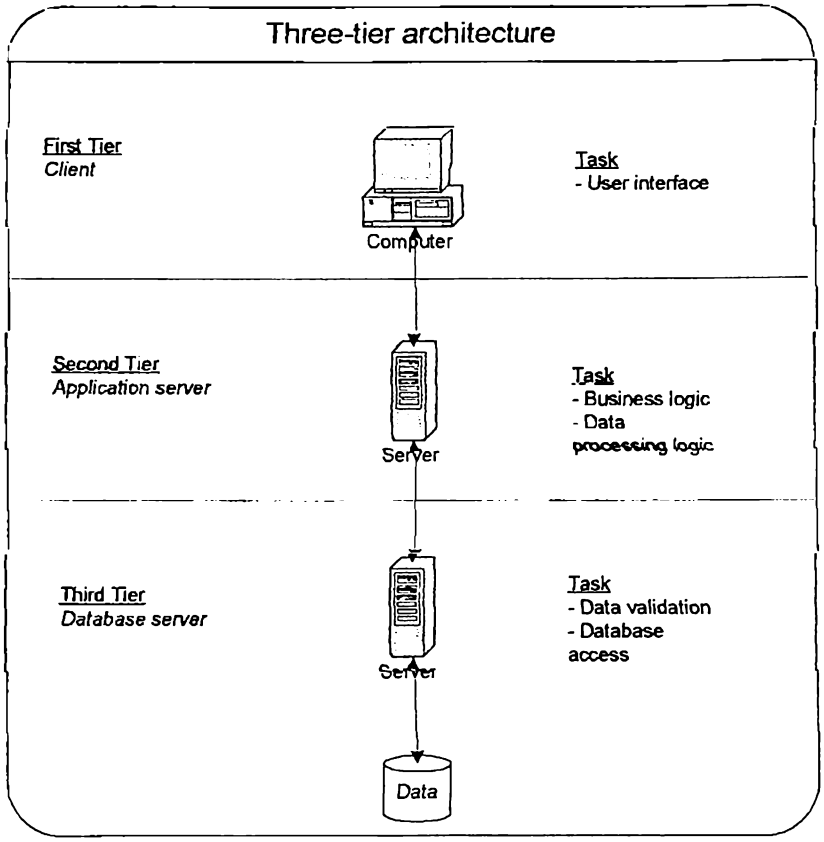

Figure 8: The three-tier architecture

H. Algorithms

The algorithm that will be used in the computation for tool-use checking, incision, and IOL insertion is the distance algorithm.

In 3D, define your two points. Point 1 at (x1, y1, z1) and Point 2 at (x2, y2, z2).

xd = x2-x1

yd = y2-y1

zd = z2-z1

Distance = SquareRoot(xd*xd + yd*yd + zd*zd)

In 2D, define your two points, Point 1 (x1, y1) and Point 2 at (x2, y2). According to the Pythagorean theorem the hypotenuse, *c*, of a right triangle from the lengths of the other two sides, *a* and *b*:

$$c^2=a^2+b^2$$

$$c = [a^2+b^2]^{1/2}$$

So the length of the line segment, *d*, is "the square root of the sum of the squares of the other two sides":

$$d = [(x_2 - x_1)^2+(y_2 - y_1)^2]^{1/2}$$

For the lens removal using suction, a graph-algorithmic approach will be taken to compare shapes. The shape is first represented by its skeleton, which is a tree embedded in a plane. The two shapes are then compared using their skeleton via tree-edit distance. The tree-edit distance involves three edit definitions: contact an edge, "uncontract" an edge, and change the label of an edge. Given an assignment of costs to these operations (where the cost may depend on the labels of the edges involved), the edit-distance between two trees is the minimum cost of a sequence of edit operations taking one input to another [19].

```
findCost(a1, d1, a2, d2) =
 if d1 is upward-pointing then
  maybeLeftPruneOut1(a1, d1, a2, d2)
 else
  if d2 is upward-pointing then
    maybeLeftPruneOut2(a1, d1, a2, d2)
  else (* both d1 and d2 are
       down-pointing darts *)
    findCost'(a1, d1, a2, d2,
            tail(T1, d1), tail(T2, d2))

findCost'(a1, d1, a2, d2, v1, v2) =
 min (match(a1, a2, d1, d2, v1, v2),
  contract1(a1, d1, a2, d2, v1, v2),
  contract2(a1, d1, a2, d2, v1, v2),
  mergeDown1(a1, d1, a2, d2, v1, v2),
```

```
  mergeDown2(a1, d1, a2, d2, v1, v2))

mergedown1(a1, d1, a2, d2, v1, v2) =
 for each child dart d of d1, return
  the cost of splicing out the
  subtrees rooted at all other
  children of d1,
 plus
  findCost'(a1, d, a2, d2, v1, v2)

contract1(a1, d1, a2, d2, v1, v2) =
 if the endpoints of the path from v1 to
 the head of d1 have degree > 2 and each
 node on this path is the leftmost child
 of its parent, then return the cost of
 contracting out the path,
  plus
   lookup(a1, d1 + 1, a2, d2)
 else infinity

match(a1, d1, a2, d2, v1, v2) =
 return the cost of matching
  the path in T1 from v1 to head of d1
  vs. the path in T2 from v2 to head of d2,
   plus
 lookup(substrings corresponding to the
  subtrees of T1 and T2 rooted as the heads
  of d1 and d2)
   plus
    lookup(
    a1,
    mate(ancestor dart of d1 having tail=t1)+1,
    a2,
    mate(ancestor dart of d2 having tail=t2)+1)
```

```
maybeLeftPruneOut1(a1, d1, a2, d2) =
 let d = d1 + 1
 if d is upward then lookup(a1, d, a2, d2)
 else (* d is the left sibling of d1 *)
  if (a1 is not the mate of d) then
    min (lookup(a1, d, a2, d2),
      cost of pruning out subtree
        rooted at d
      plus
        lookup(a1, parent of d1, a2, d2))
```

The comparison of the actual points to the resulting points during simulation are done using the percentage yield. The ratio of the actual yield to the theoretical yield is a quantity known as the fractional yield:

$$\text{fractional yield} = \frac{\text{actual yield}}{\text{theoretical yield}}$$

and the percentage yield is obtained from the fractional yield according to

$$\text{percentage yield} = 100\% \times (\text{fractional yield})$$

Definition of Terms

1. 3D (Three-dimensional) - describes an image that provides the perception of depth. When 3-D images are made interactive so that users feel involved with the scene, the experience is called virtual reality [20].
2. Ophthalmologist - medical doctor who specializes in eye and vision care. They are specially trained to provide the full spectrum of eye care, from prescribing glasses and contact lenses to complex and delicate eye surgery. Many are also involved in scientific research into the causes and cures for eye diseases and vision problems [21].
3. Ophthalmology – branch of medicine specializing in the anatomy, function and diseases of the eye [21].
4. Rendering – projection from 3D to 2D of the image and the subsequent image painting [22].

5. Simulation – building a model of a system that will show how the system will work when built [23].
6. Virtual-Reality – Virtual reality is the simulation of a real or imagined environment that can be experienced visually in the three dimensions of width, height, and depth and that may additionally provide an interactive experience visually in full real-time motion with sound and possibly with tactile and other forms of feedback [23].

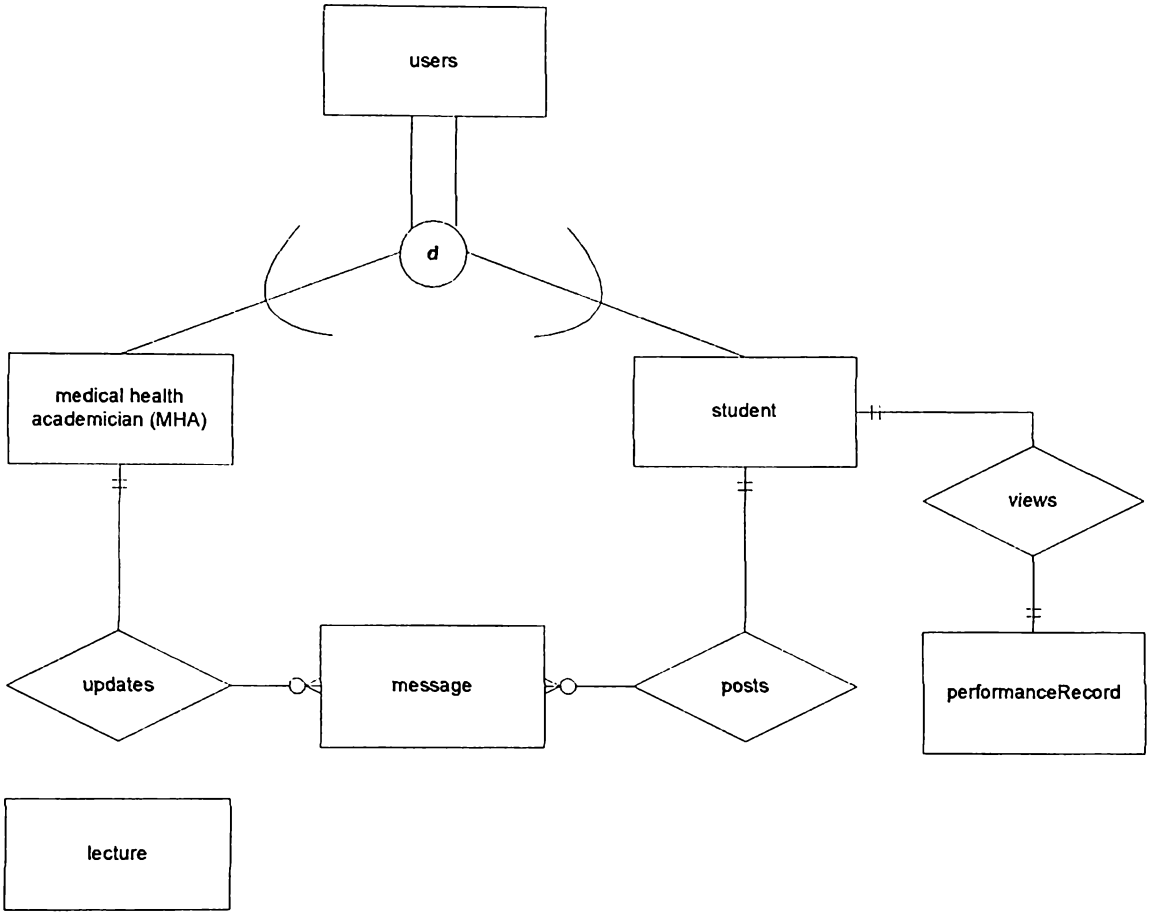

Figure 9: Entity Relationship Diagram (ERD) of the Online Medical Training System for Simulated Cataract Surgery

Figure 9 shows the Entity-Relationship Diagram for the Online Eye Surgery Medical Training System. The user can be classified into two based on their access number. A student has only one distinct performance record. Both the MHA and the student can check zero or more messages. The messages may be checked by one or more MHA(s) or by zero or more students. The lecture entity is not related to any other entity. The attributes of each entity are shown in Figures 10 -13.

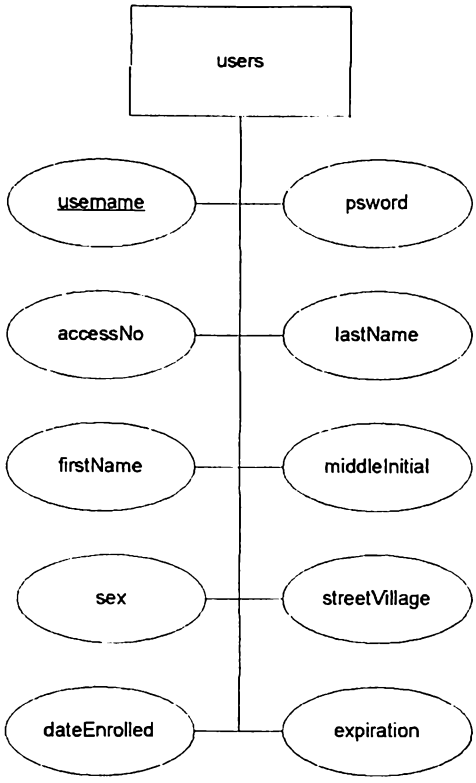

Figure 10: Attributes of the entity **users**, Online Medical Training System for Simulated Cataract Surgery

Figure 10 shows the attributes of the entity users. It contains the basic information that is common to both the student and the medical health academician (MHA). The username may either be the student number or the employee number. The classification of being a student and being an MHA is determined by the accessNo, which assigns a 0 to the MHA and a 1 to the student.

Figure 11 shows the attributes of the entity message. The username is included to know who created the message because he/she is the only one who can delete the message. Figure 12 shows the attributes of entity performanceRecord. The studentNo is the primary key of the entity. The attribute status will be computed based on the practical exam. Practical exam grades will be automatically "captured" from the simulation.

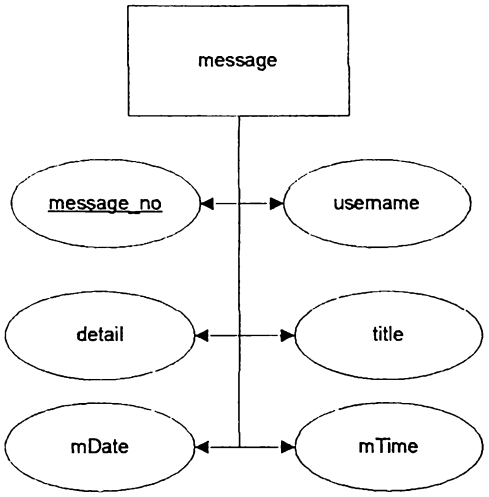

Figure 11: Attributes of the entity **message,** Online Medical Training System for Simulated Cataract Surgery

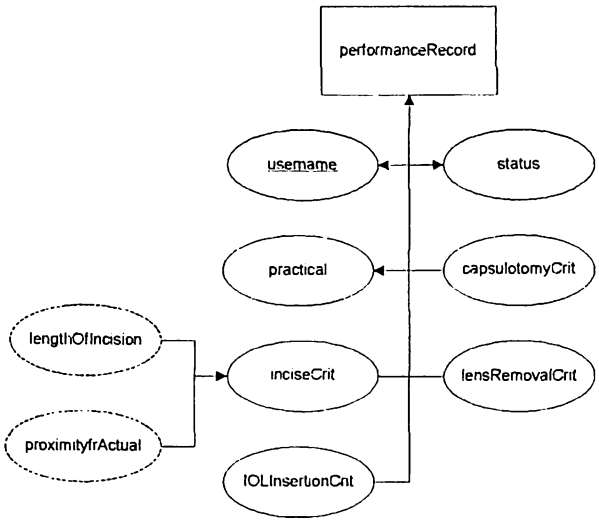

Figure 12: Attributes of the entity **performanceRecord**, Online Medical Training System for Simulated Cataract Surgery

The attributes of the entity lecture is seen in Figure 13. The primary key is the filename, which should be unique for every file uploaded. The lecture_name represents the title of the lecture.

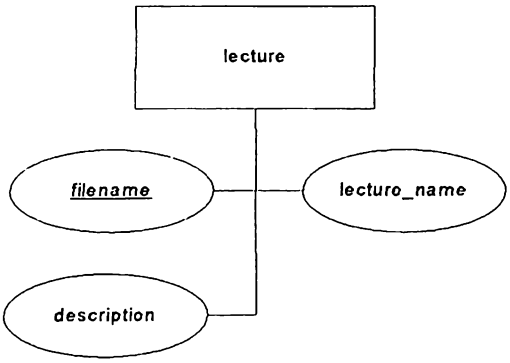

Figure 13: Attributes of the entity **lecture**, Online Medical Training System for Simulated Cataract Surgery

Figure 14 shows the Context Diagram of the system. The main users of the system are the student and the MHA. The MHA inputs student information. The system processes this information to generate a performance record within the system. The student inputs his/her updated information to the system. All of these inputs including the performance record are stored into the system database. They can also be called to be viewed or edited. Once the performance record has complete information, it can return either the record or the performance status. The student may also render actions with respect to the simulation and receive simulated images.

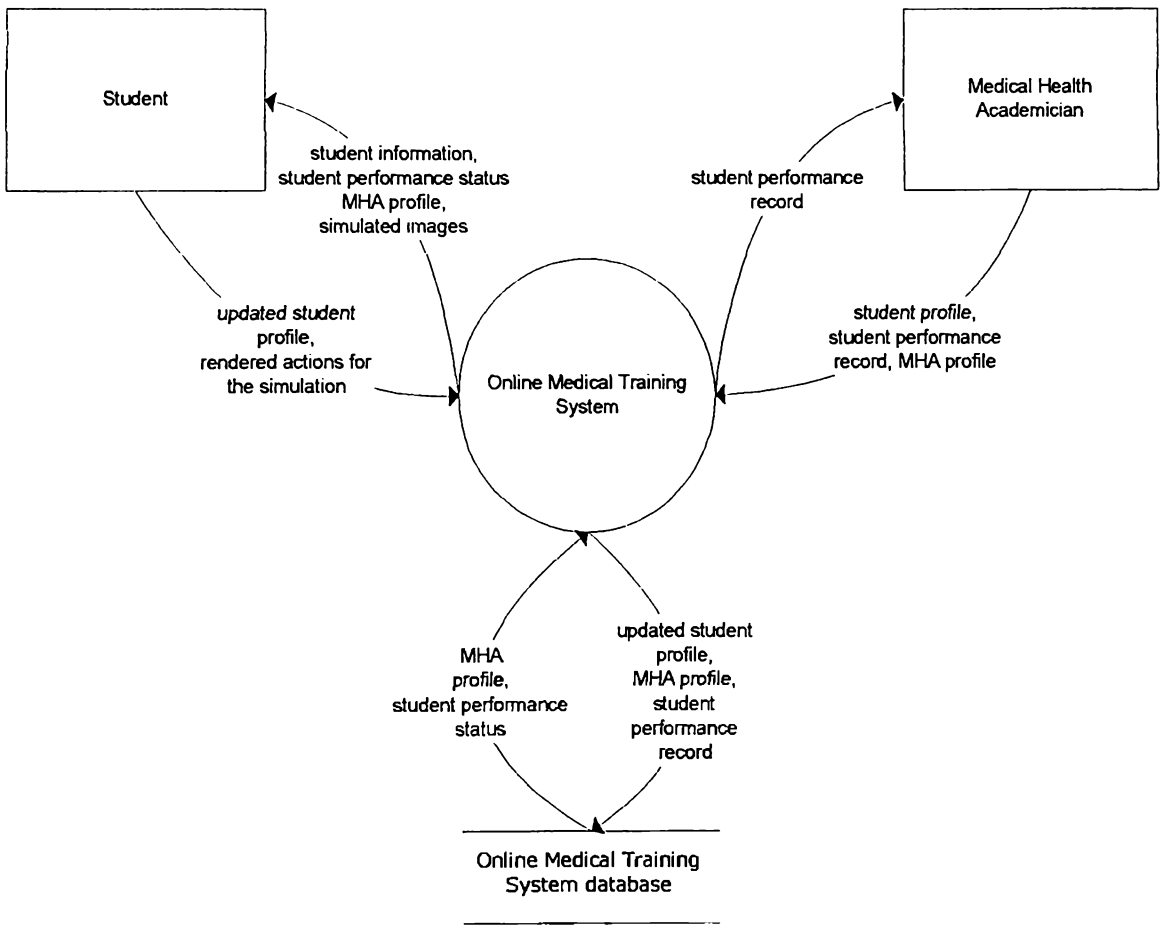

Figure 14: Context Diagram of the Online Medical Training System for Simulated Cataract Surgery

The Top-level diagram of the system is shown in Figure 15. Both the student and the MHA can login to the system using his/her password and username, which will be checked against the contents of the users database. The access number is returned which will determine the type of access the user is granted. They can also send and retrieve messages, which will be stored and recalled from the message database. Both users also have the privilege of editing their personal profiles. Updates will be stored into the users databases. Being the system administrator, the MHA can manage the system, given that he/she supplies the correct username and password for this will determine his/her access number. Upon managing the system, the records will be updated. The student can also download lectures from the lecture database, take practical exams, and train on selected simulations. Practical exam results will be stored in the performanceRecord database. The subexplosion of processes "Simulate cataract surgery" and "Perform surgery" is seen in Figures 16 – 17 respectively.

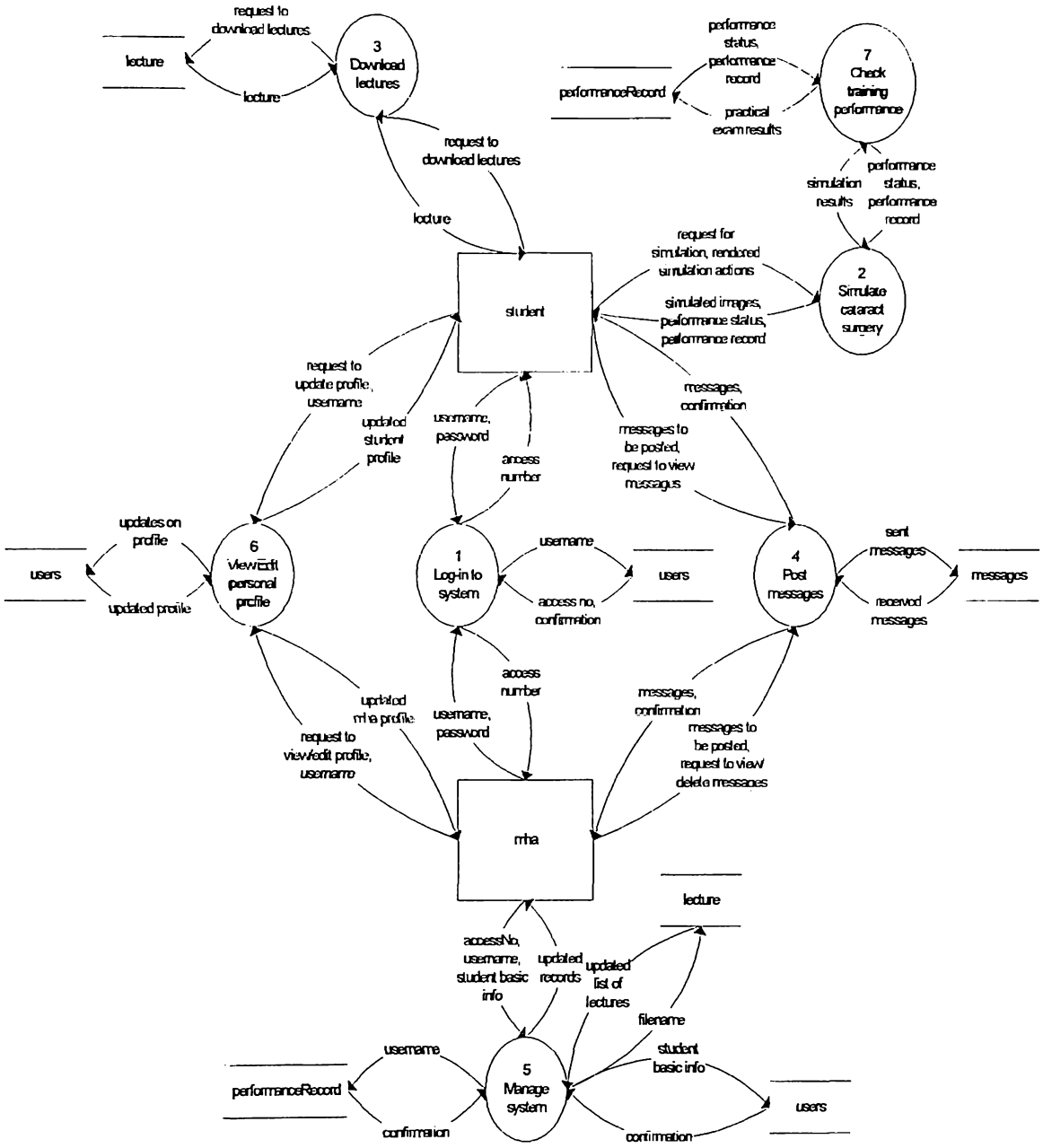

Figure 15: Top Level Data-Flow Diagram (DFD) of the Online Medical Training System for Simulated Cataract Surgery

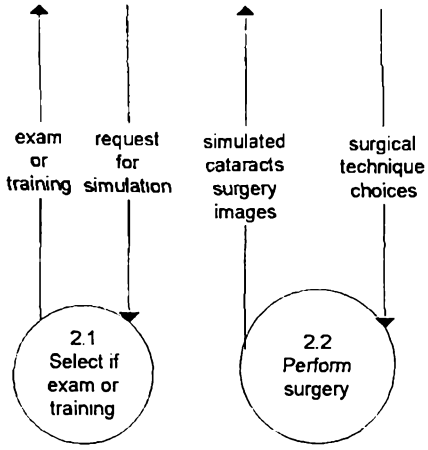

Figure 16: Sub-explosion (Level 2 DFD) of Process Bubble 2 "Simulate Cataract surgery," Online Medical Training System for Simulated Cataract Surgery

Figure 17 below shows in detail the steps needed to perform the operation.

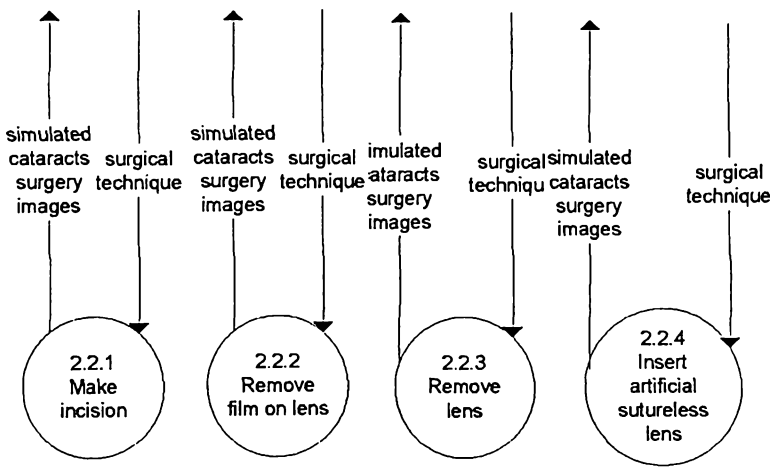

Figure 17: Sub-explosion (Level 3 DFD) of Process Bubble 2.2 "Perform surgery," Online Medical Training System for Simulated Cataract Surgery

Figure 18 shows the sub-processes under the "Send/Retrieve messages" bubble. The sub-process "Delete messages" require the username since this will be used to check the access number of the user. Only the MHA can delete messages. Changes under this sub-processes and the "Post messages" sub-process will be reflected in the message database. A message confirmation will be returned along with an updated list of messages. The sub-process "Read messages" will issue a query into the message database to check for new messages.

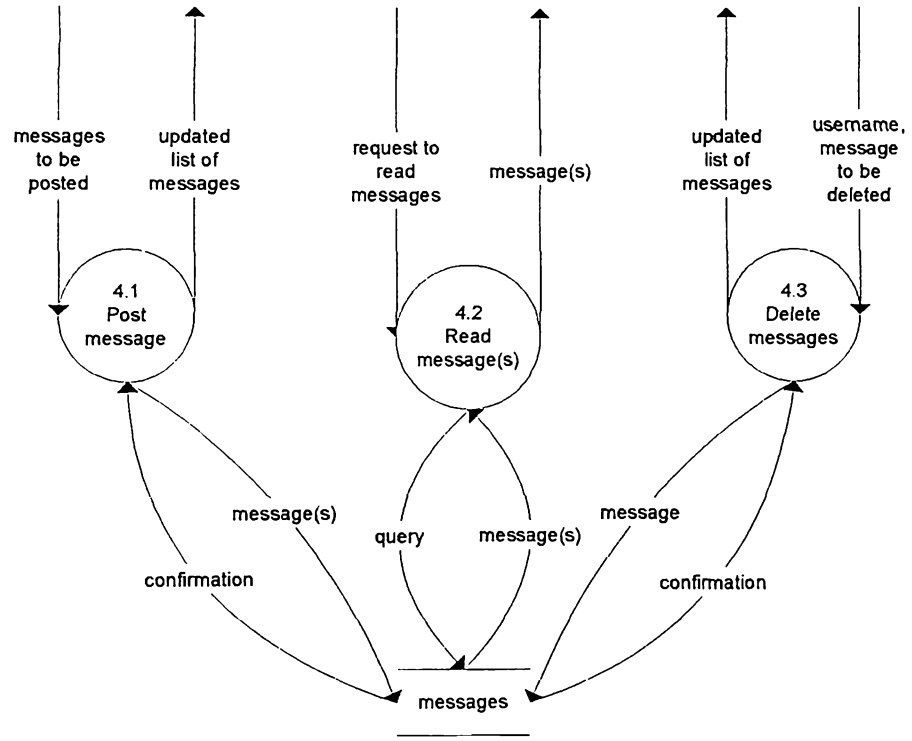

Figure 18: Sub-explosion (Level 1 DFD) of Process Bubble 4 "Send/retrieve messages," Online Medical Training System for Simulated Cataract Surgery

Figure 19 shows the sub-processes under the "Manage System" bubble. The first sub-process requires the input of the student's Form 5. Upon registration, the username and password are given. The second sub-process involves the updating of lectures. Lectures will be inputted to the system, and a list of updated lectures will be returned. Lectures will be stored in the lectures database.

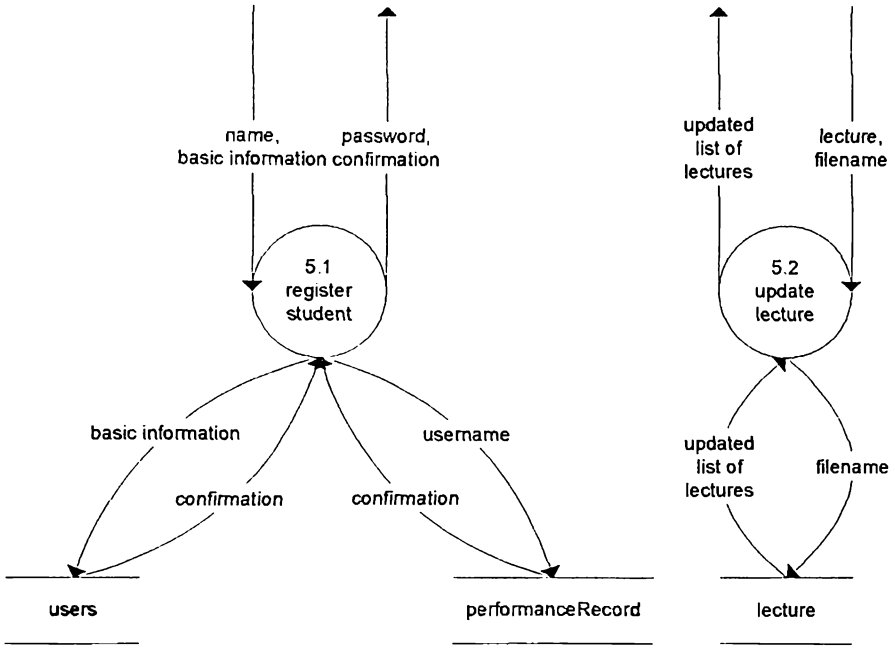

Figure 19: Sub-explosion (Level 1 DFD) of Process Bubble 5 "Manage System," Online Medical Training System for Simulated Cataract Surgery

Figure 20 shows the sub-processes under Process bubble 5.2 or the "Update lecture" bubble. The MHA may add, edit or delete lectures. Updates made to the lectures will be reflected to the lecture database.

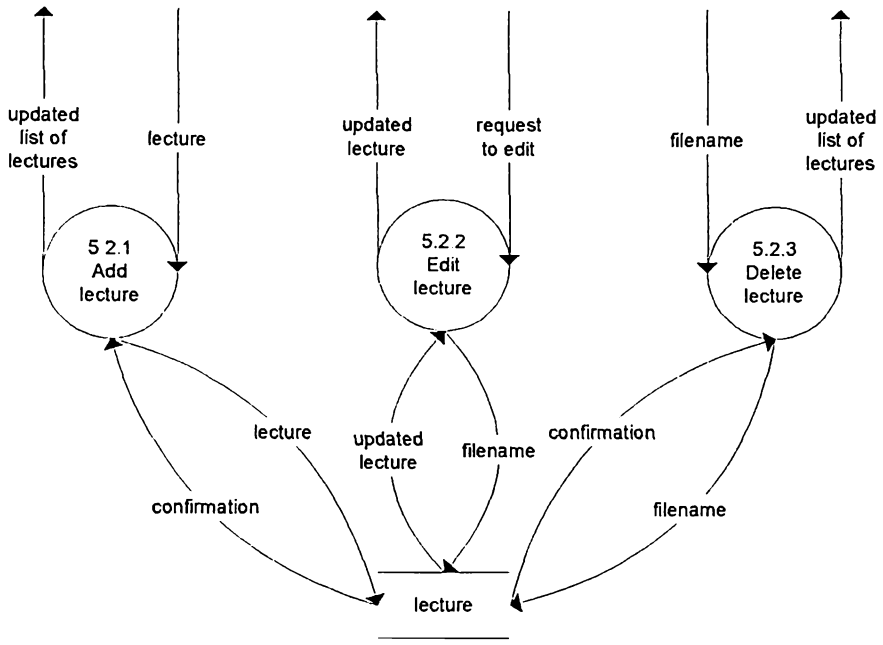

Figure 20: Sub-explosion (Level 2 DFD) of Process Bubble 5.2 "Update lecture," Online Medical Training System for Simulated Cataract Surgery

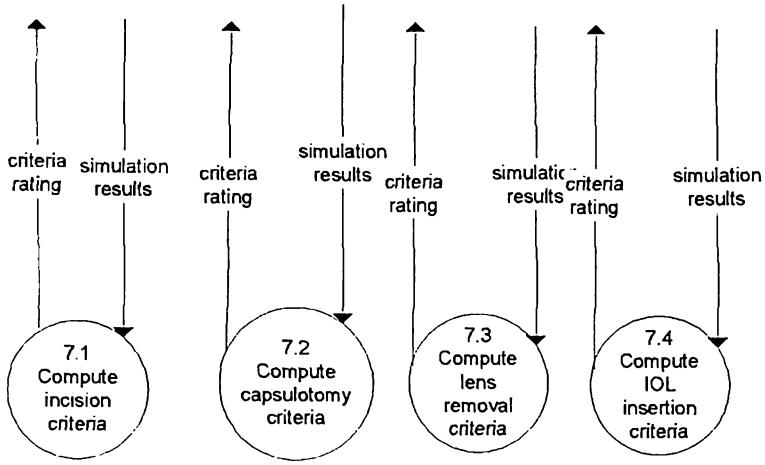

Figure 21: Sub-explosion (Level 1DFD) of Process Bubble 7 "Check training performance," Online Medical Training System for Simulated Cataract Surgery

The possible criterion that the system will use to grade the performance of the simulation is shown in the subexplosion of process "Check Training Performance" in Figure 21. The further subexplosions of its subprocesses are seen in Figure 22 - 23. In Figure 24, process 7.3.2 compares the results of the practical simulation with the actual area of the IOL using the Euclidean Distance algorithm. In Figure 25, process 7.4.2 compares the results of the practical simulation with the actual IOL point of insertion.

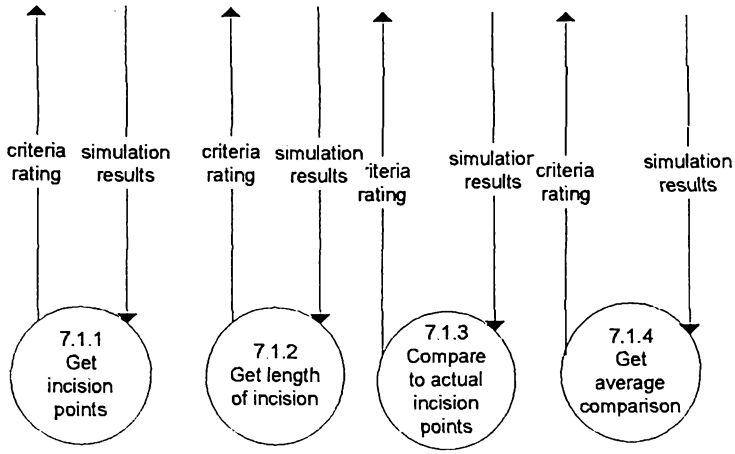

Figure 22: Sub-explosion (Level 2 DFD) of Process Bubble 7.1 "Compute incision criteria," Online Medical Training System for Simulated Cataract Surgery

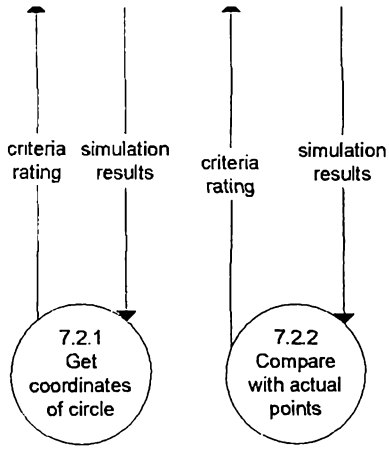

Figure 23: Sub-explosion (Level 2 DFD) of Process Bubble 7.2 "Capsulotomy Criteria" Online Medical Training System for Simulated Cataract Surgery

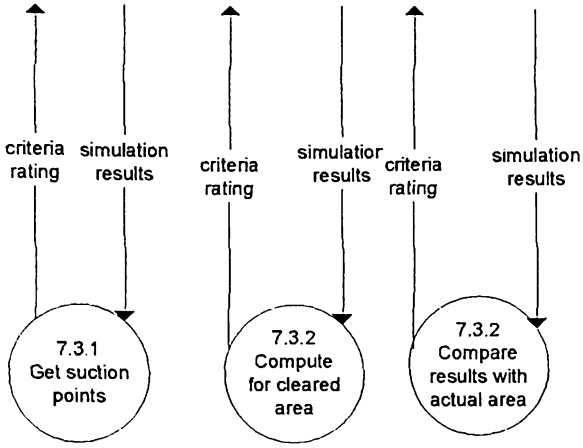

Figure 24: Sub-explosion (Level 2 DFD) of Process Bubble 7.3 "Compute lens removal criteria,"

Online Medical Training System for Simulated Cataract Surgery

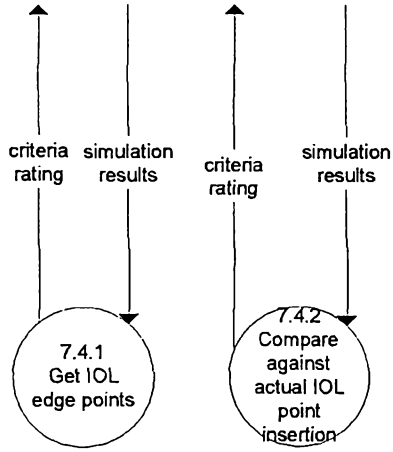

Figure 25: Sub-explosion (Level 2 DFD) of Process Bubble 7.4 "Compute IOL insertion criteria,"

Online Medical Training System for Simulated Cataract Surgery

Table 1: Data table of entity **users**, Online Medical Training System for Simulated Cataract Surgery

Field Name	Data Type	Description
username	varchar(10)	Student no. of the user
psword	varchar(16)	Password of the user
accNum	int(1)	Defines the access level of the user (0 or 1)
lastName	varchar(30)	Last name of student
firstName	varchar(30)	First name of student
middleInitial	varchar(3)	Middle initial of the student
Sex	enum('M','F')	Sex of student
streetVillage	varchar(30)	Street and/or village of student's address
dateEnrolled	date	Date of student registration, null I in the MHA's case
Expiration	date	Date of registration expiration, null in the MHA's case

Table 2: Data table of entity **message,** Online Medical Training System for Simulated Cataract Surgery

Field Name	Data Type	Description
message_no	int(5)	Message number of the posted message, auto-incremental
username	varchar(16)	Username of the user who

		posted the message
title	varchar(50)	Title of the message posted
detail	varchar(250)	Details/body of the message
mDate	DATE	Contains the date when the message was posted
mTime	TIME	Contains the time when the message was posted

Table 3: Table of entity **performanceRecord**, Online Medical Training System for Simulated Cataract Surgery

Field Name	Data Type	Description
username	varchar(10)	Contains the username of the student
status	varchar(16)	Performance status of the student
practical	float(5)	Grade for practical exam
inciseCrit	float(5)	Contains the grade for the average grade in lengthOfIncision and proximityfrActual
lengthOfIncision	float(5)	Contains the grade for the length of incision made
proximityfrActual	float(5)	Contains the grade for the proximity from the actual points
capsulotomyCrit	float(5)	Contains the grade for the

		capsulotomy
lensRemovalCrit	float(5)	Contains the grade for the removal of lens
IOLInsertionCrit	float(5)	Contains the grade for the insertion of the IOL

Table 4: Table of entity **lecture**, Online Medical Training System for Simulated Cataract Surgery

Field Name	Data Type	Description
filename	varchar(50)	Filename of the lecture, including file extension
lecture_name	varchar(16)	Title of the lecture
description	int(3)	Description of the lecture

Conceptual Technical Architecture

The user interface of the proposed system would be written in PHP, which supports the backend database, which is MySQL. Simulations will be implemented using the Java 3D API and will be embedded in the web page as applets. Apache will be the web-server since it offers full technical support for PHP and MySQL. The setup of the system will be a two-tier client-server architecture (Figure 26). The project will be initially available at the College of Arts and Sciences (CAS) development server (csdev.cas.upm.edu.ph). Only the authorized medical health academician will be able to use the system's functionalities.

The following are the minimum recommended hardware requirements for the system's database server:

- Intel Pentium III 800 MHz processor

- 512 MB SDRAM (PC-266)
- 40 GB Hard disk drive (54000 rpm)
- High-speed Internet/LAN connection
- Any operating system, Windows 98/Me/2000/XP or any Linux flavor

The following are the minimum hardware requirements for the workstations that will access the database server:

- Intel Pentium II 500 MHz processor
- 128 MB SDRAM (PC-133)
- 32 MB 3D Graphics Card
- 20 GB Hard disk driver
- Internet connection, at least 56 Kbps
- Any operating system available
- Java-enabled Browser
- Java 3D API
- Java Run Time Environment 1.3.1

For the software required for the system to work, the database server must have the following installed:

- PHP 4.1
- MySQL 3.21
- Apache 4.14

For the software required by the workstations to properly view the contents of the system, IE 6.0 up is recommended with at least 800x600 resolution. Java and Cookies should be enabled in order for the system to work.

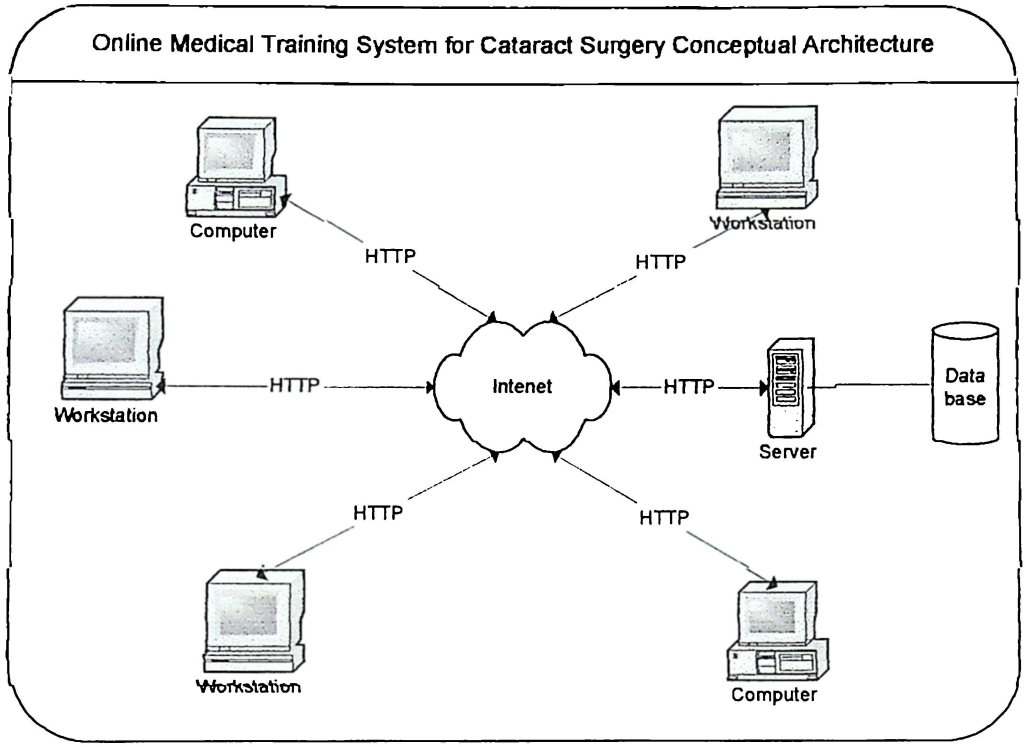

Figure 26: Conceptual Technical Architecture for Online Medical Training System for Simulated Eye Surgery

V. RESULTS

The homepage of Online Medical Training System for is seen in Figure 27. It is designed for registered students and the medical health academician to login to the system. Registered users must supply the correct username and password in order to access the system's functionalities.

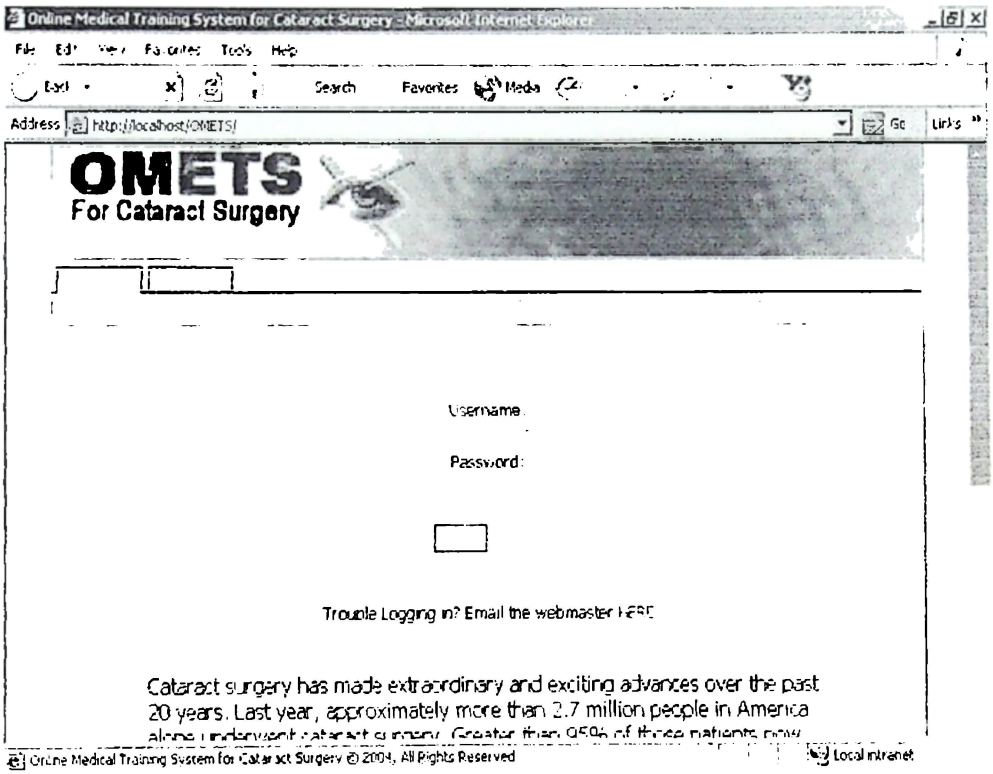

Figure 27: *Online Medical Training System for Simulated Cataract Surgery Login Page*

Once logged in, the student and the mha can post messages in the bulletin board. Messages are posted according to the date and time of their posting as shown in Figure 28. The most recent messages are at the end of the list. Messages are deleted from the system on a yearly basis and may be deleted by the medical health academician (MHA) manually.

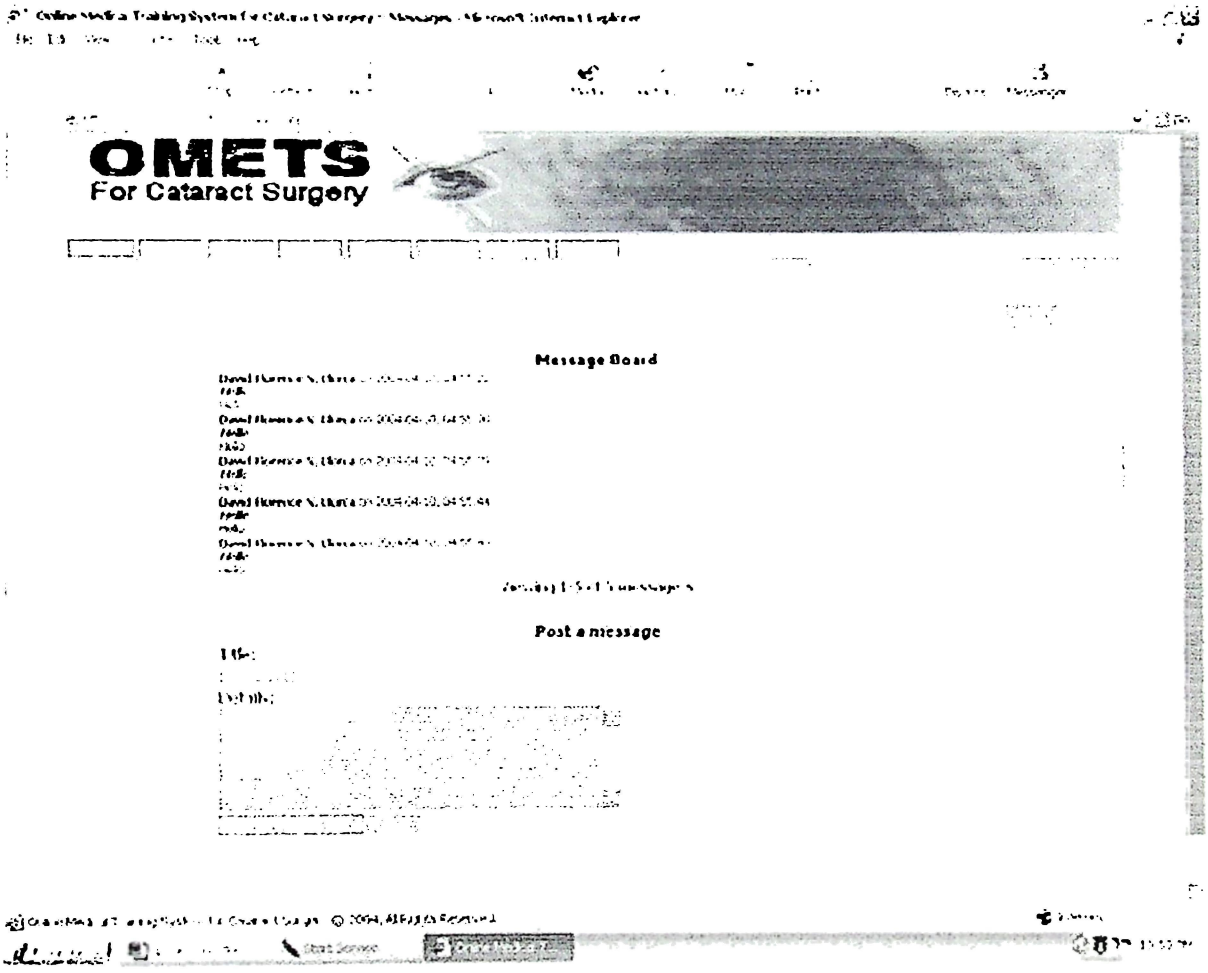

Figure 28: *Message Board, Online Medical Training System for Simulated Cataract Surgery*

Students can check their performance in the practical examination. A sample performance record is shown in Figure 29.

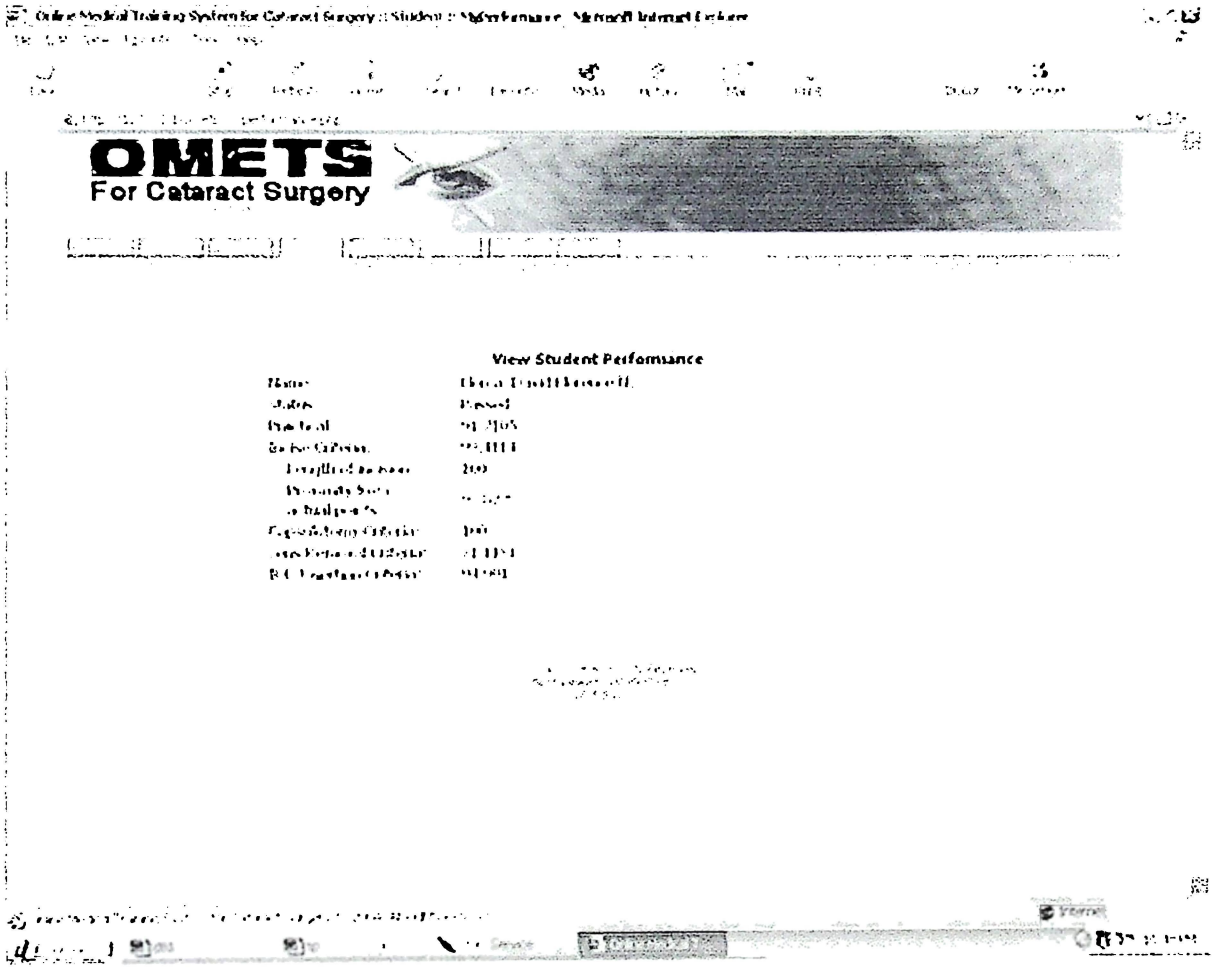

Figure 29: *Check performance as viewed by student, Online Medical Training System for Simulated Cataract Surgery*

students can download lectures posted by the mha as shown in Figure 30. The mha can upload lectures, make a brief description of them that the students can view (Figure 35). Students can take their practice lessons (Figure 31) using the system or take the practical exam which would be the basis for their performance record (Figure 32).

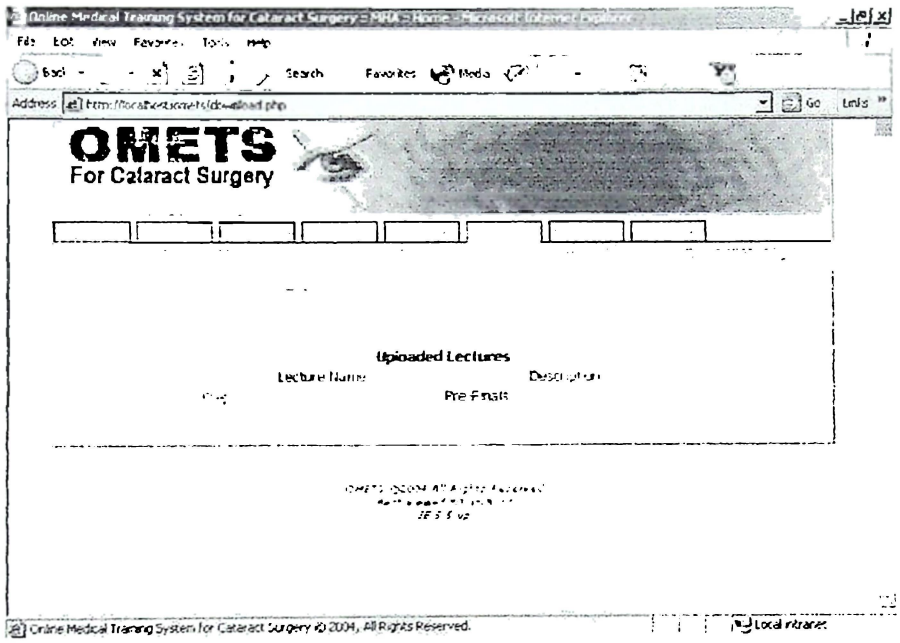

Figure 30: *Download Lectures page for the student, Online Medical Training System for Simulated Cataract Surgery*

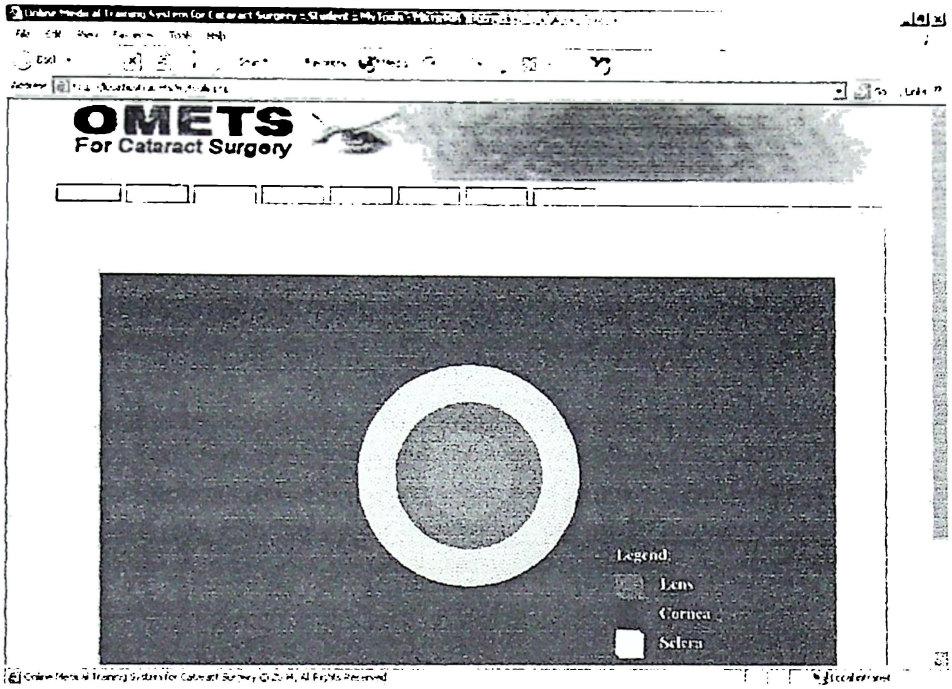

Figure 31: *Practice Page for the student, Online Medical Training System for Simulated Cataract Surgery*

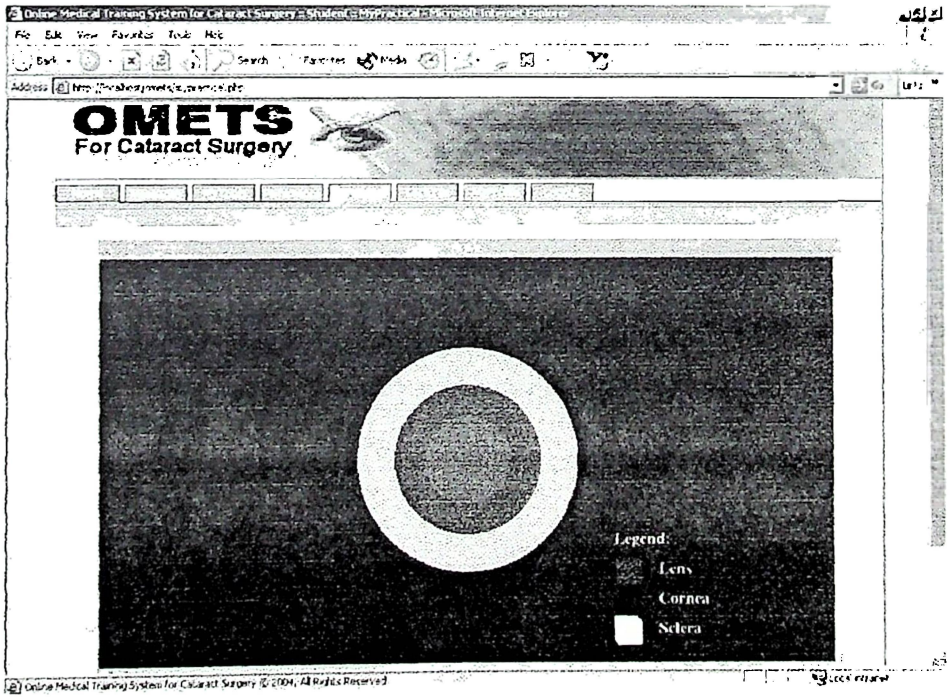

Figure 32: *Practical Exam page, Online Medical Training System for Simulated Cataract Surgery*

The mha can register students and give them an initial password that is system generated as seen in Figure 33. This is to be used together with their student number as their username. The mha can view all of his student's performance records as shown in Figure 34. Students are viewed from the latest registered student to the earliest.

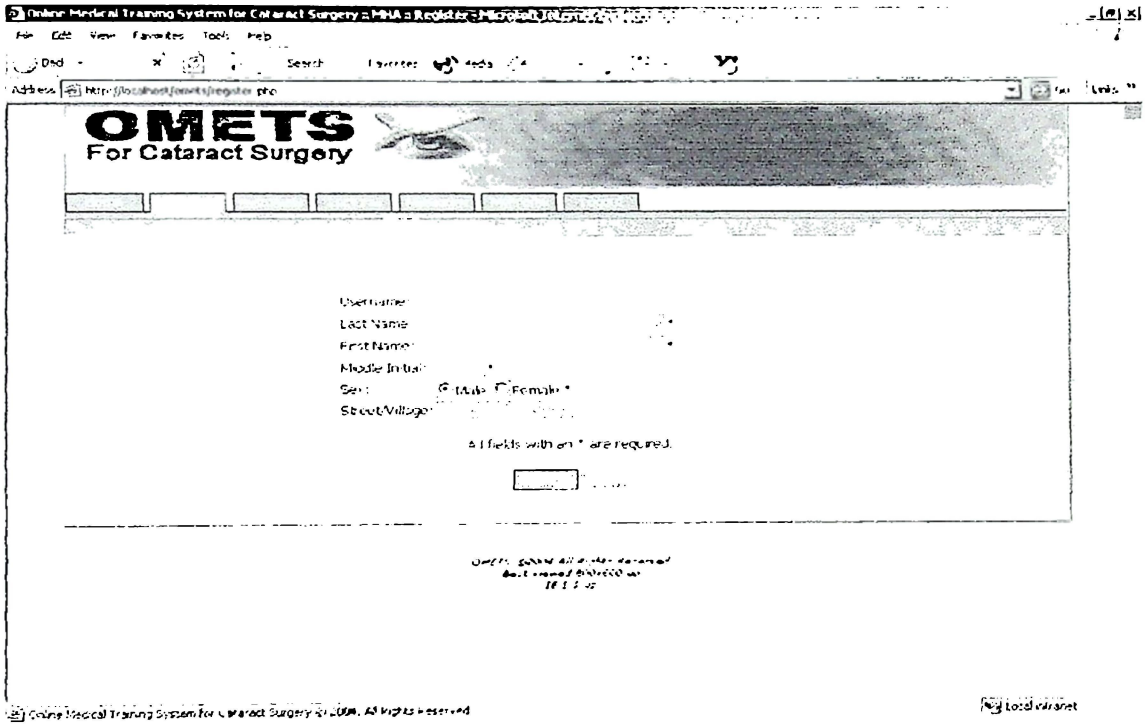

Figure 33: *Register student page for the medical health academician, Online Medical Training System for Simulated Cataract Surgery*

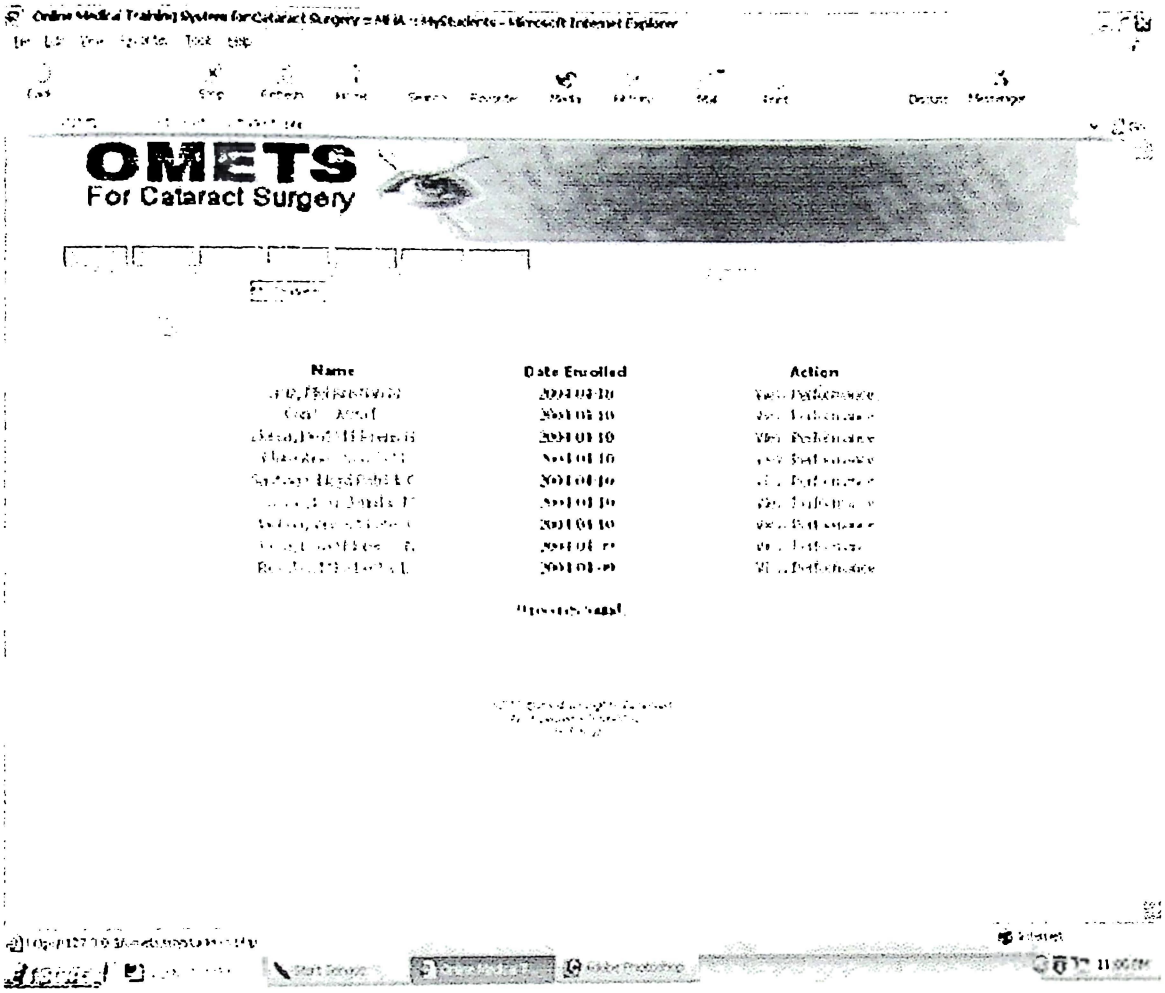

Figure 34: *My Students page for the mha, Online Medical Training System for Simulated Cataract Surgery*

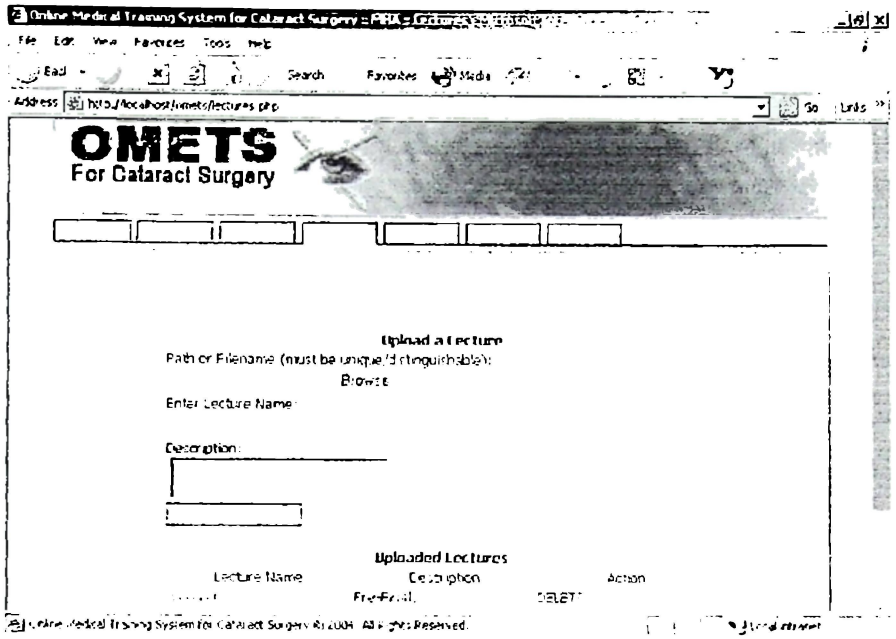

Figure 35: *Upload lectures page for the mha, Online Medical Training System for Simulated Cataract Surgery*

The students as well as the mha can update their own personal profile. It is shown in Figure 36.

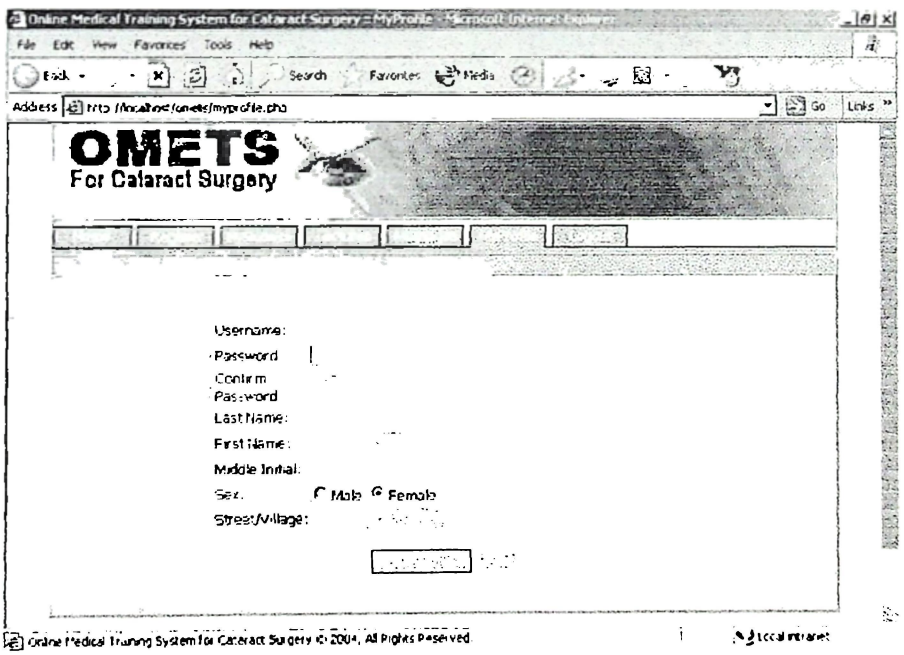

Figure 36: *Update profile page, Online Medical Training System for Simulated Cataract Surgery*

VI. DISCUSSION

The Online Medical Training System for Simulated Cataract Surgery aims to provide registered students an online medical training tool for performing cataract surgery. Though it may lack the physical feeling of actually operating on an eye sample, it aims at simulating the whole process itself.

Online Medical Training System for Simulated Cataract Surgery provides the student with a user-friendly interface for practicing their skills in cataract surgery using simulated surgical instruments. The students can also check their performance record after they have taken their practical exam. Furthermore, they can download lectures uploaded by the medical health academician. They can also post messages on the message board which can be viewed by all registered students and the mha. They can also update their own personal profile.

Another user of the system is the medical health academician (mha) who can register students in order for them to try out their skills using the simulated surgical instruments. He can also check the performance records of his students and view their profiles. He can also upload lectures. Like the students, he can also update his personal profile and post message on the message board. However he serves as the moderator of the message board so he can delete the entries in it manually.

The Online Medical Training System for Simulated Cataract Surgery provides students the needed flexibility and convenience in order for them to practice their skills in performing cataract surgery. It gives them a virtual feel of how it is in the actual operation. However the physical setting is only simulated using the simulated surgical instruments. The mha can easily organize his students' lessons and check the performance records of his students.

VII. CONCLUSIONS

The Online Medical Training System for Simulated Cataract Surgery is an online training system for registered students that provide them an essential tool in their field of cataract surgery. It provides an organized way for both the students and the medical health academician in the learning process of cataract surgery. The students are able to use the simulated surgical instruments and check their performance record after taking the practical exam. Likewise, they are able to update their personal profile, post messages on the message board and download the lectures posted by the mha.

The medical health academician can register a student. Like the students, he can post messages, delete entries in the message board and update his personal profile. Lastly, he can update the lectures and check the performance of his students.

VIII. RECOMMENDATIONS

After the completion of the Online Medical Training System for Simulated Cataract Surgery, the proponent recommends the following enhancements to the system:

1. Integrate a more physical setting for cataract surgery through the use of advanced modeling techniques in Java 3D
2. Provide a more accurate tool instead of the mouse for performing incisions like the use of touch screens
3. Allow users to post custom icons in the message board
4. Allow users to upload pictures to personalize their profiles.
5. Allow attachments and other email features to the private messaging system.

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X. APPENDIX

SOURCE CODE

SQL File

```
create database OMETSDatabase;

use OMETSDatabase;

#table for users of the system (student, medical health
academicians)
create table users (
        username        varchar(20) not null,
        psword          varchar(8) not null,
        accNum          int(1) default NULL,
        lastName        varchar(30),
        firstName       varchar(30),
        middleInitial   varchar(3),
        Sex             enum('F','M') default NULL,
        streetVillage   varchar(50),
        dateEnrolled    DATE default 0,
        Expiration DATE default 0,
    primary key    (username)
);

#
# Host: localhost
# Generation Time: October 23, 2003 at 9:54 A.M.
# Server version: 1.3.14
# PHP Version: 4.0.4pl1
# Database: 'omets'
# --------------------------------------------------------

#
#

CREATE TABLE message (
  username varchar(20) NOT NULL,
  message_no int(5) NOT NULL,
  title varchar(50) default NULL,
  detail varchar(250) default NULL,
  mDate DATE default 0,
  mTime TIME default 0,
  primary key   (message_no),
  FOREIGN KEY  (username) REFERENCES users ON DELETE
SET NULL ON UPDATE CASCADE
) TYPE=MyISAM;
# --------------------------------------------------------


CREATE TABLE performanceRecord (
  username varchar(20) NOT NULL,
  status varchar(16) default NULL,
  practical float(5) default 0,
  inciseCrit float(5) default 0,
  lengthOfIncision float(5) default 0,
  proximityfrActual float(5) default 0,
  capsulotomyCrit float(5) default 0,
  lensRemovalCrit float(5) default 0,
  IOLInsertionCrit float(5) default 0,
  primary key   (username),
  FOREIGN KEY  (username) REFERENCES users ON DELETE
SET NULL ON UPDATE CASCADE
) TYPE=MyISAM;
# --------------------------------------------------------


CREATE TABLE lecture (
  filename varchar(50) NOT NULL,
  lecture_name varchar(50) default NULL,
  description varchar(255),
  primary key  (filename)
) TYPE=MyISAM;
# --------------------------------------------------------

grant all privileges on OMETSDatabase.* to mha@localhost
identified by 'mha695';
insert into users (username, psword, accNum) values
("2000-06389", "pamela", 0);
```

-- PHP files --

-- about.php --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: About us</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
  status=msgStr;
  document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=300,height=300,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body>

<div align="center">
```

```
  <center>
   <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
    <tr>
     <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
      <P> </p>
    <P> </p>
      <P> </p>
    <P> </p>
     </td>
    </tr>
    <tr>
     <td width="85%" height="30" valign="top"
background="top_head.jpg">
      <p><map name="FPMap0">
      <area href="index.php" shape="rect" coords="0, 4,
68, 29" title="HOME">
      <area href="about.php" shape="rect" coords="74, 3,
141, 27" title="About us"></map><img border="0"
src="top2.jpg" align="left" width="700" height="30"
usemap="#FPMap0"></p>
     </td>
    </tr>
  </center>
    <tr>
     <td width="90%" height="16" bgcolor="#ADC3CE">
      <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
 $year = $today['year'];
 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
 print "$weekday, $month $day, $year";
?></font>    </td>
    </tr>
  <center>
    <tr>
     <td width="90%" height="60" valign="top"
bordercolor="#1778A5">
      <p> </p>
      <div align="center">
       <table border="1" cellpadding="0" cellspacing="0"
width="50%" bordercolor="#9CB7C7">
         <tr>
          <td width="90%" bgcolor="#9CB7C7">
           <p align="center"><font
color="#FFFFFF"><b>ABOUT US</b></font></td>
         </tr>
         <tr>
          <td
width="90%"><p> <p>    
Online
          Medical Training System for Cataract Surgery was
developed to
          help students in any eye surgery-related subject
in their
          studies. <p align="center"> <p
align="center"><b>Developed
          by:</b><p align="center">Pamela Rica M.
Florentino<p align="center">B.S.
          Computer Science<p align="center"> <p
align="center"><b>Contact
          Details</b><p align="center"><a
href="mailto:pamela_florentino@yahoo.com">pamela_flore
ntino@yahoo.com</a><p align="center"><a
href="http://csdev.cas.upm.edu.ph/~pam">http://csdev.cas
.upm.edu.ph/~pam</a><p align="center"> <p
align="center">
          <span style="font-size:12.0pt;font-
family:&quot;Times New Roman&quot;;
mso-fareast-font-family:&quot;Times New
Roman&quot;;mso-ansi-language:EN-US;mso-fareast-
language:
EN-US;mso-bidi-language:AR-SA"><font face="Verdana"
size="2" color="#1778A5">©</font></span>2004
          All Rights Reserved
              <p> 
         </td>
        </tr>
       </table>
      </div>
      <p> </p>
      <div align="center">
       <table border="1" cellpadding="0" cellspacing="0"
width="50%" bordercolor="#9CB7C7">
        <tr>
         <td width="90%" bgcolor="#9CB7C7">
          <p align="center"><font
color="#FFFFFF"><b>CATARACT LINKS</b></font></td>
        </tr>
        <tr>
         <td width="90%"><p> <p
align="center"><a href="http://www.ascrs.org/">The
American Society of Cataract and Refractive Surgery</a>
          <p align="center"><a
href="http://www.clinicareinoso.com/conditns/qx_cat.htm">
Cataract Surgery</a>
          <p align="center"><a
href="http://www.eyesearch.com/cataract.surgery.htm">Ey
e Search</a>
          <p align="center"><a
href="http://www.eyemdlink.com/EyeProcedure.asp?EyePro
cedureID=1">EyeMDLink.com</a>
          <p align="center"><a
href="http://www.allaboutvision.com/conditions/cataracts.ht
m">Allaboutvision.com</a>
           <p> 
         </td>
        </tr>
       </table>
      </div>
      <p> 
      </td>
    </tr>
  </table>
  </center>
</div>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1"
color="#000000">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
```

```
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

— delete_msg.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
        ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accessNo);
 // check session variable
 if (session_is_registered("valid_user") && $temp==0)
 {
   include("include/delete_msg.inc");
 }
  else
 {
   print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
 }
 mysql_close($db_conn);
?>
```

— download.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
        ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accessNo);
 // check session variable
 if (session_is_registered("valid_user") && $temp==1)
 {
   include("include/download.inc");
 }
  else
 {
   print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
 }
 mysql_close($db_conn);
?>
```

— index.php —

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Trainng System for Cataract
Surgery</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
  status=msgStr;
  document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=300,height=300,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body onload="document.loginfrm.Username.focus();">

<div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="127">
    <tr>
      <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
      <P> </p>
    <P> </p>
      <P> </p>
    <P> </p>
    </td>
    </tr>
    <tr>
      <td width="85%" height="30" valign="bottom"
background="top_head.jpg"><p align="left"><map
name="FPMap0">
      <area href="index.php" shape="rect" coords="0, 4,
68, 29" title="HOME">
      <area href="about.php" shape="rect" coords="74, 3,
141, 27" title="About us"></map><img border="0"
src="top.jpg" align="left" width="700" height="30"
usemap="#FPMap0"></p>
</td>
    </tr>
  </center>
    <tr>
      <td width="90%" height="16" bgcolor="#ADC3CE">
        <p align="right"><font color="#FFFFFF">Today is
<?php
$today = getdate();
  $year = $today['year'];
  $month = $today['month'];
```

```
  $day = $today['mday'];
  $weekday = $today['weekday'];
  print "$weekday, $month $day, $year";
?></font>    </td>
   </tr>
  <center>
   <tr>
    <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
     <p> </p>
      <div align="center">
       <table border="1" cellpadding="0" cellspacing="0"
width="50%" bordercolor="#9CB7C7">
        <tr>
         <td width="90%" bgcolor="#9CB7C7">
          <p align="center"><font
color="#FFFFFF"><b>LOGIN</b></font></td>
        </tr>
        <tr>
         <td width="90%"><form name="loginfrm"
action="loginme.php" method="POST"><br>
       <p align="center">Username:</p>
       <p align="center"><input type="text"
name="Username" size="21" maxlength="20" style="text-
align:left"></p>
       <p align="center">Password:</p>
       <p align="center"><input type="password"
name="Psword" size="21" maxlength="20" style="text-
align:left"></p>
       <p align="center"><br>
       <input type="submit" value="Login"
name="B1"><input type="reset" value="Reset" name="B2"
onclick="document.loginfrm.Username.focus();"></p>
       </form>
       <?php
       if($status!='')
          print "<p align=\"center\"><font
color=\"#C00000\">You entered an invalid
username/password. Try
again.</font></p><p> </p>";
       ?>
          </td>
         </tr>
       </table>
      </div>
      <p align="center"><br>Trouble Logging in? Email the
webmaster <a href="mailto:p2229f@yahoo.com"
title="Email the webmaster"
onMouseOver="window.status='Email the webmaster';return
true;" onMouseOut="self.status=''"
onclick="window.status='Email the webmaster';return
true;">HERE</a>
      <p> 
      <div align="center">
       <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
        <tr>
         <td width="90%" bgcolor="#9CB7C7">
          <p align="center"><font
color="#FFFFFF"><b>Info on Cataract
Surgery</b></font></td>
        </tr>
        <tr>
         <td width="90%">
         <p><blockquote>
         Cataract surgery has made extraordinary and
exciting advances over the past 20 years. Last year,
approximately more than 2.7 million people in America alone
underwent cataract surgery. Greater than 95% of those
patients now enjoy improved vision. State-of-the-art cataract
surgery is now a safe, effective, and comfortable procedure
performed almost exclusively on an outpatient basis.

Most cataract surgeries are now performed using
microscopic size incisions, advanced ultrasonic equipment to
fragment cataracts into tiny fragments, and foldable
intraocular lenses (IOLs) to maintain small incision size.
Cataract surgery today is the result of extraordinary
technological and surgical advancements that allows millions
of people to once again enjoy crisp and clear vision. A true
marvel of modern medicine, cataract surgery may restore
vision to levels you may have never thought possible.
          </blockquote></p>
          </td>
         </tr>
       </table>
      </div>
      <p> 
      </td>
   </tr>
  </table>
  </center>
</div>
<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

<p> 
</body>

</html>
```

— lectures.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
        ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accessNo);
 // check session variable
 If (session_is_registered("valid_user") && $temp==0)
```

```
  {
    include("include/lectures.inc");
  }
   else
  {
    print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
  }
  mysql_close($db_conn);
?>
```

-- loginme.php —

```
<?

  $today = getdate();
  $year = $today['year'];
  $month = $today['mon'];
  $day = $today['mday'];
  $second = $today['seconds'];
  $minute = $today['minutes'];
  $hour  = $today['hours'];

session_start();
  $db_conn = @mysql_connect("localhost", "mha",
"mha695");

if (!(isset($userid) && !isset($pass)))
{
  // if the user has just tried to log in

  mysql_select_db("OMETSDatabase", $db_conn);

  $query = "select username, psword from users "
        ."where username='$Username' "
        ." and psword='$Psword'";
  $result = mysql_query($query, $db_conn);
  $row = mysql_fetch_row($result);
  $r = strcmp($row[0], $Username);
  $t = strcmp($row[1], $Psword);

  if (mysql_num_rows($result) > 0 && $r==0 && $t==0)
  {
    $query2 = "select Expiration from users where
username='$Username' and psword='$Psword'";
    $result2 = mysql_query($query2, $db_conn);
    $XP = mysql_result($result2, Expiration);

    $XPA = explode("-", $XP, 4);
    $i = 0;
    foreach($XPA as $value)
    {
    $row[$i] = $value;
    $i++;
    }

    $year1 = $row[0];
    $month1 = $row[1];
    $day1 = $row[2];
    $j = $year-$year1;
    $k = $month-$month1;
    $l = $day-$day1;

   if(($year1==0000 && $month1==00 &&
$day1==00)||($j<=0 || $k<=0 || $l<=0)) {
    // If they are in the database register the user id
    $valid_user = $Username;
    session_register("valid_user");
    }//end of if
  }
}
if (session_is_registered("valid_user"))
  { //set lastlogintime and lastlogindate
    $query1 = "select accNum from users "
          ."where username='$Username' "
          ." and psword='$Psword'";
    $result1 = mysql_query($query1, $db_conn);

    //sets the result of the query to $temp
    $temp = mysql_result($result1, accNum);

    if($temp==0) //Medical Health Academician
       print "<META http-equiv=\"refresh\"
content=\"0;URL=mha_index.php\">";
    if($temp==1)  //Student
       print "<META http-equiv=\"refresh\"
content=\"0;URL=student_index.php\">";
  }
  else
  {
    if (isset($userid))
    {
      // if they've tried and failed to log in
      echo "Could not log you in";
    }
    else
    {
      // they have not tried to log in yet or have logged out
      echo "You are not logged in.<br>";
    }
    $temp = uniqid(10);
    print "<META http-equiv=\"refresh\"
content=\"0;URL=index.php?status=$temp\">";
  }
mysql_close($db_conn);
  ?>
```

-- logout.php —

```
<?
  session_start();

  $old_user = $valid_user;  // store  to test if they *were*
logged in
  $result = session_unregister("valid_user");
  session_destroy();
  print "<META http-equiv=\"refresh\"
content=\"0;URL=index.php\">";
?>
```

-- messages.php —

```
<?
  session_start();
  $db_conn = @mysql_connect("localhost", "mha",
"mha695");
  mysql_select_db("OMETSDatabase", $db_conn);
  $query1 = "select accNum from users "
        ."where username='$valid_user' ";
  $result1 = mysql_query($query1, $db_conn);
  //sets the result of the query to $temp
  $temp = mysql_result($result1, accessNo);
  // check session variable
```

```
 if (session_is_registered("valid_user") && ($temp==0 ||
$temp==1))
 {
   include("include/messages.inc");
 }
  else
 {
   print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
 }
 mysql_close($db_conn);
?>
```

-- mha_index.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
       ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accessNo);
 // check session variable
 if (session_is_registered("valid_user") && $temp==0)
 {
   include("include/mha_index.inc");
 }
  else
 {
   print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
 }
 mysql_close($db_conn);
?>
```

-- myperformance.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
       ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accessNo);
 // check session variable
 if (session_is_registered("valid_user") && $temp==1)
 {
   include("include/myperformance.inc");
 }
  else
 {
   print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
 }
 mysql_close($db_conn);
?>
```

-- mypractical.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
       ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accessNo);
 // check session variable
 if (session_is_registered("valid_user") && $temp==1)
 {
   include("include/mypractical.inc");
 }
  else
 {
   print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
 }
 mysql_close($db_conn);
?>
```

-- myprofile.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
       ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accessNo);
 // check session variable
 if (session_is_registered("valid_user") && ($temp==0 ||
$temp==1))
 {
   include("include/myprofile.inc");
 }
  else
 {
   print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
 }
 mysql_close($db_conn);
?>
```

-- mystudents.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
       ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accessNo);
 // check session variable
 if (session_is_registered("valid_user") && $temp==0)
 {
   include("include/mystudents.inc");
 }
  else
 {
```

```
   print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
  }
  mysql_close($db_conn);
?>
```

-- mytools.php —

```
<?
  session_start();
  $db_conn = @mysql_connect("localhost", "mha",
"mha695");
  mysql_select_db("OMETSDatabase", $db_conn);
  $query1 = "select accNum from users "
        ."where username='$valid_user' ";
  $result1 = mysql_query($query1, $db_conn);
  //sets the result of the query to $temp
  $temp = mysql_result($result1, accessNo);
  // check session variable
  if (session_is_registered("valid_user") && $temp==1)
  {
    include("include/mytools.inc");
  }
   else
  {
    print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
  }
  mysql_close($db_conn);
?>
```

-- postmessage.php —

```
<?
  session_start();
  $db_conn = @mysql_connect("localhost", "mha",
"mha695");
  mysql_select_db("OMETSDatabase", $db_conn);
  $query1 = "select accNum from users "
        ."where username='$valid_user' ";
  $result1 = mysql_query($query1, $db_conn);
  //sets the result of the query to $temp
  $temp = mysql_result($result1, accessNo);
  // check session variable
  if (session_is_registered("valid_user") && ($temp==0 ||
$temp==1))
  {
    include("include/postmessage.inc");
  }
   else
  {
    print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
  }
  mysql_close($db_conn);
?>
```

-- register.php —

```
<?
  session_start();
  $db_conn = @mysql_connect("localhost", "mha",
"mha695");
  mysql_select_db("OMETSDatabase", $db_conn);
  $query1 = "select accNum from users "
        ."where username='$valid_user' ";
  $result1 = mysql_query($query1, $db_conn);
  //sets the result of the query to $temp
  $temp = mysql_result($result1, accessNo);
  // check session variable
  if (session_is_registered("valid_user") && $temp==0)
  {
    include("include/register.inc");
  }
   else
  {
    print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
  }
  mysql_close($db_conn);
?>
```

-- regstud.php —

```
<?
  session_start();
  $db_conn = @mysql_connect("localhost", "mha",
"mha695");
  mysql_select_db("OMETSDatabase", $db_conn);
  $query1 = "select accNum from users "
        ."where username='$valid_user' ";
  $result1 = mysql_query($query1, $db_conn);
  //sets the result of the query to $temp
  $temp = mysql_result($result1, accNum);
  // check session variable
  if (session_is_registered("valid_user") && $temp==0)
  {
    include("include/regstud.inc");
  }
   else
  {
    print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
  }
  mysql_close($db_conn);
?>
```

-- student_index.php —

```
<?
  session_start();
  $db_conn = @mysql_connect("localhost", "mha",
"mha695");
  mysql_select_db("OMETSDatabase", $db_conn);
  $query1 = "select accNum from users "
        ."where username='$valid_user' ";
  $result1 = mysql_query($query1, $db_conn);
  //sets the result of the query to $temp
  $temp = mysql_result($result1, accNum);
  // check session variable
  if (session_is_registered("valid_user") && $temp==1)
  {
    include("include/student_index.inc");
  }
   else
  {
    print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
  }
  mysql_close($db_conn);
?>
```

-- updateprof.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
        ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accessNo);
 // check session variable
 if (session_is_registered("valid_user") && ($temp==0 ||
$temp==1))
 {
   include("include/updateprof.inc");
 }
  else
 {
   print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
 }
 mysql_close($db_conn);
?>
```

-- viewperfrec.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
        ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accessNo);
 // check session variable
 if (session_is_registered("valid_user") && $temp==0)
 {
   include("include/viewperfrec.inc");
 }
  else
 {
   print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
 }
 mysql_close($db_conn);
?>
```

-- viewprofile.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
        ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accessNo);
 // check session variable
 if (session_is_registered("valid_user") && $temp==0)
 {
   include("include/viewprofile.inc");
 }
  else
 {
   print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
 }
 mysql_close($db_conn);
?>
```

-- viewstudpass.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
        ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accessNo);
 // check session variable
 if (session_is_registered("valid_user") && $temp==0)
 {
   include("include/viewstudpass.inc");
 }
  else
 {
   print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
 }
 mysql_close($db_conn);
?>
```

-- delete_lec.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
        ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accessNo);
 // check session variable
 if (session_is_registered("valid_user") && $temp==0)
 {
   include("../include/delete_lec.inc");
 }
  else
 {
   print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
 }
 mysql_close($db_conn);
?>
```

-- uploadlec.php —

```
<?
 session_start();
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
```

```
        ."where username='$valid_user' ";
  $result1 = mysql_query($query1, $db_conn);
  //sets the result of the query to $temp
  $temp = mysql_result($result1, accessNo);
  // check session variable
  if (session_is_registered("valid_user") && $temp==0)
  {
    include("../include/uploadlec.inc");
  }
   else
  {
    print "<META http-equiv=\"refresh\"
content=\"0;URL=error.html\">";
  }
  mysql_close($db_conn);
?>
```

-- INC files --

-- delete_lec.inc --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: MHA :: Lectures</title>
<link rel="stylesheet" type="text/css" href="../main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
  status=msgStr;
  document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body>

<div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
    <tr>
      <td width="100%" height="60"><img border="0"
src="../banner.jpg" width="100%" height="100%">
      <P> </p>
    <P> </p>
      <P> </p>
    <P> </p>
      </td>
    </tr>
    <tr>
      <td width="85%" height="30" valign="top"
background="../top_head.jpg">
        <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0"><map name="FPMap0">
        <area href="../mha_index.php" shape="rect"
coords="0, 5, 68, 24" title="Home"
onMouseOver="window.status='Home';return true;"
onMouseOut="self.status=''"
onclick="window.status='Home';return true;">
        <area href="../register.php" shape="rect" coords="74,
5, 143, 24" title="Register"
onMouseOver="window.status='Register';return true;"
onMouseOut="self.status=''"
onclick="window.status='Register';return true;">
        <area href="../mystudents.php" shape="rect"
coords="149, 3, 216, 25" title="My Students"
onMouseOver="window.status='MyStudents';return true;"
onMouseOut="self.status=''"
onclick="window.status='MyStudents';return true;">
        <area href="../lectures.php" shape="rect"
coords="222, 6, 291, 25" title="Lectures"
onMouseOver="window.status='Lectures';return true;"
onMouseOut="self.status=''"
onclick="window.status='Lectures';return true;">
        <area href="../messages.php" shape="rect"
coords="297, 6, 365, 24" title="Messages"
onMouseOver="window.status='Messages';return true;"
onMouseOut="self.status=''"
onclick="window.status='Messages';return true;">
        <area href="../myprofile.php" shape="rect"
coords="371, 6, 439, 24" title="MyProfile"
onMouseOver="window.status='MyProfile';return true;"
onMouseOut="self.status=''"
onclick="window.status='MyProfile';return true;">
        <area href="../logout.php" shape="rect" coords="445,
3, 513, 25" title="Logout"
onMouseOver="window.status='Logout';return true;"
onMouseOut="self.status=''"
onclick="window.status='Logout';return
true;"></map><img border="0" src="../mha_top4.jpg"
usemap="#FPMap0" width="700" height="30"></p>
      </td>
    </tr>
  </center>
    <tr>
      <td width="90%" height="16" bgcolor="#ADC3CE">
        <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
  $year = $today['year'];
  $month = $today['month'];
  $day = $today['mday'];
  $weekday = $today['weekday'];
  print "$weekday, $month $day, $year";
?>
</font>    </td>
    </tr>
```

```
  <center>
   <tr>
    <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
     <p> </p>
      <div align="center">
       <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
        <tr>
         <td width="90%" bgcolor="#9CB7C7">
          <p align="center"><font
color="#FFFFFF"><b>LECTURES</b></font></td>
        </tr>
        <tr>
         <td width="90%">
             <P> </p>
         <div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="80%" bordercolor="#FFFFFF">
   <tr>
    <td width="90%" bgcolor="#9CB7C7">
     <p align="center">Upload a Lecture</td>
   </tr>
   <tr>
    <td width="90%" bgcolor="#F4F8FB">
    <?php
    $db_conn = @mysql_connect("localhost", "mha",
"mha695");
    mysql_select_db("OMETSDatabase", $db_conn);

    if($ans == 'Y')
    {
     unlink($filename);
     $query = "delete from lecture where
filename='$filename'";
     $result = mysql_query($query, $db_conn);
     if($result==TRUE)
     print "<p><font color=\"#C00000\">File was
successfully deleted</font></p>";
     else
     print "<p><font color=\"#C00000\">There was an
error processing your request</font></p>";
    }
    else if($ans =='N')
     print "<p><font color=\"#C00000\">File was not
deleted</font></p>";
    else
     print "<p>Proceed with delete: <a
href=\"delete_lec.php?ans=Y&filename=$filename\"
title=\"Yes\" onMouseOver=\"window.status='Yes';return
true;\" onMouseOut=\"self.status=\"\"
onclick=\"window.status='Yes';return true;\">Yes</a> or
<a href=\"delete_lec.php?ans=N&filename=$filename\"
title=\"No\" onMouseOver=\"window.status='No';return
true;\" onMouseOut=\"self.status=\"\"
onclick=\"window.status='No';return true;\">No</a></p>";

    print "<p>Click <a href=\"..\\lectures.php\" title=\"Go
Back\" onMouseOver=\"window.status='Go Back';return
true;\" onMouseOut=\"self.status=\"\"
onclick=\"window.status='Go Back';return true;\">here</a>
to go back.";
     mysql_close($db_conn);
    ?>
<p> 
    </td>
     </tr>

  </table>
  </center>
</div>
<p> 
          </td>
         </tr>
        </table>
       </div>
       <p> </td>
   </tr>
  </table>
  </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>
</html>
```

– delete_msg.inc –

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: MHA :: Delete Messages</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
 status=msgStr;
 document.MM_returnValue = true;
}
//-->
</SCRIPT>
```

```
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body>

<div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
   <tr>
    <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
    <P> </p>
   <P> </p>
     <P> </p>
   <P> </p>
    </td>
   </tr>
   <tr>
    <td width="85%" height="30" valign="top"
background="top_head.jpg">
    <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0"><map name="FPMap0">
     <area href="mha_index.php" shape="rect" coords="0,
5, 68, 24" title="Home"
onMouseOver="window.status='Home';return true;"
onMouseOut="self.status=''"
onclick="window.status='Home';return true;">
     <area href="register.php" shape="rect" coords="74,
5, 143, 24" title="Register"
onMouseOver="window.status='Register';return true;"
onMouseOut="self.status=''"
onclick="window.status='Register';return true;">
     <area href="mystudents.php" shape="rect"
coords="149, 3, 216, 25" title="My Students"
onMouseOver="window.status='MyStudents';return true;"
onMouseOut="self.status=''"
onclick="window.status='MyStudents';return true;">
     <area href="lectures.php" shape="rect" coords="222,
6, 291, 25" title="Lectures"
onMouseOver="window.status='Lectures';return true;"
onMouseOut="self.status=''"
onclick="window.status='Lectures';return true;">
     <area href="messages.php" shape="rect"
coords="297, 6, 365, 24" title="Messages"
onMouseOver="window.status='Messages';return true;"
onMouseOut="self.status=''"
onclick="window.status='Messages';return true;">
     <area href="myprofile.php" shape="rect"
coords="371, 6, 439, 24" title="MyProfile"
onMouseOver="window.status='MyProfile';return true;"
onMouseOut="self.status=''"
onclick="window.status='MyProfile';return true;">
     <area href="logout.php" shape="rect" coords="445,
3, 513, 25" title="Logout"
onMouseOver="window.status='Logout';return true;"
onMouseOut="self.status=''"
onclick="window.status='Logout';return
true;"></map><img border="0" src="mha_top5.jpg"
usemap="#FPMap0" width="700" height="30"></p>
    </td>
   </tr>
  </center>
   <tr>
    <td width="90%" height="16" bgcolor="#ADC3CE">
     <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
 $year = $today['year'];
 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
 print "$weekday, $month $day, $year";
?>
</font>    </td>
   </tr>
  <center>
   <tr>
    <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
     <p> </p>
      <div align="center">
       <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
        <tr>
         <td width="90%" bgcolor="#9CB7C7">
          <p align="center"><font
color="#FFFFFF"><b>MESSAGES</b></font></td>
        </tr>
        <tr>
         <td width="90%">
             <P> </p>
         <div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="80%" bordercolor="#FFFFFF">
   <tr>
    <td width="90%" bgcolor="#9CB7C7">
     <p align="center">Delete a Message</td>
   </tr>
   <tr>
    <td width="90%" bgcolor="#F4F8FB">
    <?php
    $db_conn = @mysql_connect("localhost", "mha",
"mha695");
    mysql_select_db("OMETSDatabase", $db_conn);

    if($ans == 'Y')
    {
     $query = "delete from message where
message_no=$message_no";
     $result2 = mysql_query($query, $db_conn);
     if($result2==TRUE)
     print "<p><font color=\"#C00000\">Message was
successfully deleted</font></p>";
     else
     print "<p><font color=\"#C00000\">There was an
error processing your request</font></p>";
     if($result2==TRUE) {
      $query = "select message_no from message where
message_no <> 1";
      $result = mysql_query($query, $db_conn);
      while($row = mysql_fetch_row($result)) {
```

```
    $query1 = "update message set
message_no=message_no-1 where message_no=$row[0]";
    $result1 = mysql_query($query1, $db_conn);


    If($result!=TRUE) {
    print "<p><font color=\"#C00000\">There was
another error processing your request</font></p>";
    }
    } //end of while
    } //end of if

   }
   else if($ans =='N')
    print "<p><font color=\"#C00000\">Message was not
deleted</font></p>";
   else
    print "<p>Proceed with delete: <a
href=\"delete_msg.php?ans=Y&message_no=$message_no\
" title=\"Yes\" onMouseOver=\"window.status='Yes';return
true;\" onMouseOut=\"self.status='\"
onclick=\"window.status='Yes';return true;\">Yes</a> or
<a
href=\"delete_msg.php?ans=N&message_no=$message_no
\" title=\"No\" onMouseOver=\"window.status='No';return
true;\" onMouseOut=\"self.status='\"
onclick=\"window.status='No';return true;\">No</a></p>";

   print "<p>Click <a href=\"messages.php\" title=\"Go
Back\" onMouseOver=\"window.status='Go Back';return
true;\" onMouseOut=\"self.status='\"
onclick=\"window.status='Go Back';return true;\">here</a>
to go back.";
    mysql_close($db_conn);
   ?>
    <p> 
   </td>
   </tr>

 </table>
 </center>
</div>
<p> 
        </td>
       </tr>
      </table>
     </div>
     <p> </td>
  </tr>
 </table>
 </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>
</html>
```

-- download.inc --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: MHA :: Home</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
 status=msgStr;
 document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body>

<div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
   <tr>
    <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
    <P> </p>
   <P> </p>
     <P> </p>
   <P> </p>
    </td>
   </tr>
   <tr>
```

```
    <td width="85%" height="30" valign="top"
background="top_head.jpg">
<p style="word-spacing: 0; margin-top: 0; margin-bottom:
0"><map name="FPMap0">
      <area href="student_index.php" shape="rect"
coords="0, 5, 68, 24">
      <area href="messages.php" shape="rect" coords="74,
5, 143, 24">
      <area href="mytools.php" shape="rect" coords="149,
3, 216, 25">
      <area href="myperformance.php" shape="rect"
coords="222, 6, 291, 25">
      <area href="mypractical.php" shape="rect"
coords="297, 6, 365, 24">
      <area href="download.php" shape="rect"
coords="371, 6, 439, 24">
      <area href="myprofile.php" shape="rect"
coords="445, 3, 513, 25">
      <area href="logout.php" shape="rect" coords="518,
4, 588, 25"></map><img border="0" src="stud_top6.jpg"
usemap="#FPMap0" width="700" height="30"></p>
    </td>
   </tr>
  </center>
   <tr>
    <td width="90%" height="16" bgcolor="#ADC3CE">
     <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
 $year = $today['year'];
 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
 print "$weekday, $month $day, $year";
?>
</font>    </td>
   </tr>
  <center>
   <tr>
    <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
    <p> </p>
     <div align="center">
      <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
       <tr>
        <td width="90%" bgcolor="#9CB7C7">
         <p align="center"><font
color="#FFFFFF"><b>Download
Lectures</b></font></td>
       </tr>
       <tr>
        <td width="90%"><p> </p>
        <p> </p>
        <div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="70%" bordercolor="#FFFFFF">
   <tr>
    <td width="90%" bgcolor="#9CB7C7" colspan="3">
     <p align="center"><b>Uploaded Lectures</b></td>
   </tr>
   <tr>
    <td width="50%" bgcolor="#F4F8FB">
     <p align="center">Lecture Name</td>
    <td width="50%" bgcolor="#F4F8FB">
     <p align="center">Description</td>
   </tr>
   <?php
   $db_conn = @mysql_connect("localhost", "mha",
"mha695");
   mysql_select_db("OMETSDatabase", $db_conn);
   function word_wrap($text) {

     // Define the characters to display per row
     $chars = "30";

     $text = wordwrap($text, $chars, "<br />", 1);

     return $text;

     }
   $query1 = "select * from lecture order by lecture_name
ASC";
   $result1 = mysql_query($query1, $db_conn);
   $ctr = 0;
   while($row = mysql_fetch_row($result1)) {
   $p = word_wrap($row[2]);
   print "<tr>";
   if($ctr%2==0)
    print "<td width=\"50%\"
bgcolor=\"#9CB7C7\"><p><a href=\"lectures\\$row[0]\"
title=\"$row[0]\"
onMouseOver=\"window.status='DOWNLOAD';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='DOWNLOAD';return
true;\">$row[1]</a></td>
     <td width=\"50%\"
bgcolor=\"#9CB7C7\"><p>$p</p></td>";
   else
    print "<td width=\"50%\"
bgcolor=\"#F4F8FB\"><p><a href=\"lectures\\$row[0]\"
title=\"$row[0]\"
onMouseOver=\"window.status='DOWNLOAD';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='DOWNLOAD';return
true;\">$row[1]</a></td>
     <td width=\"50%\"
bgcolor=\"#F4F8FB\"><p>$p</p></td>";
   print "</tr>"; $ctr++;
   }
   mysql_close($db_conn);
   ?>
  </table>
  </center>
</div>
          <p> 
          </td>
         </tr>
        </table>
       </div>
       <p> </td>
    </tr>
   </table>
   </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
```

```
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

-- lectures.inc --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: MHA :: Lectures</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
 status=msgStr;
 document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function validate(){

if (document.uploadlec.filename.value=="") {
alert("You must enter a valid filename!")
document.uploadlec.filename.focus()
return false
}

if (document.uploadlec.lecture_name.value=="") {
alert("You must enter a valid Lecture name!")
document.uploadlec.lecture_name.focus()
return false
}

return true
}
// End -->
</SCRIPT>
</head>

<body onload="document.uploadlec.filename.focus()">

<div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
    <tr>
      <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
      <P> </p>
    <P> </p>
       <P> </p>
    <P> </p>
      </td>
    </tr>
    <tr>
      <td width="85%" height="30" valign="top"
background="top_head.jpg">
      <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0"><map name="FPMap0">
        <area href="mha_index.php" shape="rect" coords="0,
5, 68, 24" title="Home"
onMouseOver="window.status='Home';return true;"
onMouseOut="self.status=''"
onclick="window.status='Home';return true;">
        <area href="register.php" shape="rect" coords="74,
5, 143, 24" title="Register"
onMouseOver="window.status='Register';return true;"
onMouseOut="self.status=''"
onclick="window.status='Register';return true;">
        <area href="mystudents.php" shape="rect"
coords="149, 3, 216, 25" title="My Students"
onMouseOver="window.status='MyStudents';return true;"
onMouseOut="self.status=''"
onclick="window.status='MyStudents';return true;">
        <area href="lectures.php" shape="rect" coords="222,
6, 291, 25" title="Lectures"
onMouseOver="window.status='Lectures';return true;"
onMouseOut="self.status=''"
onclick="window.status='Lectures';return true;">
        <area href="messages.php" shape="rect"
coords="297, 6, 365, 24" title="Messages"
onMouseOver="window.status='Messages';return true;"
onMouseOut="self.status=''"
onclick="window.status='Messages';return true;">
        <area href="myprofile.php" shape="rect"
coords="371, 6, 439, 24" title="MyProfile"
onMouseOver="window.status='MyProfile';return true;"
onMouseOut="self.status=''"
onclick="window.status='MyProfile';return true;">
        <area href="logout.php" shape="rect" coords="445,
3, 513, 25" title="Logout"
onMouseOver="window.status='Logout';return true;"
onMouseOut="self.status=''"
```

```
onclick="window.status='Logout';return
true;"></map><img border="0" src="mha_top4.jpg"
usemap="#FPMap0" width="700" height="30"></p>
    </td>
   </tr>
  </center>
   <tr>
    <td width="90%" height="16" bgcolor="#ADC3CE">
     <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
 $year = $today['year'];
 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
 print "$weekday, $month $day, $year";
?>
</font>    </td>
   </tr>
  <center>
   <tr>
    <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
    <p> </p>
     <div align="center">
      <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
       <tr>
        <td width="90%" bgcolor="#9CB7C7">
         <p align="center"><font
color="#FFFFFF"><b>LECTURES</b></font></td>
       </tr>
       <tr>
        <td width="90%">
            <P> </p>
         <div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="80%" bordercolor="#FFFFFF">
  <tr>
   <td width="90%" bgcolor="#C3D3DC">
    <p align="center"><b>Upload a Lecture</b></td>
  </tr>
  <tr><form name="uploadlec" onsubmit="return
validate()" action="lectures/uploadlec.php"
enctype="multipart/form-data" method="post">
   <td width="90%" bgcolor="#F4F8FB"><p>Path or
Filename (must be unique/distinguishable): 
    <p><input type="file" name="filename"
size="20"></td>
   </tr>
  <tr>
   <td width="90%" bgcolor="#F4F8FB"><p>Enter
Lecture Name: </p><p><input type="text"
name="lecture_name" size="20"></p></td>
   </tr><tr><td width="90%"
bgcolor="#F4F8FB"><p>Description:
    <p> <textarea rows="2" name="description"
cols="29"></textarea></td>
  </tr>
  <tr><td width="90%" bgcolor="#F4F8FB"><input
type="submit" value="Upload lecture"
name="upldbtn"><input type="reset" value="Reset"
name="reset"></td>
   </form>
  </tr>
 </table>
 </center>
</div>
<?
if($status!='')
print "<p align=\"left\"><font color=\"#C00000\">You
must enter a valid filename, lecture name and
description.</font></p>";
?>
<p> </p>
<div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="80%" bordercolor="#FFFFFF">
  <tr>
   <td width="90%" bgcolor="#C3D3DC" colspan="3">
    <p align="center"><b>Uploaded Lectures</b></td>
  </tr>
  <tr>
   <td width="34%" bgcolor="#F4F8FB">
    <p align="center">Lecture Name</td>
   <td width="33%" bgcolor="#F4F8FB">
    <p align="center">Description</td>
   <td width="33%" bgcolor="#F4F8FB">
    <p align="center">Action</td>
  </tr>
  <?php
  $db_conn = @mysql_connect("localhost", "mha",
"mha695");
  mysql_select_db("OMETSDatabase", $db_conn);
    function word_wrap($text) {

    // Define the characters to display per row
    $chars = "30";

    $text = wordwrap($text, $chars, "<br />", 1);

    return $text;

    }
  $query1 = "select * from lecture order by lecture_name
ASC";
  $result1 = mysql_query($query1, $db_conn);
  $ctr = 0;
  while($row = mysql_fetch_row($result1)) {
  $p = word_wrap($row[2]);
  print "<tr>";
  if($ctr%2==0)
    print "<td width=\"34%\" bgcolor=\"#C3D3DC\"><a
href=\"lectures\\$row[0]\" title=\"$row[0]\"
onMouseOver=\"window.status='DOWNLOAD';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='DOWNLOAD';return
true;\">$row[1]</a></td>
    <td width=\"33%\"
bgcolor=\"#C3D3DC\"><p>$p</p></td>
    <td width=\"33%\" bgcolor=\"#C3D3DC\"><a
href=\"lectures\\delete_lec.php?filename=$row[0]\"
title=\"DELETE\"
onMouseOver=\"window.status='DELETE';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='DELETE';return
true;\">DELETE</a></td>";
  else
    print "<td width=\"34%\" bgcolor=\"#F4F8FB\"><a
href=\"lectures\\$row[0]\" title=\"$row[0]\"
onMouseOver=\"window.status='DOWNLOAD';return true;\"
```

```
onMouseOut=\"self.status='\"
onclick=\"window.status='DOWNLOAD';return
true;\">$row[1]</a></td>
    <td width=\"33%\"
bgcolor=\"#F4F8FB\"><p>$p</p></td>
    <td width=\"33%\" bgcolor=\"#F4F8FB\"><a
href=\"lectures\\delete_lec.php?filename=$row[0]\"
title=\"DELETE\"
onMouseOver=\"window.status='DELETE';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='DELETE';return
true;\">DELETE</a></td>";
   print "</tr>"; $ctr++;
   }
   mysql_close($db_conn);
   ?>
  </table>
  </center>
</div>
    <p> 
        </td>
       </tr>
      </table>
     </div>
     <p> </td>
  </tr>
 </table>
 </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

-- messages.inc --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: Messages</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
 status=msgStr;
 document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function validate(){

if (document.msg.title.value=="") {
alert("You must enter a valid title!")
document.msg.title.focus()
return false
}

if (document.msg.detail.value=="") {
alert("You must enter Details!")
document.msg.detail.focus()
return false
}

return true
}
// End -->
</SCRIPT>
</head>

<body onload="document.msg.title.focus()">

<div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
   <tr>
    <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
    <P> </p>
   <P> </p>
     <P> </p>
   <P> </p>
    </td>
   </tr>
   <tr>
    <td width="85%" height="30" valign="top"
background="top_head.jpg">
```

```
      <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0">
<?php
  $db_conn = @mysql_connect("localhost", "mha",
"mha695");
  mysql_select_db("OMETSDatabase", $db_conn);
  $query1 = "select accNum from users "
        ."where username='$valid_user' ";
  $result1 = mysql_query($query1, $db_conn);
  //sets the result of the query to $temp
  $temp = mysql_result($result1, accNum);
  if($temp==0) {
     print "
        <p style=\"word-spacing: 0; margin-top: 0; margin-
bottom: 0\"><map name=\"FPMap0\">
      <area href=\"mha_index.php\" shape=\"rect\"
coords=\"0, 5, 68, 24\" title=\"Home\"
onMouseOver=\"window.status='Home';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='Home';return true;\">
      <area href=\"register.php\" shape=\"rect\"
coords=\"74, 5, 143, 24\" title=\"Register\"
onMouseOver=\"window.status='Register';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='Register';return true;\">
      <area href=\"mystudents.php\" shape=\"rect\"
coords=\"149, 3, 216, 25\" title=\"My Students\"
onMouseOver=\"window.status='MyStudents';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='MyStudents';return true;\">
      <area href=\"lectures.php\" shape=\"rect\"
coords=\"222, 6, 291, 25\" title=\"Lectures\"
onMouseOver=\"window.status='Lectures';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='Lectures';return true;\">
      <area href=\"messages.php\" shape=\"rect\"
coords=\"297, 6, 365, 24\" title=\"Messages\"
onMouseOver=\"window.status='Messages';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='Messages';return true;\">
      <area href=\"myprofile.php\" shape=\"rect\"
coords=\"371, 6, 439, 24\" title=\"MyProfile\"
onMouseOver=\"window.status='MyProfile';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='MyProfile';return true;\">
      <area href=\"logout.php\" shape=\"rect\"
coords=\"445, 3, 513, 25\" title=\"Logout\"
onMouseOver=\"window.status='Logout';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='Logout';return
true;\"></map><img border=\"0\" src=\"mha_top5.jpg\"
usemap=\"#FPMap0\" width=\"700\" height=\"30\"></p>";
     }
     else if($temp==1) {
     print "<p style=\"word-spacing: 0; margin-top: 0;
margin-bottom: 0\"><map name=\"FPMap0\">
      <area href=\"student_index.php\" shape=\"rect\"
coords=\"0, 5, 68, 24\">
      <area href=\"messages.php\" shape=\"rect\"
coords=\"74, 5, 143, 24\">
      <area href=\"mytools.php\" shape=\"rect\"
coords=\"149, 3, 216, 25\">
      <area href=\"myperformance.php\" shape=\"rect\"
coords=\"222, 6, 291, 25\">
      <area href=\"mypractical.php\" shape=\"rect\"
coords=\"297, 6, 365, 24\">
      <area href=\"download.php\" shape=\"rect\"
coords=\"371, 6, 439, 24\">
      <area href=\"myprofile.php\" shape=\"rect\"
coords=\"445, 3, 513, 25\">
      <area href=\"logout.php\" shape=\"rect\"
coords=\"518, 4, 588, 25\"></map><img border=\"0\"
src=\"stud_top2.jpg\" usemap=\"#FPMap0\" width=\"700\"
height=\"30\"></p>";
     }
     mysql_close($db_conn);
?>
    </td>
   </tr>
  </center>
   <tr>
    <td width="90%" height="16" bgcolor="#ADC3CE">
     <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
  $year = $today['year'];
  $month = $today['month'];
  $day = $today['mday'];
  $weekday = $today['weekday'];
  print "$weekday, $month $day, $year";
?>
</font>    </td>
   </tr>
  <center>
   <tr>
    <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
     <p> </p>
      <div align="center">
       <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
         <tr>
          <td width="90%" bgcolor="#9CB7C7">
           <p align="center"><font
color="#FFFFFF"><b>Messages</b></font></td>
         </tr>
         <tr>
          <td width="90%"><p> <p align="justify">
<div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="80%" bordercolor="#FFFFFF">
   <tr>
    <td width="90%" bgcolor="#C3D3DC" colspan="3">
     <p align="center"><b>Message Board</b></td>
   </tr>

   <?php
   $today = getdate();
  $year = $today['year'];
  $month = $today['mon'];
  $day = $today['mday'];
   $db_conn = @mysql_connect("localhost", "mha",
"mha695");
   mysql_select_db("OMETSDatabase", $db_conn);

   $query = "select message_no from message";
   $result = mysql_query($query, $db_conn);
   while($row = mysql_fetch_row($result)) {
   $query2 = "select mDate from message where
message_no=$row[0]";
   $result2 = mysql_query($query2, $db_conn);
```

```
   $XP = mysql_result($result2, Expiration);

   $XPA = explode("-", $XP, 4);
   $i = 0;
   foreach($XPA as $value)
   {
   $row[$i] = $value;
   $i++;
   }

   $year1 = $row[0];
   $month1 = $row[1];
   $day1 = $row[2];
   $j = $year-$year1;

   if($j > 1) {
   $query3 = "delete from message where
message_no=$row[0]";
   $result3 = mysql_query($query3, $db_conn);
     }
   } //end of while

   function word_wrap($text) {

      // Define the characters to display per row
      $chars = "75";

      $text = wordwrap($text, $chars, "<br />", 1);

      return $text;

      }
   $query = "select accNum from users where
username='$valid_user'";
   $result = mysql_query($query, $db_conn);
   $acc = mysql_result($result, accNum);

   $query1 = "select message_no, username, mDate,
mTime, title, detail from message order by message_no
ASC";
   $result1 = mysql_query($query1, $db_conn);
   $ctr = 0;
   $count = mysql_num_rows($result1);
   if($base=='')
      $base = 0;

   mysql_data_seek($result1, $base);

   if($count > 0) {
   for($i=0; $i< 10 && $base+$i < $count; $i++) {
   $row = mysql_fetch_row($result1);
   print "<tr>"; $detalye = word_wrap($row[5]);
   $query = "select lastName, firstName, middleInitial from
users "
          ."where username='$row[1]' ";
          $result = mysql_query($query, $db_conn);
          $row2 = mysql_fetch_row($result);
          $p =  "$row2[1] $row2[2]. $row2[0]";
   if($ctr%2==0) {
     print "<td width=\"90%\"
bgcolor=\"#F4F8FB\"><p><b><font size=\"1\">$p</b>
on $row[2], $row[3]</p>
      <p><b><i><font size=\"1\">$row[4]</i></b></p>
      <p><font size=\"1\">$detalye</p>";
if($acc==0)
   print "<a href=\"delete_msg.php?message_no=$row[0]\"
title=\"DELETE\"
onMouseOver=\"window.status='DELETE';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='DELETE';return true;\"><font
size=\"1\">DELETE MESSAGE</a></td></tr>";
   else
      print "</td></tr>";
   }
   else {
     print "<td width=\"34%\"
bgcolor=\"#C3D3DC\"><p><b><font size=\"1\">$p</b>
on $row[2], $row[3]</p>
      <p><b><i><font size=\"1\">$row[4]</i></b></p>
      <p><font size=\"1\">$detalye</p>";
   if($acc==0)
   print "<p><a
href=\"delete_msg.php?message_no=$row[0]\"
title=\"DELETE\"
onMouseOver=\"window.status='DELETE';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='DELETE';return true;\"><font
size=\"1\">DELETE MESSAGE</a></td></tr>";
   else
      print "</td></tr>";
   }
   $ctr++;


   } // end of for

} //end of if
else
      print "<tr>
            <td width=\"90%\" bgcolor=\"#F4F8FB\">
            <p align=\"center\">There were $count
messages found.</p>
            </td>
            </tr>";
if($base > 10) {
      $down = $base-10;
}
if($count > 10) {
      $up = $base+10;
}
$m = $count-$count%10;
$b = $base + 1;
$t = $base + $ctr;
if($count > 0)
      print "<tr>
        <td width=\"90%\" bgcolor=\"#F4F8FB\">
        <p align=\"center\">Viewing $b-$t of $count
message/s</p>
        </td>
        </tr>";
      print "<tr><td width=\"90%\"
bgcolor=\"#F4F8FB\">";
      if($base >= 9 && $count>9) {
            print "<p><a href=\"messages.php?base=0\"
title=\"First\" onMouseOver=\"window.status='First';return
true;\" onMouseOut=\"self.status='\"
onclick=\"window.status='First';return true;\">First</a> | ";
            print "<a href=\"messages.php?base=$down\"
title=\"Previous\"
onMouseOver=\"window.status='Previous';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='Previous';return
true;\">&lt;&lt;PREVIOUS</a> | ";
```

```
            print "<a href=\"messages.php?base=$m\"
title=\"Last\" onMouseOver=\"window.status='Last';return
true;\" onMouseOut=\"self.status='\"
onclick=\"window.status='Last';return true;\">Last</a>";
            }

      if($count>10 && $up < $count) {
            print "<a href=\"messages.php?base=0\"
title=\"First\" onMouseOver=\"window.status='First';return
true;\" onMouseOut=\"self.status='\"
onclick=\"window.status='First';return true;\">First</a> | ";
            print "<a href=\"messages.php?base=$up\"
title=\"Next\" onMouseOver=\"window.status='Next';return
true;\" onMouseOut=\"self.status='\"
onclick=\"window.status='Next';return
true;\">NEXT&gt;&gt;</a> | ";
            print "<a href=\"messages.php?base=$m\"
title=\"Last\" onMouseOver=\"window.status='Last';return
true;\" onMouseOut=\"self.status='\"
onclick=\"window.status='Last';return true;\">Last</a>";
            }
      print "</p></td></tr>";
   mysql_close($db_conn);
   ?>
  </table>
  </center>
</div>
<p> </p>
<div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="80%" bordercolor="#FFFFFF">
    <tr>
      <td width="90%" bgcolor="#C3D3DC">
        <p align="center"><b>Post a message</b></td>
    </tr>
    <tr><form name="msg" onsubmit="return validate()"
action="postmessage.php" method="post">
      <td width="90%"
bgcolor="#F4F8FB"><p>Title: 
        <p><input type="text" name="title" size="51"
maxlength="50"></td>
    </tr>
    <tr>
        <td width="90%"
bgcolor="#F4F8FB"><p>Details: 
        <p><textarea name="detail" rows="5"
cols="50"></textarea></p>
    </tr>
    <tr><td width="90%" bgcolor="#F4F8FB"><input
type="submit" value="Post Message"
name="upldbtn"><input type="reset" value="Reset"
name="reset" onclick="document.msg.title.focus()"></td>
      </form>
    </tr>
  </table>
  </center>
</div>
      <p> 
          </td>
        </tr>
      </table>
      </div>
      <p> </td>
    </tr>
  </table>
  </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

-- **mha_index.inc** --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: MHA :: Home</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
  status=msgStr;
  document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>
```

```
<body>

<div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
  <tr>
   <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
   <P> </p>
  <P> </p>
    <P> </p>
  <P> </p>
   </td>
  </tr>
  <tr>
   <td width="85%" height="30" valign="top"
background="top_head.jpg">
    <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0"><map name="FPMap0">
    <area href="mha_index.php" shape="rect" coords="0,
5, 68, 24">
    <area href="register.php" shape="rect" coords="74,
5, 143, 24">
    <area href="mystudents.php" shape="rect"
coords="149, 3, 216, 25">
    <area href="lectures.php" shape="rect" coords="222,
6, 291, 25">
    <area href="messages.php" shape="rect"
coords="297, 6, 365, 24">
    <area href="myprofile.php" shape="rect"
coords="371, 6, 439, 24">
    <area href="logout.php" shape="rect" coords="445,
3, 513, 25"></map><img border="0" src="mha_top1.jpg"
usemap="#FPMap0" width="700" height="30"></p>
   </td>
  </tr>
 </center>
  <tr>
   <td width="90%" height="16" bgcolor="#ADC3CE">
    <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
 $year = $today['year'];
 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
 print "$weekday, $month $day, $year";
?>
</font>    </td>
  </tr>
 <center>
  <tr>
   <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
   <p> </p>
    <div align="center">
     <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
       <tr>
        <td width="90%" bgcolor="#9CB7C7">
         <p align="center"><font
color="#FFFFFF"><b>HOME </b></font></td>
       </tr>
       <tr>
        <td width="90%">    
Welcome <b>
        <?php
        $db_conn = @mysql_connect("localhost", "mha",
"mha695");
        mysql_select_db("OMETSDatabase", $db_conn);
        $query = "select lastName, firstName, middleInitial
from users "
        ."where username='$valid_user' ";
        $result = mysql_query($query, $db_conn);
        $row = mysql_fetch_row($result);
        print "$row[1] $row[2]. $row[0]";
        ?></b>!<blockquote>
         You can now access the powerful features of
Online Medical
         Training System for Eye Cataract Surgery
(OMETS). To register a
         student, click on Register.  To view the
profiles of
         students and their performance status in the
practical exams,
         click on MyStudents. To update the downloadable
lectures, click on
         Lectures. To post a message to the bulletin
board, click Messages in the link above. To update your
password
         and other personal information, click on
MyProfile.</blockquote><p> 
             Enjoy your
stay!<p> 
        </td>
       </tr>
      </table>
     </div>
     <p> 
    </td>
   </tr>
  </table>
  </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

– myperformance.inc –

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: Student :: MyPerformance</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
 status=msgStr;
 document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body>

<div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
   <tr>
     <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
     <P> </p>
   <P> </p>
      <P> </p>
   <P> </p>
     </td>
   </tr>
   <tr>
     <td width="85%" height="30" valign="top"
background="top_head.jpg">
     <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0"><map name="FPMap0">
      <area href="student_index.php" shape="rect"
coords="0, 5, 68, 24">
      <area href="messages.php" shape="rect" coords="74,
5, 143, 24">
      <area href="mytools.php" shape="rect" coords="149,
3, 216, 25">
      <area href="myperformance.php" shape="rect"
coords="222, 6, 291, 25">
      <area href="mypractical.php" shape="rect"
coords="297, 6, 365, 24">
      <area href="download.php" shape="rect"
coords="371, 6, 439, 24">
      <area href="myprofile.php" shape="rect"
coords="445, 3, 513, 25">
      <area href="logout.php" shape="rect" coords="518,
4, 588, 25"></map><img border="0" src="stud_top4.jpg"
usemap="#FPMap0" width="700" height="30"></p>
     </td>
   </tr>
  </center>
   <tr>
     <td width="90%" height="16" bgcolor="#ADC3CE">
      <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
 $year = $today['year'];
 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
 print "$weekday, $month $day, $year";
?>
</font>    </td>
   </tr>
  <center>
   <tr>
     <td width="90%" height="60" valign="top"
bordercolor="#6AA48F">
     <p> </p>
      <div align="center">
       <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
         <tr>
           <td width="90%" bgcolor="#9CB7C7">
            <p align="center"><font
color="#FFFFFF"><b>My Performance</b></font></td>
         </tr>
         <tr>
           <td width="90%">
           <p> </p>
   <div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="70%" bordercolor="#FFFFFF">
  <tr>
  <td width="90%" colspan="2" bgcolor="#C3D3DC">
  <p align="center"><b>View Student
Performance</b></p>
  </td>
  </tr>
   <tr>
     <td width="90%" colspan="2">
              <?php
     $db_conn = @mysql_connect("localhost", "mha",
"mha695");
  mysql_select_db("OMETSDatabase", $db_conn);
  $query1 = "select lastName, firstName, middleInitial,
status, practical, inciseCrit, lengthOfIncision,
proximityfrActual, capsulotomyCrit, lensRemovalCrit,
IOLInsertionCrit from users u, performanceRecord p "
         ."where u.username='$valid_user' AND u.username
= p.username";
  $result1 = mysql_query($query1, $db_conn);
  while($row = mysql_fetch_row($result1)) {
     print "</td>
```

```
    </tr><tr>
    <td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>Name:</td>
    <td width=\"71%\" bgcolor=\"#F4F8FB\"><p>$row[0],
$row[1] $row[2].</p></td>
   </tr>
   <tr>
    <td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>Status:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[3]</p></td>
   </tr>
   <tr>
    <td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>Practical:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[4]</p></td>
   </tr>";

   print "<tr>
    <td width=\"29%\" bgcolor=\"#F4F8FB\"><p>Incise
Criteria:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[5]</p></td>
   </tr>
   <tr>
    <td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>    Leng
th of incision:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[6]</p></td>
   </tr>
   <tr>
    <td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>    Proxi
mity from<br>    actual
points:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[7]</p></td>
   </tr>
   <tr>
    <td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>Capsulotomy Criteria:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[8]</p></td>
   </tr>
   <tr>";

   print "<td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>Lens Removal Criteria:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[9]</p></td>
   </tr>
   <tr>
    <td width=\"29%\" bgcolor=\"#F4F8FB\"><p>IOL
Insertion Criteria:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[10]</td>";
    }
    mysql_close($db_conn);
    ?>
    </tr>
  </table>
  </center>
</div>
          <p> </p>
          </td>
          </tr>
         </table>
        </div>
        <p> </td>
   </tr>
  </table>
  </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

-- mypractical.inc --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: Student :: MyPractical</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
 status=msgStr;
 document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
```

```
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body>

<div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
    <tr>
      <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
      <P> </p>
    <P> </p>
      <P> </p>
    <P> </p>
      </td>
    </tr>
    <tr>
      <td width="85%" height="30" valign="top"
background="top_head.jpg">
      <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0"><map name="FPMap0">
        <area href="student_index.php" shape="rect"
coords="0, 5, 68, 24">
        <area href="messages.php" shape="rect" coords="74,
5, 143, 24">
        <area href="mytools.php" shape="rect" coords="149,
3, 216, 25">
        <area href="myperformance.php" shape="rect"
coords="222, 6, 291, 25">
        <area href="mypractical.php" shape="rect"
coords="297, 6, 365, 24">
        <area href="download.php" shape="rect"
coords="371, 6, 439, 24">
        <area href="myprofile.php" shape="rect"
coords="445, 3, 513, 25">
        <area href="logout.php" shape="rect" coords="518,
4, 588, 25"></map><img border="0" src="stud_top5.jpg"
usemap="#FPMap0" width="700" height="30"></p>
      </td>
    </tr>
  </center>
    <tr>
      <td width="90%" height="16" bgcolor="#ADC3CE">
        <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
  $year = $today['year'];
  $month = $today['month'];
  $day = $today['mday'];
  $weekday = $today['weekday'];
  print "$weekday, $month $day, $year";
?>
</font>    </td>
    </tr>
  <center>
    <tr>
      <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
      <p> </p>
        <div align="center">
          <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
            <tr>
              <td width="90%" bgcolor="#9CB7C7">
                <p align="center"><font
color="#FFFFFF"><b>HOME </b></font></td>
            </tr>
            <tr>
              <td width="90%"><p>
<?php
print "<applet width=\"800\" height=\"500\"
code=\"HelloJava3Da.class\">
        <param name=\"st\" value=\"$valid_user\">
</applet>";
?>
</p>
              </td>
            </tr>
          </table>
        </div>
        <p> </td>
    </tr>
  </table>
  </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

-- myprofile.inc --

```
<html>

<head>
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charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: MyProfile</title>
```

```
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
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// -->

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  status=msgStr;
  document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function validate(){
var digits="0123456789"
var temp
if (document.reg_frm.username.value=="") {
alert("Username is blank!")
document.reg_frm.username.focus()
return false
}

if (document.reg_frm.psword.value=="") {
alert("Password field is blank!")
document.reg_frm.psword.focus()
return false
}

if (document.reg_frm.lastName.value=="") {
alert("Last Name is blank!")
document.reg_frm.lastName.focus()
return false
}

if (document.reg_frm.firstName.value=="") {
alert("First Name is blank!")
document.reg_frm.firstName.focus()
return false
}

if (document.reg_frm.middleInitial.value=="") {
alert("Middle initial field is blank!")
document.reg_frm.middleInitial.focus()
return false
}

if
(document.reg_frm.psword.value!=document.reg_frm.pswor
d2.value) {
alert("Passwords do not match!")
document.reg_frm.psword2.focus()
return false
}

return true
}
// End -->
</SCRIPT>
</head>

<body onload="document.reg_frm.psword.focus()">

<div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
    <tr>
      <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
      <P> </p>
    <P> </p>
       <P> </p>
    <P> </p>
      </td>
    </tr>
    <tr>
      <td width="85%" height="30" valign="top"
background="top_head.jpg">
       <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0">
<?php
  $db_conn = @mysql_connect("localhost", "mha",
"mha695");
  mysql_select_db("OMETSDatabase", $db_conn);
  $query1 = "select accNum from users "
         ."where username='$valid_user' ";
  $result1 = mysql_query($query1, $db_conn);
  //sets the result of the query to $temp
  $temp = mysql_result($result1, accNum);
  if($temp==0) {
     print "
          <p style=\"word-spacing: 0; margin-top: 0; margin-
bottom: 0\"><map name=\"FPMap0\">
       <area href=\"mha_index.php\" shape=\"rect\"
coords=\"0, 5, 68, 24\" title=\"Home\"
onMouseOver=\"window.status='Home';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='Home';return true;\">
       <area href=\"register.php\" shape=\"rect\"
coords=\"74, 5, 143, 24\" title=\"Register\"
onMouseOver=\"window.status='Register';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='Register';return true;\">
       <area href=\"mystudents.php\" shape=\"rect\"
coords=\"149, 3, 216, 25\" title=\"My Students\"
onMouseOver=\"window.status='MyStudents';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='MyStudents';return true;\">
       <area href=\"lectures.php\" shape=\"rect\"
coords=\"222, 6, 291, 25\" title=\"Lectures\"
onMouseOver=\"window.status='Lectures';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='Lectures';return true;\">
       <area href=\"messages.php\" shape=\"rect\"
coords=\"297, 6, 365, 24\" title=\"Messages\"
onMouseOver=\"window.status='Messages';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='Messages';return true;\">
       <area href=\"myprofile.php\" shape=\"rect\"
coords=\"371, 6, 439, 24\" title=\"MyProfile\"
onMouseOver=\"window.status='MyProfile';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='MyProfile';return true;\">
```

```
      <area href=\"logout.php\" shape=\"rect\"
coords=\"445, 3, 513, 25\" title=\"Logout\"
onMouseOver=\"window.status='Logout';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='Logout';return
true;\"></map><img border=\"0\" src=\"mha_top6.jpg\"
usemap=\"#FPMap0\" width=\"700\" height=\"30\"></p>";
    }
    else if($temp==1) {
    print "<p style=\"word-spacing: 0; margin-top: 0;
margin-bottom: 0\"><map name=\"FPMap0\">
      <area href=\"student_index.php\" shape=\"rect\"
coords=\"0, 5, 68, 24\">
      <area href=\"messages.php\" shape=\"rect\"
coords=\"74, 5, 143, 24\">
      <area href=\"mytools.php\" shape=\"rect\"
coords=\"149, 3, 216, 25\">
      <area href=\"myperformance.php\" shape=\"rect\"
coords=\"222, 6, 291, 25\">
      <area href=\"mypractical.php\" shape=\"rect\"
coords=\"297, 6, 365, 24\">
      <area href=\"download.php\" shape=\"rect\"
coords=\"371, 6, 439, 24\">
      <area href=\"myprofile.php\" shape=\"rect\"
coords=\"445, 3, 513, 25\">
      <area href=\"logout.php\" shape=\"rect\"
coords=\"518, 4, 588, 25\"></map><img border=\"0\"
src=\"stud_top7.jpg\" usemap=\"#FPMap0\" width=\"700\"
height=\"30\"></p>";
    }
    mysql_close($db_conn);
?>
    </td>
   </tr>
  </center>
   <tr>
    <td width="90%" height="16" bgcolor="#ADC3CE">
     <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
 $year = $today['year'];
 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
 print "$weekday, $month $day, $year";
?>
</font>    </td>
   </tr>
  <center>
   <tr>
    <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
    <p> </p>
     <div align="center">
      <table border="1" cellpadding="0" cellspacing="0"
width="60%" bordercolor="#9CB7C7">
        <tr>
          <td width="90%" bgcolor="#9CB7C7">
           <p align="center"><font
color="#FFFFFF"><b>MyProfile</b></font></td>
        </tr>
        <tr>
          <td width="90%">
          <div align="center">
 <center>
  <table border="0" cellpadding="0" cellspacing="0"
width="50%">
   <tr>
    <td width="90%" colspan="2"><form name="reg_frm"
method="POST" action="updateprof.php" onsubmit="return
validate()">
    <?php
    $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
       ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accNum);
 if($temp==1)
   $check = "readonly";
 else
   $check = "";

 $query1 = "select * from users "
       ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 while($row = mysql_fetch_row($result1)) {
   print "</td>
   </tr><tr>
    <td width=\"29%\"><p> Username:</td>
    <td width=\"71%\"><p><input type=\"text\"
name=\"username\" size=\"20\" maxlength=\"20\"
value=\"$row[0]\" readonly></p></td>
   </tr>
   <tr>
    <td width=\"29%\"><p> Password:</td>
    <td width=\"71%\"><p><input type=\"password\"
name=\"psword\" size=\"20\" maxlength=\"8\"
value=\"$row[1]\"></p></td>
   </tr>
   <tr>
    <td width=\"29%\"><p> Confirm
 Password:</td>
    <td width=\"71%\"><p><input type=\"password\"
name=\"psword2\" size=\"20\" maxlength=\"8\"
value=\"$row[1]\"></p></td>
   </tr>
   <tr>
    <td width=\"29%\"><p> Last Name:</td>
    <td width=\"71%\"><p><input type=\"text\"
name=\"lastName\" size=\"31\" maxlength=\"30\"
value=\"$row[3]\" $check></p></td>
   </tr>
   <tr>
    <td width=\"29%\"><p> First Name:</td>
    <td width=\"71%\"><p><input type=\"text\"
name=\"firstName\" size=\"31\" maxlength=\"30\"
value=\"$row[4]\" $check></p></td>
   </tr>
   <tr>
    <td width=\"29%\"><p> Middle Initial:</td>
    <td width=\"71%\"><p><input type=\"text\"
name=\"middleInitial\" size=\"4\" maxlength=\"3\"
value=\"$row[5]\" $check></p></td>
   </tr>";
   if($row[6]=='M' && $temp==0)
   print "<tr>
    <td width=\"29%\"><p> Sex:</td>
    <td width=\"71%\"><p><input type=\"radio\"
value=\"M\" checked name=\"Sex\">Male <input
```

```
type=\"radio\" value=\"F\" name=\"Sex\">Female
</p></td>
   </tr>
   <tr>";
   else if($temp==0)
   print "<tr>
     <td width=\"29%\"><p> Sex:</td>
     <td width=\"71%\"><p><input type=\"radio\"
value=\"M\" name=\"Sex\">Male <input type=\"radio\"
value=\"F\" name=\"Sex\" checked>Female </p></td>
   </tr>
   <tr>";
   else
   print "<tr>
     <td width=\"29%\"><p> Sex:</td>
     <td width=\"71%\"><p><input type=\"hidden\"
name=\"Sex\" value=\"$row[6]\">$row[6]</p></td>
   </tr>
   <tr>";
   print "<td
width=\"29%\"><p> Street/Village:</td>
     <td width=\"71%\"><p><input type=\"text\"
name=\"streetVillage\" size=\"51\" maxlength=\"50\"
value=\"$row[7]\"> </p></td>
   </tr>";
    }
    mysql_close($db_conn);
    ?>
  </table>
  </center>
</div>
<p> </p>
<p align="center"><input type="submit" value="Edit
Profile" name="B1"><input type="reset" value="Reset"
name="B2" onclick="document.reg_frm.psword.focus()">
<p> 
          </td>
          </form>
        </tr>
      </table>
    </div>
    <p> </td>
  </tr>
  </table>
  </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
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<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
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viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

-- mystudents.inc --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
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  document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
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OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
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creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body>

<div align="center">
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  <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
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    </tr>
    <tr>
      <td width="85%" height="30" valign="top"
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bottom: 0"><map name="FPMap0">
       <area href="mha_index.php" shape="rect" coords="0,
5, 68, 24" title="Home"
onMouseOver="window.status='Home';return true;"
```

```
onMouseOut="self.status=""
onclick="window.status='Home';return true;">
      <area href="register.php" shape="rect" coords="74,
5, 143, 24" title="Register"
onMouseOver="window.status='Register';return true;"
onMouseOut="self.status=""
onclick="window.status='Register';return true;">
      <area href="mystudents.php" shape="rect"
coords="149, 3, 216, 25" title="My Students"
onMouseOver="window.status='MyStudents';return true;"
onMouseOut="self.status=""
onclick="window.status='MyStudents';return true;">
      <area href="lectures.php" shape="rect" coords="222,
6, 291, 25" title="Lectures"
onMouseOver="window.status='Lectures';return true;"
onMouseOut="self.status=""
onclick="window.status='Lectures';return true;">
      <area href="messages.php" shape="rect"
coords="297, 6, 365, 24" title="Messages"
onMouseOver="window.status='Messages';return true;"
onMouseOut="self.status=""
onclick="window.status='Messages';return true;">
      <area href="myprofile.php" shape="rect"
coords="371, 6, 439, 24" title="MyProfile"
onMouseOver="window.status='MyProfile';return true;"
onMouseOut="self.status=""
onclick="window.status='MyProfile';return true;">
      <area href="logout.php" shape="rect" coords="445,
3, 513, 25" title="Logout"
onMouseOver="window.status='Logout';return true;"
onMouseOut="self.status=""
onclick="window.status='Logout';return
true;"></map><img border="0" src="mha_top3.jpg"
usemap="#FPMap0" width="700" height="30"></p>
    </td>
   </tr>
  </center>
   <tr>
    <td width="90%" height="16" bgcolor="#ADC3CE">
     <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
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 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
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</font>    </td>
   </tr>
  <center>
   <tr>
    <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
     <p> </p>
      <div align="center">
       <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
        <tr>
         <td width="90%" bgcolor="#9CB7C7">
          <p align="center"><font
color="#FFFFFF"><b>My Students</b></font></td>
        </tr>
        <tr>
         <td width="90%"><p> <p align="justify">
          <?php
          $today = getdate();
 $year = $today['year'];
 $month = $today['mon'];
 $day = $today['mday'];
          $db_conn = @mysql_connect("localhost", "mha",
"mha695");
          mysql_select_db("OMETSDatabase", $db_conn);

  $query = "select username from users where
accNum=1";
  $result = mysql_query($query, $db_conn);

  while($row = mysql_fetch_row($result)) {
  $query2 = "select Expiration from users where
username='$row[0]'";
  $result2 = mysql_query($query2, $db_conn);
  $XP = mysql_result($result2, Expiration);

  $XPA = explode("-", $XP, 4);
  $i = 0;
  foreach($XPA as $value)
  {
  $row[$i] = $value;
  $i++;
  }

  $year1 = $row[0];
  $month1 = $row[1];
  $day1 = $row[2];
  $j = $year-$year1;
  $k = $month-$month1;
  $l = $day-$day1;
  if($j > 0 || $k>0 || $l>0) {
  $query3 = "delete from users where
username='$row[0]'";
  $result3 = mysql_query($query3, $db_conn);
    }
  } //end of while
          print "<div align=\"center\">
 <center>
 <table border=\"1\" cellpadding=\"0\" cellspacing=\"0\"
width=\"80%\" bordercolor=\"#FFFFFF\">
  <tr>
   <td width=\"20%\" align=\"center\"
bgcolor=\"#F4F8FB\"><p><b>Name</b></td>
   <td width=\"20%\" align=\"center\"
bgcolor=\"#F4F8FB\"><p><b>Date Enrolled</b></td>
   <td width=\"20%\" align=\"center\"
bgcolor=\"#F4F8FB\"><p><b>Action</b></td>
  </tr> ";
          $query1 = "select lastName, firstName,
middleInitial, dateEnrolled, username from users "
          ."where accNum=1 order by dateEnrolled DESC";
          $result1 = mysql_query($query1, $db_conn);
          $ctr = 0;
  while($row = mysql_fetch_row($result1)) {
  if($ctr%2==0)
  print "<tr>
   <td width=\"20%\" align=\"center\"
bgcolor=\"#C3D3DC\"><p><a
href=\"javascript:Start('viewprofile.php?user=$row[4]')\"
title=\"View Profile\" onMouseOver=\"window.status='View
Profile';return true;\" onMouseOut=\"self.status=\"\"
onclick=\"window.status='View Profile';return
true;\">$row[0], $row[1] $row[2]</a></td>
   <td width=\"20%\" align=\"center\"
bgcolor=\"#C3D3DC\"><p>$row[3]</td>
```

```
    <td width=\"20%\" align=\"center\"
bgcolor=\"#C3D3DC\"><p><a
href=\"javascript:Start('viewperfrec.php?user=$row[4]')\"
title=\"View Performance\"
onMouseOver=\"window.status='View Performance';return
true;\" onMouseOut=\"self.status=\"\"
onclick=\"window.status='View Performance';return
true;\">View
      Performance</a></td>
   </tr> ";
   else
   print "<tr>
    <td width=\"20%\" align=\"center\"
bgcolor=\"#F4F8FB\"><p><a
href=\"javascript:Start('viewprofile.php?user=$row[4]')\"
title=\"View Profile\" onMouseOver=\"window.status='View
Profile';return true;\" onMouseOut=\"self.status=\"\"
onclick=\"window.status='View Profile';return
true;\">$row[0], $row[1] $row[2]</a></td>
    <td width=\"20%\" align=\"center\"
bgcolor=\"#F4F8FB\"><p>$row[3]</td>
    <td width=\"20%\" align=\"center\"
bgcolor=\"#F4F8FB\"><p><a
href=\"javascript:Start('viewperfrec.php?user=$row[4]')\"
title=\"View Performance\"
onMouseOver=\"window.status='View Performance';return
true;\" onMouseOut=\"self.status=\"\"
onclick=\"window.status='View Performance';return
true;\">View
      Performance</a></td>
   </tr>";
   $ctr++;
   }

  print "</table>
  </center>
</div><br>";
if($ctr == 1)
  print "<p align=\"center\">$ctr record found...";
else
  print "<p align=\"center\">$ctr records found...";
mysql_close($db_conn);
          ?>
          </p> 
          </td>
        </tr>
       </table>
      </div>
      <p> 
      </td>
   </tr>
  </table>
  </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

-- **mytools.inc** –

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: Student :: MyTools</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
  status=msgStr;
  document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body>

<div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
    <tr>
      <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
      <P> </p>
    <P> </p>
       <P> </p>
    <P> </p>
      </td>
```

```
  </tr>
  <tr>
   <td width="85%" height="30" valign="top"
background="top_head.jpg">
    <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0"><map name="FPMap0">
     <area href="student_index.php" shape="rect"
coords="0, 5, 68, 24">
     <area href="messages.php" shape="rect" coords="74,
5, 143, 24">
     <area href="mytools.php" shape="rect" coords="149,
3, 216, 25">
     <area href="myperformance.php" shape="rect"
coords="222, 6, 291, 25">
     <area href="mypractical.php" shape="rect"
coords="297, 6, 365, 24">
     <area href="download.php" shape="rect"
coords="371, 6, 439, 24">
     <area href="myprofile.php" shape="rect"
coords="445, 3, 513, 25">
     <area href="logout.php" shape="rect" coords="518,
4, 588, 25"></map><img border="0" src="stud_top3.jpg"
usemap="#FPMap0" width="700" height="30"></p>
    </td>
  </tr>
 </center>
  <tr>
   <td width="90%" height="16" bgcolor="#ADC3CE">
    <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
 $year = $today['year'];
 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
 print "$weekday, $month $day, $year";
?>
</font>    </td>
  </tr>
 <center>
  <tr>
   <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
    <p> </p>
     <div align="center">
      <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
       <tr>
        <td width="90%" bgcolor="#9CB7C7">
         <p align="center"><font
color="#FFFFFF"><b>My Tools</b></font></td>
       </tr>
       <tr>
        <td width="90%"><p> <p>
<?php
print "<applet width=\"800\" height=\"500\"
code=\"HelloJava3Da1.class\">
     <param name=\"st\" value=\"$valid_user\">
</applet>";
?>
</p>
         </td>
        </tr>
       </table>
     </div>
     <p> </td>
  </tr>
 </table>
 </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

-- postmessage.inc --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: Messages</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
 status=msgStr;
 document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
```

```
</SCRIPT>
</head>

<body>

<div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
  <tr>
   <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
   <P> </p>
  <P> </p>
    <P> </p>
  <P> </p>
   </td>
  </tr>
  <tr>
   <td width="85%" height="30" valign="top"
background="top_head.jpg">
        <?php
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
      ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accNum);
 if($temp==0) {
   print "
       <p style=\"word-spacing: 0; margin-top: 0; margin-
bottom: 0\"><map name=\"FPMap0\">
     <area href=\"mha_index.php\" shape=\"rect\"
coords=\"0, 5, 68, 24\" title=\"Home\"
onMouseOver=\"window.status='Home';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='Home';return true;\">
     <area href=\"register.php\" shape=\"rect\"
coords=\"74, 5, 143, 24\" title=\"Register\"
onMouseOver=\"window.status='Register';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='Register';return true;\">
     <area href=\"mystudents.php\" shape=\"rect\"
coords=\"149, 3, 216, 25\" title=\"My Students\"
onMouseOver=\"window.status='MyStudents';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='MyStudents';return true;\">
     <area href=\"lectures.php\" shape=\"rect\"
coords=\"222, 6, 291, 25\" title=\"Lectures\"
onMouseOver=\"window.status='Lectures';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='Lectures';return true;\">
     <area href=\"messages.php\" shape=\"rect\"
coords=\"297, 6, 365, 24\" title=\"Messages\"
onMouseOver=\"window.status='Messages';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='Messages';return true;\">
     <area href=\"myprofile.php\" shape=\"rect\"
coords=\"371, 6, 439, 24\" title=\"MyProfile\"
onMouseOver=\"window.status='MyProfile';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='MyProfile';return true;\">
     <area href=\"logout.php\" shape=\"rect\"
coords=\"445, 3, 513, 25\" title=\"Logout\"
onMouseOver=\"window.status='Logout';return true;\"
onMouseOut=\"self.status=\"\"
onclick=\"window.status='Logout';return
true;\"></map><img border=\"0\" src=\"mha_top5.jpg\"
usemap=\"#FPMap0\" width=\"100%\"
height=\"30\"></p>";
    }
    else if($temp==1) {
    print "<p style=\"word-spacing: 0; margin-top: 0;
margin-bottom: 0\"><map name=\"FPMap0\">
     <area href=\"student_index.php\" shape=\"rect\"
coords=\"0, 5, 68, 24\">
     <area href=\"messages.php\" shape=\"rect\"
coords=\"74, 5, 143, 24\">
     <area href=\"mytools.php\" shape=\"rect\"
coords=\"149, 3, 216, 25\">
     <area href=\"myperformance.php\" shape=\"rect\"
coords=\"222, 6, 291, 25\">
     <area href=\"mypractical.php\" shape=\"rect\"
coords=\"297, 6, 365, 24\">
     <area href=\"download.php\" shape=\"rect\"
coords=\"371, 6, 439, 24\">
     <area href=\"myprofile.php\" shape=\"rect\"
coords=\"445, 3, 513, 25\">
     <area href=\"logout.php\" shape=\"rect\"
coords=\"518, 4, 588, 25\"></map><img border=\"0\"
src=\"stud_top2.jpg\" usemap=\"#FPMap0\"
width=\"100%\" height=\"30\"></p>";
    }
    mysql_close($db_conn);
?>
    </td>
   </tr>
  </center>
   <tr>
    <td width="90%" height="16" bgcolor="#ADC3CE">
     <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
 $year = $today['year'];
 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
 print "$weekday, $month $day, $year";
?>
</font>    </td>
  </tr>
 <center>
  <tr>
   <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
    <p> </p>
     <div align="center">
      <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
       <tr>
        <td width="90%" bgcolor="#9CB7C7">
         <p align="center"><font
color="#FFFFFF"><b>Message Board</b></font></td>
       </tr>
       <tr>
        <td width="90%"><p> <p align="justify">
        <?php
         $db_conn = @mysql_connect("localhost", "mha",
"mha695");
         mysql_select_db("OMETSDatabase", $db_conn);
         print "<div align=\"center\">
```

```
  <center>
  <table border=\"1\" cellpadding=\"0\" cellspacing=\"0\"
width=\"80%\" bordercolor=\"#FFFFFF\">";
$query = "select message_no from message";
$result1 = mysql_query($query, $db_conn);
$count = mysql_num_rows($result1);

$length = strlen($count);
$count++;

$temp = "00000";
substr($temp, -$length);
$message_no =  substr_replace($temp, "$count", -$length,
$count);

$today = getdate();
  $year = $today['year'];
  $month = $today['mon'];
  $day = $today['mday'];
  $hour = $today['hours'];
  $minute = $today['minutes'];
  $second = $today['seconds'];

$mDate = "$year-$month-$day";
$mTime = "$hour:$minute:$second";

          $title = trim($title);
          $title = strip_tags($title);
          $detail = trim($detail);
          $detail = strip_tags($detail);

if($title=='' || $detail=='') {
   $status = uniqid(10);
   print "<META http-equiv=\"refresh\"
content=\"0;URL=messages.php?status=$status\">";
}
else {
$query = "insert into message values ('$valid_user',
'$message_no', '$title', '$detail', '$mDate', '$mTime')";
$result = mysql_query($query, $db_conn);
}
if($result==TRUE)
      print "<tr>
            <td width=\"90%\"
bgcolor=\"#F4F8FB\"><p>Your message has been
posted.</p>
            </td>
            </tr>";
else
      print "<tr>
            <td width=\"90%\"
bgcolor=\"#F4F8FB\"><p>An error has been encountered
posting your message. Your message has not been
posted</p>
            </td>
            </tr>";
print "<tr>
      <td width=\"90%\"><p>Click <a
href=\"javascript:history.back();\" title=\"Go Back\"
onMouseOver=\"window.status='Go Back';return true;\"
onMouseOut=\"self.status='' \" onclick=\"window.status='Go
Back';return true;\">here</a> to go back.
      </td>
      </tr> ";
  print "</table>
  </center>
</div>";

mysql_close($db_conn);
          ?>
          </p>
          </td>
         </tr>
       </table>
      </div>
      <p> </td>
   </tr>
  </table>
  </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

-- register.inc --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: MHA :: Register</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
  status=msgStr;
  document.MM_returnValue = true;
}
//-->
</SCRIPT>
```

```
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function validate(){
var digits="0123456789"
var temp
if (document.reg_frm.username.value=="") {
alert("Username is blank!")
document.reg_frm.username.focus()
return false
}



if (document.reg_frm.lastName.value=="") {
alert("Last Name is blank!")
document.reg_frm.lastName.focus()
return false
}

if (document.reg_frm.firstName.value=="") {
alert("First Name is blank!")
document.reg_frm.firstName.focus()
return false
}

if (document.reg_frm.middleInitial.value=="") {
alert("Middle initial field is blank!")
document.reg_frm.middleInitial.focus()
return false
}

return true
}
// End -->
</SCRIPT>
</head>

<body onload="document.reg_frm.username.focus()">

<div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
   <tr>
    <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
     <P> </p>
   <P> </p>
     <P> </p>
   <P> </p>
    </td>
   </tr>
   <tr>
    <td width="85%" height="30" valign="top"
background="top_head.jpg">
<p style="word-spacing: 0; margin-top: 0; margin-bottom:
0"><map name="FPMap0">
     <area href="mha_index.php" shape="rect" coords="0,
5, 68, 24" title="Home"
onMouseOver="window.status='Home';return true;"
onMouseOut="self.status=''"
onclick="window.status='Home';return true;">
     <area href="register.php" shape="rect" coords="74,
5, 143, 24" title="Register"
onMouseOver="window.status='Register';return true;"
onMouseOut="self.status=''"
onclick="window.status='Register';return true;">
     <area href="mystudents.php" shape="rect"
coords="149, 3, 216, 25" title="My Students"
onMouseOver="window.status='MyStudents';return true;"
onMouseOut="self.status=''"
onclick="window.status='MyStudents';return true;">
     <area href="lectures.php" shape="rect" coords="222,
6, 291, 25" title="Lectures"
onMouseOver="window.status='Lectures';return true;"
onMouseOut="self.status=''"
onclick="window.status='Lectures';return true;">
     <area href="messages.php" shape="rect"
coords="297, 6, 365, 24" title="Messages"
onMouseOver="window.status='Messages';return true;"
onMouseOut="self.status=''"
onclick="window.status='Messages';return true;">
     <area href="myprofile.php" shape="rect"
coords="371, 6, 439, 24" title="MyProfile"
onMouseOver="window.status='MyProfile';return true;"
onMouseOut="self.status=''"
onclick="window.status='MyProfile';return true;">
     <area href="logout.php" shape="rect" coords="445,
3, 513, 25" title="Logout"
onMouseOver="window.status='Logout';return true;"
onMouseOut="self.status=''"
onclick="window.status='Logout';return
true;"></map><img border="0" src="mha_top2.jpg"
usemap="#FPMap0" width="700" height="30"></p>
    </td>
   </tr>
  </center>
   <tr>
    <td width="90%" height="16" bgcolor="#ADC3CE">
     <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
 $year = $today['year'];
 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
 print "$weekday, $month $day, $year";
?>
</font>    </td>
   </tr>
  <center>
   <tr>
    <td width="100%" height="60" valign="top"
bordercolor="#6AA4BF">
     <p> </p>
      <div align="center">
       <table border="1" cellpadding="0" cellspacing="0"
width="60%" bordercolor="#9CB7C7">
         <tr>
          <td width="100%" bgcolor="#9CB7C7">
           <p align="center"><font
color="#FFFFFF"><b>REGISTER</b></font></td>
         </tr>
```

```
        <tr>
          <td width="100%">
          <div align="center">
  <center>
  <table border="0" cellpadding="0" cellspacing="0"
width="60%">
    <tr><form name="reg_frm" method="POST"
action="regstud.php" onsubmit="return validate()">
      <td width="100%" colspan="2">
      <?php
       if($status!='')
          print "<p><font color=\"#C00000\">The username
you entered already exists in the database!</font></p>";
      $p = uniqid(10);
      $psword = substr($p, 7, 8);
      print "</td>
      </tr><tr><br>
      <td width=\"29%\"><p> Username:</td>
      <td width=\"71%\"><p><input type=\"text\"
name=\"username\" size=\"20\" maxlength=\"20\"
value=\"$username\">*</p></td>
      <p><input type=\"hidden\" value=\"$psword\"
name=\"psword\">
    </tr>

    <tr>
      <td width=\"29%\"><p> Last Name:</td>
      <td width=\"71%\"><p><input type=\"text\"
name=\"lastName\" size=\"31\" maxlength=\"30\"
value=\"$lastName\">*</p></td>
    </tr>
    <tr>
      <td width=\"29%\"><p> First Name:</td>
      <td width=\"71%\"><p><input type=\"text\"
name=\"firstName\" size=\"31\" maxlength=\"30\"
value=\"$firstName\">*</p></td>
    </tr>
    <tr>
      <td width=\"29%\"><p> Middle Initial:</td>
      <td width=\"71%\"><p><input type=\"text\"
name=\"middleInitial\" size=\"4\" maxlength=\"3\"
value=\"$middleInitial\">*</p></td>
    </tr>
    <tr>
      <td width=\"29%\"><p> Sex:</td>
      <td width=\"71%\"><p><input type=\"radio\"
value=\"M\" checked name=\"Sex\">Male <input
type=\"radio\" value=\"F\" name=\"Sex\">Female
*</p></td>
    </tr>
    <tr>
      <td width=\"29%\"><p> Street/Village:</td>
      <td width=\"71%\"><p><input type=\"text\"
name=\"streetVillage\" size=\"51\" maxlength=\"255\"
value=\"$streetVillage\"> </p></td>
    </tr>";
     ?>
    <tr>
      <td width="100%" colspan="2">
       <p> </p>
       <p align="center"><font color="#C00000">All fields
with an * are required. </font></p>
       <br>
       <p align="center"><input type="submit"
value="Submit" name="B1"><input type="reset"
value="Reset" name="B2"
onclick="document.reg_frm.username.focus()">
       <p> </p>
       </td>
       </form>
     </tr>
   </table>
   </center>
</div>
          </td>
        </tr>
       </table>
      </div>
      <p> 
      </td>
    </tr>
  </table>
  </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

-- regstud.inc --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: MHA :: Home</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
  status=msgStr;
```

```
 document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End ->
</SCRIPT>
</head>

<body>

<div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
   <tr>
    <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
    <P> </p>
   <P> </p>
     <P> </p>
   <P> </p>
    </td>
   </tr>
   <tr>
    <td width="85%" height="30" valign="top"
background="top_head.jpg">
     <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0"><map name="FPMap0">
     <area href="mha_index.php" shape="rect" coords="0,
5, 68, 24" title="Home"
onMouseOver="window.status='Home';return true;"
onMouseOut="self.status=''"
onclick="window.status='Home';return true;">
     <area href="register.php" shape="rect" coords="74,
5, 143, 24" title="Register"
onMouseOver="window.status='Register';return true;"
onMouseOut="self.status=''"
onclick="window.status='Register';return true;">
     <area href="mystudents.php" shape="rect"
coords="149, 3, 216, 25" title="My Students"
onMouseOver="window.status='MyStudents';return true;"
onMouseOut="self.status=''"
onclick="window.status='MyStudents';return true;">
     <area href="lectures.php" shape="rect" coords="222,
6, 291, 25" title="Lectures"
onMouseOver="window.status='Lectures';return true;"
onMouseOut="self.status=''"
onclick="window.status='Lectures';return true;">
     <area href="messages.php" shape="rect"
coords="297, 6, 365, 24" title="Messages"
onMouseOver="window.status='Messages';return true;"
onMouseOut="self.status=''"
onclick="window.status='Messages';return true;">
     <area href="myprofile.php" shape="rect"
coords="371, 6, 439, 24" title="MyProfile"
onMouseOver="window.status='MyProfile';return true;"
onMouseOut="self.status=''"
onclick="window.status='MyProfile';return true;">
     <area href="logout.php" shape="rect" coords="445,
3, 513, 25" title="Logout"
onMouseOver="window.status='Logout';return true;"
onMouseOut="self.status=''"
onclick="window.status='Logout';return
true;"></map><img border="0" src="mha_top2.jpg"
usemap="#FPMap0" width="700" height="30"></p>
    </td>
   </tr>
 </center>
   <tr>
    <td width="90%" height="16" bgcolor="#6AA4BF">
     <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
 $year = $today['year'];
 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
 print "$weekday, $month $day, $year";
?>
</font>    </td>
   </tr>
 <center>
   <tr>
    <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
    <p> </p>
     <div align="center">
      <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
        <tr>
         <td width="90%" bgcolor="#9CB7C7">
          <p align="center"><font
color="#FFFFFF"><b>REGISTER
STUDENT</b></font></td>
        </tr>
        <tr>
         <td width="90%">
         <?
         $db_conn = @mysql_connect("localhost", "mha",
"mha695");
         mysql_select_db("OMETSDatabase", $db_conn);
         $query = "select username from users where
username='$username'";
         $result = mysql_query($query, $db_conn);
         $count = mysql_num_rows($result);

         if($count > 0 || $username=='' || $psword=='' ||
$lastName=='' || $firstName=='' || $middleInitial=='' ||
$Sex=='') {
           $status = uniqid(10);
           print "<META http-equiv=\"refresh\"
content=\"0;URL=register.php?status=$status&username=$
username&psword=$psword&psword2=$psword&lastName
=$lastName&firstName=$firstName&middleInitial=$middleI
nitial&streetVillage=$streetVillage&Email=$Email\">";
         }
         else {

         $today = getdate();
         $year = $today['year'];
         $month = $today['mon'];
         $day = $today['mday'];
         $dateEnrolled = "$year-$month-$day";
         if($month == 6) {
```

```
            $month2 = 10;
            $year2 = $year;
            $day2 = $day;
         }
         else if($month == 11) {
            $month2 = 3;
            $year2 = $year+1;
            $day2 = $day;
         }

         else {
            $month2 = $month + 4;
            $year2 = $year;
            $day2 = $day;
         }

         $Expiration = "$year2-$month2-$day2";


         $username = trim($username);
         $username = strip_tags($username);
         $psword = trim($psword);
         $psword = strip_tags($psword);
         $lastName = trim($lastName);
         $lastName = strip_tags($lastName);
         $firstName = trim($firstName);
         $firstName = strip_tags($firstName);
         $middleInitial = trim($middleInitial);
         $middleInitial = strip_tags($middleInitial);
         $streetVillage = trim($streetVillage);
         $streetVillage = strip_tags($streetVillage);
         $Email = trim($Email);
         $Email = strip_tags($Email);
         $query = "insert into users values('$username',
'$psword', 1, '$lastName', '$firstName', '$middleInitial',
'$Sex', '$streetVillage', '$dateEnrolled', '$Expiration')";
         $result = mysql_query($query, $db_conn);
         if($result==TRUE)
            print "<p>You have successfully registered
$lastName, $firstName $middleInitial as a student with
password: $psword</p>";
         else
            print "<p>An error occurred while processing
your request.</p>";
         $query = "insert into performanceRecord
(username) values ('$username')";
         $result = mysql_query($query, $db_conn);
         if($result==TRUE)
            print "";
         else
            print "<p>An error occurred while processing
your request2. </p>";
         print "<p>Click <a href=\"register.php\"
title=\"Register\"
onMouseOver=\"window.status='Register';return true;\"
onMouseOut=\"self.status=''\"
onclick=\"window.status='Register';return
true;\">HERE</a> to register another student.";
        }
         mysql_close($db_conn);
         ?>
         </td>
        </tr>
       </table>
      </div>
      <p> </td>
   </tr>
  </table>
  </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

-- student_index.inc --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: Student :: Home</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
 status=msgStr;
 document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=300,height=300,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
```

```
</head>

<body>

<div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
  <tr>
   <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">\
   <P> </p>
  <P> </p>
    <P> </p>
  <P> </p>
   </td>
  </tr>
  <tr>
   <td width="85%" height="30" valign="top"
background="top_head.jpg">
   <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0"><map name="FPMap0">
    <area href="student_index.php" shape="rect"
coords="0, 5, 68, 24">
    <area href="messages.php" shape="rect" coords="74,
5, 143, 24">
    <area href="mytools.php" shape="rect" coords="149,
3, 216, 25">
    <area href="myperformance.php" shape="rect"
coords="222, 6, 291, 25">
    <area href="mypractical.php" shape="rect"
coords="297, 6, 365, 24">
    <area href="download.php" shape="rect"
coords="371, 6, 439, 24">
    <area href="myprofile.php" shape="rect"
coords="445, 3, 513, 25">
    <area href="logout.php" shape="rect" coords="518,
4, 588, 25"></map><img border="0" src="stud_top1.jpg"
usemap="#FPMap0" width="700" height="30"></p>
   </td>
  </tr>
 </center>
  <tr>
   <td width="90%" height="16" bgcolor="#ADC3CE">
    <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
 $year = $today['year'];
 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
 print "$weekday, $month $day, $year";
?>
</font>    </td>
  </tr>
 <center>
  <tr>
   <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
    <p> </p>
    <div align="center">
     <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
      <tr>
       <td width="90%" bgcolor="#9CB7C7">
        <p align="center"><font
color="#FFFFFF"><b>HOME </b></font></td>
      </tr>
      <tr>
       <td width="90%"><p> <p
align="justify">     Welcome <b>
       <?php
       $db_conn = @mysql_connect("localhost", "mha",
"mha695");
       mysql_select_db("OMETSDatabase", $db_conn);
       $query = "select lastName, firstName, middleInitial
from users "
       ."where username='$valid_user' ";
       $result = mysql_query($query, $db_conn);
       $row = mysql_fetch_row($result);
       print "$row[1] $row[2]. $row[0]";
       ?>

</b>!<p><blockquote>    
       You can now access the powerful features of
Online Medical
       Training System for Eye Cataract Surgery
(OMETS). You can click
       on Messages in the link above to post a message
to the bulletin
       board. To download lectures, click on Lectures.
To test
       and practice your knowledge on eye surgery,
click on MyTools. To
       check your training performance, click on
MyPerformance. To take
       a practical exam, click on MyPractical. To update
your password
       and other personal information, click on
MyProfile.</blockquote><p>    
       Enjoy your stay! <p> 
       <?php
       $today = getdate();
 $year = $today['year'];
 $month = $today['mon'];
 $day = $today['mday'];
       $db_conn = @mysql_connect("localhost", "mha",
"mha695");
       mysql_select_db("OMETSDatabase", $db_conn);
       $query2 = "select Expiration from users where
username='$valid_user'";
  $result2 = mysql_query($query2, $db_conn);
  $XP = mysql_result($result2, Expiration);

  $XPA = explode("-", $XP, 4);
  $i = 0;
  foreach($XPA as $value)
  {
  $row[$i] = $value;
  $i++;
  }

  $year1 = $row[0];
  $month1 = $row[1];
  $day1 = $row[2];
  $k = $month1-$month;
  $l = $day1-$day;
  //print "<p align=\"center\">Your account will expire in
$k months and $l days</p><p> ";
       ?>
      <p> </td>
     </tr>
```

```
      </table>
     </div>
     <p> 
     </td>
   </tr>
  </table>
  </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
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ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
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New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

-- updateprof.inc --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: MyProfile</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
     defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
 status=msgStr;
 document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>

</head>

<body>

<div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
   <tr>
    <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
     <P> </p>
   <P> </p>
     <P> </p>
   <P> </p>
    </td>
   </tr>
   <tr>
    <td width="85%" height="30" valign="top"
background="top_head.jpg">
     <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0">
<?php
 $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select accNum from users "
       ."where username='$valid_user' ";
 $result1 = mysql_query($query1, $db_conn);
 //sets the result of the query to $temp
 $temp = mysql_result($result1, accNum);
 if($temp==0) {
    print "
         <p style=\"word-spacing: 0; margin-top: 0; margin-
bottom: 0\"><map name=\"FPMap0\">
      <area href=\"mha_index.php\" shape=\"rect\"
coords=\"0, 5, 68, 24\" title=\"Home\"
onMouseOver=\"window.status='Home';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='Home';return true;\">
      <area href=\"register.php\" shape=\"rect\"
coords=\"74, 5, 143, 24\" title=\"Register\"
onMouseOver=\"window.status='Register';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='Register';return true;\">
      <area href=\"mystudents.php\" shape=\"rect\"
coords=\"149, 3, 216, 25\" title=\"My Students\"
onMouseOver=\"window.status='MyStudents';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='MyStudents';return true;\">
      <area href=\"lectures.php\" shape=\"rect\"
coords=\"222, 6, 291, 25\" title=\"Lectures\"
onMouseOver=\"window.status='Lectures';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='Lectures';return true;\">
      <area href=\"messages.php\" shape=\"rect\"
coords=\"297, 6, 365, 24\" title=\"Messages\"
onMouseOver=\"window.status='Messages';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='Messages';return true;\">
```

```
      <area href=\"myprofile.php\" shape=\"rect\"
coords=\"371, 6, 439, 24\" title=\"MyProfile\"
onMouseOver=\"window.status='MyProfile';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='MyProfile';return true;\">
      <area href=\"logout.php\" shape=\"rect\"
coords=\"445, 3, 513, 25\" title=\"Logout\"
onMouseOver=\"window.status='Logout';return true;\"
onMouseOut=\"self.status='\"
onclick=\"window.status='Logout';return
true;\"></map><img border=\"0\" src=\"mha_top6.jpg\"
usemap=\"#FPMap0\" width=\"700\" height=\"30\"></p>";
    }
    else if($temp==1) {
    print "<p style=\"word-spacing: 0; margin-top: 0;
margin-bottom: 0\"><map name=\"FPMap0\">
      <area href=\"student_index.php\" shape=\"rect\"
coords=\"0, 5, 68, 24\">
      <area href=\"messages.php\" shape=\"rect\"
coords=\"74, 5, 143, 24\">
      <area href=\"mytools.php\" shape=\"rect\"
coords=\"149, 3, 216, 25\">
      <area href=\"myperformance.php\" shape=\"rect\"
coords=\"222, 6, 291, 25\">
      <area href=\"mypractical.php\" shape=\"rect\"
coords=\"297, 6, 365, 24\">
      <area href=\"download.php\" shape=\"rect\"
coords=\"371, 6, 439, 24\">
      <area href=\"myprofile.php\" shape=\"rect\"
coords=\"445, 3, 513, 25\">
      <area href=\"logout.php\" shape=\"rect\"
coords=\"518, 4, 588, 25\"></map><img border=\"0\"
src=\"stud_top7.jpg\" usemap=\"#FPMap0\" width=\"700\"
height=\"30\"></p>";
    }
    mysql_close($db_conn);
?>
    </td>
   </tr>
  </center>
   <tr>
    <td width="90%" height="16" bgcolor="#ADC3CE">
     <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
 $year = $today['year'];
 $month = $today['month'];
 $day = $today['mday'];
 $weekday = $today['weekday'];
 print "$weekday, $month $day, $year";
?>
</font>    </td>
   </tr>
  <center>
   <tr>
    <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
    <p> </p>
     <div align="center">
      <table border="1" cellpadding="0" cellspacing="0"
width="60%" bordercolor="#9CB7C7">
        <tr>
          <td width="90%" bgcolor="#9CB7C7">
           <p align="center"><font
color="#FFFFFF"><b>MyProfile</b></font></td>
        </tr>
        <tr>
          <td width="90%">
          <div align="center">
  <center>
  <table border="0" cellpadding="0" cellspacing="0"
width="50%">
    <tr>
     <td width="90%" colspan="2">
     <?php
     $db_conn = @mysql_connect("localhost", "mha",
"mha695");
  mysql_select_db("OMETSDatabase", $db_conn);

          $psword = trim($psword);
          $psword = strip_tags($psword);
          $lastName = trim($lastName);
          $lastName = strip_tags($lastName);
          $firstName = trim($firstName);
          $firstName = strip_tags($firstName);
          $middleInitial = trim($middleInitial);
          $middleInitial = strip_tags($middleInitial);
          $streetVillage = trim($streetVillage);
          $streetVillage = strip_tags($streetVillage);
          $Email = trim($Email);
          $Email = strip_tags($Email);
  if($psword=='' || $lastName=='' || $firstName=='' ||
$middleInitial=='' || $Sex=='') {
             $status = uniqid(10);
             print "<META http-equiv=\"refresh\"
content=\"0;URL=myprofile.php?status=$status&username
=$username&psword=$psword&psword2=$psword&lastNa
me=$lastName&firstName=$firstName&middleInitial=$middl
eInitial&streetVillage=$streetVillage\">";
  }
  else {
  $query1 = "update users set psword='$psword',
lastName='$lastName', firstName='$firstName',
middleInitial='$middleInitial', Sex='$Sex',
streetVillage='$streetVillage'"
         ."where username='$username' ";
  $result1 = mysql_query($query1, $db_conn);

  if($result1==TRUE)
     print "<p>Your profile has been updated successfully.";
  else
     print "<p>Your profile has been updated successfully.";
  }
  print "<p>Click <a href=\"javascript:history.back();\"
title=\"Go Back\" onMouseOver=\"window.status='Go
Back';return true;\" onMouseOut=\"self.status='\"
onclick=\"window.status='Go Back';return true;\">here</a>
to go back.";
     mysql_close($db_conn);
     ?>
    </tr>
  </table>
  </center>
</div>
<p align="center">
          </td>

         </tr>
        </table>
       </div>
       <p> </td>
    </tr>
  </table>
```

```
 </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

– uploadlec.inc –

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: MHA :: Lectures</title>
<link rel="stylesheet" type="text/css" href="../main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
  status=msgStr;
  document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body>

<div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="90%" height="114">
    <tr>
      <td width="100%" height="60"><img border="0"
src="../banner.jpg" width="100%" height="100%">
      <P> </p>
    <P> </p>
      <P> </p>
    <P> </p>
      </td>
    </tr>
    <tr>
      <td width="85%" height="30" valign="top"
background="../top_head.jpg">
      <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0"><map name="FPMap0">
        <area href="../mha_index.php" shape="rect"
coords="0, 5, 68, 24" title="Home"
onMouseOver="window.status='Home';return true;"
onMouseOut="self.status=''"
onclick="window.status='Home';return true;">
        <area href="../register.php" shape="rect" coords="74,
5, 143, 24" title="Register"
onMouseOver="window.status='Register';return true;"
onMouseOut="self.status=''"
onclick="window.status='Register';return true;">
        <area href="../mystudents.php" shape="rect"
coords="149, 3, 216, 25" title="My Students"
onMouseOver="window.status='MyStudents';return true;"
onMouseOut="self.status=''"
onclick="window.status='MyStudents';return true;">
        <area href="../lectures.php" shape="rect"
coords="222, 6, 291, 25" title="Lectures"
onMouseOver="window.status='Lectures';return true;"
onMouseOut="self.status=''"
onclick="window.status='Lectures';return true;">
        <area href="../messages.php" shape="rect"
coords="297, 6, 365, 24" title="Messages"
onMouseOver="window.status='Messages';return true;"
onMouseOut="self.status=''"
onclick="window.status='Messages';return true;">
        <area href="../myprofile.php" shape="rect"
coords="371, 6, 439, 24" title="MyProfile"
onMouseOver="window.status='MyProfile';return true;"
onMouseOut="self.status=''"
onclick="window.status='MyProfile';return true;">
        <area href="../logout.php" shape="rect" coords="445,
3, 513, 25" title="Logout"
onMouseOver="window.status='Logout';return true;"
onMouseOut="self.status=''"
onclick="window.status='Logout';return
true;"></map><img border="0" src="../mha_top4.jpg"
usemap="#FPMap0" width="700" height="30"></p>
      </td>
    </tr>
  </center>
    <tr>
      <td width="90%" height="16" bgcolor="#ADC3CE">
        <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font color="#FFFFFF">Today is
<?php
$today = getdate();
```

```
  $year = $today['year'];
  $month = $today['month'];
  $day = $today['mday'];
  $weekday = $today['weekday'];
  print "$weekday, $month $day, $year";
?>
</font>    </td>
   </tr>
  <center>
   <tr>
    <td width="90%" height="60" valign="top"
bordercolor="#6AA4BF">
    <p> </p>
     <div align="center">
      <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#9CB7C7">
        <tr>
         <td width="90%" bgcolor="#9CB7C7">
          <p align="center"><font
color="#FFFFFF"><b>LECTURES</b></font></td>
        </tr>
        <tr>
         <td width="90%">
             <P> </p>
         <div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="80%" bordercolor="#FFFFFF">
   <tr>
    <td width="90%" bgcolor="#9CB7C7">
     <p align="center">Upload a Lecture</td>
   </tr>
   <tr>
    <td width="90%" bgcolor="#F4F8FB">
    <?php
    $db_conn = @mysql_connect("localhost", "mha",
"mha695");
    mysql_select_db("OMETSDatabase", $db_conn);
    if($filename==" || $lecture_name==" ||
$description==") {
    $status = uniqid(10);
    print "<META http-equiv=\"refresh\"
content=\"0;URL=../lectures.php?status=$status\">";
    }
    else {
    if($HTTP_POST_FILES['filename']['size'] <= 0)
    {
     print "<p>The lecture with $lecture_name($nameF)
was not uploaded succesfully.";
     print "<p>The file size was larger than 2 MB.";
     print "<p>Please reduce the size and resubmit";
    }
    else
    {
     $nameF = $HTTP_POST_FILES['filename']['name'];
     copy($HTTP_POST_FILES['filename']['tmp_name'],
        $HTTP_POST_FILES['filename']['name']);
     print "<p>The lecture with $lecture_name($nameF)
was uploaded succesfully.";
     print "The lecture has been saved.";
          $lecture_name = trim($lecture_name);
          $lecture_name = strip_tags($lecture_name);
          $description = trim($description);
          $description = strip_tags($description);
     $query1 = "insert into lecture values('$nameF',
'$lecture_name', '$description')";
     $result1 = mysql_query($query1, $db_conn);
     }
     print "<p>Click <a href=\"../lectures.php\" title=\"Go
Back\" onMouseOver=\"window.status='Go Back';return
true;\" onMouseOut=\"self.status=\"\"
onclick=\"window.status='Go Back';return true;\">here</a>
to go back.";
     }
     mysql_close($db_conn);
    ?>

    </td>
    </tr>

 </table>
 </center>
</div>
          </td>
         </tr>
        </table>
       </div>
       <p> </td>
  </tr>
 </table>
 </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>
</html>
```

– viewperfrec.inc –

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: Performance Record</title>
<link rel="stylesheet" type="text/css" href="main.css">
```

```
<SCRIPT language=JAVASCRIPT><!--
     defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
 status=msgStr;
 document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body>
<p> </p>
<p> </p>
<p> </p>
<div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="70%" bordercolor="#FFFFFF">
 <tr>
 <td width="100%" colspan="2" bgcolor="#C3D3DC">
 <p align="center"><b>View Student
Performance</b></p>
 </td>
 </tr>
  <tr>
   <td width="100%" colspan="2">
   <?php
   $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $query1 = "select lastName, firstName, middleInitial,
status, practical, inciseCrit, lengthOfIncision,
proximityfrActual, capsulotomyCrit, lensRemovalCrit,
IOLInsertionCrit from users u, performanceRecord p "
       ."where u.username='$user' AND u.username =
p.username";
 $result1 = mysql_query($query1, $db_conn);
 while($row = mysql_fetch_row($result1)) {
    print "</td>
    </tr><tr>
    <td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>Name:</td>
    <td width=\"71%\" bgcolor=\"#F4F8FB\"><p>$row[0],
$row[1] $row[2].</p></td>
   </tr>
   <tr>
    <td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>Status:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[3]</p></td>
   </tr>
   <tr>
    <td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>Practical:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[4]</p></td>
   </tr>";

   print "<tr>
    <td width=\"29%\" bgcolor=\"#F4F8FB\"><p>Incise
Criteria:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[5]</p></td>
   </tr>
   <tr>
    <td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>    Leng
th of     incision:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[6]</p></td>
   </tr>
   <tr>
    <td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>    Proxi
mity     from
    actual
    points:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[7]</p></td>
   </tr>
   <tr>
    <td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>Capsulotomy Criteria:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[8]</p></td>
   </tr>
   <tr>";

   print "<td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>Lens Removal Criteria:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[9]</p></td>
   </tr>
   <tr>
    <td width=\"29%\" bgcolor=\"#F4F8FB\"><p>IOL
Insertion Criteria:</td>
    <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[10]</td>";
}
    mysql_close($db_conn);
    ?>
   </tr>
   <tr>
   <td width="100%" colspan="2">
   <center>
   <p> </p>
   <p><input type="button" name="closebtn" value="Close
window" onclick="javascript:window.close(this)"></center>
   </td>
   </tr>
  </table>
  </center>
</div>
<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
```

```
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

– viewprofile.inc –

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: Profile</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
 status=msgStr;
 document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body>
<p> </p>
<p> </p>
<p> </p>
<div align="center">
  <center>
  <table border="1" cellpadding="0" cellspacing="0"
width="50%" bordercolor="#FFFFFF">
  <tr>
  <td width="100%" colspan="2" bgcolor="#C3D3DC">
  <p align="center"><b>View Student Profile</b></p>
  </td>
  </tr>
    <tr>
      <td width="100%" colspan="2">
      <?php
      $db_conn = @mysql_connect("localhost", "mha",
"mha695");
  mysql_select_db("OMETSDatabase", $db_conn);
  $query1 = "select * from users "
          ."where username='$user' ";
  $result1 = mysql_query($query1, $db_conn);
  while($row = mysql_fetch_row($result1)) {
     print "</td>
     </tr>
    <tr>
     <td width=\"29%\" bgcolor=\"#F4F8FB\"><p>Last
Name:</td>
     <td width=\"71%\" bgcolor=\"#F4F8FB\"><p><input
type=\"text\" name=\"lastName\" size=\"31\"
maxlength=\"30\" value=\"$row[3]\" readonly></p></td>
    </tr>
    <tr>
     <td width=\"29%\" bgcolor=\"#F4F8FB\"><p>First
Name:</td>
     <td width=\"71%\" bgcolor=\"#F4F8FB\"><p><input
type=\"text\" name=\"firstName\" size=\"31\"
maxlength=\"30\" value=\"$row[4]\" readonly></p></td>
    </tr>
    <tr>
     <td width=\"29%\" bgcolor=\"#F4F8FB\"><p>Middle
Initial:</td>
     <td width=\"71%\" bgcolor=\"#F4F8FB\"><p><input
type=\"text\" name=\"middleInitial\" size=\"4\"
maxlength=\"3\" value=\"$row[5]\" readonly></p></td>
    </tr>";

    print "<tr>
     <td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>Sex:</td>
     <td width=\"71%\"
bgcolor=\"#F4F8FB\"><p>$row[6]</p></td>
    </tr>
    <tr>";

    print "<td width=\"29%\"
bgcolor=\"#F4F8FB\"><p>Street/Village:</td>
     <td width=\"71%\" bgcolor=\"#F4F8FB\"><p><input
type=\"text\" name=\"streetVillage\" size=\"31\"
maxlength=\"30\" value=\"$row[7]\"
readonly></p></td>";
     }
     mysql_close($db_conn);
     ?>
    </tr>
    <tr>
    <td width="100%" colspan="2">
    <center>
    <p> </p>
    <p><input type="button" name="closebtn" value="Close
window" onclick="javascript:window.close(this)"></center>
    </td>
    </tr>
  </table>
  </center>
</div>
<p align="center"> </p>
```

```
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

– viewstudpass.inc –

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: Profile</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
     defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
 status=msgStr;
 document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=450,height=450,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body>
<p> </p>
<p> </p>
<p> </p>
<div align="center">
 <center>
 <table border="1" cellpadding="0" cellspacing="0"
width="90%" bordercolor="#FFFFFF">
 <tr>
 <td width="100%" colspan="2" bgcolor="#C3D3DC">
 <p align="center"><b>View Students Password</b></p>
 </td>
 </tr>
  <tr>
    <td width="50%" align="center"
bgcolor="#F4F8FB"><p><b>Name</p></p></td>
    <td width="50%" align="center"
bgcolor="#F4F8FB"><p><b>Password</p></p></td>
   </tr>
    <?php
    $db_conn = @mysql_connect("localhost", "mha",
"mha695");
 mysql_select_db("OMETSDatabase", $db_conn);
 $ctr = 0;
 $query1 = "select lastName, firstName, middleInitial,
psword from users where accNum=1";
 $result1 = mysql_query($query1, $db_conn);
 while($row = mysql_fetch_row($result1)) {
    print "<tr>";
    if($ctr%2==0)
    print "<td width=\"50%\"
bgcolor=\"#C3D3DC\"><p>$row[0], $row[1] $row[2]</td>
          <td width=\"50%\"
bgcolor=\"#C3D3DC\"><p>$row[3]</p></td>";
    else
    print "<td width=\"50%\"
bgcolor=\"#F4F8FB\"><p>$row[0], $row[1] $row[2]</td>
          <td width=\"50%\"
bgcolor=\"#F4F8FB\"><p>$row[3]</p></td>";
   print "</tr>";$ctr++;

    }
    mysql_close($db_conn);
    ?>
   </tr>
   <tr>
   <td width="100%" colspan="2">
   <center>
   <p> </p>
   <p><input type="button" name="closebtn" value="Close
window" onclick="javascript:window.close(this)"></center>
   </td>
   </tr>
  </table>
  </center>
</div>
<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
```

```
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

— Java files —

— Cube.java —

```
/*
 *          @(#)Cube.java 1.11 02/04/01 15:03:23
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 * any nuclear facility.
 */

import javax.media.j3d.*;
import javax.vecmath.*;

public class Cube extends Shape3D {
  private static final float[] verts = {
  // front face
         1.0f, -1.0f,  1.0f,
         1.0f,  1.0f,  1.0f,
        -1.0f,  1.0f,  1.0f,
        -1.0f, -1.0f,  1.0f,
  // back face
        -1.0f, -1.0f, -1.0f,
        -1.0f,  1.0f, -1.0f,
         1.0f,  1.0f, -1.0f,
         1.0f, -1.0f, -1.0f,
  // right face
         1.0f, -1.0f, -1.0f,
         1.0f,  1.0f, -1.0f,
         1.0f,  1.0f,  1.0f,
         1.0f, -1.0f,  1.0f,
  // left face
        -1.0f, -1.0f,  1.0f,
        -1.0f,  1.0f,  1.0f,
        -1.0f,  1.0f, -1.0f,
        -1.0f, -1.0f, -1.0f,
  // top face
         1.0f,  1.0f,  1.0f,
         1.0f,  1.0f, -1.0f,
        -1.0f,  1.0f, -1.0f,
        -1.0f,  1.0f,  1.0f,
  // bottom face
        -1.0f, -1.0f,  1.0f,
        -1.0f, -1.0f, -1.0f,
         1.0f, -1.0f, -1.0f,
         1.0f, -1.0f,  1.0f,
  };

  private static final Vector3f[] normals = {
        new Vector3f( 0.0f,  0.0f,  1.0f),        // front
face
        new Vector3f( 0.0f,  0.0f, -1.0f),        // back
face
        new Vector3f( 1.0f,  0.0f,  0.0f),        // right
face
        new Vector3f(-1.0f,  0.0f,  0.0f),        // left
face
        new Vector3f( 0.0f,  1.0f,  0.0f),        // top
face
        new Vector3f( 0.0f, -1.0f,  0.0f),        // bottom
face
  };
```

```
  public Cube() {
        super();

        int i;

        QuadArray cube = new QuadArray(24,
QuadArray.COORDINATES |
                    QuadArray.NORMALS);

        cube.setCoordinates(0, verts);
    for (i = 0; i < 24; i++) {
      cube.setNormal(i, normals[i/4]);
    }

        cube.setCapability(Geometry.ALLOW_INTERSECT)
;
    setGeometry(cube);
    ColoringAttributes caL1 = new ColoringAttributes();
    Color3f lColor1  = new Color3f(0.0f, 0.0f, 0.0f);
    caL1.setColor(lColor1);
    Appearance appL1 = new Appearance();
    appL1.setColoringAttributes(caL1);
    setAppearance(appL1);
  }
}
```

-- Cube2.java --

```
/*
 *        @(#)Cube.java 1.11 02/04/01 15:03:23
 *
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 * any nuclear facility.
 */

import javax.media.j3d.*;
import javax.vecmath.*;

public class Cube2 extends Shape3D {
  private static final float[] verts = {
  // front face
        1.0f, -1.0f,  1.0f,
        1.0f,  1.0f,  1.0f,
       -1.0f,  1.0f,  1.0f,
       -1.0f, -1.0f,  1.0f,
  // back face
       -1.0f, -1.0f, -1.0f,
       -1.0f,  1.0f, -1.0f,
        1.0f,  1.0f, -1.0f,
        1.0f, -1.0f, -1.0f,
  // right face
        1.0f, -1.0f, -1.0f,
        1.0f,  1.0f, -1.0f,
        1.0f,  1.0f,  1.0f,
        1.0f, -1.0f,  1.0f,
  // left face
       -1.0f, -1.0f,  1.0f,
       -1.0f,  1.0f,  1.0f,
       -1.0f,  1.0f, -1.0f,
       -1.0f, -1.0f, -1.0f,
  // top face
        1.0f,  1.0f,  1.0f,
        1.0f,  1.0f, -1.0f,
       -1.0f,  1.0f, -1.0f,
       -1.0f,  1.0f,  1.0f,
  // bottom face
       -1.0f, -1.0f,  1.0f,
       -1.0f, -1.0f, -1.0f,
        1.0f, -1.0f, -1.0f,
        1.0f, -1.0f,  1.0f,
  };

  private static final Vector3f[] normals = {
        new Vector3f( 0.0f,  0.0f,  1.0f),          // front
face
```

```
        new Vector3f( 0.0f,  0.0f, -1.0f),      // back
face
        new Vector3f( 1.0f,  0.0f,  0.0f),      // right
face
        new Vector3f(-1.0f,  0.0f,  0.0f),      // left
face
        new Vector3f( 0.0f,  1.0f,  0.0f),      // top
face
        new Vector3f( 0.0f, -1.0f,  0.0f),      // bottom
face
    };

    public Cube2() {
        super();

        int i;

        QuadArray cube = new QuadArray(24,
QuadArray.COORDINATES |
                    QuadArray.NORMALS);

        cube.setCoordinates(0, verts);
      for (i = 0; i < 24; i++) {
        cube.setNormal(i, normals[i/4]);
      }

        cube.setCapability(Geometry.ALLOW_INTERSECT)
;
      setGeometry(cube);
      setAppearance(new Appearance());
    }
}
```

– Cube3.java –

```
/*
 *      @(#)Cube.java 1.11 02/04/01 15:03:23
 *
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maintenance of
 * any nuclear facility.
 */

import javax.media.j3d.*;
import javax.vecmath.*;

public class Cube3 extends Shape3D {
    private static final float[] verts = {
    // front face
            1.0f, -1.0f,  1.0f,
            1.0f,  1.0f,  1.0f,
           -1.0f,  1.0f,  1.0f,
           -1.0f, -1.0f,  1.0f,
    // back face
           -1.0f, -1.0f, -1.0f,
           -1.0f,  1.0f, -1.0f,
            1.0f,  1.0f, -1.0f,
            1.0f, -1.0f, -1.0f,
    // right face
            1.0f, -1.0f, -1.0f,
            1.0f,  1.0f, -1.0f,
            1.0f,  1.0f,  1.0f,
            1.0f, -1.0f,  1.0f,
    // left face
           -1.0f, -1.0f,  1.0f,
           -1.0f,  1.0f,  1.0f,
           -1.0f,  1.0f, -1.0f,
           -1.0f, -1.0f, -1.0f,
    // top face
            1.0f,  1.0f,  1.0f,
            1.0f,  1.0f, -1.0f,
           -1.0f,  1.0f, -1.0f,
           -1.0f,  1.0f,  1.0f,
    // bottom face
           -1.0f, -1.0f,  1.0f,
           -1.0f, -1.0f, -1.0f,
            1.0f, -1.0f, -1.0f,
            1.0f, -1.0f,  1.0f,
```

```
  };

  private static final Vector3f[] normals = {
        new Vector3f( 0.0f,  0.0f,  1.0f),          // front
face
        new Vector3f( 0.0f,  0.0f, -1.0f),          // back
face
        new Vector3f( 1.0f,  0.0f,  0.0f),          // right
face
        new Vector3f(-1.0f,  0.0f,  0.0f),          // left
face
        new Vector3f( 0.0f,  1.0f,  0.0f),          // top
face
        new Vector3f( 0.0f, -1.0f,  0.0f),          // bottom
face
  };

  public Cube3() {
        super();

        int i;

        QuadArray cube = new QuadArray(24,
QuadArray.COORDINATES |
                    QuadArray.NORMALS);

        cube.setCoordinates(0, verts);
    for (i = 0; i < 24; i++) {
      cube.setNormal(i, normals[i/4]);
    }

        cube.setCapability(Geometry.ALLOW_INTERSECT)
;
    setGeometry(cube);
    ColoringAttributes caL1 = new ColoringAttributes();
    Color3f lColor1  = new Color3f(0.25f, 0.22f, 0.16f);
    caL1.setColor(lColor1);
    Appearance appL1 = new Appearance();
    appL1.setColoringAttributes(caL1);
    setAppearance(appL1);
  }
}
```

-- HelloJava3Da.java --

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import java.applet.Applet;
import java.awt.*;
import java.awt.event.*;
import java.awt.BorderLayout;
import java.lang.Object;
import javax.media.j3d.Behavior;
import com.sun.j3d.utils.applet.MainFrame;
import com.sun.j3d.utils.universe.*;
import java.awt.GraphicsConfiguration;
import javax.media.j3d.*;
import javax.vecmath.*;
import java.awt.color.ColorSpace;
import com.sun.j3d.utils.geometry.Sphere;
import com.sun.j3d.utils.geometry.*;
import java.util.Enumeration;
import javax.swing.*;
import javax.swing.event.*;
import javax.swing.border.*;
import com.sun.j3d.loaders.objectfile.*;
import java.io.*;
import com.sun.j3d.utils.behaviors.vp.*;
import com.sun.j3d.utils.behaviors.keyboard.*;
import com.sun.j3d.utils.behaviors.mouse.*;
import java.awt.event.MouseAdapter;
import java.awt.event.MouseEvent;
import java.awt.event.*;
import java.sql.*;
import java.util.Vector;

public class HelloJava3Da extends Applet implements
ActionListener {

        int lastX, lastY, tempWidth, tempHeight;
        double temp_storage;
        double sum_, ave_;

        Graphics2D g2D;

        //Constants for type of light to use
        private static final int DIRECTIONAL_LIGHT = 0;
        private static final int POINT_LIGHT = 1;
        private static final int SPOT_LIGHT = 2;

        //Flag indicates type of lights: directional, point, or
spot
        //lights.  This flag is set based on command line
argument
        private static int lightType = POINT_LIGHT;

        private SimpleUniverse simpleU = null;
        TransparencyAttributes transp;
        LineAttributes line;

        TransformGroup objScale = new
TransformGroup();

        int x, y, i=0, z, zP, zC;
        private boolean flag = true;
        private boolean inciseFlag = false;
        private boolean capsuloFlag = false;
        private boolean phacoFlag = false;
        private boolean IOLFlag = false;
        private boolean inciseDoneFlag = false;
        private boolean capsuloDoneFlag = false;
        private boolean phacoDoneFlag = false;
        private boolean IOLDoneFlag = false;
        private boolean found = false;

        private boolean behaviorsOn = false;
        private OrbitBehavior orbit;
        private JButton incise;
        private JButton capsulo;
        private JButton phaco;
        private JButton IOL;
        private JButton done;

        private int[] inciseArray = new int[500];
        private int[] inciseArray_ = new int[500];
        private int[] inciseArrayDefined = new int[500];
        private int[] inciseArrayDefined_ = new int[500];
        private int[] capsuloArray = new int[500];
        private int[] capsuloArray_ = new int[500];
        private int[] capsuloArrayDefined = new int[500];
        private int[] capsuloArrayDefined_ = new int[500];
        private int[] phacoArray = new int[5000];
        private int[] phacoArray_ = new int[5000];
```

```
        private int[] phacoArrayRes = new int[5000];
        private int[][] phacoMatrix = new int [500][500];

        private Vector queryResults;

        float numIncise = 0;
        float capsuloScore = 0, incisionScore = 0,
finalInciseScore = 0, phacoScore = 0, IOLScore = 0,
practicalScore = 0;
        String status = new String();

        public BranchGroup
createSceneGraph(SimpleUniverse simpleU) {

                Color3f eColor   = new Color3f(0.0f,
0.0f, 0.0f);
                Color3f sColor   = new Color3f(1.0f,
1.0f, 1.0f);
                Color3f objColor  = new Color3f(0.78f,
0.78f, 0.78f);
                Color3f lColor1   = new Color3f(0.0f,
0.0f, 0.0f);
                Color3f lColor2   = new Color3f(0.25f,
0.22f, 0.16f);
                Color3f alColor   = new Color3f(0.2f,
0.2f, 0.2f);
                Color3f bgColor   = new Color3f(0.05f,
0.05f, 0.2f);

                Transform3D t;

                //Create the root of the branch graph
                BranchGroup objRoot = new
BranchGroup();

                //Create a Transformgroup to scale all
objects so they
                //appear in the scene.
                Transform3D t3d = new Transform3D();
                t3d.setScale(0.4);
                objScale.setTransform(t3d);
                objRoot.addChild(objScale);


                //Create a bounds for the background
and lights
                BoundingSphere bounds =
                new BoundingSphere(new
Point3d(0.0,0.0,0.0), 100.0);


                //Set up the background
                Background bg = new
Background(bgColor);
                bg.setApplicationBounds(bounds);
                objScale.addChild(bg);

                //Create a simple shape leaf node, add
it to the scene graph.
                Material material = new
Material(objColor, eColor, objColor, sColor, 100.0f);
                Appearance appear = new
Appearance();
                material.setLightingEnable(true);
                appear.setMaterial(material);
                objScale.addChild(new Sphere(0.75f,
Sphere.GENERATE_NORMALS,80,appear));

                AmbientLight lightA = new
AmbientLight();
                lightA.setInfluencingBounds(new
BoundingSphere());
                objScale.addChild(lightA);

                // Create the transform group node for
the each light and initialize
                // it to the identity.  Enable the
TRANSFORM_WRITE capability so that
                // our behavior code can modify it at
runtime.  Add them to the root
                // of the subgraph.
                TransformGroup l1RotTrans = new
TransformGroup();

        l1RotTrans.setCapability(TransformGroup.ALLOW_
TRANSFORM_WRITE);
                objScale.addChild(l1RotTrans);

                TransformGroup l2RotTrans = new
TransformGroup();

        l2RotTrans.setCapability(TransformGroup.ALLOW_
TRANSFORM_WRITE);
                objScale.addChild(l2RotTrans);

                // Create transformations for the
positional lights
                t = new Transform3D();
                Vector3d lPos1 =  new Vector3d(0.0,
0.0, 0.205);
                t.set(lPos1);
                TransformGroup l1Trans = new
TransformGroup(t);
                l1RotTrans.addChild(l1Trans);

                t = new Transform3D();
                Vector3d lPos2 =  new Vector3d(0.0,
0.0, .40);
                t.set(lPos2);
                TransformGroup l2Trans = new
TransformGroup(t);
                l2RotTrans.addChild(l2Trans);

                // Create Geometry for point lights
                ColoringAttributes caL1 = new
ColoringAttributes();
                ColoringAttributes caL2 = new
ColoringAttributes();

                caL1.setColor(lColor1);
                caL2.setColor(lColor2);
                Appearance appL1 = new Appearance();
                Appearance appL2 = new Appearance();

                appL1.setColoringAttributes(caL1);
                appL2.setColoringAttributes(caL2);
                transp = new TransparencyAttributes();
                transp.setTransparency(0.5f);

        transp.setCapability(TransparencyAttributes.ALLO
W_MODE_WRITE);

        transp.setTransparencyMode(TransparencyAttribut
es.BLENDED);
```

```
        appL1.setTransparencyAttributes(transp);

        appL2.setTransparencyAttributes(transp);


                    //semi-gitna
                    l1Trans.addChild(new Sphere(0.60f,
Sphere.GENERATE_NORMALS, 80, appL1));
                    //gitna
                    l2Trans.addChild(new Sphere(0.40f,
Sphere.GENERATE_NORMALS, 80, appL2));

                    // Create lights
                    AmbientLight aLgt = new
AmbientLight(alColor);

                    Light lgt1 = null;
                    Light lgt2 = null;

                    Point3f lPoint  = new Point3f(0.0f, 0.0f,
0.0f);
                    Point3f atten = new Point3f(1.0f, 0.0f,
0.0f);
                    Vector3f lDirect1 = new Vector3f(lPos1);
                    Vector3f lDirect2 = new Vector3f(lPos2);
                    lDirect1.negate();
                    lDirect2.negate();

                    switch (lightType) {
                    case DIRECTIONAL_LIGHT:
                       lgt1 = new DirectionalLight(lColor1,
lDirect1);
                       lgt2 = new DirectionalLight(lColor2,
lDirect2);
                       break;
                    case POINT_LIGHT:
                       lgt1 = new PointLight(lColor1, lPoint,
atten);
                       lgt2 = new PointLight(lColor2, lPoint,
atten);
                       break;
                    case SPOT_LIGHT:
                       lgt1 = new SpotLight(lColor1, lPoint,
atten, lDirect1,
                                                    25.0f *
(float)Math.PI / 180.0f, 10.0f);
                       lgt2 = new SpotLight(lColor2, lPoint,
atten, lDirect2,
                                                    25.0f *
(float)Math.PI / 180.0f, 10.0f);
                       break;
                    }

                    // Set the influencing bounds
                    aLgt.setInfluencingBounds(bounds);
                    lgt1.setInfluencingBounds(bounds);
                    lgt2.setInfluencingBounds(bounds);

                    // Add the lights into the scene graph
                    objScale.addChild(aLgt);
                    l1Trans.addChild(lgt1);
                    l2Trans.addChild(lgt2);

                    Text2D textObject = new
Text2D("Legend:",
                                                    new Color3f(1f, 1f,
1f),
                                                    "Serif",
                                                    28,
                                                    Font.BOLD);

                    Transform3D textTranslation = new
Transform3D();
                    textTranslation.setTranslation(new
Vector3f(1.0f, -0.6f, 0f));
                    TransformGroup textTranslationGroup =
new TransformGroup(textTranslation);

        textTranslationGroup.addChild(textObject);

        objScale.addChild(textTranslationGroup);

                    Text2D textObject_ = new
Text2D("Lens",
                                                    new Color3f(1f, 1f,
1f),
                                                    "Serif",
                                                    28,
                                                    Font.BOLD);

                    Transform3D textTranslation_ = new
Transform3D();
                    textTranslation_.setTranslation(new
Vector3f(1.3f, -0.8f, 0f));
                    TransformGroup textTranslationGroup_
= new TransformGroup(textTranslation_);

        textTranslationGroup_.addChild(textObject_);

        objScale.addChild(textTranslationGroup_);

                    Text2D textObject_1 = new
Text2D("Cornea",
                                                    new Color3f(1f, 1f,
1f),
                                                    "Serif",
                                                    28, Font.BOLD);

                    Transform3D textTranslation_1 = new
Transform3D();
                    textTranslation_1.setTranslation(new
Vector3f(1.3f, -1.0f, 0f));
                    TransformGroup textTranslationGroup_1
= new TransformGroup(textTranslation_1);

        textTranslationGroup_1.addChild(textObject_1);

        objScale.addChild(textTranslationGroup_1);

                    Text2D textObject_2 = new
Text2D("Sclera",
                                                    new Color3f(1f, 1f,
1f),
                                                    "Serif",
                                                    28,
                                                    Font.BOLD);

                    Transform3D textTranslation_2 = new
Transform3D();
                    textTranslation_2.setTranslation(new
Vector3f(1.3f, -1.2f, 0f));
```

```
                TransformGroup textTranslationGroup_2
= new TransformGroup(textTranslation_2);

        textTranslationGroup_2.addChild(textObject_2);

        objScale.addChild(textTranslationGroup_2);

                Transform3D cube = new
Transform3D();
                cube.setTranslation(new Vector3f(13.8f,
-9.5f,-70.0f));
                TransformGroup objtrans = new
TransformGroup(cube);
                objtrans.addChild(new Cube3());
                objScale.addChild(objtrans);

                Transform3D cube1 = new
Transform3D();
                cube1.setTranslation(new
Vector3f(13.8f, -12.f,-70.0f));
                TransformGroup objtrans1 = new
TransformGroup(cube1);
                objtrans1.addChild(new Cube());
                objScale.addChild(objtrans1);

                Transform3D cube2 = new
Transform3D();
                cube2.setTranslation(new
Vector3f(13.8f, -14.5f,-70.0f));
                TransformGroup objtrans2 = new
TransformGroup(cube2);
                objtrans2.addChild(new Cube2());
                objScale.addChild(objtrans2);

                objRoot.compile();
                return objRoot;

        } //end of createSceneGraph method of
HelloJava3Da

        public HelloJava3Da() {
                g2D = null;
        } //end of HelloJava3Da (constructor)

        private synchronized void setResults(Vector
results) {
                queryResults = results;
        }

        public void init() {

                setLayout(new BorderLayout());

                incise = new JButton ("Incise..
Inactive");
                incise.addActionListener(this);
                capsulo = new JButton ("Capsulotomy..
Inactive");
                capsulo.addActionListener(this);
                phaco = new JButton
("Phacoemulsification.. Inactive");
                phaco.addActionListener(this);
                IOL = new JButton ("Insert IOL..
Inactive");
                IOL.addActionListener(this);
                done = new JButton ("Done");
                done.addActionListener(this);

                JPanel p = new JPanel();
                p.setBorder(new
TitledBorder("Options"));
                p.add(incise);
                p.add(capsulo);
                p.add(phaco);
                p.add(IOL);
                p.add(done);
                add ("South", p);

                GraphicsConfiguration config =
SimpleUniverse.getPreferredConfiguration();

                Graphics g = getGraphics();
                g2D = (Graphics2D)g;
                g2D.setColor(Color.white);
                g2D.drawString("pamela", 0, 0);

                Canvas3D canvas3D = new
Canvas3D(null);
                add("Center", canvas3D);

                simpleU = new
SimpleUniverse(canvas3D,4);
                BranchGroup scene =
createSceneGraph(simpleU);


                // This moves the ViewPlatform back a
bit so the
                // objects in the scene can be viewed
                // add the behaviors to the
ViewingPlatform
                ViewingPlatform viewingPlatform =
simpleU.getViewingPlatform();

                BoundingSphere bounds =
                                        new
BoundingSphere(new Point3d(0.0, 0.0, 0.0), 100.0);

                behaviorsOn = true;



        simpleU.getViewingPlatform().setNominalViewingT
ransform();

                simpleU.addBranchGraph(scene);
                canvas3D.addMouseListener (new
java.awt.event.MouseAdapter () {
                public void mousePressed
(java.awt.event.MouseEvent evt) {

        canvasYZMousePressed (evt);
                }
                });
                canvas3D.addMouseMotionListener (new
java.awt.event.MouseMotionAdapter () {
                public void mouseDragged
(java.awt.event.MouseEvent evt) {

        canvasYZMouseDragged (evt);
                }
                });

                //X points for incision
                inciseArrayDefined[0] = 436;
```

```
inciseArrayDefined[1] = 437;
inciseArrayDefined[2] = 437;
inciseArrayDefined[3] = 438;
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// Y points for incision
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//Matrix for Phacoemulsification
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phacoMatrix[361][195] = 0;
phacoMatrix[361][196] = 0;
phacoMatrix[360][196] = 0;
phacoMatrix[360][197] = 0;
phacoMatrix[360][198] = 0;
phacoMatrix[359][198] = 0;
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phacoMatrix[358][201] = 0;
phacoMatrix[357][201] = 0;
phacoMatrix[357][202] = 0;
phacoMatrix[357][203] = 0;
phacoMatrix[357][204] = 0;
phacoMatrix[356][204] = 0;
phacoMatrix[356][205] = 0;
phacoMatrix[356][206] = 0;
phacoMatrix[356][207] = 0;
phacoMatrix[356][208] = 0;
phacoMatrix[355][208] = 0;
phacoMatrix[355][209] = 0;
phacoMatrix[354][210] = 0;
phacoMatrix[354][211] = 0;
phacoMatrix[354][212] = 0;
phacoMatrix[354][213] = 0;
phacoMatrix[354][214] = 0;
phacoMatrix[353][214] = 0;
phacoMatrix[353][215] = 0;
phacoMatrix[353][216] = 0;
```

```
phacoMatrix[353][217] = 0;
phacoMatrix[353][218] = 0;
phacoMatrix[353][219] = 0;
phacoMatrix[353][220] = 0;
phacoMatrix[353][221] = 0;
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phacoMatrix[353][224] = 0;
phacoMatrix[353][225] = 0;
phacoMatrix[353][226] = 0;
phacoMatrix[353][227] = 0;
phacoMatrix[353][228] = 0;
phacoMatrix[354][228] = 0;
phacoMatrix[354][229] = 0; //100
phacoMatrix[354][230] = 0;
phacoMatrix[354][231] = 0;
phacoMatrix[354][232] = 0;
phacoMatrix[354][233] = 0;
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phacoMatrix[355][234] = 0;
phacoMatrix[356][234] = 0;
phacoMatrix[356][235] = 0;
phacoMatrix[356][236] = 0;
phacoMatrix[356][237] = 0;
phacoMatrix[357][237] = 0;
phacoMatrix[357][238] = 0;
phacoMatrix[357][239] = 0;
phacoMatrix[358][239] = 0;
phacoMatrix[358][240] = 0;
phacoMatrix[359][240] = 0;
phacoMatrix[360][240] = 0;
phacoMatrix[360][241] = 0;
phacoMatrix[361][241] = 0;
phacoMatrix[361][242] = 0;
phacoMatrix[362][242] = 0;
phacoMatrix[362][243] = 0;
phacoMatrix[362][244] = 0;
phacoMatrix[363][244] = 0;
phacoMatrix[363][245] = 0;
phacoMatrix[364][245] = 0;
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phacoMatrix[365][246] = 0;
phacoMatrix[365][247] = 0;
phacoMatrix[365][248] = 0;
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phacoMatrix[366][249] = 0;
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phacoMatrix[367][250] = 0;
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phacoMatrix[378][259] = 0;
phacoMatrix[378][260] = 0;
phacoMatrix[379][260] = 0;
phacoMatrix[379][261] = 0; //
phacoMatrix[380][261] = 0;
phacoMatrix[381][261] = 0;
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phacoMatrix[406][266] = 0;
phacoMatrix[406][265] = 0;
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phacoMatrix[408][265] = 0;
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phacoMatrix[416][265] = 0;
phacoMatrix[416][264] = 0;
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phacoMatrix[418][263] = 0;
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phacoMatrix[420][263] = 0;
phacoMatrix[420][262] = 0;
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phacoMatrix[422][262] = 0;
phacoMatrix[422][261] = 0;
phacoMatrix[423][261] = 0;
phacoMatrix[423][260] = 0;
phacoMatrix[424][260] = 0;
phacoMatrix[424][259] = 0;
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phacoMatrix[426][259] = 0;
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phacoMatrix[428][258] = 0;
phacoMatrix[428][257] = 0;
phacoMatrix[429][257] = 0;
phacoMatrix[430][257] = 0;
phacoMatrix[430][256] = 0;
```

```
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phacoMatrix[432][255] = 0;
phacoMatrix[432][254] = 0;
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phacoMatrix[436][250] = 0;
phacoMatrix[437][250] = 0;
phacoMatrix[437][249] = 0;
phacoMatrix[438][249] = 0;
phacoMatrix[438][248] = 0;
phacoMatrix[438][247] = 0;
phacoMatrix[438][246] = 0;
phacoMatrix[439][245] = 0;
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phacoMatrix[441][240] = 0;
phacoMatrix[441][239] = 0;
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phacoMatrix[446][228] = 0;
phacoMatrix[446][227] = 0;
phacoMatrix[446][226] = 0;
phacoMatrix[446][225] = 0;
phacoMatrix[446][224] = 0;
phacoMatrix[446][223] = 0;
phacoMatrix[446][222] = 0;
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phacoMatrix[448][215] = 0;
phacoMatrix[448][214] = 0;
phacoMatrix[448][213] = 0;
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phacoMatrix[448][211] = 0; // 180
phacoMatrix[448][210] = 0;
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phacoMatrix[429][180] = 0;
phacoMatrix[428][180] = 0;
phacoMatrix[428][179] = 0;
phacoMatrix[427][179] = 0;
phacoMatrix[426][179] = 0;
phacoMatrix[426][178] = 0;
phacoMatrix[425][178] = 0;
phacoMatrix[424][177] = 0;
phacoMatrix[423][177] = 0;
phacoMatrix[422][177] = 0;
phacoMatrix[422][176] = 0;
phacoMatrix[421][176] = 0;
phacoMatrix[420][176] = 0;
phacoMatrix[419][176] = 0;
phacoMatrix[418][175] = 0;
phacoMatrix[417][175] = 0;
phacoMatrix[416][175] = 0;
phacoMatrix[415][174] = 0;
phacoMatrix[414][173] = 0;
phacoMatrix[413][173] = 0;
phacoMatrix[412][173] = 0;
phacoMatrix[411][173] = 0;
phacoMatrix[410][173] = 0;
phacoMatrix[409][173] = 0;
phacoMatrix[408][173] = 0;
phacoMatrix[407][173] = 0;
phacoMatrix[407][172] = 0;
phacoMatrix[406][172] = 0;
phacoMatrix[405][172] = 0;
phacoMatrix[404][172] = 0;
```

```
                phacoMatrix[403][172] = 0;
                phacoMatrix[402][172] = 0;
                phacoMatrix[401][172] = 0;
                phacoMatrix[400][172] = 0;
                phacoMatrix[399][172] = 0;
                phacoMatrix[398][172] = 0;
        }


        public void actionPerformed(ActionEvent e) {

                Transform3D t;
                Appearance appL1 = new Appearance();
                int ctr, ctr_, ctr2;

                if (e.getSource() == incise) {
                  ViewingPlatform v =
simpleU.getViewingPlatform();
                  if (behaviorsOn) {
                        inciseFlag = true;

        v.setViewPlatformBehavior(null);
                        incise.setLabel("Incise On");
                        behaviorsOn = false;
                  }
                  else {
                        inciseFlag = false;

                        Color3f red = new
Color3f(1.0f, 0.0f, 0.0f);

                        ColoringAttributes col = new
ColoringAttributes();
                        col.setColor(red);

                        Appearance lineAppear = new
Appearance();

        lineAppear.setColoringAttributes(col);
                        LineAttributes lineA = new
LineAttributes();
                        lineA.setLineWidth(1.0f);

        lineA.setLinePattern(LineAttributes.PATTERN_SOLI
D);

        lineAppear.setLineAttributes(lineA);

                        incise.setLabel("Incise Off");
                        behaviorsOn = true;
                        for (ctr=0;ctr<z;ctr++)
                        {

        System.err.println(inciseArray[ctr] + " " +
inciseArray_[ctr]);
                        }

                        BranchGroup inciseLineBG =
new BranchGroup();
                        int diff = 0;

                        // count number of vertices
                        if ((z%2) != 0) {
                                ctr2 = z;
                                z = z - 1;
                                System.err.println(z
+ "mok");
                                diff =
inciseArray_[z] - inciseArray_[0];
                        }
                        else {
                                z = z;
                                System.err.println(z
+ "lamok");
                                diff =
inciseArray_[z-1] - inciseArray_[0];
                        }

                        System.err.println(diff +
"wek" + inciseArray_[z] + " " + inciseArray_[0] + " " +
inciseArray_[z-1]);

                        if ((diff>46) || (diff<10)) {
                                temp_storage =
(((float)diff-46.00)/46.00)*100.00;
                                if (temp_storage <
0) {

        numIncise = (float)(100 + temp_storage);

        System.err.println(temp_storage);

        System.err.println("Length of incision score: " +
numIncise + "%mok" );
                                }
                                else if
(temp_storage > 100) {

        numIncise = (float)(temp_storage - 100);

        System.err.println(temp_storage);

        System.err.println("Length of incision score: " +
numIncise + "%" );
                                }
                                else {

        numIncise = (float)(100 - temp_storage);

        System.err.println(temp_storage);

        System.err.println("Length of incision score: " +
numIncise + "%" );
                                }
                                inciseDoneFlag =
false;
                        }


                        else {
                                //If length is 10 - 46
                                numIncise = 100;

        System.err.println("Length of incision score:
100%");
                                inciseDoneFlag =
true;
                        }


                        LineArray inciseLine = new
LineArray(z, LineArray.COORDINATES|LineArray.COLOR_3);

                        for (ctr_=0; ctr_<z;ctr_++) {
```

```
        inciseLine.setCoordinate(ctr_, new
Point3f((inciseArray[ctr_]-401)*0.0023f, (218-
inciseArray_[ctr_])*0.0023f, 0.245f));
                        }


                        Color3f colors[] = new
Color3f[z];
                        //colors[0] = new Color3f
(0.0f, 1.0f, 1.0f);
                        for (int b = 0; b < z; b++) {
                                colors[b] = red;
                        }

                        inciseLine.setColors(0, colors);
                        inciseLineBG.addChild(new
Shape3D(inciseLine));
                        v.addChild(inciseLineBG);

                        int d=0, start =0, end=0;
                        while ((found!= true) &&
(d<=218)){
                                if (inciseArray_[0]
== inciseArrayDefined_[d]) {
                                        found =
true;
                                        start = d;
                                        end = d
+ z;
                                }
                        d++;
                        }
                        System.err.println(start + " "
+ end);

                        int nuIndex, xd, yd, oldIndex
= 0, sqrAns, invalid = 0;
                        double average, sum=0.0,
ansWer;
                        if (found == true) {
                                for (nuIndex =
start; nuIndex < end; nuIndex++) {
                                        xd =
inciseArrayDefined[nuIndex] - inciseArray[oldIndex];
                                        yd =
inciseArrayDefined_[nuIndex] - inciseArray_[oldIndex];
                                        if (xd < -
10) {

        invalid ++;
                                        }

        System.err.println(xd + " mok " + yd);
                                        sqrAns =
xd*xd + yd*yd;
                                        ansWer =
(Math.sqrt((double)sqrAns));
                                        sum =
sum + ansWer;

        oldIndex++;
                                }
                                average =
sum/oldIndex;

        System.err.println(sum + " " + average);
                                        if (average >100) {

        incisionScore = (float)(average - 100.0);
                                        }
                                        else {

        incisionScore = (float)(100.0 - average);
                                        }
                                }
                                else {
                                        incisionScore = 0;
                                }

        showStatus("Incision score : " + incisionScore +
"%");
                                        finalInciseScore =
(incisionScore + numIncise)/2;
                                        if (invalid!=0) {

        inciseDoneFlag = false;
                                        }
                        }
                }

                if (e.getSource() == capsulo) {
                  ViewingPlatform v =
simpleU.getViewingPlatform();
                  if (behaviorsOn) {
                        if ((inciseFlag==false) &&
(inciseDoneFlag==true)) {
                                capsuloFlag = true;

        v.setViewPlatformBehavior(null);

        capsulo.setLabel("Capsulotomy On");
                                behaviorsOn =
false;
                        }
                        else {
                                capsuloScore = 0;
                                showStatus
("Capsulotomy score: 0.0%");
                        }
                  }
                  else {
                        capsuloFlag = false;

        //v.setViewPlatformBehavior(orbit);

                        Color3f red = new
Color3f(1.0f, 0.0f, 0.0f);

                        ColoringAttributes colCap =
new ColoringAttributes();
                        colCap.setColor(red);

                        Appearance lineAppear_ =
new Appearance();

        lineAppear_.setColoringAttributes(colCap);
                        LineAttributes lineB = new
LineAttributes();
                        lineB.setLineWidth(1.0f);

        lineB.setLinePattern(LineAttributes.PATTERN_SOLI
D);
```

```
        lineAppear_.setLineAttributes(lineB);


        capsulo.setLabel("Capsulotomy Off");
                        behaviorsOn = true;
                        for (ctr=0;ctr<zC;ctr++)
                        {

        System.err.println(capsuloArray[ctr] + "hwabish"
+ capsuloArray_[ctr]);
                        }

                        BranchGroup capsuloLineBG =
new BranchGroup();
                        if ((zC%2) != 0) {
                                ctr2 = zC;
                                zC = zC - 1;

        System.err.println(zC + "mok");
                        }
                        else {
                                zC = zC;

        System.err.println(zC + "lamok");
                        }


                        LineArray capsuloLine = new
LineArray(zC,
LineArray.COORDINATES|LineArray.COLOR_3);

                        for (ctr_=0; ctr_<zC;ctr_++)
{

        capsuloLine.setCoordinate(ctr_, new
Point3f((capsuloArray[ctr_]-401)*0.0023f, (218-
capsuloArray_[ctr_])*0.0023f, 0.345f));
                        }


                        Color3f colors[] = new
Color3f[zC];
                        //colors[0] = new Color3f
(0.0f, 1.0f, 1.0f);
                        for (int b = 0; b < zC; b++) {
                                colors[b] = red;
                        }

                        capsuloLine.setColors(0,
colors);
                        t = new Transform3D();
                        Vector3d lPos1 =  new
Vector3d(0.0, 0.0, 0.05);
                        t.set(lPos1);
                        TransformGroup l1Trans =
new TransformGroup(t);
                        l1Trans.addChild(new
Sphere(0.2f, Sphere.GENERATE_NORMALS, 80));

        capsuloLineBG.addChild(l1Trans);

                        v.addChild(capsuloLineBG);


                        int  h=0, invalid = 0;
                        double sqrAns_ = 0,xd_ = 0,
yd_ = 0,ansWer_ = 0;
                                for (h = 0; h< zC; h++) {
                                        xd_ =
Math.abs(((capsuloArray[h] - 400)*0.0023f));
                                        yd_ =
Math.abs(((218- capsuloArray_[h])*0.0023f));
                                        sqrAns_ =
(xd_*xd_) + (yd_*yd_);
                                        ansWer_ =
(Math.sqrt((double)sqrAns_));
                                        System.err.println
(ansWer_ + "pam");
                                        if ((ansWer_ >
0.15)||(ansWer_ < .05)) {

        invalid++;

                                        }
                                        sum_ = sum_ +
ansWer_;
                                        h++;
                                }
                                ave_ = sum_/zC;
                                System.err.println(ansWer_ +
" " + sum_ + " " + ave_);


                                if (((ave_<0.06f) &&
(ave_>0.03f)) && (invalid ==0)){

        showStatus("Capsulotomy score: 100");
                                        capsuloScore =100;
                                        PlatformGeometry
pg = createAimer((float)ave_);
                                        ViewingPlatform vp
= simpleU.getViewingPlatform();

        vp.setPlatformGeometry(pg);
                                        capsuloDoneFlag =
true;
                                }
                                else {
                                float  tem=0;
                                        if (ave_ < 0.03f) {

        capsuloScore = 100.0f - (float)(((0.03f -
ave_)/0.03f)*100.0f);

        capsuloDoneFlag = false;
                                        }
                                        else if (ave_ >
0.06f) {

        capsuloScore = 100.0f - (float)(((ave_ -
0.06f)/0.06f)*100.0f);

        capsuloDoneFlag = false;
                                        }
                                        else {


        System.err.println(zC + " " + invalid);
                                                if
((((float)(invalid-zC)/zC)*100) > 100) {

        capsuloScore = (((float)(invalid-zC)/zC)*100)-
100;
                                                }
```

```
                                        else if
((((float)(invalid-zC)/(float)zC)*100) < 0) {

        tem = (((float)invalid-zC)/zC)*100;

        capsuloScore = Math.abs(tem);
                                        }
                                        else {

        capsuloScore = 100 - (((float)(invalid-
zC)/zC)*100);
                                        }

        capsuloDoneFlag = false;
                                    }
                        showStatus("Capsulotomy
Score:" + capsuloScore);
                        }
                        capsuloFlag = false;
                    }
                }

                if (e.getSource() == phaco) {
                  int h, k;
                  ViewingPlatform v =
simpleU.getViewingPlatform();
                  if (behaviorsOn) {
                        if (((inciseDoneFlag == true)
&& (inciseFlag==false)) && ((capsuloDoneFlag==true) &&
(capsuloFlag==false))) {
                                    phacoFlag = true;

        v.setViewPlatformBehavior(null);

        phaco.setLabel("Phacoemulsification On");
                                    behaviorsOn =
false;
                        }
                        else {
                                    phacoScore = 0;
                                .
        showStatus("Phacoemulsification Score: 0.0%");
                        }
                    }
                    else {
                        phacoFlag = false;
                        double sum =0, ave =0,
result_;
                        float nuX_, nuY_;

        //v.setViewPlatformBehavior(orbit);

        phaco.setLabel("Phacoemulsification Off");

                        for (ctr=0;ctr<zP;ctr++) {

        System.err.println(phacoArrayRes[ctr]);
                                    sum = sum +
phacoArrayRes[ctr];
                        }

                        for (ctr=0;ctr<zP;ctr++) {

        System.err.println(phacoArray[ctr] + " "
+phacoArray_[ctr]);
                                    nuX_ =
(float)((phacoArray[zP]-400)*(phacoArray[zP]-
400)*.0023*.0023);
                                    nuY_ =
(float)((218-phacoArray_[zP])*(218-
phacoArray_[zP])*.0023*.0023);
                                    result_ =
Math.sqrt((double)(nuX_+nuY_));
//
        System.err.println(nuX_ + " " + nuY_ + " " +
result_);
                                    sum = sum +
result_;
                        }
                        ave = sum/zP;
                        System.err.println(ave);

                        PlatformGeometry pg =
createAimerNorad((float)(0.95-ave));
                        ViewingPlatform vp =
simpleU.getViewingPlatform();
                        vp.setPlatformGeometry(pg);

                        int q = 0, invalid = 0;
                        for (int o = 0; o <zP; o++) {
                                if ((phacoArray_[o]
>= 172) && (phacoArray_[o] <= 266)) {
                                        if
((phacoArray[o] >= 353) && (phacoArray[o] <= 448)) {

        for (int p = 0; p<19; p++) {

        if ((phacoArray_[o] + p >= 172) &&
(phacoArray_[o] + p <= 266)) {

                    if
(phacoMatrix[phacoArray[o]][phacoArray_[o]+p] == 0) {


        phacoMatrix[phacoArray[o]][phacoArray_[o]+p] =
1;

                        q++;

                    }

        }

        else if ((phacoArray_[o] - p >= 172) &&
(phacoArray_[o] - p <= 266)) {

                    if
(phacoMatrix[phacoArray[o]][phacoArray_[o]-p] == 0) {


        phacoMatrix[phacoArray[o]][phacoArray_[o]-p] =
1;

                        q++;

                    }

        }

        else if ((phacoArray[o]+p >= 353) &&
(phacoArray[o]+p <= 448)) {
```

```
                    if
(phacoMatrix[phacoArray[o]+p][phacoArray_[o]] == 0) {


          phacoMatrix[phacoArray[o]+p][phacoArray_[o]] =
1;
                              q++;
                    }
          }
          else if ((phacoArray[o]-p >= 353) &&
(phacoArray[o]-p <= 448)) {
                    if (phacoMatrix[phacoArray[o]-
p][phacoArray_[o]] == 0) {
                              phacoMatrix[phacoArray[o]-
p][phacoArray_[o]] = 1;
                              q++;
                    }
          }
          }
                                        }
                                        else {
          invalid++;
                                        }
                              }
                              else {
          invalid++;
                              }
                    }
                    if ((q >= 6994) && (invalid
==0)){
                              phacoScore =100;
                              phacoDoneFlag =
true;
                              BranchGroup
phacoBG = new BranchGroup();
                              Appearance
cylinderAppearance = new Appearance();
          TransparencyAttributes transAttrs = new
TransparencyAttributes(TransparencyAttributes.FASTEST,
0.5f);
          cylinderAppearance.setTransparencyAttributes(tra
nsAttrs);
                              Cylinder aim = new
Cylinder(0.04f, 0.005f, 80, cylinderAppearance);


          phacoBG.addChild(aim);
          v.addChild(phacoBG);
                    }
                              else if ((q<6994) &&(invalid
==0)){
                              phacoScore = 100-
(Math.abs(((float)((float)(6994-q)/6994)*100)));
                              phacoDoneFlag =
true;
                              BranchGroup
phacoBG = new BranchGroup();
                              Appearance
cylinderAppearance = new Appearance();
          TransparencyAttributes transAttrs = new
TransparencyAttributes(TransparencyAttributes.FASTEST,
0.5f);
          cylinderAppearance.setTransparencyAttributes(tra
nsAttrs);
                              Cylinder aim = new
Cylinder(0.04f, 0.005f, 80, cylinderAppearance);


          phacoBG.addChild(aim);
          v.addChild(phacoBG);
                    }
                              else {
                              phacoScore = 100-
(Math.abs(((float)((float)(6994-q)/6994)*100)));
                              phacoDoneFlag =
false;
                    }
                    System.err.println(q + " " +
phacoScore);
          showStatus("Phacoemulsification Score: " +
phacoScore);
                              behaviorsOn = true;
                    }
                    }
                    if (e.getSource() == IOL) {
                    ViewingPlatform v =
simpleU.getViewingPlatform();
                    if (behaviorsOn) {
                              if ((((inciseDoneFlag == true)
&& (inciseFlag==false)) && ((capsuloDoneFlag==true) &&
(capsuloFlag==false))) && ((phacoFlag ==false) &&
                              (phacoDoneFlag == true))) {
                              IOL.setLabel("Insert
IOL.. On");
                              IOLFlag = true;
                              behaviorsOn =
false;
                    }
                    else {
                              IOLScore = 0;
                              showStatus ("IOL
Insertion Score: 0.0%");
                    }
                    }
                    else {
                              IOLFlag = false;

          v.setViewPlatformBehavior(orbit);
```

```
                    IOL.setLabel("Insert IOL..
Off");
                    behaviorsOn = true;
                }
            }

            if (e.getSource() == done)
            {
                    practicalScore =
(incisionScore + capsuloScore + IOLScore + phacoScore)/4;

                    if (practicalScore >= 60) {
                            status = "Passed";
                    }
                    else {
                            status = "Failed";
                    }

                    String s_;
                    s_ = getParameter("st");
                    System.err.println(s_);

        System.err.println(incisionScore);

        System.err.println(capsuloScore);
                    System.err.println(status);
                    Connection connection = null;
                    String url =
"jdbc:mysql://localhost/OMETSDatabase";
                    String query = "select
username, psword from users";

                    try {
                            // Load the JDBC
driver
                            // MySQL MM JDBC
driver

        Class.forName("org.gjt.mm.mysql.Driver");
                    }

                    catch
(ClassNotFoundException ecnf) {

        System.err.println("Error");
                            // Could not find
the database driver
                    }

                    try {
                    Vector results = new Vector();
                    connection =
DriverManager.getConnection(url, "root", "root");

                    PreparedStatement pstmt6 =
connection.prepareStatement("update performancerecord
set inciseCrit =? where username =?");
                    pstmt6.setFloat(1,
finalInciseScore);
                    pstmt6.setString(2, s_);
                    pstmt6.executeUpdate();
                    pstmt6.close();

                    PreparedStatement pstmt =
connection.prepareStatement("update performancerecord
set lengthOfIncision =? where username =?");
                    pstmt.setFloat(1, numIncise);
                    pstmt.setString(2, s_);
                    pstmt.executeUpdate();
                    pstmt.close();

                    PreparedStatement pstmt_ =
connection.prepareStatement("update performancerecord
set proximityfrActual =? where username =?");
                    pstmt_.setFloat(1,
incisionScore);
                    pstmt_.setString(2, s_);
                    pstmt_.executeUpdate();
                    pstmt_.close();

                    PreparedStatement pstmt1 =
connection.prepareStatement("update performancerecord
set capsulotomyCrit =? where username =?");
                    pstmt1.setFloat(1,
capsuloScore);
                    pstmt1.setString(2, s_);
                    pstmt1.executeUpdate();
                    pstmt1.close();

                    PreparedStatement pstmt2 =
connection.prepareStatement("update performancerecord
set IOLInsertionCrit =? where username =?");
                    pstmt2.setFloat(1, IOLScore);
                    pstmt2.setString(2, s_);
                    pstmt2.executeUpdate();
                    pstmt2.close();

                    PreparedStatement pstmt3 =
connection.prepareStatement("update performancerecord
set lensRemovalCrit =? where username =?");
                    pstmt3.setFloat(1,
phacoScore);
                    pstmt3.setString(2, s_);
                    pstmt3.executeUpdate();
                    pstmt3.close();

                    PreparedStatement pstmt4 =
connection.prepareStatement("update performancerecord
set practical =? where username =?");
                    pstmt4.setFloat(1,
practicalScore);
                    pstmt4.setString(2, s_);
                    pstmt4.executeUpdate();
                    pstmt4.close();

                    PreparedStatement pstmt5 =
connection.prepareStatement("update performancerecord
set status =? where username =?");
                    pstmt5.setString(1, status);
                    pstmt5.setString(2, s_);
                    pstmt5.executeUpdate();
                    pstmt5.close();

                    connection.close();
                    }

                    catch (SQLException esql) {
                    // Could not connect to the
database
                     System.err.println("Error2");
                    }

                    catch (Exception ex) {
```

```
                        // Could not connect to the
database
                        System.err.println("Error2");
                        }

                }
        }

        public void destroy() {
                simpleU.cleanup();
        }


        //
        // The following allows HelloUniverse to be run as
an application
        // as well as an applet
        //

        public static void main(String[] args)
        {
                new MainFrame(new HelloJava3Da(),
656, 656);


        }

        private void canvasYZMousePressed
(java.awt.event.MouseEvent evt)
        {
                Transform3D t;
                int lensCount=0,nuX,nuY;
                float result = 0;
                //GEN-
FIRST:event_canvasYZMousePressed
                // Add your handling code here:
                System.err.println( "pressed X: " +
evt.getX() + "Y: mok " + evt.getY() );
                lastX = evt.getX();
                lastY = evt.getY();
                //showStatus(" " + lastX + " " + lastY);
                float nuX_=0, nuY_=0;
                double result_;


                if (phacoFlag == true) {
                        nuX_ =
(float)((lastX-400)*(lastX-400)*.0023*.0023);
                        nuY_ =
(float)((218-lastY)*(218-lastY)*.0023*.0023);
                        result_ =
Math.sqrt((double)(nuX_+nuY_));

        System.err.println(nuX_ + " " + nuY_ + " " +
result_);
                }
                if (IOLFlag == true) {
                        if
(((lastX>353)&&(lastX<448)) &&
((lastY>173)&&(lastY<267))) {
                                ViewingPlatform v =
simpleU.getViewingPlatform();
                                PlatformGeometry
pg = createAimer_(lastX, lastY);
                                ViewingPlatform vp
= simpleU.getViewingPlatform();
                                vp.setPlatformGeometry(pg);

                                IOLFlag = false;


        System.err.println(lastX + "mok " + lastY);
                                nuX = (lastX-
400)*(lastX-400);
                                nuY = (218-
lastY)*(218-lastY);
                                result =
(float)(Math.sqrt((double)(nuX+nuY)));

        System.err.println(result);
                                IOLScore = 100 -
result;
                                showStatus("IOL
Insertion Score: " + IOLScore +"%");
                                IOLDoneFlag =
true;
                        }

                }
        }
        //GEN-LAST:event_canvasYZMousePressed

        private void canvasXZMousePressed
(java.awt.event.MouseEvent evt) {
                //GEN-
FIRST:event_canvasXZMousePressed
                // Add your handling code here:

                System.err.println( "pressed X: " +
evt.getX() + "Y: " + evt.getY() );
                //showStatus(" " + lastX + " " + lastY);

        }
        //GEN-LAST:event_canvasXZMousePressed

        private void canvasYZMouseDragged
(java.awt.event.MouseEvent evt) {
                //use for incision...
                //GEN-
FIRST:event_canvasYZMouseDragged
                //System.err.println( "X: " + evt.getX()
+ "Y: " + evt.getY() );
                System.err.print( "dX: ");
                System.err.print( evt.getX() - lastX );
                System.err.print( "dY: ");
                System.err.print( evt.getY() - lastY );
                System.err.println();

                if (inciseFlag==true) {
                        inciseArray[z] = evt.getX();
                        inciseArray_[z] = evt.getY();
                        //showStatus(" " +
inciseArray[z] + " " + inciseArray_[z] + "mok");
                        z++;
                }

                if (capsuloFlag == true) {
                        capsuloArray[zC] =
evt.getX();
                        capsuloArray_[zC] =
evt.getY();
```

```
                        //showStatus(" " +
capsuloArray[zC] + " " + capsuloArray_[zC] + "mok");
                        zC++;
                }

                if (phacoFlag==true) {
                        int cv = 0;
                        float nuX_, nuY_;
                        double result_, sum=0, ave;
                        phacoArray[zP] = evt.getX();
                        phacoArray_[zP] = evt.getY();
                        //showStatus(" " +
phacoArray[zP] + " " + phacoArray_[zP] + "mok");
                        nuX_ =
(float)((phacoArray[zP]-400)*(phacoArray[zP]-
400)*.0023*.0023);
                        nuY_ = (float)((218-
phacoArray_[zP])*(218-phacoArray_[zP])*.0023*.0023);
                        result_ =
Math.sqrt((double)(nuX_+nuY_));
                        System.err.println(nuX_ + " "
+ nuY_ + " " + result_);
                        if (result_<0.06) {
                                PlatformGeometry
pg = createAimer_2(phacoArray[zP], phacoArray_[zP]);
                                ViewingPlatform vp
= simpleU.getViewingPlatform();

        vp.setPlatformGeometry(pg);
                        }
                        zP++;
                }
        }
        //GEN-LAST:event_canvasYZMouseDragged

        PlatformGeometry createAimer(float radius) {
                PlatformGeometry pg = new
PlatformGeometry();
                float rad = radius;

                TransformGroup moveTG = new
TransformGroup();

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_READ);

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_WRITE);

                MouseTranslate mouseT = new
MouseTranslate(moveTG);
                moveTG.addChild(mouseT);
                BoundingSphere bounds = new
BoundingSphere(new Point3d(0.0,0.0,0.0), 100.0);
                mouseT.setSchedulingBounds(bounds);
                pg.addChild(moveTG);

                Transform3D xForm = new
Transform3D();
                xForm.rotX(Math.PI/2.0);
                xForm.setTranslation(new Vector3d(0.0,
0.0, -1.0));
                TransformGroup placementTG = new
TransformGroup(xForm);
                moveTG.addChild(placementTG);

                Appearance cylinderAppearance = new
Appearance();
                TransparencyAttributes transAttrs =
new
TransparencyAttributes(TransparencyAttributes.FASTEST,
0.5f);

        cylinderAppearance.setTransparencyAttributes(tra
nsAttrs);
                Cylinder aimer = new Cylinder(rad,
0.005f, 80, cylinderAppearance);
                placementTG.addChild(aimer);

                return pg;
        }


        PlatformGeometry createAimerNorad(float radius)
{
                PlatformGeometry pg = new
PlatformGeometry();
                float rad = radius;

                TransformGroup moveTG = new
TransformGroup();

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_READ);

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_WRITE);

                //MouseTranslate mouseT = new
MouseTranslate(moveTG);
                //moveTG.addChild(mouseT);
                BoundingSphere bounds = new
BoundingSphere(new Point3d(0.0,0.0,0.0), 100.0);

        //mouseT.setSchedulingBounds(bounds);
                pg.addChild(moveTG);

                Transform3D xForm = new
Transform3D();
                xForm.rotX(Math.PI/2.0);
                xForm.setTranslation(new Vector3d(0.0,
0.0, -2.0));
                TransformGroup placementTG = new
TransformGroup(xForm);
                moveTG.addChild(placementTG);

                Appearance cylinderAppearance = new
Appearance();
                Color3f lColor1  = new Color3f(0.0f,
0.0f, 0.0f);
                ColoringAttributes caL1 = new
ColoringAttributes();
                caL1.setColor(lColor1);

        cylinderAppearance.setColoringAttributes(caL1);

                TransparencyAttributes transAttrs =
new
TransparencyAttributes(TransparencyAttributes.FASTEST,
0.5f);

        cylinderAppearance.setTransparencyAttributes(tra
nsAttrs);
```

```
                Cylinder aimer = new Cylinder(rad,
0.005f, 80, cylinderAppearance);
                placementTG.addChild(aimer);

                return pg;
        }


        PlatformGeometry createAimer_(int xIO, int yIO) {
                PlatformGeometry pg = new
PlatformGeometry();
                int xc =xIO;
                int yc = yIO;

                TransformGroup moveTG = new
TransformGroup();

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_READ);

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_WRITE);

                //MouseTranslate mouseT = new
MouseTranslate(moveTG);
                //moveTG.addChild(mouseT);
                BoundingSphere bounds = new
BoundingSphere(new Point3d(0.0,0.0,0.0), 100.0);

        //mouseT.setSchedulingBounds(bounds);
                pg.addChild(moveTG);

                Transform3D xForm = new
Transform3D();
                xForm.rotX(Math.PI/2.0);
//              xForm.setTranslation(new Vector3d(0.0,
0.0, -0.7));
                Vector3d lPos3 =  new Vector3d(((xc-
400)*0.0023), ((218-yc)*0.0023), -2.0);
//              translate.set(lPos3);
                xForm.setTranslation(lPos3);
                TransformGroup placementTG = new
TransformGroup(xForm);
                moveTG.addChild(placementTG);

                Appearance cylinderAppearance = new
Appearance();
                TransparencyAttributes transAttrs =
new
TransparencyAttributes(TransparencyAttributes.FASTEST,
0.5f);

        cylinderAppearance.setTransparencyAttributes(tra
nsAttrs);
                Cylinder aimer = new Cylinder(0.10f,
0.005f, 80, cylinderAppearance);
                placementTG.addChild(aimer);

                return pg;
        }


        PlatformGeometry createAimer_2(int xIO, int yIO)
{
                PlatformGeometry pg = new
PlatformGeometry();
                int xc =xIO;
                int yc = yIO;

                TransformGroup moveTG = new
TransformGroup();

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_READ);

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_WRITE);

                //MouseTranslate mouseT = new
MouseTranslate(moveTG);
                //moveTG.addChild(mouseT);
                BoundingSphere bounds = new
BoundingSphere(new Point3d(0.0,0.0,0.0), 100.0);

        //mouseT.setSchedulingBounds(bounds);
                pg.addChild(moveTG);

                Transform3D xForm = new
Transform3D();
                xForm.rotX(Math.PI/2.0);
//              xForm.setTranslation(new Vector3d(0.0,
0.0, -0.7));
                Vector3d lPos3 =  new Vector3d(((xc-
400)*0.0023), ((218-yc)*0.0023), -2.0);
//              translate.set(lPos3);
                xForm.setTranslation(lPos3);
                TransformGroup placementTG = new
TransformGroup(xForm);
                moveTG.addChild(placementTG);

                Appearance cylinderAppearance = new
Appearance();
                cylinderAppearance.setCapability
(Appearance.ALLOW_COLORING_ATTRIBUTES_WRITE);
                TransparencyAttributes transAttrs =
new
TransparencyAttributes(TransparencyAttributes.FASTEST,
0.5f);

        cylinderAppearance.setTransparencyAttributes(tra
nsAttrs);
                Cylinder aimer = new Cylinder(0.04f,
0.005f, 80, cylinderAppearance);
                placementTG.addChild(aimer);

                return pg;
        }
}
//end of class HelloJava3Da
```

-- HelloJava3Da1.java --

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import java.applet.Applet;
import java.awt.*;
import java.awt.event.*;
import java.awt.BorderLayout;
import java.lang.Object;
import javax.media.j3d.Behavior;
import com.sun.j3d.utils.applet.MainFrame;
import com.sun.j3d.utils.universe.*;
import java.awt.GraphicsConfiguration;
```

```
import javax.media.j3d.*;
import javax.vecmath.*;
import java.awt.color.ColorSpace;
import com.sun.j3d.utils.geometry.Sphere;
import com.sun.j3d.utils.geometry.*;
import java.util.Enumeration;
import javax.swing.*;
import javax.swing.event.*;
import javax.swing.border.*;
import com.sun.j3d.loaders.objectfile.*;
import java.io.*;
import com.sun.j3d.utils.behaviors.vp.*;
import com.sun.j3d.utils.behaviors.keyboard.*;
import com.sun.j3d.utils.behaviors.mouse.*;
import java.awt.event.MouseAdapter;
import java.awt.event.MouseEvent;
import java.awt.event.*;
import java.sql.*;
import java.util.Vector;

public class HelloJava3Da1 extends Applet implements
ActionListener {
        //training
        int lastX, lastY, tempWidth, tempHeight;
        double temp_storage;
        double sum_, ave_;

        Graphics2D g2D;

        //Constants for type of light to use
        private static final int DIRECTIONAL_LIGHT = 0;
        private static final int POINT_LIGHT = 1;
        private static final int SPOT_LIGHT = 2;

        //Flag indicates type of lights: directional, point, or
spot
        //lights.  This flag is set based on command line
argument
        private static int lightType = POINT_LIGHT;

        private SimpleUniverse simpleU = null;
        TransparencyAttributes transp;
        LineAttributes line;

        TransformGroup objScale = new
TransformGroup();

        int x, y, i=0, z, zP, zC;
        private boolean flag = true;
        private boolean inciseFlag = false;
        private boolean capsuloFlag = false;
        private boolean phacoFlag = false;
        private boolean IOLFlag = false;
        private boolean inciseDoneFlag = false;
        private boolean capsuloDoneFlag = false;
        private boolean phacoDoneFlag = false;
        private boolean IOLDoneFlag = false;
        private boolean found = false;

        private boolean behaviorsOn = false;
        private OrbitBehavior orbit;
        private JButton incise;
        private JButton capsulo;
        private JButton phaco;
        private JButton IOL;
        private JButton done;

        private int[] inciseArray = new int[500];
        private int[] inciseArray_ = new int[500];
        private int[] inciseArrayDefined = new int[500];
        private int[] inciseArrayDefined_ = new int[500];
        private int[] capsuloArray = new int[500];
        private int[] capsuloArray_ = new int[500];
        private int[] capsuloArrayDefined = new int[500];
        private int[] capsuloArrayDefined_ = new int[500];
        private int[] phacoArray = new int[5000];
        private int[] phacoArray_ = new int[5000];
        private int[] phacoArrayRes = new int[5000];
        private int[][] phacoMatrix = new int [500][500];

        private Vector queryResults;

        float numIncise = 0;
        float capsuloScore = 0, incisionScore = 0,
finalInciseScore = 0, phacoScore = 0, IOLScore = 0,
practicalScore = 0;
        String status = new String();

        public BranchGroup
createSceneGraph(SimpleUniverse simpleU) {

                Color3f eColor  = new Color3f(0.0f,
0.0f, 0.0f);
                Color3f sColor  = new Color3f(1.0f,
1.0f, 1.0f);
                Color3f objColor  = new Color3f(0.78f,
0.78f, 0.78f);
                Color3f lColor1  = new Color3f(0.0f,
0.0f, 0.0f);
                Color3f lColor2  = new Color3f(0.25f,
0.22f, 0.16f);
                Color3f alColor  = new Color3f(0.2f,
0.2f, 0.2f);
                Color3f bgColor  = new Color3f(0.05f,
0.05f, 0.2f);

                Transform3D t;

                //Create the root of the branch graph
                BranchGroup objRoot = new
BranchGroup();

                //Create a Transformgroup to scale all
objects so they
                //appear in the scene.
                Transform3D t3d = new Transform3D();
                t3d.setScale(0.4);
                objScale.setTransform(t3d);
                objRoot.addChild(objScale);


                //Create a bounds for the background
and lights
                BoundingSphere bounds =
                new BoundingSphere(new
Point3d(0.0,0.0,0.0), 100.0);


                //Set up the background
                Background bg = new
Background(bgColor);
                bg.setApplicationBounds(bounds);
                objScale.addChild(bg);
```

```
                    //Create a simple shape leaf node, add
it to the scene graph.
                    Material material = new
Material(objColor, eColor, objColor, sColor, 100.0f);
                    Appearance appear = new
Appearance();
                    material.setLightingEnable(true);
                    appear.setMaterial(material);
                    objScale.addChild(new Sphere(0.75f,
Sphere.GENERATE_NORMALS,80,appear));
                    AmbientLight lightA = new
AmbientLight();
                    lightA.setInfluencingBounds(new
BoundingSphere());
                    objScale.addChild(lightA);

                    // Create the transform group node for
the each light and initialize
                    // it to the Identity.  Enable the
TRANSFORM_WRITE capability so that
                    // our behavior code can modify it at
runtime.  Add them to the root
                    // of the subgraph.
                    TransformGroup l1RotTrans = new
TransformGroup();

          l1RotTrans.setCapability(TransformGroup.ALLOW_
TRANSFORM_WRITE);
                    objScale.addChild(l1RotTrans);

                    TransformGroup l2RotTrans = new
TransformGroup();

          l2RotTrans.setCapability(TransformGroup.ALLOW_
TRANSFORM_WRITE);
                    objScale.addChild(l2RotTrans);

                    // Create transformations for the
positional lights
                    t = new Transform3D();
                    Vector3d lPos1 =  new Vector3d(0.0,
0.0, 0.205);
                    t.set(lPos1);
                    TransformGroup l1Trans = new
TransformGroup(t);
                    l1RotTrans.addChild(l1Trans);

                    t = new Transform3D();
                    Vector3d lPos2 =  new Vector3d(0.0,
0.0, .40);
                    t.set(lPos2);
                    TransformGroup l2Trans = new
TransformGroup(t);
                    l2RotTrans.addChild(l2Trans);

                    // Create Geometry for point lights
                    ColoringAttributes caL1 = new
ColoringAttributes();
                    ColoringAttributes caL2 = new
ColoringAttributes();

                    caL1.setColor(lColor1);
                    caL2.setColor(lColor2);
                    Appearance appL1 = new Appearance();
                    Appearance appL2 = new Appearance();

                    appL1.setColoringAttributes(caL1);
                    appL2.setColoringAttributes(caL2);
                    transp = new TransparencyAttributes();
                    transp.setTransparency(0.5f);

          transp.setCapability(TransparencyAttributes.ALLO
W_MODE_WRITE);

          transp.setTransparencyMode(TransparencyAttribut
es.BLENDED);

          appL1.setTransparencyAttributes(transp);

          appL2.setTransparencyAttributes(transp);


                    //semi-gitna
                    l1Trans.addChild(new Sphere(0.60f,
Sphere.GENERATE_NORMALS, 80, appL1));
                    //gitna
                    l2Trans.addChild(new Sphere(0.40f,
Sphere.GENERATE_NORMALS, 80, appL2));

                    // Create lights
                    AmbientLight aLgt = new
AmbientLight(alColor);

                    Light lgt1 = null;
                    Light lgt2 = null;

                    Point3f lPoint  = new Point3f(0.0f, 0.0f,
0.0f);
                    Point3f atten = new Point3f(1.0f, 0.0f,
0.0f);
                    Vector3f lDirect1 = new Vector3f(lPos1);
                    Vector3f lDirect2 = new Vector3f(lPos2);
                    lDirect1.negate();
                    lDirect2.negate();

                    switch (lightType) {
                    case DIRECTIONAL_LIGHT:
                      lgt1 = new DirectionalLight(lColor1,
lDirect1);
                      lgt2 = new DirectionalLight(lColor2,
lDirect2);
                      break;
                    case POINT_LIGHT:
                      lgt1 = new PointLight(lColor1, lPoint,
atten);
                      lgt2 = new PointLight(lColor2, lPoint,
atten);
                      break;
                    case SPOT_LIGHT:
                      lgt1 = new SpotLight(lColor1, lPoint,
atten, lDirect1,
                                                    25.0f *
(float)Math.PI / 180.0f, 10.0f);
                      lgt2 = new SpotLight(lColor2, lPoint,
atten, lDirect2,
                                                    25.0f *
(float)Math.PI / 180.0f, 10.0f);
                      break;
                    }

                    // Set the influencing bounds
                    aLgt.setInfluencingBounds(bounds);
                    lgt1.setInfluencingBounds(bounds);
                    lgt2.setInfluencingBounds(bounds);
```

```
                // Add the lights into the scene graph
                objScale.addChild(aLgt);
                l1Trans.addChild(lgt1);
                lZTrans.addChild(lgt2);

                Text2D textObject = new
Text2D("Legend:",
                                        new Color3f(1f, 1f,
1f),
                                        "Serif",
                                        28,
                                        Font.BOLD);

                Transform3D textTranslation = new
Transform3D();
                textTranslation.setTranslation(new
Vector3f(1.0f, -0.6f, 0f));
                TransformGroup textTranslationGroup =
new TransformGroup(textTranslation);

        textTranslationGroup.addChild(textObject);

        objScale.addChild(textTranslationGroup);

                Text2D textObject_ = new
Text2D("Lens",
                                        new Color3f(1f, 1f,
1f),
                                        "Serif",
                                        28,
                                        Font.BOLD);

                Transform3D textTranslation_ = new
Transform3D();
                textTranslation_.setTranslation(new
Vector3f(1.3f, -0.8f, 0f));
                TransformGroup textTranslationGroup_
= new TransformGroup(textTranslation_);

        textTranslationGroup_.addChild(textObject_);

        objScale.addChild(textTranslationGroup_);

                Text2D textObject_1 = new
Text2D("Cornea",
                                        new Color3f(1f, 1f,
1f),
                                        "Serif",
                                        28, Font.BOLD);

                Transform3D textTranslation_1 = new
Transform3D();
                textTranslation_1.setTranslation(new
Vector3f(1.3f, -1.0f, 0f));
                TransformGroup textTranslationGroup_1
= new TransformGroup(textTranslation_1);

        textTranslationGroup_1.addChild(textObject_1);

        objScale.addChild(textTranslationGroup_1);

                Text2D textObject_2 = new
Text2D("Sclera",
                                        new Color3f(1f, 1f,
1f),
                                        "Serif",
                                        28,
                                        Font.BOLD);

                Transform3D textTranslation_2 = new
Transform3D();
                textTranslation_2.setTranslation(new
Vector3f(1.3f, -1.2f, 0f));
                TransformGroup textTranslationGroup_2
= new TransformGroup(textTranslation_2);

        textTranslationGroup_2.addChild(textObject_2);

        objScale.addChild(textTranslationGroup_2);

                Transform3D cube = new
Transform3D();
                cube.setTranslation(new Vector3f(13.8f,
-9.5f,-70.0f));
                TransformGroup objtrans = new
TransformGroup(cube);
                objtrans.addChild(new Cube3());
                objScale.addChild(objtrans);

                Transform3D cube1 = new
Transform3D();
                cube1.setTranslation(new
Vector3f(13.8f, -12.f,-70.0f));
                TransformGroup objtrans1 = new
TransformGroup(cube1);
                objtrans1.addChild(new Cube());
                objScale.addChild(objtrans1);

                Transform3D cube2 = new
Transform3D();
                cube2.setTranslation(new
Vector3f(13.8f, -14.5f,-70.0f));
                TransformGroup objtrans2 = new
TransformGroup(cube2);
                objtrans2.addChild(new Cube2());
                objScale.addChild(objtrans2);

                objRoot.compile();
                return objRoot;

        } //end of createSceneGraph method of
HelloJava3Da

        public HelloJava3Da1() {
                g2D = null;
        } //end of HelloJava3Da (constructor)

        private synchronized void setResults(Vector
results) {
                queryResults = results;
        }

        public void init() {

                setLayout(new BorderLayout());

                incise = new JButton ("Incise..
Inactive");
                incise.addActionListener(this);
                capsulo = new JButton ("Capsulotomy..
Inactive");
                capsulo.addActionListener(this);
```

```
                    phaco = new JButton
("Phacoemulsification.. Inactive");
                    phaco.addActionListener(this);
                    IOL = new JButton ("Insert IOL..
Inactive");
                    IOL.addActionListener(this);
                    done = new JButton ("Done");
                    done.addActionListener(this);
                    JPanel p = new JPanel();
                    p.setBorder(new
TitledBorder("Options"));
                    p.add(incise);
                    p.add(capsulo);
                    p.add(phaco);
                    p.add(IOL);
                    p.add(done);
                    add ("South", p);

                    GraphicsConfiguration config =
SimpleUniverse.getPreferredConfiguration();


                    Canvas3D canvas3D = new
Canvas3D(null);
                    add("Center", canvas3D);

                    simpleU = new
SimpleUniverse(canvas3D,4);
                    BranchGroup scene =
createSceneGraph(simpleU);


                    // This moves the ViewPlatform back a
bit so the
                    // objects in the scene can be viewed
                    // add the behaviors to the
ViewingPlatform
                    ViewingPlatform viewingPlatform =
simpleU.getViewingPlatform();

                    BoundingSphere bounds =
                                        new
BoundingSphere(new Point3d(0.0, 0.0, 0.0), 100.0);

                    behaviorsOn = true;



        simpleU.getViewingPlatform().setNominalViewingT
ransform();

                    simpleU.addBranchGraph(scene);
                    canvas3D.addMouseListener (new
java.awt.event.MouseAdapter () {
                    public void mousePressed
(java.awt.event.MouseEvent evt) {

        canvasYZMousePressed (evt);
                    }
                    });
                    canvas3D.addMouseMotionListener (new
java.awt.event.MouseMotionAdapter () {
                    public void mouseDragged
(java.awt.event.MouseEvent evt) {

        canvasYZMouseDragged (evt);
                    }
```

```
});

//X points for incision
inciseArrayDefined[0] = 436;
inciseArrayDefined[1] = 437;
inciseArrayDefined[2] = 437;
inciseArrayDefined[3] = 438;
inciseArrayDefined[4] = 439;
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phacoMatrix[374][258] = 0;
phacoMatrix[375][258] = 0;
phacoMatrix[376][258] = 0;
phacoMatrix[376][259] = 0;
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```

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phacoMatrix[447][203] = 0;
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phacoMatrix[409][173] = 0;
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                phacoMatrix[401][172] = 0;
                phacoMatrix[400][172] = 0;
                phacoMatrix[399][172] = 0;
                phacoMatrix[398][172] = 0;
        }

        public void actionPerformed(ActionEvent e) {

                Transform3D t;
                Appearance appL1 = new Appearance();
                int ctr, ctr_, ctr2;

                if (e.getSource() == incise) {
                  ViewingPlatform v =
simpleU.getViewingPlatform();
                  if (behaviorsOn) {
                        inciseFlag = true;

        v.setViewPlatformBehavior(null);
                        incise.setLabel("Incise On");
                        behaviorsOn = false;
                  }
                  else {
                        inciseFlag = false;

                        Color3f red = new
Color3f(1.0f, 0.0f, 0.0f);

                        ColoringAttributes col = new
ColoringAttributes();
                        col.setColor(red);

                        Appearance lineAppear = new
Appearance();

        lineAppear.setColoringAttributes(col);
                        LineAttributes lineA = new
LineAttributes();
                        lineA.setLineWidth(1.0f);

        lineA.setLinePattern(LineAttributes.PATTERN_SOLI
D);

        lineAppear.setLineAttributes(lineA);

                        incise.setLabel("Incise Off");
                        behaviorsOn = true;
                        for (ctr=0;ctr<z;ctr++)
                        {

        System.err.println(inciseArray[ctr] + " " +
inciseArray_[ctr]);
                        }

                        BranchGroup inciseLineBG =
new BranchGroup();
                        int diff = 0;

                        // count number of vertices
                        if ((z%2) != 0) {
                                ctr2 = z;
```

```
                                z = z - 1;
                                System.err.println(z
+ "mok");
                                diff =
inciseArray_[z] - inciseArray_[0];
                        }
                        else {
                                z = z;
                                System.err.println(z
+ "lamok");
                                diff =
inciseArray_[z-1] - inciseArray_[0];
                        }

                        System.err.println(diff +
"wek" + inciseArray_[z] + " " + inciseArray_[0] + " " +
inciseArray_[z-1]);

                        if ((diff>46) || (diff<10)) {
                                temp_storage =
(((float)diff-46.00)/46.00)*100.00;
                                if (temp_storage <
0) {

        numIncise = (float)(100 + temp_storage);

        System.err.println(temp_storage);

        System.err.println("Length of incision score: " +
numIncise + "%mok" );
                                }
                                else if
(temp_storage > 100) {

        numIncise = (float)(temp_storage - 100);

        System.err.println(temp_storage);

        System.err.println("Length of incision score: " +
numIncise + "%" );
                                }
                                else {

        numIncise = (float)(100 - temp_storage);

        System.err.println(temp_storage);

        System.err.println("Length of incision score: " +
numIncise + "%" );
                                }
                                inciseDoneFlag =
false;
                        }


                        else {
                                //If length is 10 - 46
                                numIncise = 100;

        System.err.println("Length of incision score:
100%");
                                inciseDoneFlag =
true;
                        }
```

```
                                LineArray inciseLine = new
LineArray(z, LineArray.COORDINATES|LineArray.COLOR_3);

                                for (ctr_=0; ctr_<z;ctr_++) {

        inciseLine.setCoordinate(ctr_, new
Point3f((inciseArray[ctr_]-401)*0.0023f, (218-
inciseArray_[ctr_])*0.0023f, 0.245f));
                                }


                                Color3f colors[] = new
Color3f[z];
                                //colors[0] = new Color3f
(0.0f, 1.0f, 1.0f);
                                for (int b = 0; b < z; b++) {
                                        colors[b] = red;
                                }

                                inciseLine.setColors(0, colors);
                                inciseLineBG.addChild(new
Shape3D(inciseLine));
                                v.addChild(inciseLineBG);

                                int d=0, start =0, end=0;
                                while ((found!= true) &&
(d<=218)){
                                        if (inciseArray_[0]
== inciseArrayDefined_[d]) {
                                                found =
true;
                                                start = d;
                                                end = d
+ z;
                                        }
                                d++;
                                }
                                System.err.println(start + " "
+ end);

                                int nuIndex, xd, yd, oldIndex
= 0, sqrAns, invalid = 0;
                                double average, sum=0.0,
ansWer;
                                if (found==true) {
                                        for (nuIndex =
start; nuIndex < end; nuIndex++) {
                                                xd =
inciseArrayDefined[nuIndex] - inciseArray[oldIndex];
                                                yd =
inciseArrayDefined_[nuIndex] - inciseArray_[oldIndex];
                                                if (xd < -
10 ) {

        invalid++;
                                                }

        System.err.println(xd + " mok " + yd);
                                                sqrAns =
xd*xd + yd*yd;
                                                ansWer =
(Math.sqrt((double)sqrAns));
                                                sum =
sum + ansWer;

        oldIndex++;
                                        }
```

```
                                        average =
sum/oldIndex;

        System.err.println(sum + " " + average);
                                        if (average >100) {
                                        incisionScore =
(float)(average - 100.0);
                                        }
                                        else {

        incisionScore = (float)(100.0 - average);
                                        }
                                }
                                else {
                                        incisionScore = 0;
                                }
                                showStatus("Incision score : "
+ incisionScore + "%");
                                finalInciseScore =
(incisionScore + numIncise)/2;
                                if (invalid!=0) {
                                        inciseDoneFlag =
false;
                                }
                        }
                }

                if (e.getSource() == capsulo) {
                  ViewingPlatform v =
simpleU.getViewingPlatform();
                  if (behaviorsOn) {
                                if ((inciseFlag==false) &&
(inciseDoneFlag==true)) {
                                        capsuloFlag = true;

        v.setViewPlatformBehavior(null);

        capsulo.setLabel("Capsulotomy On");
                                        behaviorsOn =
false;
                                }
                                else {
                                        capsuloScore = 0;
                                        showStatus
("Capsulotomy score: 0.0%");
                                }
                        }
                        else {
                                capsuloFlag = false;

        //v.setViewPlatformBehavior(orbit);

                                Color3f red = new
Color3f(1.0f, 0.0f, 0.0f);

                                ColoringAttributes colCap =
new ColoringAttributes();
                                colCap.setColor(red);

                                Appearance lineAppear_ =
new Appearance();

        lineAppear_.setColoringAttributes(colCap);
                                LineAttributes lineB = new
LineAttributes();
                                lineB.setLineWidth(1.0f);

        lineB.setLinePattern(LineAttributes.PATTERN_SOLI
D);

        lineAppear_.setLineAttributes(lineB);


        capsulo.setLabel("Capsulotomy Off");
                                behaviorsOn = true;
                                for (ctr=0;ctr<zC;ctr++)
                                {

        System.err.println(capsuloArray[ctr] + "hwabish"
+ capsuloArray_[ctr]);
                                }

                                BranchGroup capsuloLineBG =
new BranchGroup();
                                if ((zC%2) != 0) {
                                        ctr2 = zC;
                                        zC = zC - 1;

        System.err.println(zC + "mok");
                                }
                                else {
                                        zC = zC;

        System.err.println(zC + "lamok");
                                }


                                LineArray capsuloLine = new
LineArray(zC,
LineArray.COORDINATES|LineArray.COLOR_3);

                                for (ctr_=0; ctr_<zC;ctr_++)
{

        capsuloLine.setCoordinate(ctr_, new
Point3f((capsuloArray[ctr_]-401)*0.0023f, (218-
capsuloArray_[ctr_])*0.0023f, 0.345f));
                                }


                                Color3f colors[] = new
Color3f[zC];
                                //colors[0] = new Color3f
(0.0f, 1.0f, 1.0f);
                                for (int b = 0; b < zC; b++) {
                                        colors[b] = red;
                                }

                                capsuloLine.setColors(0,
colors);
                                t = new Transform3D();
                                Vector3d lPos1 =  new
Vector3d(0.0, 0.0, 0.05);
                                t.set(lPos1);
                                TransformGroup l1Trans =
new TransformGroup(t);
                                l1Trans.addChild(new
Sphere(0.2f, Sphere.GENERATE_NORMALS, 80));

        capsuloLineBG.addChild(l1Trans);

                                v.addChild(capsuloLineBG);
```

```
                        int  h=0, invalid = 0;
                        double sqrAns_ = 0,xd_ = 0,
yd_ = 0,ansWer_ = 0;

                        for (h = 0; h< zC; h++) {
                                xd_ =
Math.abs(((capsuloArray[h] - 400)*0.0023f));
                                yd_ =
Math.abs(((218- capsuloArray_[h])*0.0023f));
                                sqrAns_ =
(xd_*xd_) + (yd_*yd_);
                                ansWer_ =
(Math.sqrt((double)sqrAns_));
                                System.err.println
(ansWer_ + "pam");
                                if ((ansWer_ >
0.15)||(ansWer_ < .05)) {

        invalid++;
                                }
                                sum_ = sum_ +
ansWer_;
                                h++;
                        }
                        ave_ = sum_/zC;
                        System.err.println(ansWer_ +
" " + sum_ + "bwabwa " + ave_);


                        if (((ave_<0.06f) &&
(ave_>0.03f)) && (invalid ==0)){

        showStatus("Capsulotomy score: 100");
                                capsuloScore =100;
                                PlatformGeometry
pg = createAimer((float)ave_);
                                ViewingPlatform vp
= simpleU.getViewingPlatform();

        vp.setPlatformGeometry(pg);
                                capsuloDoneFlag =
true;
                        }
                        else {
                        float  tem=0;
                                if (ave_ < 0.03f) {

        capsuloScore = 100.0f - (float)(((0.03f -
ave_)/0.03f)*100.0f);

        capsuloDoneFlag = false;
                                }
                                else if (ave_ >
0.06f) {

        capsuloScore = 100.0f - (float)(((ave_ -
0.06f)/0.06f)*100.0f);

        capsuloDoneFlag = false;
                                }
                                else {


        System.err.println(zC + " " + invalid);
                                                if
((((float)(invalid-zC)/zC)*100) > 100) {

        capsuloScore = (((float)(invalid-zC)/zC)*100)-
100;
                                                }
                                                else if
((((float)(invalid-zC)/(float)zC)*100) < 0) {

        tem = (((float)invalid-zC)/zC)*100;

        capsuloScore = Math.abs(tem);
                                                }
                                                else {

        capsuloScore = 100 - (((float)(invalid-
zC)/zC)*100);
                                                }

        capsuloDoneFlag = false;
                                        }
                                showStatus("Capsulotomy
Score:" + capsuloScore);
                                }
                                capsuloFlag = false;
                        }
                      }

                      if (e.getSource() == phaco) {
                        int h, k;
                        ViewingPlatform v =
simpleU.getViewingPlatform();
                        if (behaviorsOn) {
                                if (((inciseDoneFlag == true)
&& (inciseFlag==false)) && ((capsuloDoneFlag==true) &&
(capsuloFlag==false))) {
                                        phacoFlag = true;

        v.setViewPlatformBehavior(null);

        phaco.setLabel("Phacoemulsification On");
                                        behaviorsOn =
false;
                                }
                                else {
                                        phacoScore = 0;

        showStatus("Phacoemulsification Score: 0.0%");
                                }
                        }
                        else {
                                phacoFlag = false;
                                double sum =0, ave =0,
result_;
                                float nuX_, nuY_;

        phaco.setLabel("Phacoemulsification Off");

                                for (ctr=0;ctr<zP;ctr++) {

        System.err.println(phacoArrayRes[ctr]);
                                        sum = sum +
phacoArrayRes[ctr];
                                }

                                for (ctr=0;ctr<zP;ctr++) {

        System.err.println(phacoArray[ctr] + " "
+phacoArray_[ctr]);
```

```
                                        nuX_ =
(float)((phacoArray[zP]-400)*(phacoArray[zP]-
400)*.0023*.0023);
                                        nuY_ =
(float)((218-phacoArray_[zP])*(218-
phacoArray_[zP])*.0023*.0023);
                                        result_ =
Math.sqrt((double)(nuX_+nuY_));
//
        System.err.println(nuX_ + " " + nuY_ + " " +
result_);
                                        sum = sum +
result_;
                                }
                                ave = sum/zP;
                                System.err.println(ave);

                                PlatformGeometry pg =
createAimerNorad((float)(0.95-ave));
                                ViewingPlatform vp =
simpleU.getViewingPlatform();
                                vp.setPlatformGeometry(pg);

                                int q = 0, invalid = 0;
                                for (int o = 0; o <zP; o++) {
                                        if ((phacoArray_[o]
>= 172) && (phacoArray_[o] <= 266)) {
                                                if
((phacoArray[o] >= 353) && (phacoArray[o] <= 448)) {

        for (int p = 0; p<19; p++) {

        if ((phacoArray_[o] + p >= 172) &&
(phacoArray_[o] + p <= 266)) {

                if
(phacoMatrix[phacoArray[o]][phacoArray_[o]+p] == 0) {


        phacoMatrix[phacoArray[o]][phacoArray_[o]+p] =
1;

                        q++;

                }

        }

        if ((phacoArray_[o] - p >= 172) &&
(phacoArray_[o] - p <= 266)) {

                if
(phacoMatrix[phacoArray[o]][phacoArray_[o]-p] == 0) {



        phacoMatrix[phacoArray[o]][phacoArray_[o]-p] =
1;

                        q++;

                }

        }

        If ((phacoArray[o]+p >= 353) &&
(phacoArray[o]+p <= 448)) {

                if
(phacoMatrix[phacoArray[o]+p][phacoArray_[o]] == 0) {


        phacoMatrix[phacoArray[o]+p][phacoArray_[o]] =
1;

                        q++;

                }

        }

        if ((phacoArray[o]-p >= 353) && (phacoArray[o]-p
<= 448)) {

                if (phacoMatrix[phacoArray[o]-
p][phacoArray_[o]] == 0) {

                        phacoMatrix[phacoArray[o]-
p][phacoArray_[o]] = 1;

                        q++;

                }

        }

        }
                                                }
                                                else {

        invalid++;
                                                }
                                        }
                                        else {

        invalid++;
                                        }
                                }

                                if ((q >= 6994) && (invalid
==0)){
                                        phacoScore =100;
                                        phacoDoneFlag =
true;
                                        BranchGroup
phacoBG = new BranchGroup();

                                        Appearance
cylinderAppearance = new Appearance();

        TransparencyAttributes transAttrs = new
TransparencyAttributes(TransparencyAttributes.FASTEST,
0.5f);

        cylinderAppearance.setTransparencyAttributes(tra
nsAttrs);
                                        Cylinder aim = new
Cylinder(0.04f, 0.005f, 80, cylinderAppearance);


        phacoBG.addChild(aim);

        v.addChild(phacoBG);
                                }
```

```
                    else if ((q<6994) &&(invalid
==0)){
                        phacoScore = 100-
(Math.abs(((float)((float)(6994-q)/6994)*100)));
                        phacoDoneFlag =
true;
                        BranchGroup
phacoBG = new BranchGroup();

                        Appearance
cylinderAppearance = new Appearance();

        TransparencyAttributes transAttrs = new
TransparencyAttributes(TransparencyAttributes.FASTEST,
0.5f);

        cylinderAppearance.setTransparencyAttributes(tra
nsAttrs);
                        Cylinder aim = new
Cylinder(0.04f, 0.005f, 80, cylinderAppearance);


        phacoBG.addChild(aim);

        v.addChild(phacoBG);
                    }

                    else if (invalid>0) {
                        phacoScore = 100-
(Math.abs(((float)((float)(6994-q)/6994)*100)));
                        phacoDoneFlag =
false;
                    }

                    System.err.println(q + "pwet "
+ phacoScore + " " + invalid);

        showStatus("Phacoemulsification Score: " +
phacoScore);

                    behaviorsOn = true;
                }
            }

            if (e.getSource() == IOL) {
            ViewingPlatform v =
simpleU.getViewingPlatform();
              if (behaviorsOn) {
                    if ((((inciseDoneFlag == true)
&& (inciseFlag==false)) && ((capsuloDoneFlag==true) &&
(capsuloFlag==false))) && ((phacoFlag ==false) &&
                    (phacoDoneFlag == true))) {
                        IOL.setLabel("Insert
IOL.. On");
                        IOLFlag = true;
                        behaviorsOn =
false;
                    }
                    else {
                        IOLScore = 0;
                        showStatus ("IOL
Insertion Score: 0.0%");
                    }
                }
                else {
                    IOLFlag = false;
        v.setViewPlatformBehavior(orbit);
                        IOL.setLabel("Insert IOL..
Off");
                        behaviorsOn = true;
                }
            }

            If (e.getSource() == done)
            {
                        practicalScore =
(incisionScore + capsuloScore + IOLScore + phacoScore)/4;

                        if (practicalScore >= 60) {
                            status = "Passed";
                        }
                        else {
                            status = "Failed";
                        }

/*                      String s_;
                        s_ = getParameter("st");
                        System.err.println(s_);

        System.err.println(incisionScore);

        System.err.println(capsuloScore);
                        System.err.println(status);
                        Connection connection = null;
                        String url =
"jdbc:mysql://localhost/OMETSDatabase";
                        String query = "select
username, psword from users";

                        try {
                            // Load the JDBC
driver
                            // MySQL MM JDBC
driver

        Class.forName("org.gjt.mm.mysql.Driver");
                        }

                        catch
(ClassNotFoundException ecnf) {

        System.err.println("Error");
                            // Could not find
the database driver
                        }

                        try {
                        Vector results = new Vector();
                        connection =
DriverManager.getConnection(url, "root", "root");

                        PreparedStatement pstmt =
connection.prepareStatement("update performancerecord
set lengthOfIncision =? where username =?");
                        pstmt.setFloat(1, numIncise);
                        pstmt.setString(2, s_);
                        pstmt.executeUpdate();
                        pstmt.close();

                        PreparedStatement pstmt_ =
connection.prepareStatement("update performancerecord
set proximityfrActual =? where username =?");
```

```
                    pstmt_.setFloat(1,
incisionScore);
                    pstmt_.setString(2, s_);
                    pstmt_.executeUpdate();
                    pstmt_.close();

                    PreparedStatement pstmt1 =
connection.prepareStatement("update performancerecord
set capsulotomyCrit =? where username =?");
                    pstmt1.setFloat(1,
capsuloScore);
                    pstmt1.setString(2, s_);
                    pstmt1.executeUpdate();
                    pstmt1.close();

                    PreparedStatement pstmt2 =
connection.prepareStatement("update performancerecord
set IOLInsertionCrit =? where username =?");
                    pstmt2.setFloat(1, IOLScore);
                    pstmt2.setString(2, s_);
                    pstmt2.executeUpdate();
                    pstmt2.close();

                    PreparedStatement pstmt3 =
connection.prepareStatement("update performancerecord
set lensRemovalCrit =? where username =?");
                    pstmt3.setFloat(1,
phacoScore);
                    pstmt3.setString(2, s_);
                    pstmt3.executeUpdate();
                    pstmt3.close();

                    PreparedStatement pstmt4 =
connection.prepareStatement("update performancerecord
set practical =? where username =?");
                    pstmt4.setFloat(1,
practicalScore);
                    pstmt4.setString(2, s_);
                    pstmt4.executeUpdate();
                    pstmt4.close();

                    PreparedStatement pstmt5 =
connection.prepareStatement("update performancerecord
set status =? where username =?");
                    pstmt5.setString(1, status);
                    pstmt5.setString(2, s_);
                    pstmt5.executeUpdate();
                    pstmt5.close();

                    connection.close();
                    }

                    catch (SQLException esql) {
                    // Could not connect to the
database
                     System.err.println("Error2");
                    }

                    catch (Exception ex) {
                    // Could not connect to the
database
                     System.err.println("Error2");
                    }
*/
                    JLabel sep = new
JLabel("<html><p> </p></html>");
                    JLabel msgLabel = new
JLabel();
                    msgLabel.setText("Final
Incision Score: " + ((incisionScore+numIncise)/2) + " ");
                    JLabel msgLabel4 = new
JLabel();
                    msgLabel4.setText("
(a) Length of Incision Score: " + numIncise + "\n");
                    JLabel msgLabel5 = new
JLabel();
                    msgLabel5.setText("
(b) Proximity from Actual Points Score: " + incisionScore +
"\n");
                    JLabel msgLabel_ = new
JLabel();

          msgLabel_.setText("Capsulotomy Score: " +
capsuloScore + "\n");
                    JLabel msgLabel1 = new
JLabel();
                    msgLabel1.setText("
IOL Insertion Score: " + IOLScore + "\n");
                    JLabel msgLabel2 = new
JLabel();

          msgLabel2.setText("Phacoemulsification Score: "
+ phacoScore + "\n");
                    JLabel msgLabel3 = new
JLabel();
                    msgLabel3.setText("Final
Training Score: " + practicalScore + " ");
                    JFrame Results = new
JFrame("::RESULTS_::");
                    Container content =
Results.getContentPane();
                    content.add(msgLabel,
"East");
                    content.add(sep, "East");
                    content.add(msgLabel4,
"East");
                    content.add(sep, "East");
                    content.add(msgLabel5,
"East");
                    content.add(sep, "East");
                    content.add(msgLabel_,
"East");
                    content.add(msgLabel1,
"East");
                    content.add(msgLabel2,
"East");
                    content.add(msgLabel3,
"East");
                    Results.setSize(450,200);
                    content.setLayout(new
FlowLayout());

          content.setBackground(Color.white);
                    Results.setVisible(true);

                    GraphicsConfiguration config
= SimpleUniverse.getPreferredConfiguration();

                    }
          }

          public void destroy() {
```

```
                simpleU.cleanup();
        }


        //
        // The following allows HelloUniverse to be run as
an application
        // as well as an applet
        //


        public static void main(String[] args)
        {
                //new MainFrame(new HelloJava3Da1(),
656, 656);


        }

        private void canvasYZMousePressed
(java.awt.event.MouseEvent evt)
        {
                Transform3D t;
                int lensCount=0,nuX,nuY;
                float result = 0;
                //GEN-
FIRST:event_canvasYZMousePressed
                // Add your handling code here:
                System.err.println( "pressed X: " +
evt.getX() + "Y: mok " + evt.getY() );
                lastX = evt.getX();
                lastY = evt.getY();
                //showStatus(" " + lastX + " " + lastY);
                float nuX_=0, nuY_=0;
                double result_;

                if (phacoFlag == true) {
                                nuX_ =
(float)((lastX-400)*(lastX-400)*.0023*.0023);
                                nuY_ =
(float)((218-lastY)*(218-lastY)*.0023*.0023);
                                result_ =
Math.sqrt((double)(nuX_+nuY_));

        System.err.println(nuX_ + " " + nuY_ + " " +
result_);
                }
                if (IOLFlag == true) {
                        if
(((lastX>353)&&(lastX<448)) &&
((lastY>173)&&(lastY<267))) {
                                ViewingPlatform v =
simpleU.getViewingPlatform();
                                PlatformGeometry
pg = createAimer_(lastX, lastY);
                                ViewingPlatform vp
= simpleU.getViewingPlatform();

        vp.setPlatformGeometry(pg);

                                IOLFlag = false;


        System.err.println(lastX + "mok " + lastY);
                                nuX = (lastX-
400)*(lastX-400);
                                nuY = (218-
lastY)*(218-lastY);
                                result =
(float)(Math.sqrt((double)(nuX+nuY)));

        System.err.println(result);
                                IOLScore = 100 -
result;
                                showStatus("IOL
Insertion Score: " + IOLScore +"%");
                                IOLDoneFlag =
true;
                        }

                }
        }
        //GEN-LAST:event_canvasYZMousePressed

        private void canvasXZMousePressed
(java.awt.event.MouseEvent evt) {
                //GEN-
FIRST:event_canvasXZMousePressed
                // Add your handling code here:

                System.err.println( "pressed X: " +
evt.getX() + "Y: " + evt.getY() );
                //showStatus(" " + lastX + " " + lastY);

        }
        //GEN-LAST:event_canvasXZMousePressed

        private void canvasYZMouseDragged
(java.awt.event.MouseEvent evt) {
                //use for incision...
                //GEN-
FIRST:event_canvasYZMouseDragged
                //System.err.println( "X: " + evt.getX()
+ "Y: " + evt.getY() );
                System.err.print( "dX: ");
                System.err.print( evt.getX() - lastX );
                System.err.print( "dY: ");
                System.err.print( evt.getY() - lastY );
                System.err.println();

                if (inciseFlag==true) {
                        inciseArray[z] = evt.getX();
                        inciseArray_[z] = evt.getY();
                        //showStatus(" " +
inciseArray[z] + " " + inciseArray_[z] + "mok");
                        z++;
                }

                if (capsuloFlag == true) {
                        capsuloArray[zC] =
evt.getX();
                        capsuloArray_[zC] =
evt.getY();
                        //showStatus(" " +
capsuloArray[zC] + " " + capsuloArray_[zC] + "mok");
                        zC++;
                }

                if (phacoFlag==true) {
                        int cv = 0;
                        float nuX_, nuY_;
                        double result_, sum=0, ave;
                        phacoArray[zP] = evt.getX();
```

```
                                phacoArray_[zP] = evt.getY();
                                //showStatus(" " +
phacoArray[zP] + " " + phacoArray_[zP] + "mok");
                                nuX_ =
(float)((phacoArray[zP]-400)*(phacoArray[zP]-
400)*.0023*.0023);
                                nuY_ = (float)((218-
phacoArray_[zP])*(218-phacoArray_[zP])*.0023*.0023);
                                result_ =
Math.sqrt((double)(nuX_+nuY_));
                                System.err.println(nuX_ + " "
+ nuY_ + " " + result_);
                                if (result_<0.06) {
                                        PlatformGeometry
pg = createAimer_2(phacoArray[zP], phacoArray_[zP]);
                                        ViewingPlatform vp
= simpleU.getViewingPlatform();

        vp.setPlatformGeometry(pg);
                                }
                                zP++;
                        }
        }
        //GEN-LAST:event_canvasYZMouseDragged

        PlatformGeometry createAimer(float radius) {
                PlatformGeometry pg = new
PlatformGeometry();
                float rad = radius;

                TransformGroup moveTG = new
TransformGroup();

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_READ);

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_WRITE);

                MouseTranslate mouseT = new
MouseTranslate(moveTG);
                moveTG.addChild(mouseT);
                BoundingSphere bounds = new
BoundingSphere(new Point3d(0.0,0.0,0.0), 100.0);
                mouseT.setSchedulingBounds(bounds);
                pg.addChild(moveTG);

                Transform3D xForm = new
Transform3D();
                xForm.rotX(Math.PI/2.0);
                xForm.setTranslation(new Vector3d(0.0,
0.0, -1.0));
                TransformGroup placementTG = new
TransformGroup(xForm);
                moveTG.addChild(placementTG);

                Appearance cylinderAppearance = new
Appearance();
                TransparencyAttributes transAttrs =
new
TransparencyAttributes(TransparencyAttributes.FASTEST,
0.5f);

        cylinderAppearance.setTransparencyAttributes(tra
nsAttrs);
                Cylinder aimer = new Cylinder(rad,
0.005f, 80, cylinderAppearance);
                placementTG.addChild(aimer);

                return pg;
        }


        PlatformGeometry createAimerNorad(float radius)
{
                PlatformGeometry pg = new
PlatformGeometry();
                float rad = radius;

                TransformGroup moveTG = new
TransformGroup();

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_READ);

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_WRITE);

                //MouseTranslate mouseT = new
MouseTranslate(moveTG);
                //moveTG.addChild(mouseT);
                BoundingSphere bounds = new
BoundingSphere(new Point3d(0.0,0.0,0.0), 100.0);

        //mouseT.setSchedulingBounds(bounds);
                pg.addChild(moveTG);

                Transform3D xForm = new
Transform3D();
                xForm.rotX(Math.PI/2.0);
                xForm.setTranslation(new Vector3d(0.0,
0.0, -2.0));
                TransformGroup placementTG = new
TransformGroup(xForm);
                moveTG.addChild(placementTG);

                Appearance cylinderAppearance = new
Appearance();
                Color3f lColor1  = new Color3f(0.0f,
0.0f, 0.0f);
                ColoringAttributes caL1 = new
ColoringAttributes();
                caL1.setColor(lColor1);

        cylinderAppearance.setColoringAttributes(caL1);

                TransparencyAttributes transAttrs =
new
TransparencyAttributes(TransparencyAttributes.FASTEST,
0.5f);

        cylinderAppearance.setTransparencyAttributes(tra
nsAttrs);
                Cylinder aimer = new Cylinder(rad,
0.005f, 80, cylinderAppearance);
                placementTG.addChild(aimer);

                return pg;
        }


        PlatformGeometry createAimer_(int xIO, int yIO) {
                PlatformGeometry pg = new
PlatformGeometry();
```

```
                int xc =xIO;
                int yc = yIO;

                TransformGroup moveTG = new
TransformGroup();

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_READ);

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_WRITE);

                //MouseTranslate mouseT = new
MouseTranslate(moveTG);
                //moveTG.addChild(mouseT);
                BoundingSphere bounds = new
BoundingSphere(new Point3d(0.0,0.0,0.0), 100.0);

        //mouseT.setSchedulingBounds(bounds);
                pg.addChild(moveTG);

                Transform3D xForm = new
Transform3D();
                xForm.rotX(Math.PI/2.0);
//              xForm.setTranslation(new Vector3d(0.0,
0.0, -0.7));
                Vector3d lPos3 =  new Vector3d(((xc-
400)*0.0023), ((218-yc)*0.0023), -2.0);
//              translate.set(lPos3);
                xForm.setTranslation(lPos3);
                TransformGroup placementTG = new
TransformGroup(xForm);
                moveTG.addChild(placementTG);

                Appearance cylinderAppearance = new
Appearance();
                TransparencyAttributes transAttrs =
new
TransparencyAttributes(TransparencyAttributes.FASTEST,
0.5f);

        cylinderAppearance.setTransparencyAttributes(tra
nsAttrs);
                Cylinder aimer = new Cylinder(0.10f,
0.005f, 80, cylinderAppearance);
                placementTG.addChild(aimer);

                return pg;
        }


        PlatformGeometry createAimer_2(int xIO, int yIO)
{
                PlatformGeometry pg = new
PlatformGeometry();
                int xc =xIO;
                int yc = yIO;

                TransformGroup moveTG = new
TransformGroup();

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_READ);

        moveTG.setCapability(TransformGroup.ALLOW_TR
ANSFORM_WRITE);

                //MouseTranslate mouseT = new
MouseTranslate(moveTG);
                //moveTG.addChild(mouseT);
                BoundingSphere bounds = new
BoundingSphere(new Point3d(0.0,0.0,0.0), 100.0);

        //mouseT.setSchedulingBounds(bounds);
                pg.addChild(moveTG);

                Transform3D xForm = new
Transform3D();
                xForm.rotX(Math.PI/2.0);
//              xForm.setTranslation(new Vector3d(0.0,
0.0, -0.7));
                Vector3d lPos3 =  new Vector3d(((xc-
400)*0.0023), ((218-yc)*0.0023), -2.0);
//              translate.set(lPos3);
                xForm.setTranslation(lPos3);
                TransformGroup placementTG = new
TransformGroup(xForm);
                moveTG.addChild(placementTG);

                Appearance cylinderAppearance = new
Appearance();
                cylinderAppearance.setCapability
(Appearance.ALLOW_COLORING_ATTRIBUTES_WRITE);
                TransparencyAttributes transAttrs =
new
TransparencyAttributes(TransparencyAttributes.FASTEST,
0.5f);

        cylinderAppearance.setTransparencyAttributes(tra
nsAttrs);
                Cylinder aimer = new Cylinder(0.04f,
0.005f, 80, cylinderAppearance);
                placementTG.addChild(aimer);

                return pg;
        }



}
//end of class HelloJava3Da1
```

-- CSS file --

-- main.css --

```
body { font-family: Tahoma; color: #000000; font-size:
10pt;
        background: #6AA4BF url('eyebg.jpg') fixed
center 50%;
        scrollbar-arrow-color: white;
        scrollbar-track-color: #ffffff;
        scrollbar-darkshadow-color: #6AA4BF;
        scrollbar-face-color: #6AA4BF;
        scrollbar-highlight-color: #6AA4BF;
        scrollbar-shadow-color: #6AA4BF;
        word-spacing: 0;
        text-indent: 0;
        margin: 0;
          }

a    {text-decoration:none}
```

```
p    { font-family: Tahoma; color: #000000; font-size: 10pt;
word-spacing: 0;
      text-indent: 0; margin: 0; padding: 0}

span  { font-family: Tahoma; color: #000000; font-size:
10pt }

pre   { color: #000000; font-size: 10pt; font-family: Tahoma
}

b    { font-family: Tahoma; font-weight: bold; font-style:
normal;
                    font-size: 10pt;
                     }

small { font-family: Tahoma; font-size: 10pt; font-weight:
normal; font-style: normal;
      color: #00008B }

li   { font-family: Tahoma; color: #645DF1; font-size: 10pt
text-align: justify}

a:link, a:visited { font-family: Tahoma; color: #645DF1;
                                                    text-
decoration: none; font-size: 10pt }

a:hover { font-family: Tahoma; color: #645DF1; font-size:
10pt;
                    background-color: #EAEAEA }

a:link.tiny, a:visited.tiny { font-family: Tahoma; color:
#645DF1; font-size: 10pt;

            text-decoration: none }
a:hover.tiny { font-family: Tahoma; color: #ffffff; font-
weight: bold;
                                font-size: 10pt; }

a:active.tiny { font-family: Tahoma; color: #ffffff;
                                        font-weight: bold;
font-size: 10pt; }

a:link.home, a:visited.home { font-family: Tahoma; color:
#645DF1;

            font-size: 10pt; text-decoration: none }

a:hover.home        { font-family: Tahoma; color: #ffffff;
font-weight: bold;
                                        font-size: 10pt; }

a:active.home       { font-family: Tahoma; color: #ffffff;
font-weight: bold;
                                        font-size: 10pt; }

input, button { color: #FFFFFF;
                    background-color: #93B4C5;
                    font-family: Tahoma;
                    font-size: 8pt;
                    height: 21px;
                    border-left: solid 1px transparent;
                    border-right: solid 1px transparent;
                    border-top: solid 1px transparent;
                    border-bottom: solid 1px transparent;
                    padding: 0}

input, textarea { background-color: #93B4C5; color:
#FFFFFF; font-family: Tahoma; font-size: 10pt }

h1 { font-family: Tahoma; color: #00008B; font-size: 24pt;
font-weight: bold }

hr { color: #9CB7C7; font-family: Tahoma; font-size: 10pt }

li { font-size: 10pt; color: #00008B; font-family: Tahoma }

h2 { font-size: 10pt; font-family: Tahoma; color: #00008B;
font-weight: bold }

th.home { height: 20; width: 100%; font-family: Tahoma;
font-size: 10pt; color: #00008B;
                                    padding: 0; background-
position: center }

td.home { font-family: Tahoma; font-size: 10pt; color:
#00008B;
                    background-position: center }
```

-- HTML file --

-- error.html --

```
<html>

<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId"
content="FrontPage.Editor.Document">
<title>Online Medical Training System for Cataract Surgery
:: Error!</title>
<link rel="stylesheet" type="text/css" href="main.css">
<SCRIPT language=JAVASCRIPT><!--
      defaultStatus ="Online Medical Training System for
Cataract Surgery © 2004, All Rights Reserved."
// -->

function MM_displayStatusMsg(msgStr) { //v1.0
  status=msgStr;
  document.MM_returnValue = true;
}
//-->
</SCRIPT>
<SCRIPT LANGUAGE="JavaScript">
<!-- Begin
function Start(page) {
OpenWin = window.open(page, "CtrlWindow",
"width=300,height=300,toolbar=no,menubar=no,status=1,
location=no,scrollbars=yes,resizable=no,screenX=0,left=0,s
creenY=30,top=60");
}
// End -->
</SCRIPT>
</head>

<body>
```

```
<div align="center">
  <center>
  <table border="0" cellpadding="0" cellspacing="0"
width="90%" height="114">
    <tr>
      <td width="100%" height="60"><img border="0"
src="banner.jpg" width="100%" height="100%">
            <p> </p>     <p> </p>
            <p> </p>     <p> </p>
</td>
    </tr>
    <tr>
      <td width="80%" height="3" valign="top">
        <p style="word-spacing: 0; margin-top: 0; margin-
bottom: 0"> </p>
      </td>
    </tr>
  </center>
    <tr>
      <td width="80%" height="16" bgcolor="#ADC3CE">
        <p align="right" style="word-spacing: 0; margin-top:
0; margin-bottom: 0"><font
color="#FFFFFF"></font></td>
    </tr>
  <center>
    <tr>
      <td width="80%" height="60" valign="top"
bordercolor="#6AA4BF">
            <p> </p>
        <div align="center">
          <table border="1" cellpadding="0" cellspacing="0"
width="50%" bordercolor="#9CB7C7">
            <tr>
              <td width="80%" bgcolor="#9CB7C7">
                <p align="center"><font
color="#FFFFFF"><b>ERROR!</b></font></td>
            </tr>
            <tr>
              <td width="100%">
                <p> </p>
                <p align="center"><img border="0"
src="right.jpg" width="153" height="53"></p>
                <p align="center"> </p>
                <p align="center"><font color="#FF0000">You
don't have the
                authority to view this page!</font></p>
                <p align="center">Click <a href="index.php"
title="Login" onMouseOver="window.status='Login';return
true;" onMouseOut="self.status=''"
onclick="window.status='Login';return true;">HERE</a> to
login.
                <p align="center"> 
              </td>
            </tr>
          </table>
        </div>
        <p align="center">Trouble Logging in? Email the
webmaster <a href="mailto:p2229f@yahoo.com"
title="Email the webmaster"
onMouseOver="window.status='Email the webmaster';return
true;" onMouseOut="self.status=''"
onclick="window.status='Email the webmaster';return
true;">HERE</a>
        <p> </td>
    </tr>
  </table>
  </center>
</div>

<p align="center"> </p>
<hr width="50%">
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">OMETS
©2004
All Rights Reserved</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">Best
viewed 800x600 up</font></span></i></p>
<p align="center"><i><span style="mso-bidi-font-size:
12.0pt; font-family: Verdana; mso-fareast-font-family: Times
New Roman; mso-bidi-font-family: Times New Roman; mso-
ansi-language: EN-US; mso-fareast-language: EN-US; mso-
bidi-language: AR-SA"><font size="1">IE
5.5 up</font></span></i></p>

</body>

</html>
```

XI. ACKNOWLEDGEMENTS

At last, a chance to say thank you to the people who helped me during my 4-year journey in that stage of life so-called or termed as COLLEGE.. Beware that I am a text(SMS) addict and so some words have been truncated as if I were texting.. Hehehehe

☺ God..

For HIS uber many gifts to me.. I may not have been a good Catholic pero HE never left my side.. HE never gave me anything that I can't handle.. But HE made sure I have enough of everything to make me a better person... THANK YOU PO!!!!

☺ My family..

Pa, salamat sa bagong comp..

Ma, salamat sa mga libre..

Te, salamat sa bag (KONEK!)..

Roi, salamat sa pagkwento ng tungkol sa Ragna..

For putting up with my late nights.. For putting up with me doing nothing but stay in front of the comp.. Nde na tuloy nakakapag-Ragnarok brother ko, mwehehehe... For being supportive, in one way or another...

☺ My dogs..

For putting up with my late nights.. For putting up with my weird attitude na paggising sa kanila habang sila'y himbing na sa pagkakatulog, mwehehe.. For being sooo cute, tanggal lahat ng problema ko pag nakita ko sila... For making landi with me pag uwi ko ng bahay.. Actually, for making landi with me always, bweheheh... Kisses for you, Botchok and Spike...

☺ My computer..

Hehe, kung nakakapagsalita ka lang, matagal ka na sigurong ngareklamo..

☺ My friends and classmates sa school..

Gwash, mahaba ata to.. As you peeps occurred sa aking maliit na utak..

Aliza, kasi katext kita kanina.. Thanks for ur jacket.. Salamat sa uber suporta at sa pagsama sa CR (related b cla?!?).. Salamat sa paniniwala (U know, "kaya mo yan"), mwehehe.. Salamat poh!!

Meybs, dahil namumutla ka na kanina sa tindi ng iyong panic.. Akala ko tuloy me sakit ka.. Heniwei, ikaw lng po nakakaalam ng aking deepest darkest secret sa class (Hmmm... intriga.. Bwahaha).. Salamat po for being open-minded enough to understand things that

I want to blurt out.. Salamat din po for trusting me with a few of your secrets.. Dont wori, ikakalat ko sila... Beeeeh.. JOke lng.. Thanks poh!!

Rommel, dahil wala lang.. Halos isang dekada na po tayo magkasama.. Pag naging officemate pa kita e ewan ko na!! Thanks for being a person I can always turn to when all else fails.. Thanks for understanding.. Thanks for being a true friend.. Sana po ay tumangkad na ako.. Salamat poh!!

Junn, dahil maganda ka.. THANKS!! For letting me see life in a different perspective.. For setting my perspectives in a different light.. For being funny.. For being happy.. For being a co-Ragnarok addict.. For being a real pal.. For being beautiful.. For being poised.. For the pink butterfly you drew with matching dedication.. For always insisting that I start taking my medications.. For always reminding me how "tall" I am.. For pushing me to start doing my SP instead na mag-Ragnarok.. For sending me tips sa Ragnarok =P.. For buying me EVOLVE prepaid Internet card.. For helping me level up sa ragnarok (read --> tank).. For making me laugh.. For making me think.. For being a groupmate and/or partner in some subjects.. For being sooooooooooo one-of-a-kind na friend.. THANK YOU VERY MUCH!!

Camille... For being really fun to be with.. For being so utterly generous.. For being the person na ilang sem na ata may ubo.. For being smart and sweet.. Salamat poh!!

EJ, Apple, Fumi.. ewan ko bakit nakagrupo kayo sa utak ko.. Well, ganun talaga.. For being my classmates in MM.. For presenting on time (hehe, kaya may time pa akong tumunganga bago mataranta for my SP).. For clean notes.. For the STAT days.. For being nice =P.. Salamat poh!!

Pauline, Roxanne.. For being in the same league as I am when talking about heights.. For the Philam days.. For being nice.. Salamat poh!!

Eds, dahil maganda ka rin.. THANKS!! For listening to a few weird stories.. For making phone calls on my behalf (ewan ko if naaalala mo pa).. For making me laugh.. For being maldita.. For introducing me to games like StrCraft, WarCraft, Diablo.. For being beautiful.. For being different showbiz personalities.. For being my ka-chat at different times of the day.. For being a co-job skipper sa Philam.. For sleeping over dito sa amin.. For being open-minded to whatever I feel like saying.. For being there.. THANKS!!!

Mel, dahil balita ko e mangingibang-bansa ka na.. For being a recipient of my forwarded messages (Txt addict kc me =P).. For being a person I can share a story or two with.. For sharing with me a story or two about you.. For being uber maldita, matary and frank (Mwehehehe).. For having a nice Mom.. For being a co-music lover.. For being my ka-chat din at certain times of the day (Invisible or not, haha).. For being open-minded din to anything that has been going on.. For not caring so much as to what other people might say.. For being different.. THANKS!!

Areej, dahil paborito kitang imbitahan sa Chef.. For yielding with my pleas na kumain tayo sa

Chef.. For nearly fifty "G**o" words I've earned from you.. bwehehe.. For being a very masipag groupmate lalo na pag me MP.. For being frank.. For being smart.. For being a schoolmate for nearly a decade na rin.. For being so YOU.. Salamat po!!

Jenny, Sherwin.. For long bouts of laughter.. For new stories to tell.. Salamt poh!!

Miguel.. For presenting late (at least, me kasabay ako..)=P.. For being kind enough as to bring a monitor.. For a lift to SM Bicutan.. For one hell of an SP.. BOW!!

Dun po sa mga nde ko nabanggit, sabi namn sa inyo, maliit lang po ang aking utak.. Gayunpaman po, malaki ang aking puso at nais ko na rin po kaiong pasalamatn for being my classmates!!!!!

Mike, hinuli kita dahil mahaba ito.. Mwehehe.. THANKS!!! For help with my SP.. Not just a mere help, but a whole lot of help... For being a friend who's willing to stand my moods.. For being an ear willing to listen to my constant whines, my endless stories, my problems, my laughs.. For being my enemy.. For being a best friend.. For my stuff toys.. For Botchok.. For being a constant companion kahit na sa far-fetched places.. For insisting din na I start taking my medications, pati na rin that I have my self checked-up again (wala na raw ako baga).. For your cellphone.. For your comp.. For Ragna loads (sa brother mu).. For E-loads.. For having a nice set of doggies.. For figuring out how to download the images from my cam on a 98 OS.. For n times of carrying my CPU.. For sooooooooooooo many things.. Not many people know or understand what you're going through right now.. Even I don't.. Kc cyempre if I do, then you will not be there in that state.. But I am promising you that I will try to understand.. I will sit here, wait and see.. If that time comes around again, and evrything is where it should be, maybe then.. But for now, all I can promise is to be a best friend willing to go against the odds with you.. Ü THANKS SOOOOOOOOOOOOOOOOO MUCH!! Ü

☺ My friendships..

Marian, Judith, Remy, Janice... Miss ko na po kaio.. Wish we could get together one time na kumpleto talaga.. Thanks for being there always.. Thanks for everything..

Kit.. As if mababasa mo to no.. hehehe.. Salamat po for being a companion in the wee hours of the night up to the morning light.. For being a partner in crime.. For being a good friend.. Salamt poh!!

Paul.. Thanks for insisting on calling me.. Kept me awake during nights of programming for this SP..

Mario.. You're weird and you're nice.. That's enough for me.. Salamat poh!!

Jhon.. Thank you po!!

☺ My teachers..

Cyempre nde ko na po cla iisa-isahin kasi po marami sila.. Thanks po to all of you for everything that you've taught me/us.. We may not always remeber the lectures done in class nor the practcals in the lab.. But we're sure to remeber the lessons all of you have imparted in our lives.. BOW po ako sa inyong lahat!!

☺ My boss-es..

Ate Lot and Ate Des, thanks po for being really good people to me and my friends po... God bless both of you!!

☺ Thanks po kay Ate Shula at kay Ate Ededn for being accomodating..
☺ Thanks po kay Sir Chua for being a good adviser to a stupeed advisee like me, hehehe..

Hmm.... wala na ba? Wala na ata..

To that one person who I like.. Ma, pag nabasa mo ito, alam mo na na cya ang crush ko, wehehehe... Haven't seen you, only heard you.. And maybe felt.. Thanks for the countless phonecalls.. Too bad u lost ur cellphone.. Heaven knows.. U rock.. Words are not enough.. But they will have to do muna.. Thank you ♥

♥ Toxic Tears ♥