

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

**Online Training System for Pit and Fissure Dental
Caries**

**A Special Problem as Partial Fulfillment
Of the requirements for the Degree of
Bachelor of Science in Computer Science**

**Submitted by:
James Cecilio B. Tuaño**

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ACCEPTANCE SHEET

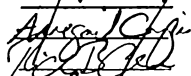
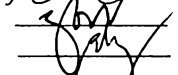
The Special Problem entitled "Online Training System for Pit and Fissure Dental Caries (OTSPFDC)" prepared and submitted by James Cecilio B. Tuano in partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science has been examined and is recommended for acceptance.



Vincent Peter C. Magboo, MD, MS
Adviser

EXAMINERS

1. Gregorio B. Baes, Ph. D (Candidate)
2. Avegail D. Carpio, MS (Candidate)
3. Richard Bryann L. Chua, MS (Candidate).
4. Ma. Sheila A. Magboo, MS
5. Philip D. Zamora, MS (Candidate)

Approved	Disapproved
	_____
	_____
	_____
	_____

Date

Accepted and approved as partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science.


Roderico A. De Arnas, MS
Unit Head
Mathematical and Computing Sciences Unit
Department of Physical Sciences and Mathematics


Harry L. Engle, MS
Chair
Department of
Physical Sciences and Mathematics


Marilou G. Nicolas, Ph. D
Dean
College of Arts and Sciences

ABSTRACT

The Online Training System for Pit and Fissure Dental Caries is a web-based application that allows student/users to view a variety of learning materials and evaluate their knowledge online. The student/users are able to view online lectures about pit and fissure dental caries in text or in file format such as document or powerpoint files. They are also able to view animations about amalgam dental restoration for pit and fissure dental caries. The student/users are presented with step-by-step procedure on amalgam restoration. Objective type quizzes give student/users a good way to test their knowledge about the online lectures on pit and fissures. A special feature of this system is the simulation exam on amalgam restoration for pit and fissure dental caries. The simulation exam offers the student/user a more challenging test as they are administered via hands-on practical exam type. Additionally, error messages regarding the hands-on exam are displayed. The dental expert acting as system administrator modifies the database entries. He is allowed to add, edit or delete lectures, files and objective-type quizzes.

Keywords: training system, pit and fissure dental caries, simulation

TABLE OF CONTENTS

ACCEPTANCE SHEET.....	i
ABSTRACT.....	ii
TABLE OF CONTENTS.....	iii
I. INTRODUCTION.....	1
A. Background of the Study.....	1
B. Statement of the Problem.....	3
C. Objectives of the Study.....	3
D. Significance of the Study.....	5
E. Scope and Limitations.....	5
F. Assumptions.....	6
II. REVIEW OF RELATED LITERATURE.....	7
III. THEORETICAL FRAMEWORK.....	12
A. The Tooth and Tooth Structure.....	12
B. Dental Caries.....	13
C. Pit and Fissure Dental Caries.....	14
D. Restoration Techniques in Pit and Fissure Dental Caries.....	15
E. Computer-Aided Instruction.....	17
F. Simulation.....	18
G. Relational Database.....	19
H. Client/Server Architecture.....	19
IV. DESIGN AND IMPLEMENTATION.....	21
A. Entity Relationship Diagram.....	21

B.	Context Diagram.....	25
C.	Data Flow Diagram.....	26
D.	Data Dictionary.....	33
E.	Conceptual/Technical Architecture.....	36
V.	RESULTS.....	37
VI.	DISCUSSIONS.....	46
VII.	CONCLUSIONS.....	50
VIII.	RECOMMENDATIONS.....	51
IX.	BIBLIOGRAPHY.....	52
X.	APPENDIX.....	56
XI.	ACKNOWLEDGEMENTS.....	130

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I. Introduction

A. Background of the Study

Dentistry is a health profession that deals with the prevention, diagnosis, and treatment of diseases of the teeth and other body parts in the head, neck, and mouth area. A dental practitioner possessing the education, experience, and legal qualifications is called the dentist. Dentistry involves cleaning, filling, and extracting teeth, treating diseased gum tissues, correcting irregularities in tooth alignment, performing surgical operations on the mouth or jaw, and constructing and fitting artificial teeth or dentures. [1]

Mouth disorders can affect other parts of the body and vice versa. Proper care of the mouth is a unique health problem for which dentistry uses its own procedures and techniques in order to prevent local complications as well as ill effects throughout the body. Dental caries is a disease of the enamel, dentin and cementum. It is primarily caused by the action of microorganisms on fermentable carbohydrates. It is characterized by demineralization of the mineral portion of these tissues followed by disintegration of their organic material. The disease can result in bacterial invasion and death of the pulp and spread of infection into the periapical tissues, causing pain. Since it is possible for remineralization to occur, the disease can be arrested in its very early stages of development[2] About 84 % of caries in 5 to 17 year-olds involved pits and

fissures according to the National Dental Caries Prevalence Survey.[3]Dental caries in pit and fissures is difficult to diagnose reliably in its early stages. Fissures that may look caries free may show signs of lesion formation [2]. These are some reasons for paying attention to this kind of dental caries formation. Restorative procedures on dentistry like cavity preparations, gaining access to caries and careful caries extent evaluation [2] require skills and proper training to be executed perfectly. Visualizations, especially moving models are very much important for better training.

Dental restorations can be classified as direct restorations (done by inserting filling material directly into the tooth) and indirect restorations (fabricated outside of the mouth). In recent years, an increase in the development of esthetic materials made of ceramic and plastic was experienced. These materials, although they mimic the appearance of natural teeth and are more esthetically pleasing where they will be visible, their strength and durability cannot be compared to that of traditional materials. The traditional materials include gold, base metal alloys, and dental amalgam [4].

Existing dental simulation softwares available are proprietary. They often cost a lot and none are readily available for the Philippine market. More over, these software packages are for use by dentists, not by students. They stimulate several dental processes but they don't really teach the user regarding processes. According to Dr. Vicente O. Medina, of University of the Philippines College of Dentistry (UPM

CD), there is no existing system or software currently in use by UPM CD that serves as a simulation and interactive learning module for students [5].

B. Statement of the Problem

Restorative dentistry is of great importance for it prevents the permanent loss of a person's teeth. A competitive knowledge regarding this field is of great importance for an aspiring dentist. The study of this field is difficult for some for it may require visualizations of tooth structures and caries formations. Lessons provided in school is sometimes not enough or too difficult to understand. Moreover, books on this field is often times too bulky and explanations are too long.

There is also inadequacy of instructional training materials outside the school. There are few online instructional materials available for free viewing and there is no similar system present in University of the Philippines Manila College of Dentistry. There is a need for easy access information in this field especially in this age of information technology.

C. Objectives

To create an Online Training System for Pit and Fissure Dental Caries that has the following capabilities:

A. allow the students to:

1.) view restoration technique simulation on pit and fissure caries

- i. Removal of enamel underlying carious dentine
- ii. Identification of widest region where the spread of caries is greatest
- iii. removing caries over pulp
- iv. cleaning the cavity with water and air spray
- v. lining and varnishing the cavity with calcium hydroxide if necessary
- vi. inserting the amalgam
- vii. carving and polishing the amalgam

2.) view lectures on:

- i. Pit and Fissure Dental Caries
- ii. Pit and Fissure Dental Caries Restoration Technique

3.) take examinations on pit and fissure caries

- i. online evaluation quizzes based on lectures
- ii. simulation-based examinations

4.) receive screen messages regarding corrections on exam mistakes

B. allows the dental expert/system administrator to:

- 1.) update lectures (add/edit/delete)
- 2.) update objective-type exam (add/edit/delete)

D. Significance of the Study

Online Training System for Pit and Fissure Caries (OTSPFDC) is a tool that addresses the need to reinforce the objective of dentistry – which is to restore teeth as much as possible. This tool helps students to further improve their knowledge regarding the topic and provides them with lessons in restorative techniques which can be repeatedly viewed for better understanding.

Simulations give students better visualization of the proper restoration procedures. Simulation examinations serve as training for actual procedures that helps promote better learning, less mistakes and therefore better patient care.

Being an online application, this system can be assessed anytime anywhere as long as there is an internet connection. Additionally, the system gives the users an up-to-date list of instructional material since the lessons are updatable. Current students as well as present dentists can gain from updated restoration techniques. Allows the users to determine whether they have learned enough knowledge through the online quizzes.

E. Scope and Limitations

- 1.) The system is limited only to pit and fissure dental caries because of its high occurrence rate.
- 2.) The simulation is limited only to amalgam restoration technique due to its versatile applicability.

3.) Online quizzes are limited to objective (multiple choice) questions.

F. Assumptions

1.) Users must have a computer unit with an internet connection.

2.) Can be stand alone in the dental laboratory as well.

3.) The system administrator is also the dental expert in charge of all update activities.

II. Review of Related Literature

Brearley et al in their study “Teaching paediatric dentistry by multimedia: a three-year report” reported that clinical cases can now be simulated utilizing multimedia and can also be used to teach case management to dental students. The modules developed have provided user-interaction and immediate feedback, intellectual stimulation, intuitive navigation and user-helpfulness. Students were very enthusiastic about learning via multimedia. The focus groups and the external review have showed that the modules were navigated easily and were suitably interactive [6].

Barrett and Baratz stated that dental restorations can be classified as to direct restorations (done by inserting filling material directly into the tooth) and indirect restorations (fabricated outside of the mouth). Traditional materials like gold, base metal alloys, and dental amalgam are better in terms of strength and durability compared to ceramics and plastics. Moreover, amalgam, produced by mixing mercury and other metals, is still the most commonly used filling material [7].

Virtual reality provides the first opportunity to combine 3-D visual imagery with interactivity at a level that would permit realistic simulation of complex anatomic dissection or performance of surgical procedures. It provides easier learning of surgical anatomy by allowing the student to explore the interrelations of various organ systems in perspectives that can only be shown by virtual reality. It will soon be possible for students to “dissect” a virtual cadaver, resulting in a very effective educational tool

that would enable the students to practice surgical procedures without the fear of making a mistake to real patient [8].

Alcade et al said that computer-assisted learning can be an efficient learning-teaching procedure in their study entitled "Acquisition of basic concepts by children with intellectual disabilities using a computer-assisted learning approach". Although there is an extensive educational software tradition for this approach, few have better performance than standard drill-and-practice methods. They have used the software "Let's Play With..." which was designed to teach children with intellectual disabilities the basic concepts of colours, shapes, and body position. The study was performed using as samples, 39 boys and 21 girls who were special education students in the Cadiz School District. The study has shown statistically significant differences between groups taught with and without the software regarding their performances [9].

Implant3D a commercial dental software package, allows users to perform a 3D implant simulation directly on your PC. Users can simulate the implant position on 2D & 3D models. It can also perform other dental procedures like identification of the mandibular canal, drawing bone model panoramics and sections, presentation of the 3D bone model, calculation the bone density and allows users to plan the prothesis implant operation more safely, efficiently and quickly [10]. It may seem like a powerful simulation tool but it does not teach the users on how to perform such procedures.

Pamela Rica Florentino created an online training system entitled “Online Medical Training System for Simulated Cataract Surgery” that incorporates a simulation tool on cataract surgery with a Computer Assisted Instruction module. This study aims to provide students with additional learning materials regarding cataract surgery. It also enabled experts to post lectures and create exams and students to view lectures and take exams [11].

The impact of using a computer simulation in dissecting a model of an earthworm was studied in Joseph Akpan’s work, The computer simulation acted as a preliminary experience to an actual dissection process. Simulations can be an effective tool in promoting better learning experiences compared to the traditional method which is too expensive, dangerous, remote and time-intensive [12].

According to Paul Fishwick, simulation is basically used in situations wherein the model is very complex with many variables and interacting components, the underlying variable relationships are non-linear, the model contains random variables and the model output is to be visual as in a 3D computer animation. In simulation a uniform model execution technique can be used to solve a large variety of systems without resorting to a bag of tricks where one tends to divert from simulation. Another feature of simulation is that it builds a simulation model that replicates the original system [13].

Szekely et al. used virtual reality to simulate endoscopic surgery. Several approaches to reaching and surpassing the limits of simulation realism have been addressed in this study by the description and analysis of the important components of virtual reality based endoscopic simulators. A prototype virtual reality training system was used to simulate basic algorithms in the said field [14].

In Web-Based Surgical Simulators and Medical Education Tools, a UK-based website, surgical training is described as largely a matter of close supervision on the apprenticeship model. Virtual reality modeling of surgical procedure was mentioned to remove the risk from the patients of trainees. Online resources for surgical training and medical education tools using VRML 97 or JAVA was provided by this site [15].

The Jacob software system which was developed by Marc Evers and a part of the Jacob project is a pilot project of a Virtual Reality Valley Twente Initiative. The project primarily focuses on software engineering aspects, multimodal interaction and the use of agent technology. The project also investigated on the application of virtual reality techniques and it involved the design and construction of an animated agent in a 3D virtual environment [16].

Researchers in the Biomedical Interactive Technology Center have used computer simulation in eye surgery. It does not only provide visual feedback but also tactile feedback to a surgeon operating a computer model of the eye in a virtual environment. The simulator includes a stereo operating scope and a wrist rest. A

handheld 3D position tracking stylus was used by the surgeon to interact with the virtual eye using virtual instruments [17].

A project which currently develops an advanced training system for laparoscopic/hysteroscopic procedures aimed on combining multimedia, virtual reality and intelligent tutoring techniques. The projet was intended to remove drawbacks of using traditional training methods [18].

III. Theoretical Framework

A. The Tooth and Tooth Structure

Teeth are hard, calcified structures, attached to the upper and lower jaws of vertebrates and of a few lower animals, and used mainly for chewing the food. Teeth may also serve other purposes for other animals, such as gnawing, digging, and fighting. Evolution has caused the teeth to take several forms, from the simple, scalelike rows of cone-shaped teeth found in sharks to the more complex structures common in mammals [19].

The crown, the external portion of the tooth and the root that is embedded within the jaw, comprise the tooth. The outer layer of the crown is made up of the hardest substance in the body, the enamel. Within the enamel is the dentin, a bonelike substance extending from the inner surface of the enamel into the jaw to form the root [19]. A more detailed anatomical structure of the tooth is shown in figure 1.

The roots of the dentin is covered by a thin layer of a hard tissue called cementum. Elastic fibers hold the roots in place. They constitute the periodontal membrane, which extends from the cementum to a thickened layer of bone, known as the lamina dura [19].

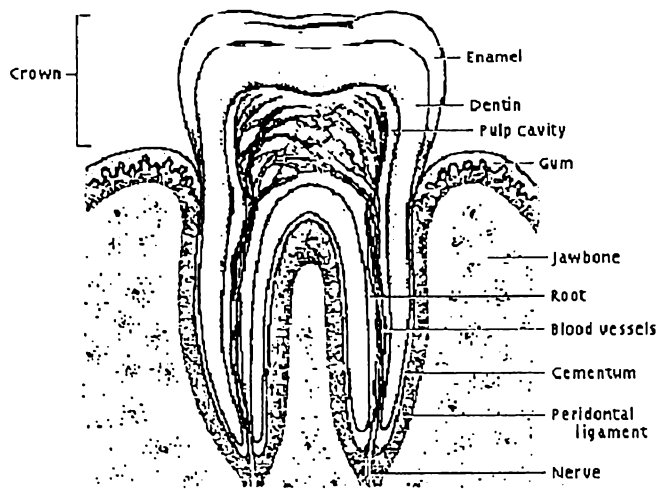


Figure 1. The Tooth Structure

B. Dental Caries

The most common of all oral diseases is the dental caries, and since the average individual has his first experience with this disease in childhood , it is significant to deal with it from the 1st to his 12th year of life. For within this age range, the milk teeth erupts, function, exfoliate and the permanent teeth excluding the 3rd molars also erupts.[20].

Dental caries very often emerge as a white chalky area on the enamel. It breaks down the tooth as it softens it. If not treated in the early stages, it progresses towards the pulp and will then require extensive treatment to save the tooth [20]. A picture of teeth with dental caries is shown in figure 2.

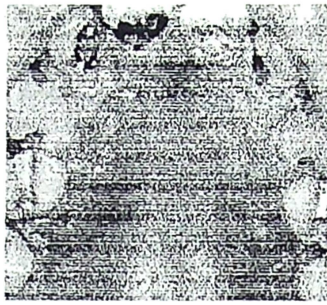


Figure 2. Tooth with Dental Caries

C. Pit and Fissure Dental Caries

Pits and fissures are obvious stagnation areas susceptible to plaque formation. They are anatomically protected from even a single toothbrush filament because of the dimension of the fissure. [21]. Most of tooth decay (or dental caries) is formed in the deep grooves on the chewing surfaces of the molars (pit and fissure dental caries) as shown in figure 3. These deep grooves are called pit and fissures [22].

Pits are non-coalesced enamel in fossa while fissures are grooves having non-coalesced enamel [23]. The prerequisites for caries diagnosis are sharp eyes, magnification, dry clean teeth, a probe to remove plaque from the fissure and good bitewing radiographs [24].

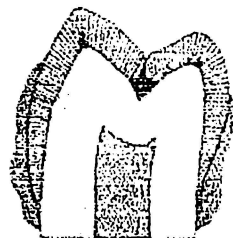


Figure 3. Dental Caries in Pit and Fissures

D. Restoration Techniques in Pit and Fissure Dental Caries.

The state of health or disease of the fissure system determine the proper management of occlusal caries. A fissure system found to be clinically and radiographically caries-free may be protected by a fissure sealant. In other cases where caries is rampant in parts of the fissure system, either clinically or radiographically, restoration using sealant restoration or a preventive resin restoration may be used. Another kind of restoration is by using amalgam [21].

The use of composite and sealant restoration may look particularly appropriate for the management of the small carious lesion in posterior teeth, but the amalgam is the material of choice in larger cavities where the restorative material must take considerable occlusal force [21]. Other reasons for amalgam use are: it is for individuals of all ages, it is used in stress-bearing areas and in small-to moderate-sized cavities in the posterior teeth, it is used when there is severe destruction of tooth structure and cost is an overriding consideration, it is used as a foundation for cast-metal, metal-ceramic, and ceramic restorations, it is used when patient commitment to personal oral hygiene is poor, it is used when moisture control is problematic with patients and when cost is an overriding patient concern [24].

The restoration procedures for amalgam restoration are as follows: gain access to caries and clear the enamel-dentine junction, determine amalgam margin angles

for retention, remove caries over pulp, clean the cavity, line and varnish the cavity, insert the amalgam, carve the amalgam and polish the restoration [21]. Figure 3 shows the restoration procedures.

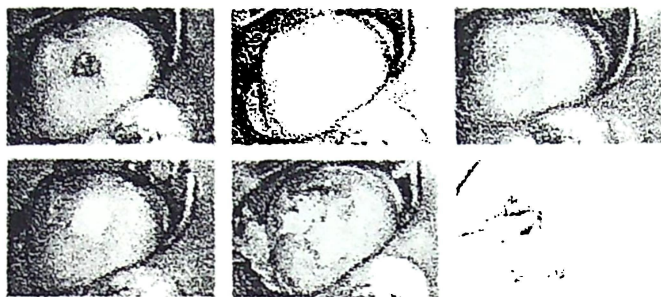


Figure4. Amalgam restoration Process

Rotary cutting instruments (burs and stones) are retained in the handpieces by one of the following methods: friction – in airtor, latch grip – in contra angle low speed handpiece and quick release chuck – in straight handpieces [21]. Figures 4 and 5 illustrate some of these instruments.

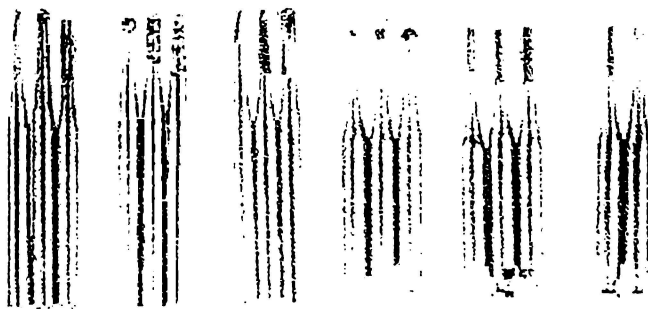


Figure 5. Examples of burs

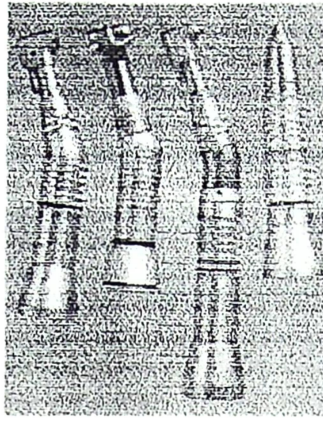


Figure 6. Examples of Handpieces

E. Computer-Aided Instruction

Computer-Aided Instruction (CAI), also known as computer-assisted instruction, is a versatile, diverse and rapidly expanding spectrum of computer technology. It assists in the teaching and the learning process. Examples of CAI applications include drill and practice exercises, computer simulations of complex processes and computer-facilitated communication between students and teachers.

CAI dramatically increases a student's access to data and information. "The program can adapt to the abilities and preferences of the individual student and increase the amount of personalized instruction a student receives. Many students benefit from the immediate responsiveness of computer interactions and appreciate the self-paced and private learning environment. Moreover, computer-learning experiences often

engage the interest of students, motivating them to learn and increasing independence and personal responsibility for education [25].

It may be difficult to assess the effectiveness of any educational system, numerous studies have reported that CAI is successful in raising examination scores, improving student attitudes, and lowering the amount of time required to master certain material. From these studies, there is substantial evidence that CAI can enhance learning at all educational levels [25].

F. Simulation

“A representation of an item of equipment, device, system, or subsystem in realistic form”. Simulation gives the learner a chance to experience an operation or process of the certain equipment without possibility of damaging the equipment. Computer-based learning simulation are more useful and diverse compared to the aircraft simulators. Simulation is one of the types of computer-assisted instruction (CAI) [26].

Computer animation is the process of making an illusion of motion by viewing a series of computer-generated still images. Before, animation was accomplished by filming artist-drawn or painted sequences of images one frame at a time. Now computers are first used to create the artwork and simulate the camera angles [27].

G. Relational Database

“Relational Database , in computer science, is a type of database or database management system (DBMS) that stores information in tables—rows and columns of data—and conducts searches by using data in specified columns of one table to find additional data in another table.

In a DBMS, the rows and the columns represent of a table represent records (information about separate items) and the fields (attributes of a record) respectively. In performing queries, a relational database compares information from a field from a table with another table to produce the expected output [28].

H. Client/Server Architecture

Local area networks use client/server architecture. The architecture makes use of “distributed intelligence” that treats both the server and the workstations as intelligent, programmable devices. This enables the system to utilize the full computing power of each. This architecture splits the processing of an application into two distinct components: a “front-end” client and a “back-end” server. The client component is a complete stand-alone personal computer that offers the user its maximum capacity for running applications. The server component (personal computer, minicomputer, mainframe) improves the client component by providing the traditional strengths offered by minicomputers and mainframes in a time-sharing environment,

namely, data management, information sharing between clients, and sophisticated network administration and security features [29].

Client and server machines work together to finish the processing of the tasks being performed, this makes client/server architecture more advantageous over older architectures. It does not only increase the processing power available, but it also efficiently utilizes its power more.

Figure 6 shows Entity Relationship Diagram of Online Training System for Pit and Fissure Dental Caries. The online users (students) can view lessons and take evaluation quizzes afterwards. The dental expert is the one who updates all lecture and quiz records.

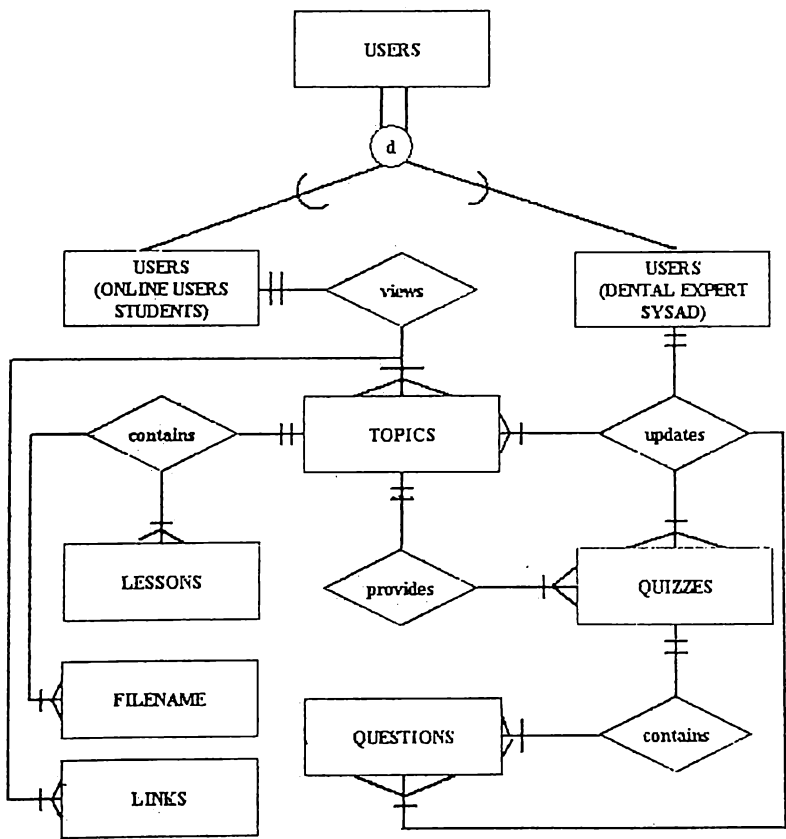


Figure 7. Entity Relationship Diagram (ERD) of Online Training System for Pit and Fissure Dental Caries

Figure 8 shows all the attributes for the user entity. It contains important information regarding user log in details. The primary key is the user_id. Figure 9 shows the important attributes of topic entity. It contains topic_id, primary key, to uniquely identify the topic. Figure 10 shows the attributes of links entity. It contains link_id, primary key, to uniquely identify the link.

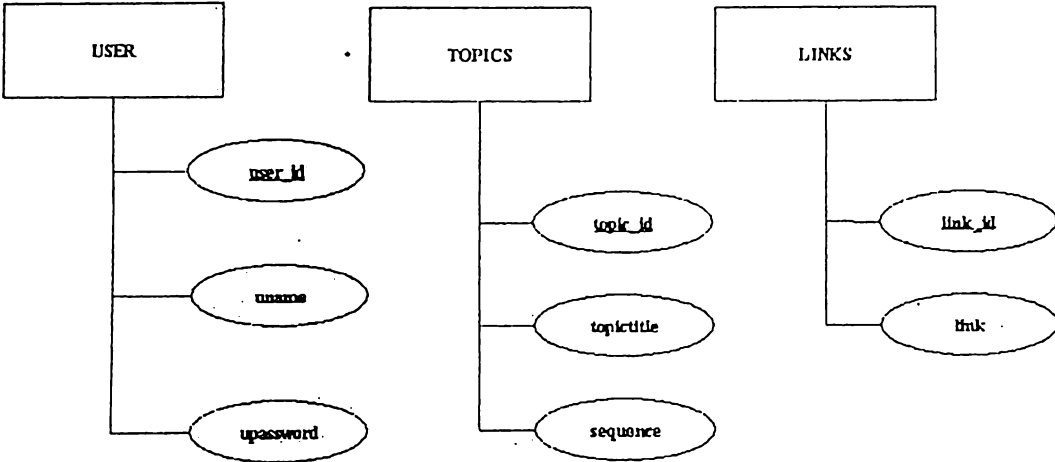


Figure 8. Attributes of the user ,
Online Training System for
Pit and Fissure Dental Caries

Figure 9.Attributes of the topics
Online Training System for Pit
and Fissure Dental Caries

Figure 10.Attributes of the links
Online Training System for Pit
and Fissure Dental Carie

The attributes for the lesson entity is seen in figure 11. It contains important information regarding user log in details. The primary key is the lesson_id. A foreign_key is the topic_id to relate it to the topic entity. Figure 12 shows the important attributes of quizzes entity. It contains quiz_id, primary key, to uniquely identify the topic. A foreign_key is the topic_id to relate it to the topic entity.

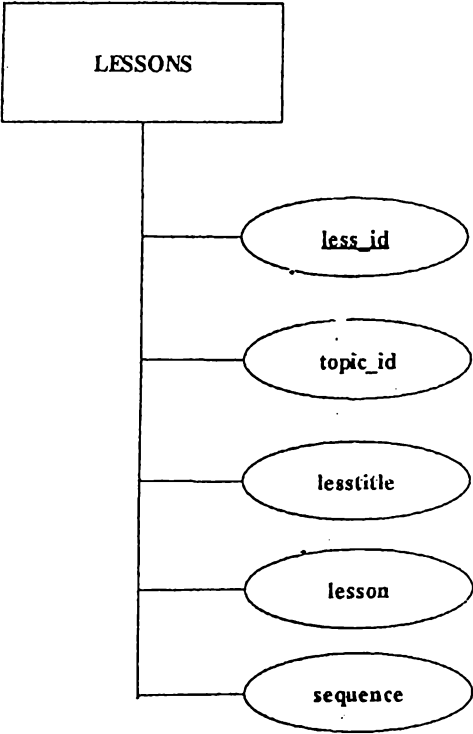


Figure 11.Attributes of the lessons entity,

Online Training System for Pit
And Fissure Dental Caries

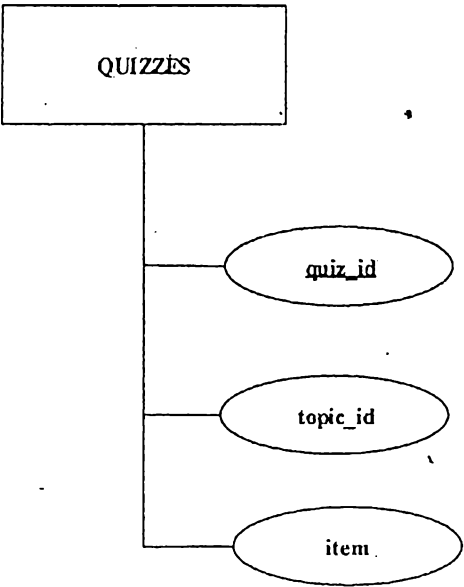


Figure 12. Attributes of the quizzes entity

Online Training System for Pit
And Fissure Dental Caries

Figure 13 shows all the attributes for the questions entity. It contains important information regarding quiz questions and multiple choices. The primary key is the ques_id. A foreign_key is the quiz_id to relate it to the quizzes entity. Figure 14 shows all the attributes for the filename entity. It contains important information regarding files that can be uploaded or downloaded. The primary key is the f_id

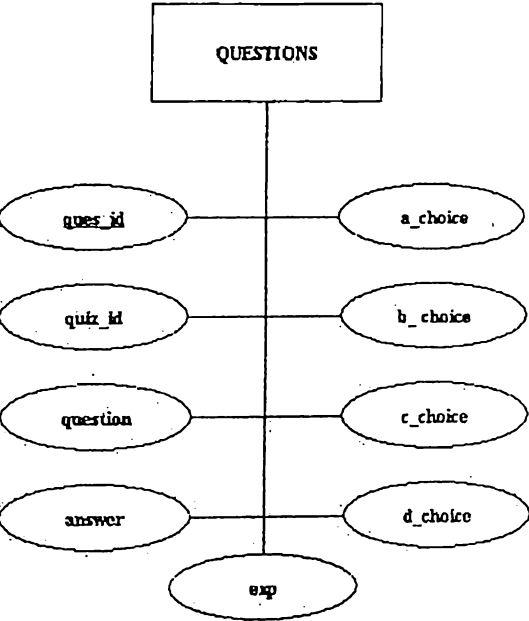


Figure 13. Attributes for the questions entity for the Online Training System For Pit and Fissure Dental Caries

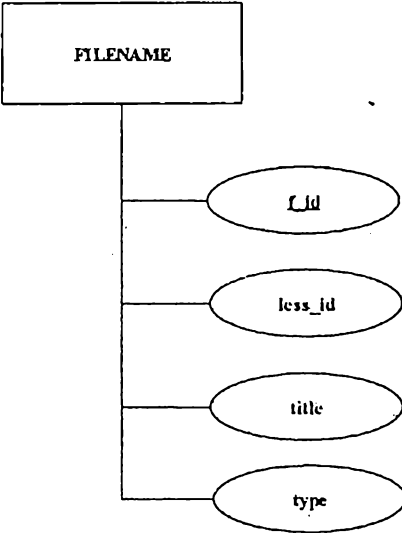


Figure 14. Attributes for the file entity for the Online Training System For Pit and Fissure Dental Caries

The context diagram of the Online Training System for Pit and Fissure Dental Caries is shown in figure 15. Users are the students and the dental experts. The system takes in information and requests from the users and performs queries and information processing to the data store to return appropriate output to the users.

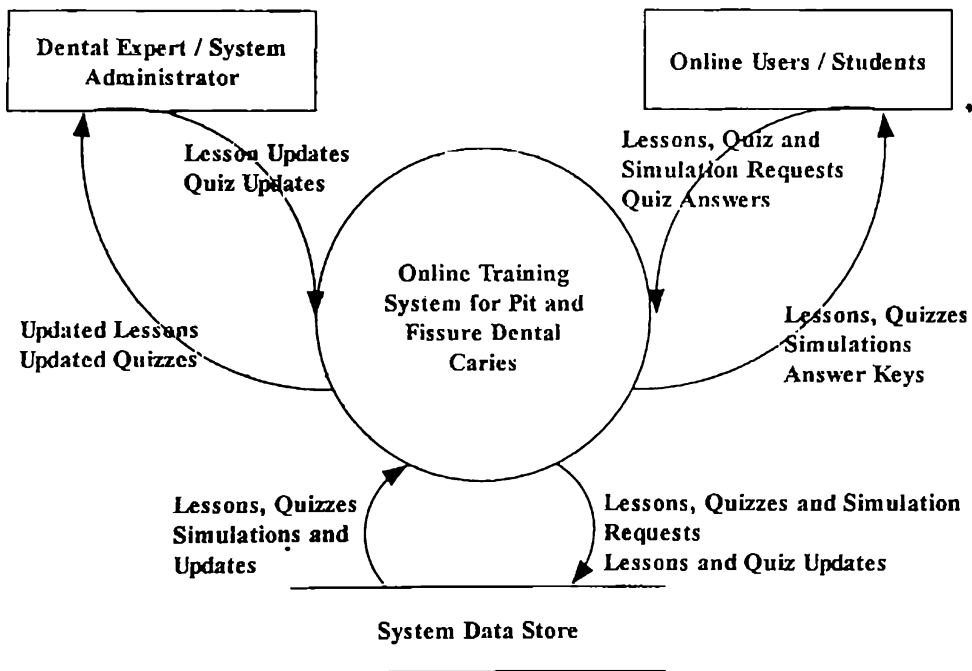


Figure 15. Context Diagram of the Online Training System for Pit and Fissure Dental Caries

The Top-Level Data Flow Diagram (DFD) of the system shows the primary functionalities that each user can perform. Students can either view updatable lessons and simulations or take online evaluation quizzes regarding the lessons taken. The dental expert updates all the system records namely lessons and quizzes. The corresponding sub-explosions of the different processes are shown in figures.

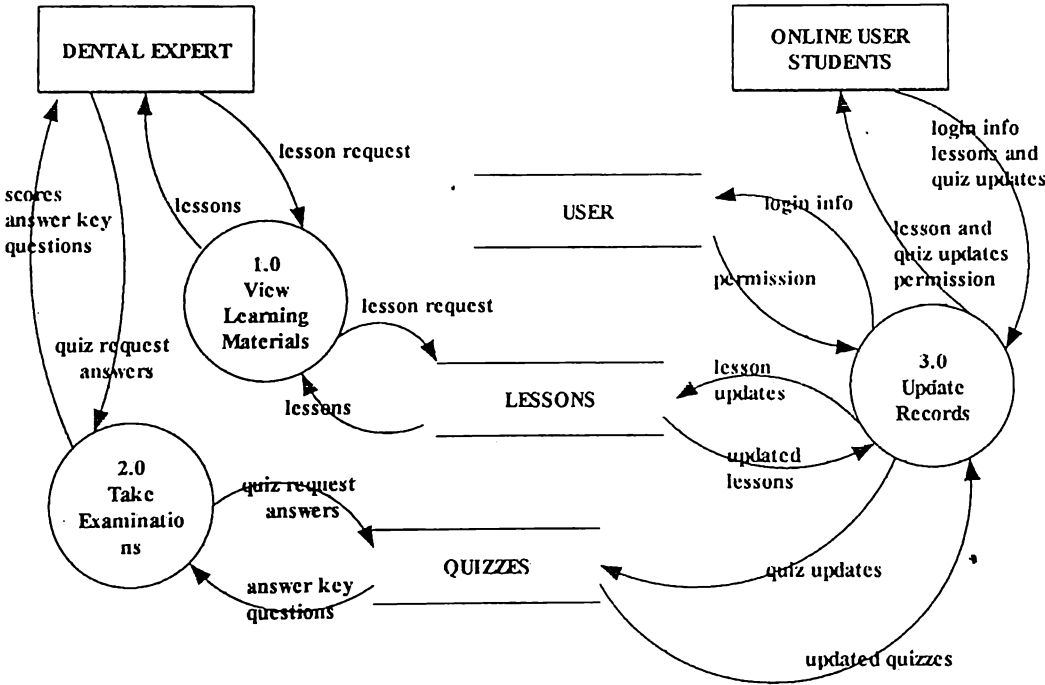


Figure 16. Top-Level DFD for the Online Training System for Pit and

Fissure Dental Caries

The student has two options under the view learning materials process. The student can either view textual lectures or view simulation lectures. Likewise, the students has two options under the take examinations process. The students can either take objective type quizzes or take simulation examinations. The sub-explussions are seen in Figures 17-18.

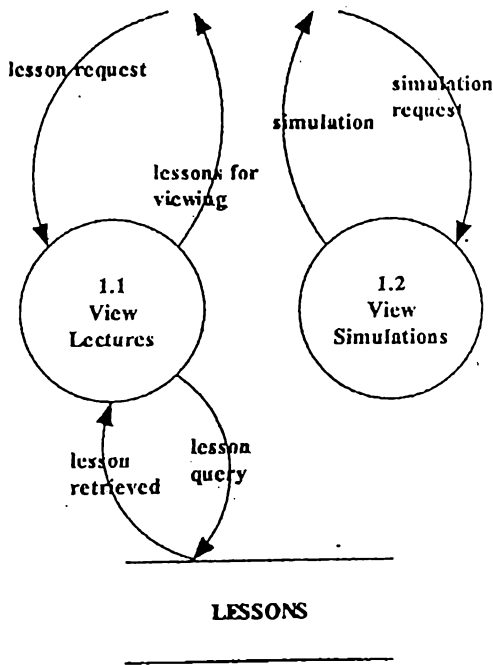


Figure 17. Sub-explosion of Process 1
(level 2 DFD) View Learning Materials
Online Training System for Pit and
Fissure Dental Caries

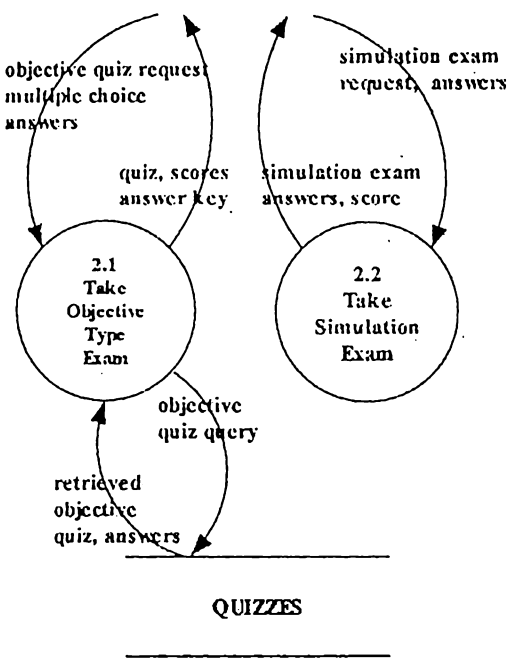


Figure 18. Sub-explosion of Process 2
(level 2 DFD) Take examinations
Online Training System for Pit and
Fissure Dental Caries

The sub-explosion of process 1.2 (View Simulations) is shown in figure 19. This process is composed of subprocesses that generate proper simulation sequences.

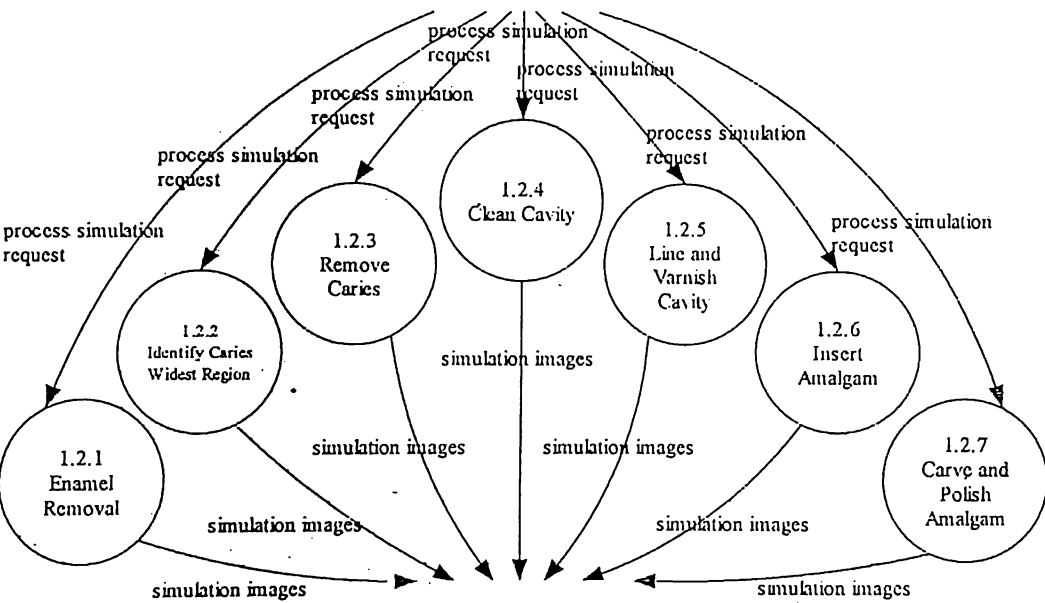


Figure 19. Sub-explosion of Process 1.2 (level 3 DFD) View Simulations,

Process 2.2 can further be subdivided into subprocesses that checks upon the correctness of the students' answers and is shown in figure 20.

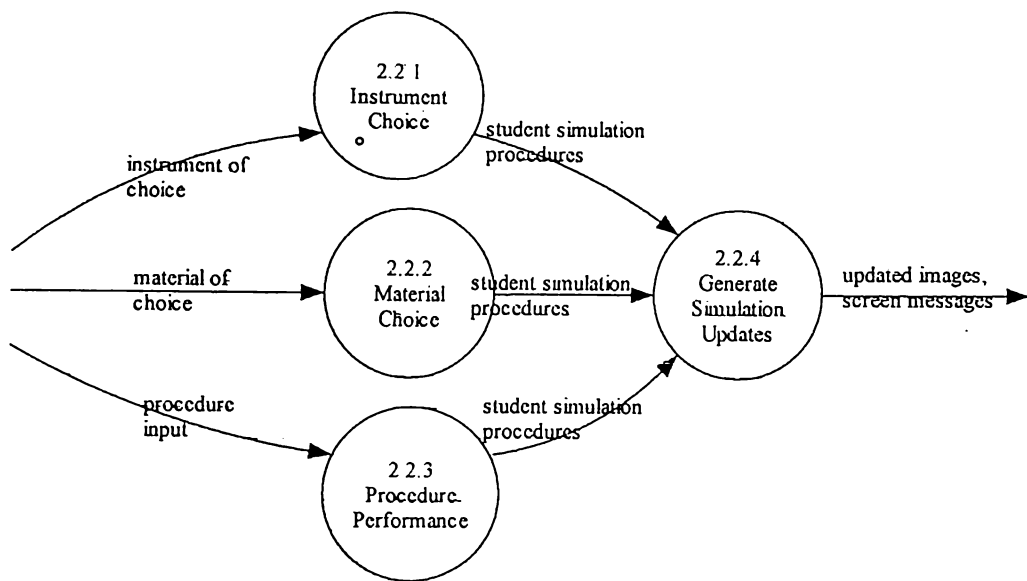


Figure 20. Sub-explosion of Process 2.2 (level 3 DFD) Take simulation Exams, Online
Training System for Pit and Fissure Caries

Process 3 (Update Records) sub – explosion shows that the dental expert has three sub-functionalities to perform, they are: log-in (for update permission), update lecture part and update quizzes part. (See Figure 21-23)

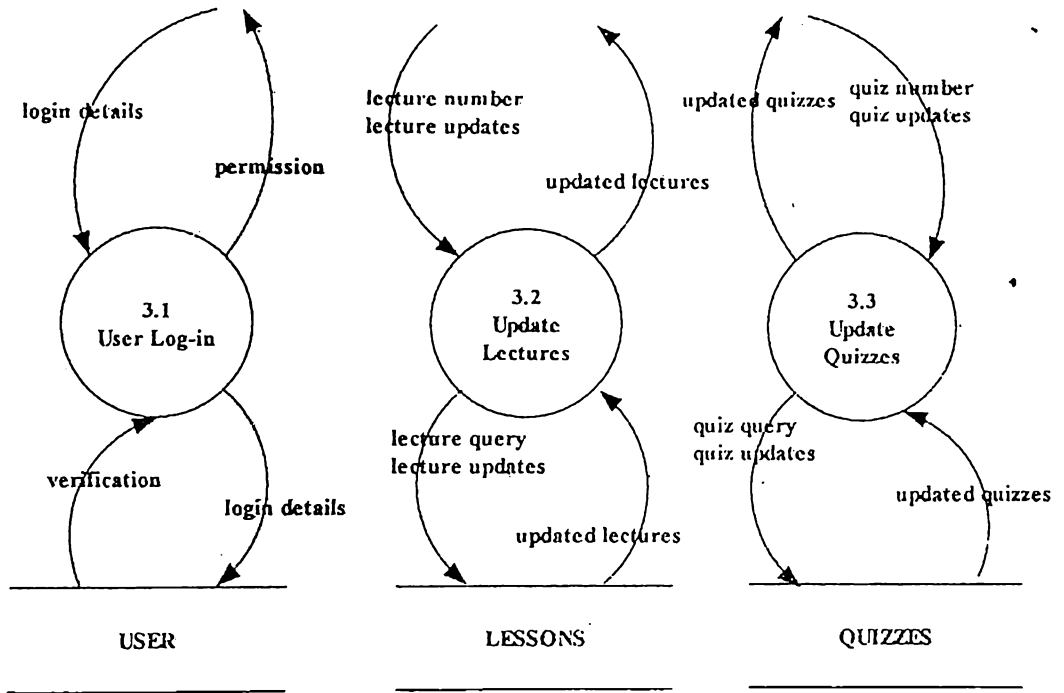


Figure 21. Sub-explosion of Process 3 (level 2 DFD) Update Records,
Online Training System for Pit and Fissure Caries

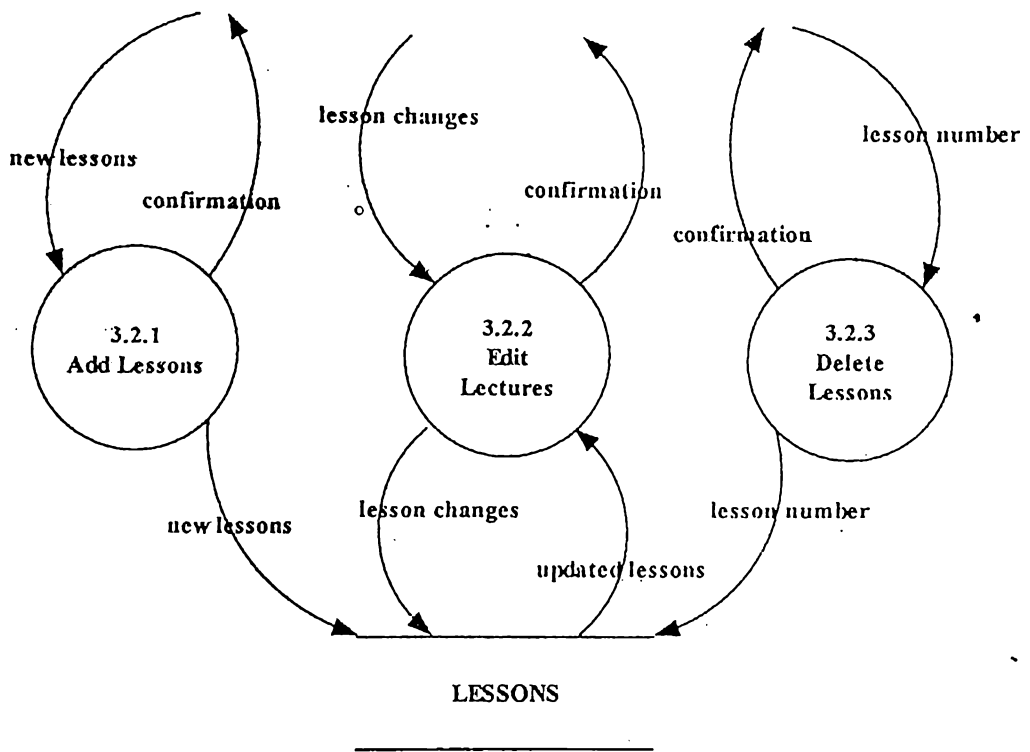


Figure 22. Sub-explosion of Process 3.2 (level 2 DFD) Update Lectures,
Online Training System for Pit and Fissure Caries

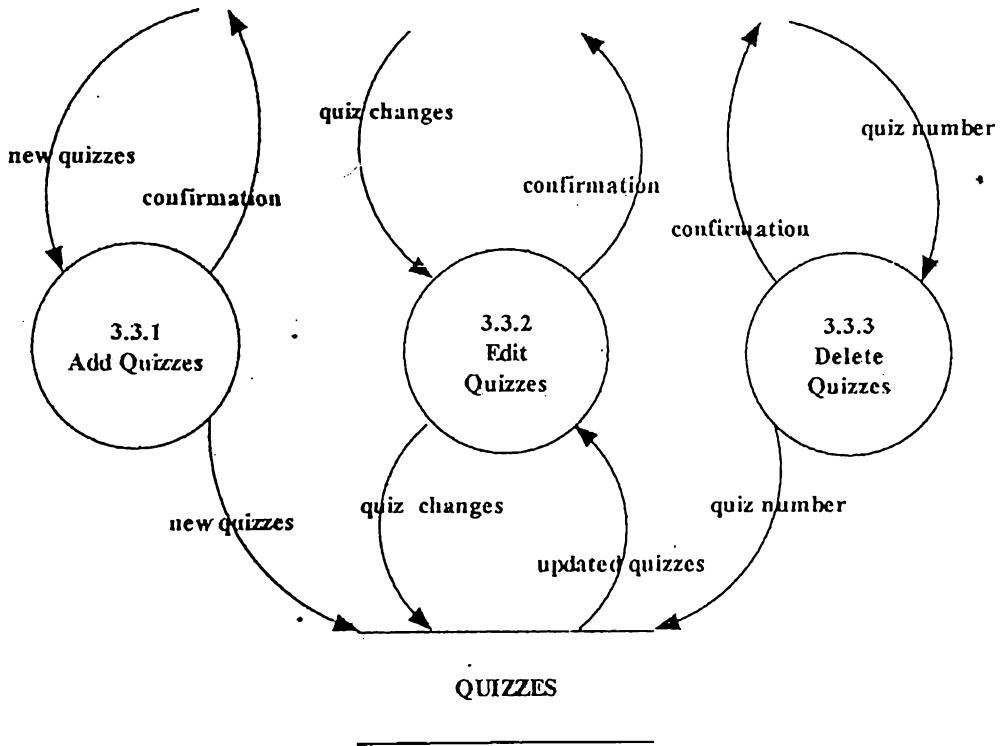


Figure 23. Sub-explosion of Process 3.3(level 3 DFD) Update Quizzes,
Online Training System for Pit and Fissure Dental Caries

DATA DICTIONARY

Table 1. Data table for user entity, Online Training System for Pit and Fissure Caries

Field Name	Data Type	Description
<u>user_id</u>	int(10)	Uniquely identify the user.
Uname	varchar(25)	Full name of the user
upassword	varchar(10)	User password

Table 2. Data table for topics entity, Online Training System for Pit and Fissure Caries

Field Name	Data Type	Description
<u>topic_id</u>	int(10)	Uniquely identifies the topic.
Topictitle	Text	Gives a brief title to the topic.
Sequence	Int(12)	Gives proper sequence.

Table 3. Data table for sublessons entity, Online Training System for Pit and Fissure Caries

Field Name	Data Type	Description
<u>less_id</u>	int(10)	Uniquely identifies the lesson.

topic_id	int(10)	Uniquely identifies the topic. Foreign key.
Lesstitle	Tinytext	Gives a brief title to the lesson.
Lesson	Mediumtext	Lesson text.
Sequence	Int(12)	Gives proper sequence.

Table 4. Data table for quizzes entity, Online Training System for Pit and Fissure Caries

Field Name	Data Type	Description
<u>quiz_id</u>	int(10)	Uniquely identifies the quiz.
Quiztitle	Tinytext	Uniquely identifies the topic. Foreign key.

Table 5. Data table for questions entity, Online Training System for Pit and Fissure Caries

Field Name	Data Type	Description
<u>ques_id</u>	int(10)	Uniquely identifies the question.
quiz_id	int(10)	Uniquely identifies the quiz. Foreign key.

Question	Tinytext	Question text.
Answer	Tinytext	Answer to question.
Achoice	Tinytext	Multiple choice A.
Bchoice	Tinytext	Multiple choice B.
Cchoice	Tinytext	Multiple choice C.
Dchoice	Tinytext	Multiple choice D.
Exp	Tinytext	Answer explanation.

Table 6. Data table for files entity, Online Training System for Pit and Fissure Caries

Field Name	Data Type	Description
f_id	int(12)	Uniquely identifies file.
les_id	int(12)	Lesson link.
title	text	File title.
type	varchar(15)	File type.

Table 7. Data table for links entity, Online Training System for Pit and Fissure Dental Caries

Field Name	Data Type	Description
Link_id	int(12)	Uniquely identifies file.
Link	varchar(12)	Link or website.

Conceptual Technical Architecture

The following tools will be needed to create and run the system:

1. PHP
2. MySQL
3. Apache
4. Java

The following are the server requirements of the system:

1. Intel PIII 800 MHz processor
2. 256 MB RAM
3. 20 GB HDD
4. Windows 98, ME, 2000, XP
5. High-Speed Internet Connection

The following are the client requirements of the system:

1. Intel PIII 500 MHz processor
2. 128 MB RAM
3. 20 GB HDD
4. Windows 98, ME, 2000, XP
5. Java-enabled web browser
6. Java Run Time Environment

For the system to run properly it is advised to use 1024 x 768 screen resolution.

V. RESULTS

The Log-in page of the system Online Training System for Pit and Fissure Dental Caries is shown in Figure 24. A user log-in is required for the registered users to use the system. If incorrect log-in information was submitted to the system, the system will ask the user to log-on to the system again.

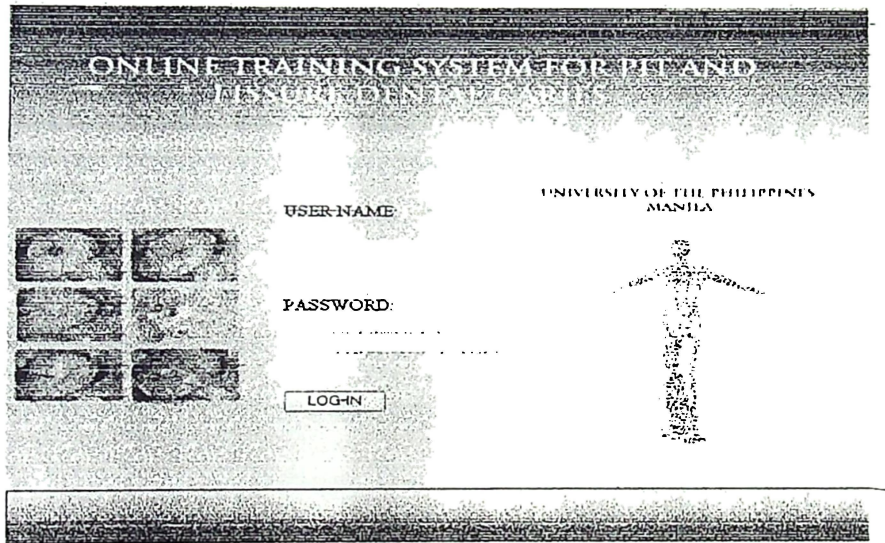


Figure 24. Log-in Page of the Online Training System for Pit and Fissure Dental Caries

Once correct log-in information is submitted, the user will be presented with a welcome page (as shown in figure 25). This page has several buttons on its left side which links the page to the functionalities available to the user. The buttons are namely view lectures, take quizzes, view animation and take simulation exam. The buttons enable the user to choose the functionality that the users wants.

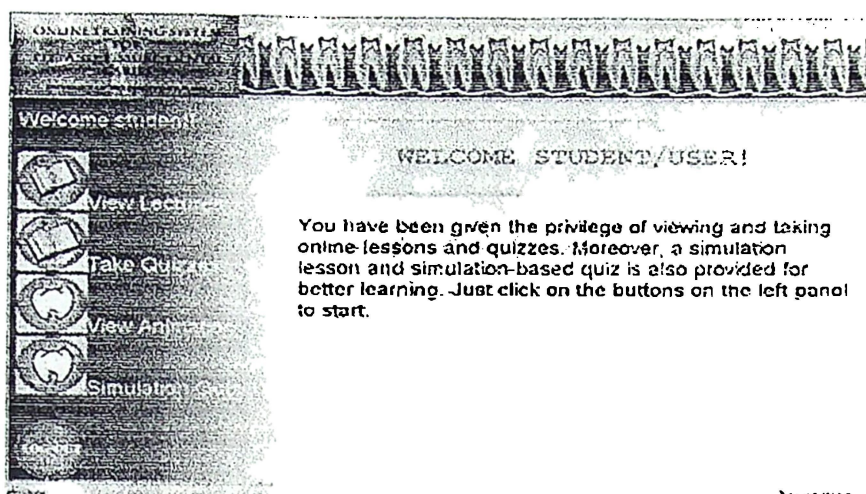


Figure 25. Welcome Page of the Online Training System for Pit and Fissure Dental Caries

The users can also view online lectures in pit and fissure dental caries through the system. They can either choose from textual lecture format or as files such as word documents or powerpoint files. File lectures can be viewed through the system or downloaded to the users computer system. They are shown in figures 26 and 27.

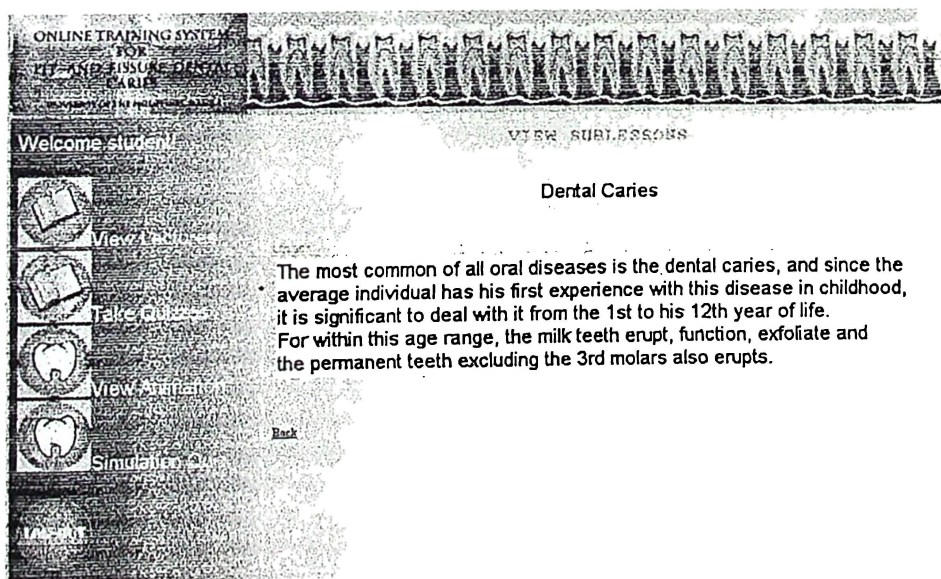


Figure 26. View Lessons Page of the Online Training System for Pit and Fissure Dental Caries

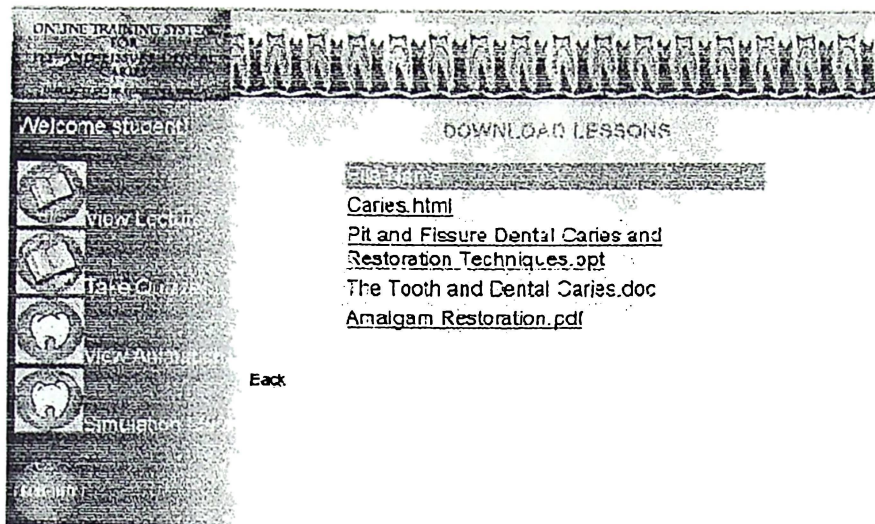


Figure 27. View/Download File Page of the Online Training System for Pit and Fissure Dental Caries

The user also has the privilege of viewing restoration technique animations about amalgam restoration that would enhance learning in proper tooth restoration procedure. A link is provided to start viewing the animation as shown in figure 28.

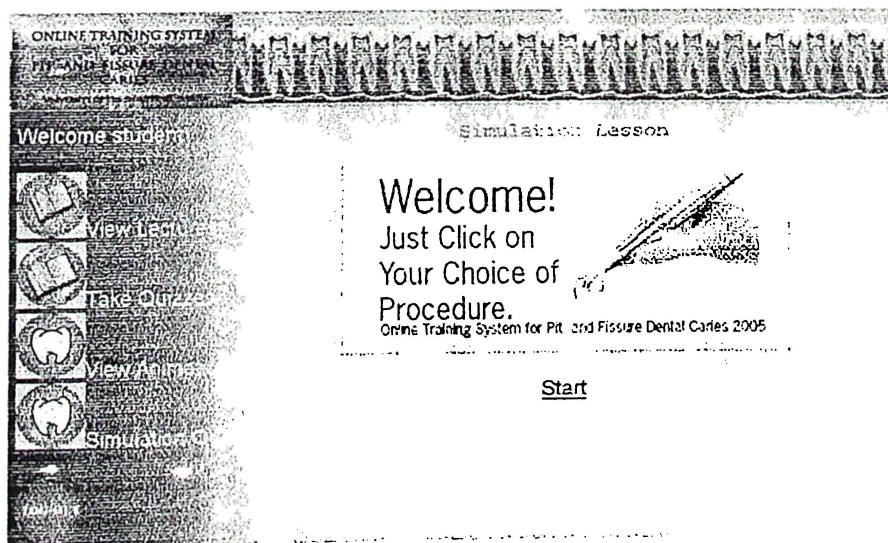


Figure 28. View Animation Page of the Online Training System for Pit and Fissure Dental Caries

Users can take online evaluation exams, the users can choose from the list of available quizzes. A sample quiz is shown in figure 29. The questions are generated randomly.

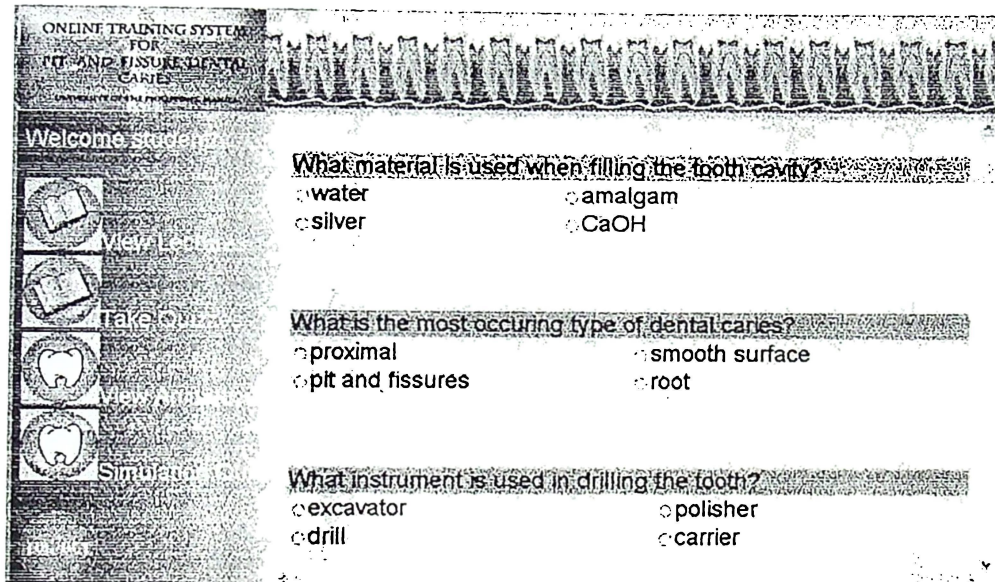


Figure 29. Take Evaluation Quizzes Page of the Online Training System for Pit and Fissure Dental Caries

The users can also take online simulation exams, in these exams the users' knowledge is tested in a 'practical-type' manner. An instruction window is shown to the user which shows directions for use. While taking the online simulation exams, the users will be able to view several screen messages regarding exam corrections and mistakes. A sample is shown in figure 30. In this example, a message regarding too much drilling is generated whenever the user has drilled too much. While taking the simulation exam, the user can choose from several buttons that represent different dental instruments. The

buttons are drill, excavator, carrier, polisher, spatula and air/water spray. It is shown in figure.31.

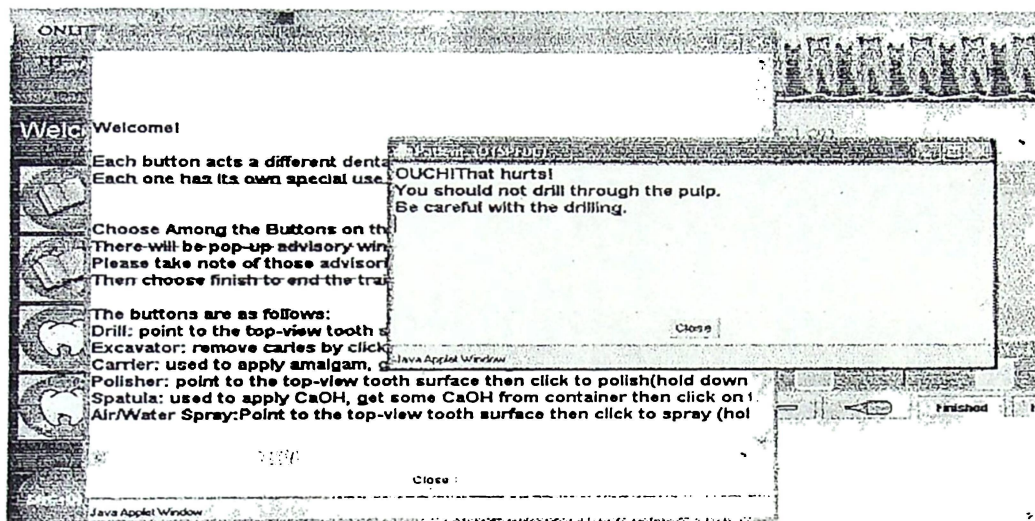


Figure 30. Take Simulation Exam Page of the Online Training System for Pit and Fissure Dental Caries

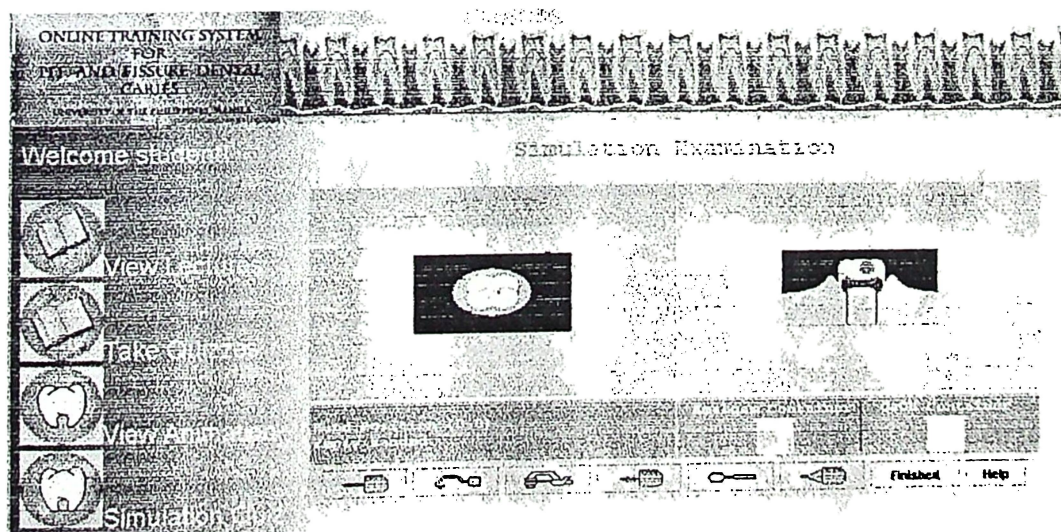


Figure 31. Take Simulation Exam Page of the Online Training System for Pit and Fissure Dental Caries

The dental expert acting as the system administrator has the capability of modifying the database entries of the system. He can either add lectures, edit lectures, delete lectures, add objective-type exams, edit objective-type exams or delete objective-type exams. They are shown in figures 32-37.

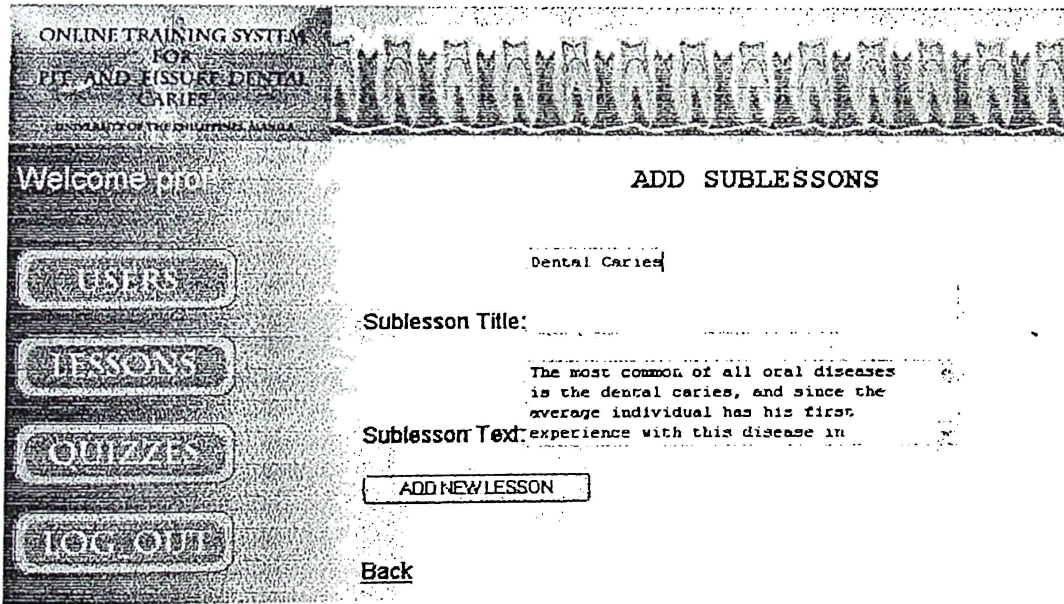


Figure 32. Add Lectures Page of the Online Training System for Pit and Fissure Dental Caries

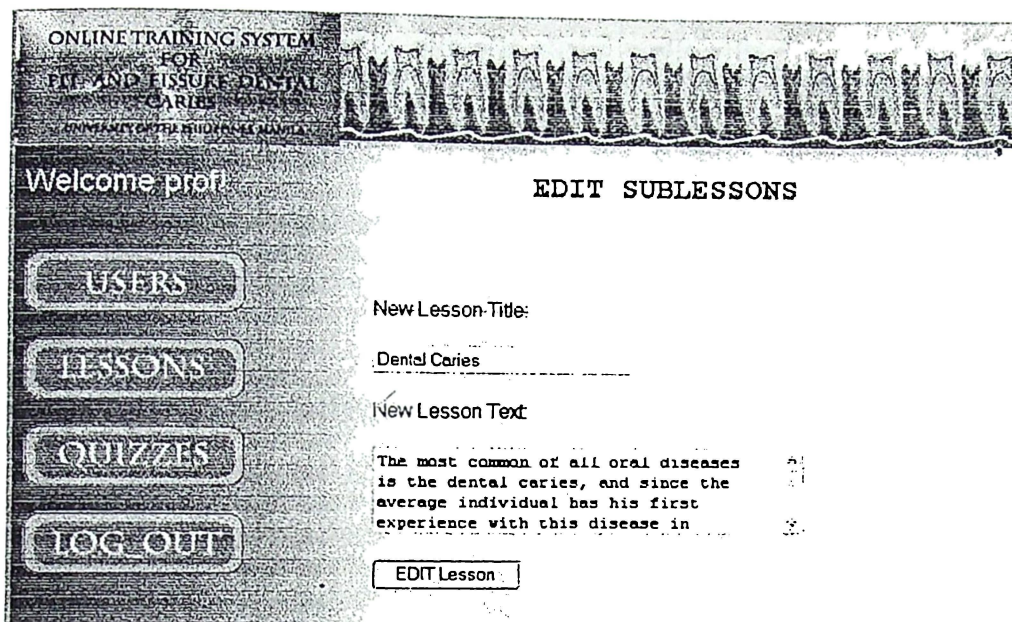


Figure 33. Edit Lectures Page of the Online Training System for Pit and Fissure Dental Caries

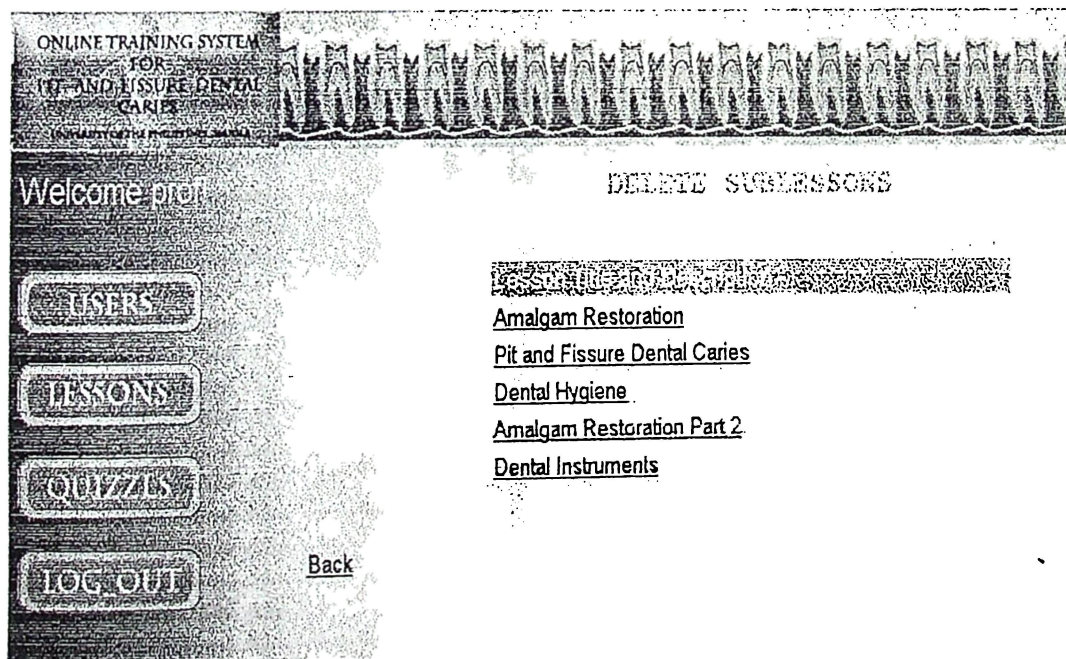


Figure 34. Delete Lectures Page of the Online Training System for Pit and Fissure Dental Caries

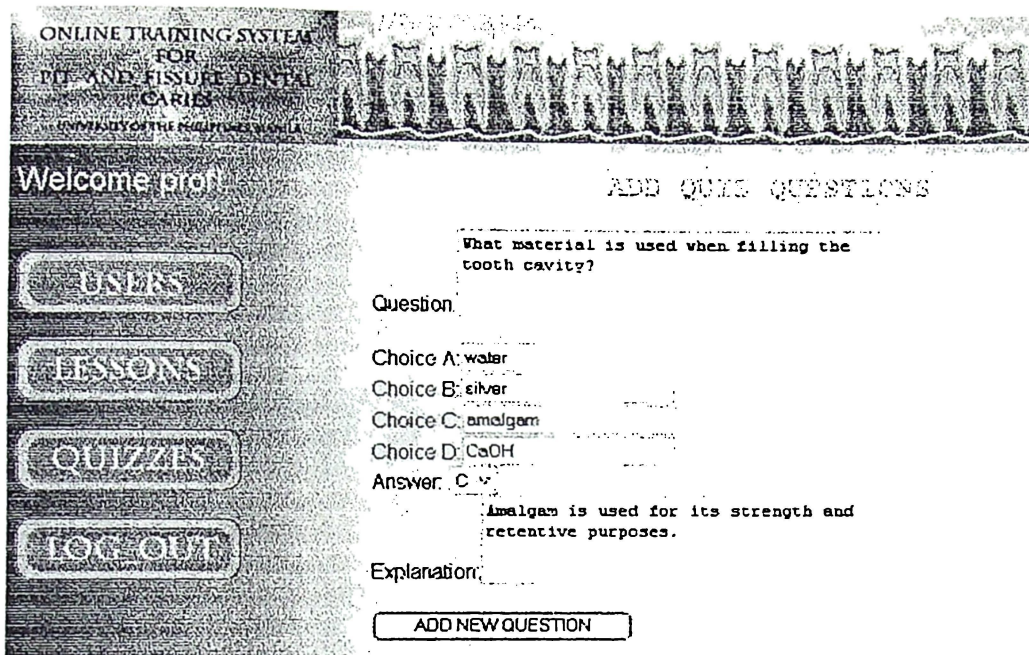


Figure 35. Add Objective-Type Exam Page of the Online Training System for Pit and Fissure Dental Caries

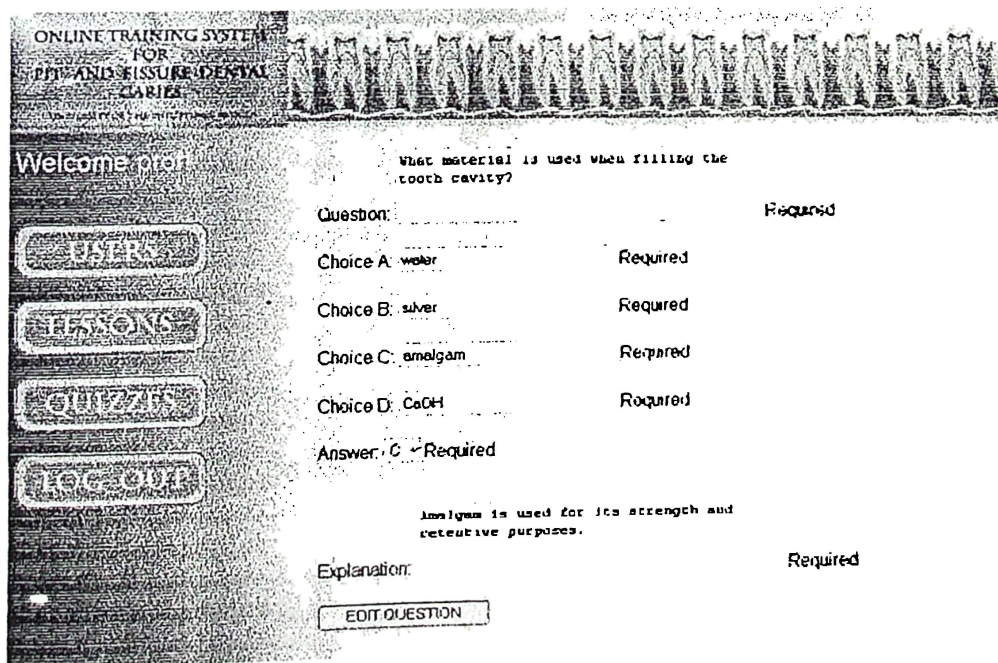


Figure 36. Edit Objective-Type Exam Page of the Online Training System for Pit and Fissure Dental Caries

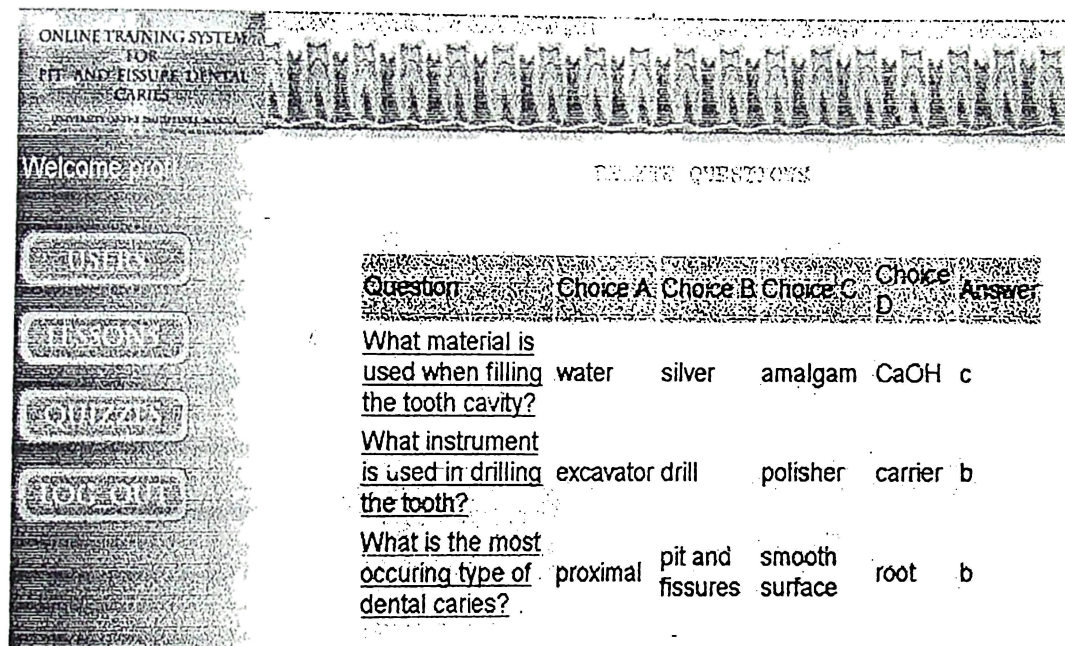


Figure 37. Delete Objective-Type Exam Page of the Online Training System for Pit and Fissure Dental Caries

VI. DISCUSSION

The Online Training System for Pit and Fissure Dental Caries is an on the web training tool for students and registered users. The system offers a variety of learning materials which can be used anytime. This system helps the students to improve further their knowledge about dental restoration and gives learning resources which can be repeatedly viewed and studied.

The Online Training System for Pit and Fissure Dental Caries provides students with the ease of studying online. The system provides the students the ability to view online lectures regarding pit and fissure dental caries. The lectures are arranged and viewed according to topic for more ease in studying. These lectures are useful for the students as they need not carry very large and bulky atlases about dental restorations. These lecture materials come in text format only but can include links to images to enhance the lecture.

A file based lecture system is available for the students for viewing. This would really help a lot because this provides the flexibility needed for more complicated and more effective learning materials. In this feature, the user is provided with files (such as document or powerpoint files) which he or she can view within the system or download and save in his or her computer system. Links to websites are also available for viewing to the users. These would provide the users access to more learning resources from the web.

Online quizzes are available for the evaluation of the users' amount of knowledge gained from the lessons. Each quiz is specifically made for a certain lesson. Each quiz taken is evaluated by the system and the user is presented with his/her score and the correct answers. However, all quizzes come in the form of multiple choice only. Moreover, the users' performance is not stored by the system and therefore not monitored by the administrator.

Another unique feature of this system is the animated simulation. In this feature, the user is presented with an animation and a visual presentation of the techniques in pit and fissure dental caries restoration using amalgam. This part is very useful for it gives another dimension to the learning experience of the user. The animation covers only basic aspects of amalgam restoration for pit and fissures dental caries and does not involve any special cases.

A simulation-practical exam is also provided for the user. The simulation practical exam gives the user a hands-on experience on the process of the tooth restoration. Although the simulation exams shows the tooth in a 2- dimensional representation, the two views (top and cross-sectional) give the users a more realistic feel of the actions performed on the tooth. Simultaneous effects happening on the two views makes the simulation exam better. The simulation interface has several buttons that do specific jobs needed in each stage of the simulated restoration. The size of the tooth to be restored is made to be life-like to give a more difficult and realistic challenge.

The system also provides useful management functionalities for the system administrator. These functionalities help maintain the system. A designated system and lesson administrator is given the privilege to modify and update the lessons to be taken. This dynamic approach in data and lesson handling is very advantageous since we are dealing with medical techniques in this system. The administrator can delete an obsolete lesson, modify lesson mistakes and add a new lesson.

The system administrator can also create quizzes to evaluate the amount of knowledge the users have gained. He is allowed to give evaluative questions and provide answers to them. The evaluation of the quizzes is performed by the system. The system administrator also has the ability to edit and delete the quizzes made.

Files can also be uploaded by the system administrator to give a more efficient form of learning material to the users. He can also choose to delete the said files. The system administrator can also add or delete links to important websites about dentistry.

Currently, the University of the Philippines College of Dentistry has no online system which provides the students means and materials for learning restoration techniques [5]. Moreover, existing dental simulation softwares available are proprietary. They often cost a lot and none are readily available for the Philippine market. More over, these software packages are for use by dentists, not by students. They stimulate several dental processes but they don't really teach the user regarding processes. The Online Training System for Pit and Fissure Dental Caries may serve a great role in providing

dentistry students, especially in the University of the Philippines College of Dentistry, a convenient and easy way of acquiring learning materials and resources vital for successful academic performance.

The Online Training System for Pit and Fissure Dental Caries aims entirely to improve a user's knowledge of the topic through the use of multi-dimensional techniques. It also provides a great convenience for learning such a difficult area of dentistry. Training systems like the Online Training System for Pit and Fissure Dental Caries can really help benefit the community. This system can help dentistry students to perform better academically. This in turn can help produce high quality dentists which can provide high quality dental services to the people. This would promote dental health to the community.

VII. CONCLUSION

The Online Training System for Pit and Fissure Dental Caries is an online system that provides registered users a convenient alternative for learning restorative dentistry focusing primarily on pit and fissure dental caries. It allows the users to view restoration techniques simulation and online lectures on pit and fissures amalgam restoration. In addition, the users are allowed to take simulation-based examinations to further enhance learning. System administrators are allowed to update registered users. Moreover, they are allowed to modify database entries for lectures and quizzes.

VIII. RECOMMENDATIONS

The Online Training System for Pit and Fissure Dental Caries has the following recommendations to further enhance the system. A better user interface, through the use of 3D modeling, used in the simulation-based examinations can really improve on the realistic aim of the simulation. The system can also be made more flexible through the addition of other restoration techniques. Simulation lessons should also be made modifiable to update the techniques.

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X. APPENDIX

Php Files

Addresson.php

```
<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">ADD LESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<form id="FormName" action="addresson2.php"
method="get" name="FormName">
<?printf("<input type='hidden' name='seq' size='30'
value=%d">,$seq);?>
<p>Topic Title:<textarea name="text" rows="4"
cols="40"></textarea></p>
<p></p>
<p><input type="submit" name="submit" value="ADD
NEW TOPIC"></p>
</form><br><br>
<br><br><br><br><a
href="javascript:history.back">Back</a>
</body>
</html>
```

addresson.php

```
<?php
if ($submit) {if (!isset($text)) {require("alert1.php");exit;
} else
require ("vars3.php");
create_connection($databaseName);

$result=mysql_query("SELECT * FROM topics WHERE
topic_id=$tnum");

if($myrow = mysql_fetch_array($result)) {
    require "alert4.php";
    exit;}else{

    $result=mysql_query("SELECT * FROM topics WHERE
sequence >=$seq' order by sequence desc");
    if($myrow = mysql_fetch_array($result)) {
        do{$seq2=$myrow['sequence']+1;
        echo "<html><body>";
        $id=$myrow['topic_id'];
        mysql_query("update topics set sequence = '$seq2' where
topic_id=$id");
        }while($myrow = mysql_fetch_array($result));

mysql_query("alter table topics AUTO_INCREMENT = 1");
mysql_query("insert into topics values (0,'$text','$seq')");

$result=mysql_query("SELECT * FROM topics WHERE
topic_id=$tnum");
    $myrow = mysql_fetch_array($result);
    if($myrow[topic_id]=="0") {
```

```
        require "alert1.php";
        mysql_query("delete from topics
where topic_id=0");
```

```
    exit;} else {
        printf("<html><head><meta http-
equiv='refresh'
Contentd='0;URL=lessonmain.php'></head></html>").
    }
}
?>
```

addressonpre

```
<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">ADD LESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">

<br><a href="addressonpre2.php">Add Topics</a>
<br><a href="addsubpre.php">Add Sublessons</a>
<br><a href="pics.php">Attach Pictures to Sublessons</a>
<br><a href="post.php">Upload Lesson Files</a>
<br><a href="adlink.php">Add Links to Websites</a>
<br><br><br><br><a
href="javascript:history.back">Back</a>
</body>
</html>
```

addressonpre2.php

```
<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">ADD SUBLESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<br><tab>Choose the Sequence that You Like.Click on the
Topic to insert new one.<br><br><br><br>
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM topics ORDER
BY sequence");

if ($myrow = mysql_fetch_array($result)){

    echo "<table width='500' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='#CDDDF4'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='<#DDEBF0' size=+1>Topic Sequence</font></td>";
    echo "</tr>";,$seq=1;
```

```

do{
    printf("<tr><td><a
href='\"addlesson.php?seq=%d\">%s</a></td>\n",
$myrow["sequence"],wrap($myrow["topicTitle"]);

    } while ($myrow = mysql_fetch_array($result));
$seq2 = mysql_query("SELECT * FROM topics ORDER
BY sequence");
if ($myrow = mysql_fetch_array($seq2)){
    do{
        $seq=$myrow["sequence"];

        } while ($myrow = mysql_fetch_array($seq2));
        // $seq = mysql_fetch_array($seq2);
        $seq++;
        echo "<tr><td><a
href='\"addlesson.php?seq=$seq\">Click to Add Last
Lesson</a></td>";
        echo "</table>\n";

    }else{
        echo "<table width='500' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\">";
        echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Topic Title and
Description</font></td>";
        echo "</tr>"; $seq=1;
        echo "<tr><td><a
href='\"addlesson.php?seq=$seq\">Click to Add First
Lesson</a></td>";
        echo "</table>\n";}??

<br><br> <a href='\"javascript:history.back()\">Back</a>

```

addlink.php

```

<?
if ($username == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}??

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">ADD LINKS</h2></font>
<font color="#5BAAD2" face="Helvetica">

<form id="FormName" action="addlink2.php" method="get"
name="FormName">
<p>Link<input type="text" size="40" name="text"></p>
<p><input type="submit" name="submit" value="ADD
Link"></p>
</form><br><br>
<br><br><br><br><a
href='\"javascript:history.back()\">Back</a>
</body>
</html>

```

addlink2.php

```

<?php
if ($submit) {
if (!trim($text)){
require("alert1.php");

```

```

exit;
} else
require ("vars3.php");
create_coneccion($databaseName);

```

```

$result=mysql_query("SELECT * FROM links WHERE
link_id=$inum");

```

```

if($myrow = mysql_fetch_array($result)) {
    require "alert4.php";
    exit;} else{
mysql_query("alter table links AUTO_INCREMENT = 1");
mysql_query("insert into links values (0,$text)");

```

```

$result=mysql_query("SELECT * FROM links WHERE
link_id=$inum");
$myrow = mysql_fetch_array($result);
if($myrow[link_id]=="0"){
    require "alert1.php";

```

```

mysql_query("delete from links where
topic_id=0");

```

```

exit;} else {
    printf ("<html><head><meta http-
equiv='\"refresh\"'
Content='\"0;URL=lessonmain.php\"></head></html>");}}??
>

```

Addquiz.php

```

<?
if ($username == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}??

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">ADD QUIZZES</h2></font>
<font color="#5BAAD2" face="Helvetica">
<form id="FormName" action="addquz2.php"
method="get" name="FormName">
<p>Quiz Title:<textarea name="text" rows="4"
cols="40"></textarea></p>
<p>Quiz Items:<select name="item" size="1">
<option
value="10">10</option>
<option
value="15">15</option>
<option
value="20">20</option>
<option
value="30">30</option>
</select></p>
<p></p>
<p><input type="submit" name="submit" value="ADD
NEW QUIZ"></p>
</form>
<br><a href="addquizpre.php">Add Quiz Questions</a>
<br><br><br><br><a
href='\"javascript:history.back()\">Back</a>
</body>
</html>

```

```

addquiz2.php

<?
if ($curname == " " || $curstat != "admin") {
    require "alert3.php";
    exit;}?>

<?php

if ($submit) {if (trim($text)) {
    require("alert1.php");exit;} else

require ("vars3.php");
create_connection($databaseName);

$result=mysql_query("SELECT * FROM quiz WHERE
quiz_id= '$qnum' ");

if($myrow = mysql_fetch_array($result)) {
    require "alert4.php";
    exit;}else{

mysql_query("alter table quiz AUTO_INCREMENT = 1");
mysql_query("insert into quiz values ('0','$text','$item')");

$result=mysql_query("SELECT * FROM quiz WHERE
quiz_id= '$qnum' ");
    $myrow = mysql_fetch_array($result);
    if($myrow[quiz_id]=="0"){
        require "alert1.php";

        mysql_query(" delete from quiz where
quiz_id='0'");

        exit;} else {

        printf ("<html><head><meta http-
equiv='refresh'
Content='0;URL=quizmain.php'></head></html>");}}
}
?>

Addquiz.php

<?
if ($curname == " " || $curstat != "admin") {
    require "alert3.php";
    exit;}

$var=0;

require ("vars3.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM questions where
quiz_id= '$quizid'");

if ($myrow = mysql_fetch_array($result)) {do { $var++;
} while ($myrow = mysql_fetch_array($result));

if ($var==10) {
    require("alert2.php");
    exit;
}
?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=$BAAD2>

```

```

<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">ADD QUIZ QUESTIONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<form id="FormName" action="addquiz2.php"
method="get" name="FormName">
<? printf ("<input type='hidden' name=' quizid2'
size='30' maxlength='12' value='%d'>", $quizid);?>
<p>Question:<textarea name="text" rows="4"
cols="40"></textarea></p>
Choice A:<input type="text" name=" a" size="24"><br>
Choice B:<input type="text" name=" b" size="24"><br>
Choice C:<input type="text" name=" c" size="24"><br>
Choice D:<input type="text" name=" d" size="24"><br>
Answer: <select name="ans" size="1">
    <option
value=" a">A</option>
    <option
value=" b">B</option>
    <option
value=" c">C</option>
    <option
value=" d">D</option>
    </select><br>
Explanation:<textarea name="text2" rows="4"
cols="40"></textarea><br>
<p></p>
<p><input type="submit" name="submit" value="ADD
NEW QUESTION"></p>
</form>

<br><a href="javascript:history.back()">Back</a>
</body>
</html>

```

```

addquiz2.php
<?
if ($curname == " " || $curstat != "admin") {
    require "alert3.php";
    exit;}?>

<?php

if ($submit) {
    if (trim($quizid2) || trim($text) || trim($ans) || trim($a) ||
    trim($b) || trim($c) || trim($d) || (trim($qnum)=="0") ||
    trim($text2)) {
        require("alert1.php");exit;} else

require ("vars3.php");
create_connection($databaseName);

$result=mysql_query("SELECT * FROM questions
WHERE ques_id= '$qnum' ");

if($myrow = mysql_fetch_array($result)) {
    require "alert4.php";
    exit;}else{

mysql_query("alter table questions AUTO_INCREMENT =
1");
mysql_query("insert into questions values
('0','$quizid2','$text','$ans','$a','$b','$c','$d','$text2')");

$result=mysql_query("SELECT * FROM questions
WHERE ques_id= '$qnum' ");
    $myrow = mysql_fetch_array($result);
    if($myrow[ques_id]=="0"){
        require "alert1.php";

```

```

mysql_query("delete from questions
where ques_id='0'");

exit;}else {printf("<html><head><meta http-
equiv='refresh'>
Content='0,URL=quizmain.php'\></head></html>");}}
]}>

addquizpre.php

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">VIEW QUIZZES</h2></font>
<font color="#5BAAD2" face="Helvetica"><br>
<br>Choose the Quiz into which You'll Add (Click the Quiz
Title)<br><br><br><br>
</php>
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM quiz ORDER BY
quiz_id");

if ($myrow = mysql_fetch_array($result)) {
    echo "<table width='500' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='#CDDDF4'\>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='#DDEBF0' size=+1>Quiz Title and
Description</font></td>";
    echo "</tr>"; do{

        printf("<tr><td><a
href='\"addquiz.php?quizid=%d\">%s</a></td>\n",
$myrow["quiz_id"],wrap($myrow["quiztitle"]);

    }while ($myrow = mysql_fetch_array($result));
    echo "</table>\n";

} else{
    display_err_msg("No records exist.");}?>

<br><br><a href='javascript:history.back()'>Back</a>

addsub.php

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>

<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">ADD SUBLESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<br>
<form id="FormName" action="addsub2.php" method="get"
name="FormName">
<? printf("<input type='hidden' name='\"topicid2\"
size='30' maxlength='121' value='\"%d'\>",$topicid);?>

<?
printf("<input type='hidden' name='\"seq\" size='30'
value='\"%d'\>",$seq);?>

<p>Sublesson Title:<textarea name="text" rows="4"
cols="40"></textarea></p>
<p>Sublesson Text:<textarea name="texttwo" rows="4"
cols="40"></textarea></p>
<p></p>
<p><input type="submit" name="submit" value="ADD
NEW LESSON"></p>
</form>
<br><a href='javascript:history.back()'>Back</a>
</body>
</html>

addsub2.php

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

</php>
if ($submit) {
    if (ltrim($topicid2) || ltrim($text) || ltrim($texttwo)) {

        require("alert1.php");
        exit;
    } else

        require ("vars3.php");
        create_connection($databaseName);

        $result=mysql_query("SELECT * FROM sublessons
WHERE less_id=$snum");

        if($myrow = mysql_fetch_array($result)) {
            require "alert4.php";
            exit;}else{

                $result=mysql_query("SELECT * FROM sublessons
WHERE sequence >=$seq' order by sequence desc");

                if($myrow = mysql_fetch_array($result)) {
                    do{
                        $seq2=$myrow["sequence"]+1;

                        $id=$myrow["less_id"];
                        mysql_query("update sublessons set sequence = '$seq2'
                        where less_id=$id");

                    }while($myrow = mysql_fetch_array($result));

                mysql_query("alter table sublessons AUTO_INCREMENT =
                1");
                mysql_query("insert into sublessons values
                (0,'$topicid2','$text','$texttwo','$seq')");
            }
        }
    }
}

```

```

$result=mysql_query("SELECT * FROM sublessons
WHERE less_id='$snum'");
    $myrow = mysql_fetch_array($result);
    if($myrow[less_id]=="0"){
        require "alert1.php";

        mysql_query("delete from sublessons
where less_id='0'");

        exit;}else {
        printf ("<html><head><meta http-
equiv='refresh'>
Content='0;URL=lessonmain.php'\></head></html> ");}
}?)>

```

addsubpre.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=$BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">ADD SUBLESSONS</h2></font>
<font color="#$BAAD2" face="Helvetica">
<br><tab>Choose the Lesson into which You'll Add (Click
the Lesson Number)<br><br><br><br>
</php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM topics ORDER
BY sequence");

if ($myrow = mysql_fetch_array($result)) {

    echo "<table width='500' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\"';
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Topic Title and
Description</font></td>";
    echo "</tr>"; do{

        printf("<tr><td><a
href='\"addsubpre2.php?topicid=%d\">%s</a></td><td><br>
$myrow[\"topic_id\"],wrap($myrow[\"topic_title\"]));

    } while ($myrow = mysql_fetch_array($result)).
    echo "</table><br>";

} else{ display_err_msg("No records exist.");}?)>

<br><br><a href='javascript:history.back()'>Back</a>

```

addsubpre2.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

```

```

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=$BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">ADD SUBLESSONS</h2></font>
<font color="#$BAAD2" face="Helvetica">
<br><tab>Choose the Sequence that You Like:Click on the
Topic to insert new one.<br><br><br><br>
</php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

```

```

$result = mysql_query("SELECT * FROM sublessons where
topic_id=$topicid ORDER BY sequence");

```

```

if ($myrow = mysql_fetch_array($result)) {

    echo "<table width='500' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\"';
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Topic Sequence</font></td>";
    echo "</tr>"; $seq=1; do{

        printf("<tr><td><a
href='\"addsub.php?seq=%d&topicid=$topicid\">%s</a></td>
$myrow[\"sequence\"],wrap($myrow[\"lesstitle\"]));

    } while ($myrow = mysql_fetch_array($result));
    $seq2 = mysql_query("SELECT * FROM sublessons
ORDER BY sequence");
    if ($myrow = mysql_fetch_array($seq2)) {
        do{ $seq=$myrow[\"sequence\"]

    } while ($myrow = mysql_fetch_array($seq2));
    // $seq = mysql_fetch_array($seq2);
    $seq++;
    echo "<tr><td><a
href='\"addsub.php?seq=$seq&topicid=$topicid\">Click to
Add Last Lesson</a></tr>";
    echo "</table><br>";

} else{
    echo "<table width='500' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\"';
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Topic Sequence</font></td>";
    echo "</tr>"; $seq=1;
    echo "<tr><td><a
href='\"addsub.php?seq=$seq&topicid=$topicid\">Click to
Add First Lesson</a></tr>";
    echo "</table><br>";}?)>

<br><br><a href='javascript:history.back()'>Back</a>

```

adduser.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

```

```

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>

```

```
<body text="black" bgcolor="#DDEBF0">
<h2 align="left"><font color="#2E9BD3" face="Courier New"
size="+2">ADD USERS</h2></font>
```

```
<font color="#2E9BD3" face="Courier New" size="+1">
<form id="FormName" action="adduser2.php"
method="get" name="FormName">
<p>User Name:<input type="text" name="username"
size="24">Required</p>
<p>Status:<select name="stat" size="1" >
<option value=1>Administrator</option>
<option
value=2>Student/User</option>
</select>
```

```
Required</p>
<p>Used id:<input type="text" name="usend"
size="24">Required</p>
<p>Password:<input type="password" name="password"
size="24">Required</p>
<p><input type="submit" name="submit" value="ADD
USER"> </p>
</form>
<br><br><a href='javascript:history.back()'>Back</a>
</body>
</html>
```

adduser2.php

```
<?
if ($cname == " " || $cstat != "admin"){
    require "alert3.php";
    exit;}><?php

if ($submit) {
if (trim($usend) || trim($username) || trim($password) ||
trim($stat)) {

require("alert1.php");
exit;}else

require ("vars3.php");
create_connection($databaseName);

$result=mysql_query("SELECT * FROM user WHERE
user_id='$userid'");

if($myrow = mysql_fetch_array($result)) {
    require "alert4.php";
    exit;}else{

mysql_query("alter table user AUTO_INCREMENT = 1");
mysql_query("insert into user values
('$userid','$username','password($password)',$stat)");

$result=mysql_query("SELECT * FROM user WHERE
user_id='$userid'");
$myrow = mysql_fetch_array($result);
if($myrow[user_id]=="0"){
    require "alert1.php";

    mysql_query(" delete from user where
user_id='0'");

    exit;}else {
```

```
printf ("<html><head><meta http-
equiv="refresh"
Content="0;URL=usermain.php"></head></html>");}}
)?>
```

adminframe.php

```
<?
if ($cname == " " || $cstat != "admin"){
    require "main2.php";
    exit;}>
```

```
<HTML>
<HEAD>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
</HEAD>
```

```
<frameset rows="107,**" framespacing="0" frameborder="0"
border=no>
```

```
<frame name="top"marginwidth="0" marginheight="0",
scrolling="no" src="topf.php" framespacing="0"
frameborder="0" bordercolor="#CDDDF4" border=no>
```

```
<FRAMESET COLS="270,**" FRAMEBORDER="0"
framespacing="0" scrolling=no>
```

```
<FRAME NAME="main" SRC="welcomeprof.php"
scrolling=no>
```

```
<FRAME NAME="right" SRC="welcomeadmin.php"
NORESIZE>
```

```
</FRAMESET>
<?//printf("%s",$cstat);?>
```

```
</HTML>
```

```
alert1
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN">
```

```
<html>
```

```
<head>
<meta http-equiv="content-type"
content="text/html; charset=iso-8859-1">
<meta name="generator"
content="Adobe GoLive">
<title>Welcome!</title>
</head>
```

```
<body bgcolor="#DDEBF0" marginwidth="0"
marginheight="0" text="5BAAD2">
<font color="#D0220B" face="Courier New" size="+1">
Improper input</font><font color="#D0220B"
face="Courier New">
<br><br><a href='javascript:history.back()'>Rctry</a>
```

```
</body>
```

```
</html>
```

```

alert2
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN">

<html>

  <head>
    <meta http-equiv="content-type"
content="text/html; charset=iso-8859-1">
    <meta name="generator"
content="Adobe GoLive">
    <title>Welcome! </title>
  </head>

  <body bgcolor="#DDEBF0" marginwidth="0"
marginheight="0" text=5BAAD2>
<font color="#D0220B" face="Courier New" size="+1">
Quiz Already Reached Maximum Number of
Questions!</font><font color="#D0220B" face="Courier
New">
<br><br><a href='javascript:history.back()'>Retry</a>

  </body>

</html>

alert3
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN">

<html>

  <head>
    <meta http-equiv="content-type"
content="text/html; charset=iso-8859-1">
    <meta name="generator"
content="Adobe GoLive">
    <title>Welcome! </title>
  </head>

  <body bgcolor="#DDEBF0" marginwidth="0"
marginheight="0" text=5BAAD2>
<font color="#D0220B" face="Courier New" size="+1">
Invalid Access!</font><font color="#D0220B"
face="Courier New">

  </body>

</html>

alert4
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN">

<html>

  <head>
    <meta http-equiv="content-type"
content="text/html; charset=iso-8859-1">
    <meta name="generator"
content="Adobe GoLive">
    <title>Welcome! </title>
  </head>

  <body bgcolor="#DDEBF0" marginwidth="0"
marginheight="0" text=5BAAD2>
<font color="#D0220B" face="Courier New" size="+1">
Duplicate Entry!</font><font color="#D0220B"
face="Courier New">
<br><br><a href='javascript:history.back()'>Retry</a>
</body>

```

```

</html>

alert5
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN">

<html>

  <head>
    <meta http-equiv="content-type"
content="text/html; charset=iso-8859-1">
    <meta name="generator"
content="Adobe GoLive">
    <title>Welcome! </title>
  </head>

  <body bgcolor="#DDEBF0" marginwidth="0"
marginheight="0" text=5BAAD2>
<font color="#D0220B" face="Courier New" size="+1">
Improper input!<br>Either there is no file selected or file size
too big </font><font color="#D0220B" face="Courier
New">
<br><br><a href='javascript:history.back()'>Retry</a>

  </body>

</html>

alert6
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN">

<html>

  <head>
    <meta http-equiv="content-type"
content="text/html; charset=iso-8859-1">
    <meta name="generator"
content="Adobe GoLive">
    <title>Welcome! </title>
  </head>

  <body bgcolor="#DDEBF0" marginwidth="0"
marginheight="0" text=5BAAD2>
<font color="#D0220B" face="Courier New" size="+1">
Improper input!<br>Non-existent user.</font><font
color="#D0220B" face="Courier New">
<br><br><a href='javascript:history.back()'>Retry</a>

  </body>

</html>

alert7
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN">

<html>

  <head>
    <meta http-equiv="content-type"
content="text/html; charset=iso-8859-1">
    <meta name="generator"
content="Adobe GoLive">
    <title>Welcome! </title>
  </head>

```

```

<body bgcolor="#DDEBF0" marginwidth="0"
marginheight="0" text=5BAAD2>
<font color="#D0220B" face="Courier New" size="+1">
File Format not Supported</b><b>Choose only image files of
type jpg, gif or bmp.</font><font color="#D0220B"
face="Courier New">
<br><br><a href="javascript:history.back();">Retry</a>

</body>

</html>

attach
<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit,1?>

</php
if($submit){
    if($_FILES['userfile']['size']<=0 ||
$_FILES['userfile']['size']>3000000){
        require("alert5.php");} else{
    if($_FILES['userfile']['type'] == 'image/x-png' ||
$_FILES['userfile']['type'] == 'image/jpeg' ||
$_FILES['userfile']['type'] == 'image/gif' ||
$_FILES['userfile']['type'] == 'image/bmp'){
        $path = $_SERVER['DOCUMENT_ROOT'];
        $uploaddir = $path."/otspfd/files/";
        $uploadfile = $uploaddir.$_FILES['userfile']['name'];

        $imtype=$_FILES["userfile"]["type"];
        $imsize=$_FILES["userfile"]["size"];
        $imname=$_FILES["userfile"]["name"];
        $imtemp=$_FILES["userfile"]["tmp_name"];
        if(copy($imtemp,$uploadfile)){
            require("vars3.php");
            require("wrap.php");
            create_connection($databaseName);
            mysql_query("alter table filename AUTO_INCREMENT =
1");
            mysql_query("insert into filename
values(0,$lessid,$imname,1)");

            printf("<html><head><meta http-
equiv='refresh'
Content='0;URL=attach.php?lessid=%d'></head></html>"
,$lessid);} else{
            require("alert5.php");}
        }else{require("alert7.php");}}} else{?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body text="black" bgcolor="#DDEBF0">
<h2 align="left"><font color="#2E9BD3" face="Courier New"
size="+2">ATTACH PICTURES</h2></font>
<?

require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM sublessons where
less_id=$lessid ORDER BY less_id");

if ($myrow = mysql_fetch_array($result)){

```

```

        printf("<br><br><br><br><font color='#2E9BD3'
face='Courier New' size='+'+1'>Attach Files to Lesson:
%$</font>".wrap($myrow['lessid']));

printf("<font color='#2E9BD3' face='Courier New'
size='+'+1'>");
printf("<form id='FormName'
action='attach.php?lessid=$lessid' method='post'
name='FormName' enctype='multipart/form-data'>");
printf("<input type='hidden' name='MAX_FILE_SIZE'
value='3000000'>");
printf("<input type='hidden' name='lessid' size='30'
value='%d'>",$lessid);
printf("Attach this file: <input name='userfile'
type='file'>");
printf("<p><input type='submit' name='submit'
value='Attach'></p>");
printf("</form>");
printf("<br><br><a href='lessonmain.php'>Back</a>");} }?>

</body>
</html>

authenticate
</php

if ($submit){

    require("vars3.php");
    create_connection($databaseName);

    if (!($username || $password)){
        require "main2.php";
        exit;

    }else{
        $result=mysql_query("SELECT * FROM user WHERE
uname='$username' AND upassword=password($password)
");

        if($result){
            require "main2.php";
            exit;

        }else{
            $row=mysql_fetch_array($result);

            do{
                if ($row==0){
                    require("main2.php");
                    exit;

                }elseif ($row["status"]==1){
                    $name=$row["uname"];
                    $stat="admin";
                    setcookie("curname",$name);
                    setcookie("curstat",$stat);
                    printf("<html><head><meta http-
equiv='refresh'
Content='0;URL=adminframe.php'></head></html>");
                    exit;

                }elseif ($row["status"]==2){
                    $name=$row["uname"];
                    $stat="user";
                    setcookie("curname",$name);
                    setcookie("curstat",$stat);
                    printf("<html><head><meta http-
equiv='refresh'
Content='0;URL=userframe.php'></head></html>");

```



```

        exit;
    } while ($row = mysql_fetch_array($result)); } } ?>

    authenticat2
    <html>
    <body>haha mali

    deletechoice.php

    <html>
    <body bgcolor="#DDEBF0" text=$BAAD2>
    <h2 align=center><font color="#2E9BD3" face="Courier
    New" size="+2">DELETE LESSONS</h2></font>
    <font color=$5BAAD2" face="Helvetica">
    <a href="deletelesson.php">Delete Topics</a><br>
    <a href="deletesubpre.php">Delete Sublessons</a><br>
    <a href="deletepicpre.php">Delete Image Attachments to
    Sublessons</a><br>
    <a href="deletefile.php">Delete Files</a><br>
    <a href="deletelinks.php">Delete Links</a>
    <br><br><a href="javascript:history.back()">Back</a>

    deletefile.php

    <?
    if ($curname == " " || $curstat != "admin"){
        require "alert3.php";
        exit; } ?>

    <html>

    <title>ONLINE TRAINING SYSTEM FOR PIT AND
    FISSURE DENTAL CARRIES</title>
    <body bgcolor="#DDEBF0" text=$BAAD2>
    <h2 align=center><font color="#2E9BD3" face="Courier
    New" size="+2">DELETE FILES</h2></font>
    <font color=$5BAAD2" face="Helvetica">
    <?php
    require("vars3.php");
    require("wrap.php");
    create_connection($databaseName);

    $result = mysql_query("SELECT * FROM filename where
    type=0 order by f_id");

    if ($myrow = mysql_fetch_array($result)) {

        echo "<table width=70% align=CENTER border=1
        cellpadding=2 bgcolor=#DDEBF0
        bordercolor=#CDDDF4\>";
        echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
        color=#DDEBF0\ size=+1>File Name</font></td>";
        echo "</tr>";

        do{
            printf("<tr><td><a
            href='filedelete.php?i_d=%d'\>%s</a></td>\n",
            $myrow["f_id"], wrap($myrow["title"]);

        } while ($myrow = mysql_fetch_array($result));
        echo "</table>\n";

    } else{
        display_err_msg("No Lesson Files.");
    }

```

```

    } ?>

    <br><br><a href="javascript:history.back()">Back</a>

    deletelesson.php

    <?
    if ($curname == " " || $curstat != "admin"){
        require "alert3.php";
        exit; } ?>

    <html>
    <title>ONLINE TRAINING SYSTEM FOR PIT AND
    FISSURE DENTAL CARRIES</title>
    <body bgcolor="#DDEBF0" text=$BAAD2>
    <h2 align=center><font color="#2E9BD3" face="Courier
    New" size="+2">DELETE MAIN LESSONS</h2></font>
    <font color=$5BAAD2" face="Helvetica">
    <?php
    require("vars3.php");
    require("wrap.php");
    create_connection($databaseName);

    $result = mysql_query("SELECT * FROM topics ORDER
    BY sequence");

    if ($myrow = mysql_fetch_array($result)) {

        echo "<table width=\>500\ align=CENTER border=1
        cellpadding=2 bgcolor=#DDEBF0
        bordercolor=#CDDDF4\>";
        echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
        color=#DDEBF0\ size=+1>Topic Title and
        Description</font></td>";
        echo "</tr>";

        do{
            printf("<tr><td><a
            href='deletetopic.php?topicid=%d&sequence=%d'\>%s</a
            ></td>\n", $myrow["topic_id"],
            $myrow["sequence"], wrap($myrow["topic title"]));

        } while ($myrow = mysql_fetch_array($result));
        echo "</table>\n";

    } else{
        display_err_msg("No records exist."); } ?>

    <br><br><a href="javascript:history.back()">Back</a>

    deletelink.php

    <?
    if ($curname == " " || $curstat != "admin"){
        require "alert3.php";
        exit; } ?>

    <?php

    require ("vars3.php");
    create_connection($databaseName);

    mysql_query(" delete from links where link_id=$linkid");
    printf ("<html><head><meta http-
    equiv='refresh'
    Content='0;URL=lessonmain.php'\></head></html>"); ?>

```

deletelinks.php

```
<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">DELETE LINKS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM links ORDER BY
link_id");

if ($myrow = mysql_fetch_array($result)) {

    echo "<table width='500' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='#CDDDF4'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='#DDEBF0' size=+1>Available Links</font></td>";
    echo "</tr>";

    do{

        printf("<tr><td><a
href='\"deletelink.php?linkid=%d\">%s</a></td>\n",
$myrow["link_id"],wrap($myrow["link"]));

    } while ($myrow = mysql_fetch_array($result));
    echo "</table>\n";

} else{ display_err_msg("No records exist.");}?

<br><br><a href="javascript:history.back()">Back</a>
```

deletepic.php

```
<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?

<?php

require ("vars3.php");
create_connection($databaseName);

mysql_query("delete from filename where f_id='$lessid');
printf("<html><head><meta http-
equiv='\"refresh\"'
Content='\"0;URL=lessonmain.php\"'></head></html>").
?>
```

deletepicpre.php

```
<?
```

```
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>
```

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">DELETE IMAGES OF
SUBLESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
```

```
<br>Choose the Lesson into which You'll Delete (Click the
Lesson Number)<br><br><br>
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);
```

```
$result = mysql_query("SELECT * FROM topics ORDER
BY topic_id");
```

```
if ($myrow = mysql_fetch_array($result)) {
```

```
    echo "<table width='500' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='#CDDDF4'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='#DDEBF0' size=+1>Lesson Title and
Description</font></td>";
    echo "</tr>";
```

```
do{
```

```
    printf("<tr><td><a
href='\"deletepicpre2.php?topicid=%d\">%s</a></td>\n",
$myrow["topic_id"],wrap($myrow["topicitle"]));
```

```
    } while ($myrow = mysql_fetch_array($result));
    echo "</table>\n";
```

```
} else{ display_err_msg("No records exist.");}?>
```

```
<br><br><a href="javascript:history.back()">Back</a>
```

deletepicpre2.php

```
<?if ($curname == " " || $curstat != "admin"){require
"alert3.php";exit;}?>
```

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">DELETE IMAGES OF
SUBLESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);
```

```
$result = mysql_query("SELECT * FROM sublessons where
topic_id='$topicid' ORDER BY less_id");
```

```
if ($myrow = mysql_fetch_array($result)) {
```

```

echo "<br></h2>";
echo "<table width='500' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='#CDDDF4'>";
echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='#DDEBF0' size=+1>Lesson Title and
Description</font></td>";
echo "</tr>";

```

```
do{
```

```

printf("<tr><td><a
href='deletepic3.php?lessid=%d'>%s</a></td>\n",
$myrow["less_id"],wrap($myrow["lesstitle"]));

```

```

} while ($myrow = mysql_fetch_array($result));
echo "</table>\n";

```

```
}else{ display_err_msg("No records exist."); }>
```

```
<br><br><a href='javascript:history.back()'>Back</a>
```

```
deletepic3
```

```
<?
```

```

if ($username == " " || $curstat != "admin"){
require "alert3.php";
exit;
}

```

```
?>
```

```

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">DELETE IMAGES OF
SUBLESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">

```

```

<br>Choose the Image You'll Delete (Click the Lesson
Number) <br><br><br><br>
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

```

```

$result = mysql_query("SELECT * FROM filename where
les_id=$lessid");

```

```
if ($myrow = mysql_fetch_array($result)){
```

```

echo "<table width='500' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='#CDDDF4'>";
echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='#DDEBF0' size=+1>Image Title</font></td>";
echo "</tr>";

```

```
do{
```

```

printf("<tr><td><a
href='deletepic.php?lessid=%d'>%s</a></td>\n",
$myrow["f_id"],wrap($myrow["title"]));

```

```

} while ($myrow = mysql_fetch_array($result));
echo "</table>\n";

```

```
}else{ display_err_msg("No records exist."); }>
```

```
<br><br><a href='javascript:history.back()'>Back</a>
```

```
deleteques.php
```

```

<?if ($username == " " || $curstat != "admin"){require
alert3.php";exit;}?>

```

```
<html>
```

```

<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">DELETE QUESTIONS</h2></font>
<font color="#5BAAD2" face="Helvetica"><br>
<br>Choose the Quiz You Like To
DELETE<br><br><br><br>
<?php

```

```

require("vars3.php");
require("wrap.php");
create_connection($databaseName);

```

```

$result = mysql_query("SELECT * FROM quiz ORDER BY
quiz_id");

```

```
if ($myrow = mysql_fetch_array($result)){
```

```

echo "<table width='500' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='#CDDDF4'>";
echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='#DDEBF0' size=+1>Quiz Title and
Description</font></td>";
echo "</tr>";

```

```
do{
```

```

printf("<tr><td><a
href='deleteques2.php?quid=%d'>%s</a></td>", $myrow
["quiz_id"],wrap($myrow["quiztitle"]));

```

```

} while ($myrow = mysql_fetch_array($result));
echo "</table>\n"; }else{ display_err_msg("No records
exist."); }>

```

```
<br><br><a href='javascript:history.back()'>Back</a>
```

```
deleteques2.php
```

```

<?if ($username == " " || $curstat != "admin"){require
"alert3.php";exit;}?>

```

```
<html>
```

```

<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">DELETE QUESTIONS</h2></font>

```

```

<font color="#5BAAD2" face="Helvetica"><br>
<br>Choose the Question You Like To
DELETE<br><br><br><br>
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM questions where
quiz_id='$quizid'");

if ($myrow = mysql_fetch_array($result)) {

    echo "<table width='500' align='CENTER' border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\"'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Question
Number</font></td><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Question</font></td><td
CLASS='head'><font color='\"#DDEBF0\"' size=+1>Choice
A</font></td><td CLASS='head'><font color='\"#DDEBF0\"'
size=+1>Choice B</font></td><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Choice C</font></td><td
CLASS='head'><font color='\"#DDEBF0\"' size=+1>Choice
D</font></td><td CLASS='head'><font color='\"#DDEBF0\"'
size=+1>Answer</font></td>";
    echo "</tr>";

    do {

        printf("<tr><td><a
href='\" deleteques3.php?quesid=%d'>%d</a></td><td>%s<
/td><td>%s</td><td>%s</td><td>%s</td><td>%s</td><td>
%s</td></tr>\n",
        $myrow["ques_id"],wrap($myrow["ques_id"],wrap($myrow
["question"],wrap($myrow["achoice"],wrap($myrow["bcho
ice"],wrap($myrow["cchoice"],wrap($myrow["dchoice"],
wrap($myrow["answer"]));

        } while ($myrow = mysql_fetch_array($result));
        echo "</table>\n";

    } else {
        display_err_msg("No records exist.");?>

<br><br><a href='javascript:history.back()'>Back</a>

```

```

deleteques3.php

<?
if ($curname == " " || $curstat != "admin") {
    require "alert3.php";
    exit;?>

<?php
require ("vars3.php");
create_connection($databaseName);

mysql_query(" delete from questions where
ques_id='$quesid'");

    printf ("<html><head><meta http-
equiv='\"refresh\"'
Content='\"0;URL=quizmain.php\"'></head></html>");
?>

```

deletequiz.php

```

<?
if ($curname == " " || $curstat != "admin") {
    require "alert3.php";
    exit;?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARRIES</title>
<body bgcolor="#DDEBF0" text=#5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">DELETE QUIZZES</h2></font>
<font color="#5BAAD2" face="Helvetica"><br>
<br>Choose the Quiz You Like To
DELETE<br><br><br><br>
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM quiz ORDER BY
quiz_id");

if ($myrow = mysql_fetch_array($result)) {

    echo "<table width='500' align='CENTER' border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\"'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Quiz Title and
Description</font></td>";
    echo "</tr>";

    do {

        printf("<tr><td><a
href='\" deletequiz2.php?quizid=%d'>%s</a></td>",$myrow
["quiz_id"],wrap($myrow["quiztitle"]));

        } while ($myrow = mysql_fetch_array($result));
        echo "</table>\n";

    } else {
        display_err_msg("No records exist.");?>

<br><br><a href='javascript:history.back()'>Back</a>

```

deletequiz2.php

```

<?
if ($curname == " " || $curstat != "admin") {
    require "alert3.php"; exit;?>

<?php
require ("vars3.php");
create_connection($databaseName);

mysql_query(" delete from questions where
quiz_id='$quizid'");

mysql_query(" delete from quiz where quiz_id='$quizid'");
    printf ("<html><head><meta http-
equiv='\"refresh\"'
Content='\"0;URL=quizmain.php\"'></head></html>");
?>

```

```

deletesub.php

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<?php

require ("vars3.php");
create_connection($databaseName);

/$sequence=mysql_query("SELECT sequence FROM
sublessions WHERE where less_id=$lessid");
mysql_query("delete from sublessions where
less_id=$lessid");
$result=mysql_query("SELECT * FROM sublessions
WHERE sequence > '$sequence' order by sequence asc");

if($myrow = mysql_fetch_array($result)){
do{
    $seq2=$myrow['sequence']-1,
    echo "<html><body>";
    $id=$myrow['less_id'];
    mysql_query("update sublessions set sequence = '$seq2'
where less_id=$id");
}while($myrow = mysql_fetch_array($result));}

mysql_query("delete from filename where less_id=$lessid");

printf ("<html><head><meta http-
equiv='refresh\
Content='\"0,URL=lessonmain.php\></head></html>");?>

deletesubpre.php

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">DELETE SUBLESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">

<br>Choose the Lesson into which You'll Delete (Click the
Lesson Number) <br> <br> <br> <br>
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM topics ORDER
BY sequence");

if ($myrow = mysql_fetch_array($result)){

    echo "<table width='500' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\">";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\" size=+1>Lesson Title and
Description</font></td>";
    echo "</tr>";

    do{

        printf("<tr><td><a
href='\"deletesub.php?lessid=%d&sequence=%d\">%s</a></td></tr>".
$myrow['sequence'],$myrow['less_id']);

    } while ($myrow = mysql_fetch_array($result));

    }else{ display_err_msg("No records exist.");?>

<br><br><a href='\"javascript:history.back()\">Back</a>

deletetopic.php

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

```

```

<?php
require ("vars3.php");
create_connection($databaseName);

// $sequence=mysql_query("SELECT sequence FROM topics
WHERE where topic_id=$topicid");
// $myrow = mysql_fetch_array($result);
// $sequence=$myrow['sequence'];

mysql_query("delete from topics where topic_id=$topicid");
$result=mysql_query("SELECT * FROM topics WHERE
sequence > '$sequence' order by sequence asc");

if($myrow = mysql_fetch_array($result)) {
do{
$seq2=$myrow['sequence']-1,
//echo "<html><body>";
$id=$myrow['topic_id'];
mysql_query("update topics set sequence = '$seq2' where
topic_id=$id");
}while($myrow = mysql_fetch_array($result));

mysql_query("delete from sublessons where
topic_id=$topicid");

printf ("<html><head><meta http-
equiv=\"refresh\"
Content=\"0;URL=lessonmain.php\"></head></html>"),?>

```

deleteuser.php

```

<?
if ($curname == " " || $curstat != "admin"){
require "alert3.php",
exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=left><font color="#2E9BD3" face="Courier New"
size="+2">DELETE USERS</h2></font>

<font color="#2E9BD3" face="Courier New" size="+1">
<form id="FormName" action="deleteuser2.php"
method="get" name="FormName">
<p>Userid of User to be Deleted:<input type="text"
name="userid" size="24"> Required</p>
<p><input type="submit" name="submit" value="DELETE
USER"></p>
</form>
<br><br><a href="javascript:history.back/">Back</a>
</body>
</html>

```

deleteuser2.php

```

<?
if ($curname == " " || $curstat != "admin"){
require "alert3.php";
exit;}?>

<?php
if ($submit) {
if (!trim($userid)) {

```

```

require("alert1.php");
exit;
} else

require ("vars3.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM user where
userid=$userid");

if(!($myrow = mysql_fetch_array($result))){
require "alert6.php";
exit;}

mysql_query("delete from user where user_id=$userid");
printf ("<html><head><meta http-
equiv=\"refresh\"
Content=\"0;URL=usermain.php\"></head></html>");?>

```

download.php

```

<?
if ($curname == " "){
require "alert3.php";
exit;}?>

<html>

<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">DOWNLOAD LESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM filename where
type='U'");

if ($myrow = mysql_fetch_array($result)) {

echo "<table width=70% align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor=\"#CDDDF4\">";
echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color=\"#DDEBF0\" size="+1>File Name</font></td><td
CLASS='head' width=100><font color=\"#DDEBF0\"
size="+1>File Type</font></td>";
echo "</tr>";

do{

printf("<tr><td><a
href=\"OTSPFDC.php?i_d=%d\"%s</a></td><td>%s</td>\n",
$myrow["id"],wrap($myrow["title"],wrap($myrow["type"]))

}while ($myrow = mysql_fetch_array($result));
echo "</table>\n";

}else{
display_err_msg("No Lesson Files.");?>

```

```
<br><br><a href='javascript:history.back()'>Back</a>
```

download2.php

```
<?
if ($cumame == " "){
    require "alert3.php";
    exit;}?>

<html>

<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">DOWNLOAD LESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM filename where
type='1'");

if ($myrow = mysql_fetch_array($result)){
```

```
    echo "<table width=70% align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\"'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>File Name</font></td>";
    echo "</tr>";

    do{
        $title="files/" . $myrow["title"];
        printf("<tr><td><a
href='\"$title.\">%s</a></td></tr>\n",wrap($myrow["title"]);

    } while ($myrow = mysql_fetch_array($result));
    echo "</table>\n";
```

```
}else{
    display_err_msg("No Lesson Files.");}?>
```

```
<br><br><a href='javascript:history.back()'>Back</a>
```

editchoice.php

```
<html>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT LESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<a href="editlesson.php">Edit Topics</a><br>
<a href="editsubpre.php">Edit Sublessons</a><br>
<a href="editseq.php">Edit Topic Sequence</a><br>
<a href="editseq.php">Edit Sublesson Sequence</a><br>
<a href="editlinks.php">Edit Links</a>

<br><br><a href='javascript:history.back()'>Back</a>
```

editlesson.php

```
<?
if ($cumame == " " || $curostat != "admin"){
```

```
    require "alert3.php";
    exit;}?>
```

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT LESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM topics ORDER
BY sequence");

if ($myrow = mysql_fetch_array($result)){

    echo "<table width='\"500\"' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\"'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Topic Title and
Description</font></td>";
    echo "</tr>";
```

```
    do{

        printf("<tr><td><a
href='\"editlesson2.php?topicid=%d\">%s</a></td>\n",
        $myrow["topic_id"],wrap($myrow["topic_title"]);

    } while ($myrow = mysql_fetch_array($result));
    echo "</table>\n";
```

```
}else{
    display_err_msg("No Records to Edit.");}?>
```

```
<br><br><a href='javascript:history.back()'>Back</a>
```

editlesson2.php

```
<?
if ($cumame == " " || $curostat != "admin"){
    require "alert3.php";
    exit;}?>
```

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT SUBLESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
```

```
<br>
<?
require("vars3.php");
create_connection($databaseName);
$result = mysql_query("SELECT * FROM topics where
topic_id='\"$topicid\"");
```

```
$myrow = mysql_fetch_array($result);
?><br>
<br>
```

```

<form id="FormName" action="editlesson3.php"
method="get" name="FormName">
<? printf("<input type='hidden' name='topicid2'
size='30' maxlength='121' value='%d'", $topicid); ?>
<b><? printf("<textarea name='text' rows='4'
cols='40'>%s</textarea>", $myrow["topicid"]); ?></b>
<p><input type="submit" name="submit" value="EDIT
Lesson"></p>
</form>
<br><br><a href="javascript:history.back()">Back</a>
</body>
</html>

```

editlesson3.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<?php

if ($submit){
if ($trim($text)){

require("alert1.php");
exit;
}else

require("vars3.php");
create_connection($databaseName);

mysql_query("update topics set topicid=$text where
topic_id=$topicid2");
printf("<html><head><meta http-
equiv='refresh'
Content='0,URL=lessonmain.php'></head></html>"),
)?>

```

editlinks.php

```

<?
if ($curname == " "){
    require "alert3.php";
    exit;}?>

<html>

<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">VIEW LINKS</h2></font>
<font color="#5BAAD2" face="Helvetica">
</php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

```

```

$result = mysql_query("SELECT * FROM links");
if ($myrow = mysql_fetch_array($result)) {

    echo "<table width=70% align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\"'>";

```

```

echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Links</font></td>";
echo "</tr>";

```

```

do{

    printf("<tr><td><a
href='editlinks2.php?linkid=%s'>%s</a></td>\n",
wrap($myrow["link_id"],wrap($myrow["link"]));

    } while ($myrow = mysql_fetch_array($result));
echo "</table>\n";

```

```

} else{
    display_err_msg("No Links.");}?>

```

```

<br><br><a href="javascript:history.back()">Back</a>

```

editlinks2.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT QUIZZES</h2></font>
<font color="#5BAAD2" face="Helvetica"><br>
<br><br>
<?php
require("vars3.php");
create_connection($databaseName);

```

```

$result = mysql_query("SELECT * FROM links where
link_id=$linkid");

```

```

$myrow = mysql_fetch_array($result);

```

```

?><br>

```

```

<form id="FormName" action="editlinks3.php"
method="get" name="FormName">
<? printf("<input type='hidden' name='linkid'
size='30' maxlength='121' value='%d'", $linkid); ?>
<b><? printf("<textarea name='text2' rows='4'
cols='40'>%s</textarea>", $myrow["link"]); ?></b>

<p><input type="submit" name="submit" value="EDIT
LINK"></p>
</form>
<br><br><a href="javascript:history.back()">Back</a>
</body>
</html>

```

editlinks3.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

```



```

<?php
if ($submit) {
if (trim($text2)) {

require("alert1.php");
exit;}else
require ("vars3.php");
create_connection($databaseName);

mysql_query("update links set link=$text2' where
link_id=$linkid");
        printf ("<html><head><meta http-
equiv='refresh'
Content='0;URL=lessonmain.php'\></head></html>");
}?)

editseq.php

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT LESSON SEQUENCE</h2></font>
<font color="#5BAAD2" face="Helvetica">
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM topics ORDER
BY sequence");

if ($myrow = mysql_fetch_array($result)) {

    echo "<table width=70% align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\"';
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Topic Title and
Description</font></td>";
    echo "</tr>";

    do{

        printf("<tr><td><a
href='\"editseq2.php?topicid=%d&title=%s&sequence=%d'
>%s</a></td>\n", $myrow["topic_id"], $myrow["topicTitle"],
        $myrow["sequence"], wrap($myrow["topicTitle"]);

        } while ($myrow = mysql_fetch_array($result));
        echo "</table>\n";

    }else{
        display_err_msg("No Main Lessons.");
    }
?><br><br><br>

<br><br><a href='javascript:history.back()'>Back</a>

```

```

editseq2.php
<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<?php

require ("vars3.php");
create_connection($databaseName);

//title=mysql_query("SELECT title FROM topics WHERE
where topic_id=$topicid");
//title=mysql_query("SELECT title FROM topics WHERE
where topic_id=$topicid");

//sequence=mysql_query("SELECT sequence FROM topics
WHERE where topic_id=$topicid");
// $myrow = mysql_fetch_array($result);
// $sequence=$myrow['sequence'];

mysql_query(" delete from topics where topic_id=$topicid");
$result=mysql_query("SELECT * FROM topics WHERE
sequence > '$sequence' order by sequence asc");

if($myrow = mysql_fetch_array($result)) {
do{
    $seq2=$myrow['sequence']-1;
    echo "<html><body>";
    $id=$myrow["topic_id"];
    mysql_query("update topics set sequence = '$seq2' where
topic_id=$id");
    }while($myrow = mysql_fetch_array($result));

mysql_query(" delete from sublessons where
topic_id=$topicid");
$title=str_replace(" ", "%07%", $title);

        printf ("<html><head><meta http-
equiv='refresh'
Content='0;URL=editseq3.php?title=$title&topicid=$topici
d&sequence=$sequence'\></head></html>");?>

editseq3.php

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT LESSON SEQUENCE</h2></font>
<font color="#5BAAD2" face="Helvetica">
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);
$title=str_replace("%07%", " ", $title);

$result = mysql_query("SELECT * FROM topics ORDER
BY sequence");

if ($myrow = mysql_fetch_array($result)) {

```

```

    echo "<table width=70% align=CENTER border=1
    cellpadding=1 cellspacing=2 bgcolor=#DDEBF0
    bordercolor='\"#CDDDF4\"'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
    color='\"#DDEBF0\"' size=+1>Topic Title and
    Description</font></td>";
    echo "</tr>"; $seq=1;

    do{

        printf("<tr><td><a
        href='\"editseq4.php?topicid=%d&title=%s&sequence2=%d
        &topicid2=%d&sequence=%d\"'>%s</a></td></tr>\n",
        $myrow["topic_id"], $title, $sequence, $topicid,
        $myrow["sequence"], wrap($myrow["topicid"]);
        $seq=$myrow["sequence"]; $id=$myrow["topic_i
        d"];
        } while ($myrow = mysql_fetch_array($result));
        $seq++;
        echo "<tr><td><a
        href='\"editseq4.php?topicid=$id&title=$title&sequence2=%d
        &topicid2=$topicid&sequence=$seq\"'>Click to Add Last
        Lesson</a></tr>";
        echo "</table>\n",

    }else{
        display_err_msg("No Main Lessons.");
    }
}
?><br><br><br>

<br><br><a href='\"javascript:history.back\"'>Back</a>

editseq4.php

<?php

require ("vars3.php");
create_connection($databaseName);

$result=mysql_query("SELECT * FROM topics WHERE
topic_id='$inum'");

if($myrow = mysql_fetch_array($result)) {
    require "alert4.php";
    exit;}else{

    $result=mysql_query("SELECT * FROM topics WHERE
    sequence >=$sequence' order by sequence desc");

    if($myrow = mysql_fetch_array($result)) {
    do{
        $seq2=$myrow["sequence"]+1;
        //echo "<html><body>";
        $id=$myrow["topic_id"];
        mysql_query("update topics set sequence = '$seq2' where
        topic_id=$id");
        }while($myrow = mysql_fetch_array($result));

        mysql_query("alter table topics AUTO_INCREMENT = 1");
        mysql_query("insert into topics values
        ($topicid2,'$title','$sequence')");

        printf ("<html><head><meta http-
        equiv='\"refresh\"'
        Content='\"0:URL=lessonmain.php\"'></head></html>");}??

```

```

editques.php

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}??

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="\"#DDEBF0\"' text=5BAAD2>
<h2 align=center><font color="\"#2E9BD3\"' face="Courier
New" size="+2">EDIT QUIZZES</h2></font>
<font color="\"#5BAAD2\"' face="Helvetica"><br>
<br>Choose the Quiz You Like To Edit<br><br><br>
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM quiz ORDER BY
quiz_id");

if ($myrow = mysql_fetch_array($result)) {

    echo "<table width='\"500\"' align=CENTER border=1
    cellpadding=1 cellspacing=2 bgcolor=#DDEBF0
    bordercolor='\"#CDDDF4\"'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
    color='\"#DDEBF0\"' size=+1>Quiz Title and
    Description</font></td>";
    echo "</tr>";

    do{

        printf("<tr><td><a
        href='\"editques2.php?quizid=%d\"'>%s</a></td>"; $myrow["
        quiz_id"], wrap($myrow["quizid"]);

        } while ($myrow = mysql_fetch_array($result));
        echo "</table>\n";

    }else{
        display_err_msg("No records exist.");}??

<br><br><a href='\"javascript:history.back\"'>Back</a>

editques2.php

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}??

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="\"#DDEBF0\"' text=5BAAD2>
<h2 align=center><font color="\"#2E9BD3\"' face="Courier
New" size="+2">EDIT QUESTIONS</h2></font>
<font color="\"#5BAAD2\"' face="Helvetica">

</php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

```



```

<?php
if ($submit) {
if (!trim($quesid2) || !trim($text) || !trim($ans) || !trim($a) ||
!trim($b) || !trim($c) || !trim($d) || !trim($text2)) {

require("alert1.php");
exit;
} else
require ("vars3.php");
create_connection($databaseName);

mysql_query("update questions set
question='$text',achoice='$a',bchoice='$b',cchoice='$c',dchoi
ce='$d',answer='$ans',exp='$text2' where
ques_id='$quesid2'");
printf("<html><head><meta http-
equiv='refresh'
Content='0;URL=quizmain.php'></head></html>");
}?)

```

editquiz.php

```

<?
if ($curname == " " || $curstat != "admin"){
require "alert3.php";
exit;}?)

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT QUIZZES</h2></font>
<font color="#5BAAD2" face="Helvetica"><br>
<br>Choose the Quiz You Like To Edit<br><br><br><br>
</php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM quiz ORDER BY
quiz_id");

if ($myrow = mysql_fetch_array($result)) {

echo "<table width='500' align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='#CDDDF4'>";
echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='#DDEBF0' size=+1>Quiz Title and
Description</font></td><td CLASS='head'><font
color='#DDEBF0' size=+1>Items</font></td>";
echo "</tr>";

do{

printf("<tr><td><a
href='\"editquiz2.php?quizid=%d\">%s</a></td><td><font
color=black>%d</td></tr>",$myrow["quiz_id"],wrap($myro
w["quiztitle"],$myrow["item"]);
}while ($myrow = mysql_fetch_array($result));
echo "</table>\n";

} else{
display_err_msg("No records exist.");
}?)

```

```

<br><br><a href='\"javascript:history back\">Back</a>

```

editquiz2.php

```

<?
if ($curname == " " || $curstat != "admin"){
require "alert3.php";
exit;}?)

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT QUIZZES</h2></font>
<font color="#5BAAD2" face="Helvetica"><br>
<br>
</php
require("vars3.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM quiz where
quiz_id='$quizid'");

$myrow = mysql_fetch_array($result);

?)<br>

<form id="FormName" action="eduquiz3.php"
method="get" name="FormName">
<? printf("<input type='\"hidden\"' name='\"quizid2\"'
size='30' maxlength='12' value='\"%d\">",$quizid);?)
<b><? printf("<textarea name='\"text2\"' rows='4'
cols='40'>%s</textarea>",$myrow["quiztitle"]);?)</b>
<p>Quiz Items:<select name="item" size="1">

if($myrow["item"]==10){

printf("<option value=10>10</option>");

}elseif($myrow["item"]==15){

printf("<option value=15>15</option>");

}elseif($myrow["item"]==20){

printf("<option value=20>20</option>");

}elseif($myrow["item"]==30){

printf("<option value=30>30</option>");

}elseif($myrow["item"]==40){

printf("<option value=40>40</option>");

}

?)

<option
value="10">10</option>
<option
value="15">15</option>
<option
value="20">20</option>
<option
value="30">30</option>

</select></p>

```

```

<p><input type="submit" name="submit" value="EDIT
QUIZ"></p>
</form>
<br><br><a href=javascript:history.back()>Back</a>
</body>
</html>

```

editquiz3.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<?php

if ($submit) {
    if (trim($text2)) {

        require("alert1.php");
        exit;
    } else

        require ("vars3.php");
        create_connection($databaseName);

        mysql_query("update quiz set quiztitle='$text2',item=$item
        where quiz_id=$quizid2");
        printf("<html><head><meta http-
        equiv='refresh'
        Content='0;URL=quizmain.php'></head></html>");}?>

```

editseq.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT SUBLESSON
SEQUENCE</h2></font>
<font color="#5BAAD2" face="Helvetica"><br>
<br>Choose the Lesson into which You'll Edit (Click the
Lesson Number)<br><br><br><br>
</php>
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM topics ORDER
BY sequence");

if ($myrow = mysql_fetch_array($result)) {

    echo "<table width='500' align=CENTER border=1
    cellpadding=1 cellspacing=2 bgcolor=#DDEBF0
    bordercolor='#CDDDF4'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
    color='#DDEBF0' size=+1>Topic Title and
    Description</font></td>";
    echo "</tr>";

```

```

do{

```

```

    printf("<tr><td><a
href='\"editseq2.php?topicid=%d'>%s</a></td>\n",
    $myrow["topic_id"],wrap($myrow["topic_title"]);

    } while ($myrow = mysql_fetch_array($result));
    echo "</table>\n";

```

```

} else{
    display_err_msg("No records exist.");}?>

```

```

<br><br><a href=javascript:history.back()>Back</a>

```

editseq2.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT SUBLESSON
SEQUENCE</h2></font>
<font color="#5BAAD2" face="Helvetica">
</php>
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

```

```

$result = mysql_query("SELECT * FROM sublessons where
topic_id=$topicid" ORDER BY sequence");
$result2 = mysql_query("SELECT * FROM topics where
topic_id=$topicid");
$myrow2 = mysql_fetch_array($result2);

```

```

if ($myrow = mysql_fetch_array($result)) {

    echo "<br><h2 align=center>Sublessons Under Topic :";
    printf("%s",$myrow2["topic_title"]);
    echo "<br></h2>";
    echo "<table width='500' align=CENTER border=1
    cellpadding=1 cellspacing=2 bgcolor=#DDEBF0
    bordercolor='#CDDDF4'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
    color='#DDEBF0' size=+1>Lesson Title and
    Description</font></td>";
    echo "</tr>";

```

```

do{

```

```

    printf("<tr><td><a
href='\"editseq3.php?lessid=%d&topicid=%d&lesson=%s&s
equence=%d&lesstitle=%s'>%s</a></td>\n",
    $myrow["less_id"],$topicid,$myrow["lesson"],$myrow["seq
uence"],$myrow["lesstitle"],wrap($myrow["lesstitle"]);

```

```

    } while ($myrow = mysql_fetch_array($result));
    echo "</table>\n";

```

```

} else{
    display_err_msg("No Sublessons.");
}?>

```

```
<br><br><a href= "javascript:history.back()" >Back</a>
```

editseq3.php

```
<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<?php

require ("vars3.php");
create_connection($databaseName);

//sequence=mysql_query("SELECT sequence FROM
sublessons WHERE where less_id='$lessid'");
mysql_query("delete from sublessons where
less_id='$lessid'");
$result=mysql_query("SELECT * FROM sublessons
WHERE sequence > '$sequence' order by sequence asc");
```

```
if($myrow = mysql_fetch_array($result)) {
do{
$seq2=$myrow['sequence']-1;
echo "<html><body>";
$id=$myrow['less_id'];
mysql_query("update sublessons set sequence = '$seq2'
where less_id=$id");
}while($myrow = mysql_fetch_array($result));}
```

```
//mysql_query("delete from filename where
less_id='$lessid'");
$lesstitle=str_replace(" ", "%20", $lesstitle);
$lesson=str_replace(" ", "%20", $lesson);
```

```
print ("<html><head><meta http-
equiv='refresh'
Content='0';URL=editseq4.php?lessid=$lessid&topicid=$to-
picid&lesson=$lesson&sequence=$sequence&lesstitle=$lesst-
itle'></head></html>");?>
```

editseq4.php

```
<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>
```

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT SUBLESSON
SEQUENCE</h2></font>
<font color="#5BAAD2" face="Helvetica">
```

```
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);
$lesstitle=str_replace(" %20", " ", $lesstitle);
$lesson=str_replace(" %20", " ", $lesson);
```

```
$result = mysql_query("SELECT * FROM sublessons where
topic_id='$topicid' ORDER BY sequence");
```

```
$result2 = mysql_query("SELECT * FROM topics where
topic_id='$topicid'");
$myrow2 = mysql_fetch_array($result2);
```

```
if ($myrow = mysql_fetch_array($result)) {

    echo "<br><h2 align=center>Sublessons Under Topic :";
    printf("%s", $myrow2["topicid"]);
    echo "<br></h2>";
    echo "<table width='500' align= CENTER border= 1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor=' #CDDDF4'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color=' #DDEBF0' size=+1>Lesson Title and
Description</font></td></tr>";
    echo "</tr>";
```

```
do{

    printf("<tr><td><a
href='\"editseq5.php?lessid=%d&topicid=%d&lesson=%s&s-
equence=%d&lesstitle=%s'>%s</a></td></tr>",
$lessid,$topicid,$lesson,$myrow["sequence"],$lesstitle,wrap(
$myrow["lessitle"]);$seq=$myrow["sequence"];

    } while ($myrow = mysql_fetch_array($result));
    $seq++;
    echo "<tr><td><a
href='\"editseq5.php?lessid=$lessid&topicid=$topicid&lesso-
n=$lesson&sequence=$seq&lesstitle=$lesstitle'>Click to
Add Last Lesson</a></tr>";
    echo "</table></tr>";
```

```
} else{
    display_err_msg("No Sublessons ");}?>
```

```
<br><br><a href= "javascript:history.back()" >Back</a>
```

editseq5.php

```
<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>
```

<?php

```
require ("vars3.php");
create_connection($databaseName);
```

```
$result=mysql_query("SELECT * FROM sublessons
WHERE less_id='$snum' ");
```

```
if($myrow = mysql_fetch_array($result)) {
    require "alert4.php";
    exit;} else{
```

```
$result=mysql_query("SELECT * FROM sublessons
WHERE sequence >=$seq' order by sequence desc");
```

```
if($myrow = mysql_fetch_array($result)) {
do{
$seq2=$myrow['sequence']+1;
```

```
$id=$myrow['less_id'];
mysql_query("update sublessons set sequence = '$seq2'
where less_id=$id");
```

```

)while($myrow = mysql_fetch_array($result));

mysql_query("alter table sublessons AUTO_INCREMENT =
1");
mysql_query("insert into sublessons values
($lessid,$topicid,$lesstitle,$lesson,$sequence)");

$result=mysql_query("SELECT * FROM sublessons
WHERE less_id='$snum'");
$myrow = mysql_fetch_array($result);
if($myrow[less_id]!="0"){
    require "alert1.php";

    mysql_query("delete from sublessons
where less_id='0'");

    exit;}else {

    printf ("<html><head><meta http-
equiv='refresh'
Content='\"0;URL=lessonmain.php\\\"></head></html>");}
}

```

edsub.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT SUBLESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<br>
<br>
<?php
require("vars3.php");
create_connection($databaseName);

$result= mysql_query("SELECT * FROM sublessons where
less_id='$lessid'");

$myrow = mysql_fetch_array($result);

?><br>

<form id="FormName" action="edsub2.php" method="get"
name="FormName">
<? printf ("<input type='hidden' name='lessid2'
size='30' maxlength='12' value='%d\\", $lessid; ?>
<p>New Lesson Title: <p>
<b><? printf ("<input type='text' name='text1' size='30\\
value='%s\\", $myrow['lesstitle']; ?></b>
<p>New Lesson Text: <p>
<b><? printf ("<textarea name='text2' rows='4'
cols='40' %s</textarea>", $myrow["lesson"]); ?></b>
<p><input type="submit" name="submit" value="EDIT
Lesson"></p>
</form>
<br><br><a href='javascript:history.back()'>Back</a>
</body>
</html>
<?php

```

edsub2.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<?php

if ($subnu) {
if (trim($text) || trim($text2)) {

    require("alert1.php");
    exit;
} else

    require ("vars3.php");
    create_connection($databaseName);

    mysql_query("update sublessons set
lesstitle='$text',lesson='$text2' where less_id='$lessid2'");
    printf ("<html><head><meta http-
equiv='refresh'
Content='\"0;URL=lessonmain.php\\\"></head></html>");} ?>

```

edsub3.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<?php

if ($subnu) {

    require ("vars3.php");
    create_connection($databaseName);

    mysql_query("update sublessons set
lesstitle='$text',lesson='$text2' where less_id='$lessid2'");
    printf ("<html><head><meta http-
equiv='refresh'
Content='\"0;URL=lessonmain.php\\\"></head></html>");} ?>

```

edsubpre.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT SUBLESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica"><br>
<br>Choose the Lesson into which You'll Edit (Click the
Lesson Number) <br><br><br>
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

```

```
printf("<tr><td><a  
href='\" . editsub.php?lessid=%d\">%s</a></td><br>\",  
$myrow["less_id"], wrap($myrow["lesstitle"]));
```

```

} while ($myrow = mysql_fetch_array($result));
echo "</table>\n";

```

```

} else {
    display_err_msg("No Subelements."); }
}

```

[Back](#)

edituser.php

4

```
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>
```

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body text="black" bgcolor="#CDDDF4">
<form id="FormName" action="edduser2.php"
method="get" name="FormName">
<p>User id of User to be Updated:<input type="text"
name="userid" size="24">Required</p>
<p><input type="submit" name="submit" value="EDIT
USER"></p>
</form>
</body>
</html>
```

edituser2.php

4

```
if (! $userid) {
```

```
require('alert1.php');
exit;}?>
```

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=left><font color="#2E9BD3" face="Courier New"
size="+2">EDIT USERS</h2></font>
<font color="#2E9BD3" face="Courier New" size="+1">
```

```
<?php
require("vars3.php");
create_connection($databaseName);
```

```
$result = mysql_query("SELECT * FROM user where  
user id=$userid");
```

```
if(!($myrow = mysql_fetch_array($result))){
    require "alert6.php";
    exit;}

echo"User id";
$result = mysql_query("SELECT * FROM user where
user_id='$userid'");
$myrow = mysql_fetch_array($result);
```

```
printf("<input type='text' name='olduserid'  
value='%d' disabled>",$userid);
```



```

?<br>
<form action="edituser3.php" method="post">
<p>
<b><? printf ("<input type='hidden' name='userid'
size='30' maxlength='12' value='%d'>",
$myrow["user_id"]); ?</b></p></b>
<p>New User Name:
<b><? printf ("<input type='text' name='username'
size='30' maxlength='12' value='%s'>",
$myrow["uname"]); ?</b>Required</p>
<p>New Status:
<b><? printf ("<select name='stat' size='1' >");

if($myrow["status"]==1) {

printf("<option
value=1>Administrator</option>");

} elseif($myrow["status"]==2) {

printf("<option
value=2>Student/User</option>");} ?>

<option
value=1>Administrator</option>

<option
value=2>Student/User</option>

</select></b>Required</p>
<p>New Password:
<b><? printf ("<input type='password' name='password'
size='30' maxlength='12' value='%s'>",
$myrow["upassword"]); ?</b>Required</p></b>
<p><input type="submit" name="submit" value="EDIT
USER"></p>
</form>

<br><br><a href='javascript:history.back()'>Back</a>
</body>
</html>

```

edituser3.php

```

<?
if ($cuname == " " || $curostat != "admin") {
require "alert3.php";
exit;}?>

<?php

if ($submit) {
if (trim($userid) || trim($username) || trim($password) ||
trim($stat)) {

require("alert1.php");
exit;
} else

require ("vars3.php");
create_connection($databaseName);

$query="update user set
uname='$username',upassword=password($password),status
='$stat' where user_id='$userid'";
mysql_query($query);

```

```

printf ("<html><head> <meta http-
equiv='refresh'
Content='0;URL=usermain.php'></head></html>");}?>

```

edituserpre.php

```

<?
if ($cuname == " " || $curostat != "admin") {
require "alert3.php";
exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=#5BAAD2>
<h2 align=left><font color="#2E9BD3" face="Courier New"
size="+2">EDIT USERS</h2></font>
<font color="#2E9BD3" face="Courier New" size="+1">
<form id="FormName" action="edituser2.php"
method="get" name="FormName">
<p>User Id of User to be Edited:<br><input type="text"
name="userid" size="24">Required</p>
<p><input type="submit" name="submit" value="EDIT
USER"></p>
</form>
<br><br><a href='javascript:history.back()'>Back</a>
</body>
</html>

eval
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text="black" face="Courier
New" size="+2">TAKE QUIZ</h2></font>
<font color="black" face="Helvetica"><br>

```

```

<?php
if ($submit) {
require ("vars3.php");
create_connection($databaseName);

$count=1;
printf(" Your Answer/s:<br>");

do{
printf("%s %s<br>", $count,$vars[$count]);
$count++;
}while($count<$count2+1);

printf("<form action='eval2.php' method='post'>");

$count=1;
do{
printf ("<input type='hidden' name=q['.$count.']
value='%s'>", $vars[$count]);
$count++;
}while($count<$count2+1);

$count=1;
do{
printf ("<input type='hidden' name=ids['.$count.']
value='%s'>", $ids[$count]);
$count++;
}while($count<$count2+1);

printf ("<input type='hidden' name='quizid'
value='%d'>", $quizid);

```

```

printf("<input type='hidden' name='var2' value='%d'>", $num);

printf("<p><input type='submit' name='submit' value='Get Scores'></p></form>");
// printf("<html><head><meta http-equiv='refresh' //Content='0';URL=eval2.php?q1=%s?q2=%s'></head></html>", $vars1, $vars2);)?>

eval2
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND FISSURE DENTAL CARES</title>
<body bgcolor="#DDEBF0" text=black>
<h2 align=center><font color="#2E9BD3" face="Courier New" size="+2">QUIZ RESULTS</h2></font>
<font color="black" face="Helvetica" size="+1"><br>

<?php
if(submit) {
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM questions where quiz_id='$quizid2'");
$var=1;
$score=0;

if ($myrow = mysql_fetch_array($result)) {
do{
$id= $ids[$var];
$result2 = mysql_query("SELECT * FROM questions where ques_id='$id'");
$myrow = mysql_fetch_array($result2);
printf("<br>%d. %s", $var, $myrow["question"]);
if(($myrow["answer"]==(a))){ printf("<br>Correct Answer: %s", $myrow["achoice"]); }else
if(($myrow["answer"]==(b))){ printf("<br>Correct Answer: %s", $myrow["bchoice"]); }else
if(($myrow["answer"]==(c))){ printf("<br>Correct Answer: %s", $myrow["cchoice"]); }else
if(($myrow["answer"]==(d))){ printf("<br>Correct Answer: %s", $myrow["dchoice"]); }

if(($myrow["answer"]==(a))){ printf("<br>Your Answer: %s<br>", $q[$var]); }
if(($q[$var])==(a)) { printf("<br>Your Answer: %s<br>", $myrow["achoice"]); }else
if(($q[$var])==(b)) { printf("<br>Your Answer: %s<br>", $myrow["bchoice"]); }else
if(($q[$var])==(c)) { printf("<br>Your Answer: %s<br>", $myrow["cchoice"]); }else
if(($q[$var])==(d)) { printf("<br>Your Answer: %s<br>", $myrow["dchoice"]); }
//printf("<br>Your Answer: %s<br>", $q[$var]);
$score++;}else {printf("<font color=red face=Helvetica>");

if(($q[$var])==(a)) { printf("<br>Your Answer: %s</font><br>", $myrow["achoice"]); }else
if(($q[$var])==(b)) { printf("<br>Your Answer: %s</font><br>", $myrow["bchoice"]); }else
if(($q[$var])==(c)) { printf("<br>Your Answer: %s</font><br>", $myrow["cchoice"]); }else
if(($q[$var])==(d)) { printf("<br>Your Answer: %s</font><br>", $myrow["dchoice"]); }else

```

```

if(($q[$var])==(d)) { printf("<br>Your Answer: No Answer</font><br>"); } }
printf("<br>Short Explanation: %s<br>", wrap($myrow["exp"]));
printf("<input type='hidden' name='a' $var" value='%s'>", $myrow["answer"]);
$var++;

// } while ($myrow = mysql_fetch_array($result2));
} while ($var<($var2+1));

$var--;
$per=($score/$var)*100;

printf("<br><br><br>YOUR SCORE:");
printf("<br>%d : %d PerCent<br>", $score, $per);

} else{
display_err_msg("No database records exist.");}??

<br><br><a href=viewquizstud.php>Back</a>

filedelete.php

<?
if ($curname == " " || $curstat != "admin"){
require "alert3.php";
exit;}?>

</php

require ("vars3.php");
create_connection($databaseName);

mysql_query("delete from filename where f_id='$i_d'");

printf("<html><head><meta http-equiv='refresh' Content='0';URL=lessonmain.php'></head></html>");)?>

frames_clerk
<?
if ($curname == 0 || $curstat != "admin"){
require ("main2.php");
exit;}?>

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<HTML>
<HEAD><TITLE>Online Faculty Database</TITLE></HEAD>
<frameset rows="132,*" framespacing="0" frameborder="0" border=no>
<frame name="navigationtop" src="upperframe_clerk.php" marginwidth="0" marginheight="0" scrolling="no" framespacing="0" frameborder="0" bordercolor="white" border=no>
<FRAMESET COLS="77%,*" FRAMEBUFFER="0" framespacing="0" scrolling=no>
<FRAME NAME="main" SRC="welcome_clerk.php">
<FRAME NAME="right" SRC="right_blank.php" NORESIZE scrolling=no>
</FRAMESET>
</HTML>

```

insert.php

```
<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<?php

if ($subnu) {
if ($_FILES['userfile']['size']<=0 ||
$_FILES['userfile']['size']>3000000){
    require("alert3.php");}else{
    require ("vars3.php"),
    create_connection($databaseName);
    // print_r ($_FILES);
    $data=
    addslashes(fread(fopen($_FILES['userfile']['tmp_name'], "r"),
    $_FILES['userfile']['size']));
    // print_r ($_FILES);
    $query="Insert into files values(0, '$data',
    '$_FILES['userfile']['type']','$_FILES['userfile']['name'])";
    mysql_query($query);

    $path = $_SERVER['DOCUMENT_ROOT'];
    $uploadadd = $path."/ospsfd/files/";
    $uploadfile = $uploadadd.$_FILES['userfile']['name'];

    $imtype=$_FILES["userfile"]["type"];
    $imsize=$_FILES["userfile"]["size"];
    $imname=$_FILES["userfile"]["name"];
    $imtemp=$_FILES["userfile"]["tmp_name"];
    copy($imtemp,$uploadfile);
    mysql_query("alter table filename AUTO_INCREMENT =
    1");
    mysql_query("insert into filename
    values(0, '$lessid', '$imname', 0)");
    // print_r ($_FILES);
    //if(mysql_query($query)){print("OK"); print_r($_FILES);
    }else{print("NYEK");}
    printf("<html><head><meta http-
    equiv='refresh'
    Content='0;URL=lessonmain.php'\></head></html>"),
    }?>
```

lessonmain.php

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body text="black" bgcolor="#DDEBF0">
<h2 align="left"><font color="#2E9BD3" face="Courier New"
size="+2">LESSONS MENU.</h2></font>
<h3 align="left"><font color="#2E9BD3" face="Courier New"
size="+1">What Would You Like To Do.</h3></font>
<font color="#2E9BD3" face="Courier New" size="+1">
<br><a href=viewlesson.php>1. View Lessons</a>
<br><a href=addlessonpre.php>2. Add Lessons</a>
<br><a href=editchoice.php>3. Edit Lessons</a>
<br><a href=deletechoice.php>4. Delete Lessons</a>

</html>
```

linkpic.php

```
<html> <body>
<?php
```

```
$image="files/Bur.JPG";
printf("<image src=" . $image . ">");?>
```

```
OK!<br>
<?php
$image="files/Bur.JPG";
printf("<image src=" . $image . ">");?>
```

```
<?php
$image="files/veneration.doc";
printf("<a href=" . $image . ">Link</a>");?>
```

```
<?php
$image="files/hey.wav";
printf("<a href=" . $image . ">Link</a>");?>
```

links.php

```
<?
if ($curname == " "){
    require "alert3.php";
    exit;}?>
```

```
<html>
```

```
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text="5BAAD2">
<h2 align="center"><font color="#2E9BD3" face="Courier
New" size="+2">VIEW LINKS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<?php
require ("vars3.php");
require ("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM links");

if ($myrow = mysql_fetch_array($result)){

    echo "<table width=70% align=CENTER border=1
    cellpadding=2 bgcolor=#DDEBF0
    bordercolor='\"#CDDDF4\"'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
    color='\"#DDEBF0\"' size="+1>Link/s</font></td>";
    echo "</tr>";
```

```
do{
```

```
    printf("<u><td><a href='\"%s\"'
    target='\"new\">%s</a></td>\n",
    wrap($myrow["link"],wrap($myrow["link"]));
```

```
    } while ($myrow = mysql_fetch_array($result));
    echo "</table>\n";
```

```
}else{
    display_err_msg("No Links.");}?>
```

```
<br><br><a href='javascript:history.back()'>Back</a>
```

logout.php

```
<?
setcookie("curname","");
setcookie("curstat","");
```

```
printf("<html><head><meta http-equiv='refresh'\n"
Content="\0,URL=main.php"></head></html>");?>
```

main.php

```
<?
setcookie("curname","");
setcookie("curstat","");?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARRIES MAIN PAGE</title>
<body text="black">
<table align="center" height="500" width="700" border=0
Cellspacing=0>
<tr>
<td colspan=3 height="144" width="700"
background="images/1.gif">

</tr>
<tr>
<td width="257" bgcolor="CDDDF4"></td>
<td width="100" bgcolor="CDDDF4">
<?
//echo "OK";
//echo $_COOKIE["curname"];
//echo $_COOKIE["curstat"];?>
```

```
<FORM method="post" action="authenticate.php">
USER NAME:<BR><BR><INPUT TYPE="text"
NAME="username" SIZE=25><BR><BR><BR>
PASSWORD:<BR><BR><INPUT TYPE="password"
NAME="password" SIZE=25><BR><BR><BR>
<INPUT TYPE="submit" NAME="submit" VALUE="
LOG-IN ">
</FORM>

</td>
<td width="343" align="center"
bgcolor="CDDDF4"></td>
</tr>
<tr>
<td height="58" background="images/22.gif" colspan=3>
</tr>
</table>
</html>
```

man2.php

```
<?php
setcookie("curname","");
setcookie("curstat","");?>
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARRIES MAIN PAGE</title>
<body text="black">
<table align="center" height="500" width="700" border=0
Cellspacing=0>
<tr>
<td colspan=3 height="144" width="700"
background="images/1.gif">

</tr>
<tr>
<td width="257" bgcolor="CDDDF4"></td>
```

```
<td width="100" bgcolor="CDDDF4">
```

```
<FORM method="post" action="authenticate.php">
USER NAME:<BR><BR><INPUT TYPE="text"
NAME="username" SIZE=25><BR><BR><BR>
PASSWORD:<BR><BR><INPUT TYPE="password"
NAME="password" SIZE=25><BR><BR><BR>
<INPUT TYPE="submit" NAME="submit" VALUE="
LOG-IN "><blockquote><p align=justify>
<font color="#D0220B" face="Courier New">Improper
Access!</font>
<font color="#5BAAD2" face="Courier New" size="
1"><br>INVALID USERNAME AND
PASSWORD!</font></p></blockquote>
</FORM>
```

```
</td>
<td width="343" align="center"
bgcolor="CDDDF4"></td>
</tr>
<tr>
<td height="58" background="images/22.gif" colspan=3>
</tr>
</table>
```

</html>

OTSPFDC.php

```
<?
if ($curname == " "){
require "alert3.php";
exit;}?>

<?
require("vars3.php");

create_connection($databaseName);

$query="select data,type from files where id=$i_d";

$query=mysql_query($query);
$i=mysql_fetch_array($q);
header("Content-type: $i[1]");
echo $i[0];?>

<html>
<head>
<?
echo "<meta http-equiv='Content-Type'\n"
content='image/jpeg'\>"?>

</head>
<body>
<?
echo $i[0];?>
<a href="javascript:history.back()">Back</a></body></html>
```

OTSPFDC2.php

```
<?
if ($curname == " "){
require "alert3.php";
exit;}?>

<?
```

```
require("vars3.php");

create_connection($databaseName);

$query="select data,type from files where id=$i_d";

$query=mysql_query($query);
$i=mysql_fetch_array($q);
header("Content-type: $i[1]");
echo $i[0];?>

<html><body><a href='javascript:history.back()'>Back</a>
```

page1.php

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body text="black" bgcolor="#CDDDF4">
<table align="center" height="500" width="900" border=0
Cellsacing=0>
<tr>
<td colspan=2 height="144" width="800"
background="images/111.jpg">
<td height="144" width="800"
background="images/teeth2.gif">

</tr>
<tr>
<td width="257" bgcolor="CDDDF4"></td>
<td width="100" bgcolor="CDDDF4">

<FORM NAME="LOGIN" fontcolor="sky blue">
USER NAME.<BR><BR><INPUT TYPE="text"
NAME="USERNAME" SIZE=25><BR><BR><BR>
PASSWORD.<BR><BR><INPUT TYPE="text"
NAME="PASSWORD" SIZE=25><BR><BR><BR>
<INPUT TYPE="submit" NAME="submit_button"
VALUE=" LOG-IN ">
</FORM>
```

```
</td>
<td width="343" align="center"
bgcolor="CDDDF4"></td>
</tr>
<tr>
<td height="50" background="images/22.jpg" colspan=3>
</td>
</tr>
</table>
<a href="main.php"></a>
<a href="main.php"></a>
<a href="main.php"></a>
<a href="main.php"></a>

</html>
```

```
pics.php
<?
if ($curname == " " || $curstat != "admin"){
require "alert3.php";
exit;}?>
```

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier,
New" size="+2">ATTACH PICTURES TO
SUBLESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<br><tab>Choose the Lesson unto which You'll
Add<br><br><br>
<?php
```

```
require("vars3.php");
require("wrap.php");
create_connection($databaseName);
```

```
$result = mysql_query("SELECT * FROM topics ORDER
BY sequence");
```

```
if ($myrow = mysql_fetch_array($result)){

echo "<table width=\`500\` align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor=\`#CDDDF4\`">";
echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color=\`#DDEBF0\` size=+1>Topic Title and
Description</font></td></tr>";
echo "</tr>";
```

```
do{
```

```
printf("<tr><td><a
href=\`pics2.php?topicid=%d\`>%s</a></td>\n",
$myrow["topic_id"],wrap($myrow["topic_title"]));
```

```
}while ($myrow = mysql_fetch_array($result));
echo "</table>\n";
```

```
)else{
display_err_msg("No records exist.");}?>
```

```
<br><br><a href='javascript:history.back()'>Back</a>
```

pics2.php

```
<?
if ($curname == " "){
require "alert3.php";
exit;}?>
```

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">ATTACH PICTURES TO
SUBLESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);
```

```
$result = mysql_query("SELECT * FROM sublessons where
topic_id='$topicid' ORDER BY sequence");
```

```
if ($myrow = mysql_fetch_array($result)){
```

```
echo "<br><h2 align=center>Sublessons Under Topic: ";
```

```

        printf("%s", $myrow["lesstitle"]);
        echo "<br></h2>";
        echo "<table width=70% align=CENTER border=1
        cellpadding=2 bgcolor=#DDEBF0
        bordercolor=#CDDDF4>";
        echo "<tr bgcolor=#2E9BD3><font color=\#DDEBF0\
        size=+1>Lesson Title and Description</font></td>";
        echo "</tr>";

```

```

do{

        printf("<tr><td><a
        href=\#attach.php?lessid=%d\>%s</a></td>\n",
        $myrow["less_id"], wrap($myrow["lesstitle"]));

        } while ($myrow = mysql_fetch_array($result));
        echo "</table>\n";

} else{
        display_err_msg("No Sublessons.");?>

<br><br><a href='javascript:history.back()'>Back</a>

```

post.php

```

<?
if ($uname == " " || $curstat != "admin"){
        require "alert3.php".
        exit;?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body text="black" bgcolor="#DDEBF0">
<h2 align=left><font color="#2E9BD3" face="Courier New"
size="+2">UPLOAD FILES</h2></font>

<font color="#2E9BD3" face="Courier New" size="+1">
<form id="FormName" action="insert.php" method="post"
name="FormName" enctype="multipart/form-data">
<input type="hidden" name="MAX_FILE_SIZE"
value="3000000">
Send this file: <input name="userfile" type="file">
<p><input type="submit" name="submit"
value="Upload"></p>
</form>
<br><br><a href='javascript:history.back()'>Back</a>
</body>
</html>

```

post2.php

```

<?php
if ($submit){
        if ($_FILES["userfile"]["size"]<=0 ||
        $_FILES["userfile"]["size">2000000){
                require("alert3.php");} else{

                $path = $_SERVER["DOCUMENT_ROOT"];
                $uploaddir = $path."/otspfdc/files/";
                $uploadfile = $uploaddir.$_FILES["userfile"]["name"];

                $imtype=$_FILES["userfile"]["type"];

```

```

        $imsize=$_FILES["userfile"]["size"];
        $imname=$_FILES["userfile"]["name"];
        $imtemp=$_FILES["userfile"]["tmp_name"];
        if (copy($imtemp,$uploadfile)){
                printf("<html><head><meta http-
                equiv=\#refresh\
                Content=\#0;URL=post2.php\></head></html>");} else{
                require("alert3.php");}}
        else{?>

```

```

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body text="black" bgcolor="#DDEBF0">
<h2 align=left><font color="#2E9BD3" face="Courier New"
size="+2">UPLOAD FILES</h2></font>
<?
printf("<font color=\#2E9BD3\ face=\#Courier New\
size=\#1\>");
printf("<form id=\#FormName\ action=\#post2.php\
method=\#post\ name=\#FormName\
enctype=\#multipart/form-data\>");
printf("<input type=\#hidden\ name=\#MAX_FILE_SIZE\
value=\#3000000\>");
printf("Send this file: <input name=\#userfile\ type=\#file\>
");
printf("<p><input type=\#submit\ name=\#submit\
value=\#Upload\></p>");
printf("</form>");
printf("<br><br><a
href='javascript:history.back()'>Back</a>").?>

</body>
</html>

```

qdeletechoice.php

```

<html>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT QUIZZES</h2></font>
<font color="#5BAAD2" face="Helvetica">
<a href="deletequiz.php">Delete QUIZ</a><br>
<a href="deleteques.php">Delete QUESTIONS</a>
<br><br><a href='javascript:history.back()'>Back</a>

```

qeditchoice.php

```

<html>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">EDIT QUIZZES</h2></font>
<font color="#5BAAD2" face="Helvetica">
<a href="editquiz.php">Edit Quizzes</a><br>
<a href="editques.php">Edit Questions</a>
<br><br><a href='javascript:history.back()'>Back</a>

```

quizmain.php

```

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body text="black" bgcolor="#DDEBF0">

```

```

<h2 align="left"><font color="#2E9BD3" face="Courier New"
size="+2">QUIZZES MENU.</h2></font>
<h3 align="left"><font color="#2E9BD3" face="Courier New"
size="+1">What Would You Like To Do:</h3></font>
<font color="#2E9BD3" face="Courier New" size="+1">
<br><a href=viewquiz.php>1. View Quiz Items</a>
<br><a href=addquiz.php>2. Add Quiz Items</a>
<br><a href=qeditchoice.php>3. Edit Quiz Items</a>
<br><a href=qdeletechoice.php>4. Delete Quiz Items</a>

```

simles.php

```

<?
if ($curname == " " || $curstat != "user") {
    require "alert3.php";
    exit;}?>

<html>
<head>
<title>Simulation Lesson</title>
<!-- Changed by: Herb Jellinek, 18-Apr-1996 -->
</head>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align="center"><font color="#2E9BD3" face="Courier
New" size="+2">Simulation Lesson</h2></font>
<table width=500 height=195 border=3 align="center">
<tr><td>
<p align="center"><applet code=Animator.class width=500
height=200>
<param name=imagesource
value="images/Beans/intro">
<param name=backgroundcolor
value="#FFFFFF">
<param name=endimage value=8>
<param name=soundsources value="audio">
<param name=soundtrack value=w33 wav>
<param name=sounds value="w2.wav">
<param name=pause value=200>
alt="Your browser understands the &lt;APPLET&gt;
tag but isn't running the applet, for some reason."
Your browser is completely ignoring the
&lt;APPLET&gt; tag!
</applet>
</p></td></table>

<font color="#2E9BD3" face="Courier New" size="+3">
<p align="center">Animator v1.10 (02/05/97), by Herb
Jellinek Copyright (c) 2003 Sun Microsystems, Inc. All
Rights Reserved.</p>

<font color="#2E9BD3" face="Courier New"
size="+1"><br><br><br>
<p align="center"><a href="simles1.php">Start</a><br></p>

</html>

```

simles1.php

```

<?
if ($curname == " " || $curstat != "user") {
    require "alert3.php";
    exit;}?>

```

```

<html>
<head>
<title>Simulation Lesson</title>
<!-- Changed by: Herb Jellinek, 18-Apr-1996 -->
</head>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align="center"><font color="#2E9BD3" face="Courier
New" size="+2">Simulation Lesson</h2></font>
<table width=500 height=395 border=3 align="center">
<tr><td>
<p align="center"><applet code=Animator.class width=500
height=400>
<param name=imagesource
value="images/Beans/procl">
<param name=backgroundcolor
value="#FFFFFF">
<param name=endimage value=30>
<param name=soundsources value="audio">
<param name=soundtrack value=l1 wav>
<param name=repeat value=false>
<param name=sounds
value="l1.u2 u2.u3 u4.u5 u46.u7 u8.u9 u40.u">
<param name=pause value=300>
alt="Your browser understands the &lt;APPLET&gt;
tag but isn't running the applet, for some reason."
Your browser is completely ignoring the
&lt;APPLET&gt; tag!
</applet>
</p></td></table><font color="#2E9BD3" face="Courier
New" size="+3">
<p align="center">Tooth figure taken from
Microsoft Encarta 98 Encyclopedia Copyright 1993-1997
Microsoft Corporation. All rights reserved.</p>
<p align="center">Animator v1.10 (02/05/97), by Herb
Jellinek Copyright (c) 2003 Sun Microsystems, Inc. All
Rights Reserved.</p>

```

```

<font color="#2E9BD3" face="Courier New" size="+1">
<br><br>
<table border=0 align="left" bgcolor="#DDEBF0"
cellpadding=5> <tr>
<td><a href="simles.php">Back </a>
<td><a href="simles1.php">Repeat </a>
<td><a href="simles2.php">Next</a></td></tr></table>
</body>
</html>

```

simles2.php

```

<?
if ($curname == " " || $curstat != "user") {
    require "alert3.php";
    exit;}?>

<html>
<head>
<title>Simulation Lesson</title>
<!-- Changed by: Herb Jellinek, 18-Apr-1996 -->
</head>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align="center"><font color="#2E9BD3" face="Courier
New" size="+2">Simulation Lesson</h2></font>
<table width=500 height=395 border=3 align="center">
<tr><td>
<p align="center"><applet code=Animator.class width=500
height=400>
<param name=imagesource
value="images/Beans/procl2">

```

```

<param name=backgroundcolor
value="#FFFFFF">
<param name=endimage value=2>
<param name=soundsource value="audio">
<param name=soundtrack value=22 wav>
<param name=sounds
value="1.au2.au3.au4.au5.au6.au7.au8.au9.au0.au">
<param name=repeat value=true>
<param name=pause value=300>
alt=" Your browser understands the &lt;APPLET> tag,
but isn't running the applet, for some reason."
Your browser is completely ignoring the
&lt;APPLET &gt; tag!
</applet>
</p></tr></table><font color="#2E9BD3" face="Courier
New" size=".3"><p align=center>Tooth figure taken from
Microsoft Encarta 98 Encyclopedia. Copyright 1993-1997
Microsoft Corporation. All rights reserved.</p>
<p align=center>Animator v1.10 (02/05/97), by Herb
Jellinek. Copyright (c) 2003 Sun Microsystems, Inc. All
Rights Reserved</p>

<font color="#2E9BD3" face="Courier New" size="+1">
<br><br>
<table border=0 align=left bgcolor="#DDEBF0"
cellpadding=5> <tr>
<td><a href="simles1.php">Previous </a>
<td><a href="simles.php">Main </a>
<td><a href="simles2.php">Repeat </a>
<td><a href="simles3.php">Next</a></tr></table>
</body>
</html>

simles3.php

<?
if ($uname == " " || $curstat != "user") {
    require "alert3.php";
    exit;}?>

<html>
<head>
<title>Simulation Lesson</title>
<!-- Changed by: Herb Jellinek, 18-Apr-1996 -->
</head>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">Simulation Lesson</h2></font>
<table width=500 height=395 border=3 align=center>
<tr><td>
<p align=center><applet code=Animator.class width=500
height=400>
<param name=imagesource
value="images/Beans/proc3">
<param name=backgroundcolor
value="#FFFFFF">
<param name=endimage value=20>
<param name=soundsource value="audio">
<param name=soundtrack value=33 wav>
<param name=sounds
value="1.au2.au3.au4.au5.au6.au7.au8.au9.au0.au">
<param name=repeat value=false>
<param name=pause value=300>
alt=" Your browser understands the &lt;APPLET> tag,
but isn't running the applet, for some reason."
Your browser is completely ignoring the
&lt;APPLET &gt; tag!
</applet>

```

```

</p></tr></table><font color="#2E9BD3" face="Courier
New" size=".3"><p align=center>Tooth figure taken from
Microsoft Encarta 98 Encyclopedia. Copyright 1993-1997
Microsoft Corporation. All rights reserved.</p>
<p align=center>Animator v1.10 (02/05/97), by Herb
Jellinek. Copyright (c) 2003 Sun Microsystems, Inc. All
Rights Reserved</p>

<font color="#2E9BD3" face="Courier New" size="+1">
<br><br>
<table border=0 align=left bgcolor="#DDEBF0"
cellpadding=5> <tr>
<td><a href="simles2.php">Previous </a>
<td><a href="simles.php">Main </a>
<td><a href="simles3.php">Repeat </a>
<td><a href="simles4.php">Next</a></tr></table>
</body>
</html>

simles4.php

<?
if ($uname == " " || $curstat != "user") {
    require "alert3.php";
    exit;}?>

<html>
<head>
<title>Simulation Lesson</title>
<!-- Changed by: Herb Jellinek, 18-Apr-1996 -->
</head>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">Simulation Lesson</h2></font>
<table width=500 height=395 border=3 align=center>
<tr><td>
<p align=center><applet code=Animator.class width=500
height=400>
<param name=imagesource
value="images/Beans/proc4">
<param name=backgroundcolor
value="#FFFFFF">
<param name=endimage value=8>
<param name=soundsource value="audio">
<param name=soundtrack value=44 wav>
<param name=sounds
value="1.au2.au3.au4.au5.au6.au7.au8.au9.au0.au">
<param name=repeat value=false>
<param name=pause value=300>
alt=" Your browser understands the &lt;APPLET> tag,
but isn't running the applet, for some reason."
Your browser is completely ignoring the
&lt;APPLET &gt; tag!
</applet>
</p></tr></table><font color="#2E9BD3" face="Courier
New" size=".3"><p align=center>Tooth figure taken from
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Microsoft Corporation. All rights reserved.</p>
<p align=center>Animator v1.10 (02/05/97), by Herb
Jellinek. Copyright (c) 2003 Sun Microsystems, Inc. All
Rights Reserved.</p>

<font color="#2E9BD3" face="Courier New" size="+1">
<br><br>
<table border=0 align=left bgcolor="#DDEBF0"
cellpadding=5> <tr>
<td><a href="simles3.php">Previous </a>
<td><a href="simles.php">Main </a>

```



```

<td><a href="simles4.php">Repeat </a>
<td><a href="simles5.php">Next</a></td></table>
</body>

</html>

simles5.php

<?
if ($curname == " " || $curstat != "user") {
    require "alert3.php";
    exit;}?>

<html>
<head>
<title>Simulation Lesson</title>
<!-- Changed by: Herb Jellinek, 18-Apr-1996 -->
</head>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">Simulation Lesson</h2></font>
<table width=500 height=395 border=3 align=center>
<tr><td>
    <p align=center> <applet code=Animator.class width=500
height=400>
        <param name=imagesource
value="images/Beans/proc5">
        <param name=backgroundcolor
value="#FFFFFF">
        <param name=endimage value=9>
        <param name=soundsources value="audio">
        <param name=soundtrack value=55.wav>
        <param name=sounds
value="1 au2.au3.au4.au5.au6.au7.au8.au9 au0.au">
        <param name=repeat value=false>
        <param name=pause value=300>
        alt=" Your browser understands the &lt;APPLET> tag,
tag but isn't running the applet, for some reason."
        Your browser is completely ignoring the
&lt;APPLET> tag!
    </applet>
</p></td></table><font color="#2E9BD3" face="Courier
New" size="+3"><p align=center>Tooth figure taken from
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Microsoft Corporation. All rights reserved.</p>
<p align=center>Animator v1 10 (02/05/97), by Herb
Jellinek. Copyright (c) 2003 Sun Microsystems, Inc. All
Rights Reserved.</p>

<font color="#2E9BD3" face="Courier New" size="+1">
<br><br>
<table border=0 align=left bgcolor="#DDEBF0"
cellpadding=5> <tr>
<td><a href="simles4.php">Previous </a>
<td><a href="simles.php">Main </a>
<td><a href="simles5.php">Repeat </a>
<td><a href="simles6.php">Next</a></td></table>
</body>

</html>

```

simles6.php

```

<?
if ($curname == " " || $curstat != "user") {
    require "alert3.php";

```

exit;}?>

```

<html>
<head>
<title>Simulation Lesson</title>
<!-- Changed by: Herb Jellinek, 18-Apr-1996 -->
</head>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">Simulation Lesson</h2></font>
<table width=500 height=395 border=3 align=center>
<tr><td>
    <p align=center> <applet code=Animator.class width=500
height=400>
        <param name=imagesource
value="images/Beans/proc6">
        <param name=backgroundcolor
value="#FFFFFF">
        <param name=endimage value=6>
        <param name=soundsources value="audio">
        <param name=soundtrack value=66.wav>
        <param name=sounds
value="1 au2.au3 au4.au5.au6.au7.au8.au9 au0.au">
        <param name=repeat value=false>
        <param name=pause value=300>
        alt=" Your browser understands the &lt;APPLET> tag,
tag but isn't running the applet, for some reason."
        Your browser is completely ignoring the
&lt;APPLET> tag!
    </applet>
</p></td></table><font color="#2E9BD3" face="Courier
New" size="+3"><p align=center>Tooth figure taken from
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Microsoft Corporation. All rights reserved.</p>
<p align=center>Animator v1 10 (02/05/97), by Herb
Jellinek. Copyright (c) 2003 Sun Microsystems, Inc. All
Rights Reserved.</p>

<font color="#2E9BD3" face="Courier New" size="+1">
<br><br>
<table border=0 align=left bgcolor="#DDEBF0"
cellpadding=5> <tr>
<td><a href="simles5.php">Previous </a>
<td><a href="simles.php">Main </a>
<td><a href="simles6.php">Repeat </a>
<td><a href="simles7.php">Next</a></td></table>
</body>

</html>

```

simles7.php

```

<?
if ($curname == " " || $curstat != "user") {
    require "alert3.php";
    exit;}?>

<html>
<head>
<title>Simulation Lesson</title>
<!-- Changed by: Herb Jellinek, 18-Apr-1996 -->
</head>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">Simulation Lesson</h2></font>
<table width=500 height=395 border=3 align=center>
<tr><td>
    <p align=center> <applet code=Animator.class width=500
height=400>

```

```

<param name=imagesource
value="images/Beansproc7">
<param name=backgroundcolor
value="#FFFFFF">
<param name=endimage value=13>
<param name=soundsource value="audio">
<param name=soundtrack value=77.wav>
<param name=sounds
value="1 au2.au3 au4.au5 au6.au7 au8.au9 au10.au">
<param name=repeat value=false>
<param name=pause value=300>
all=" Your browser understands the <img alt="APPLET" tag,
tag but isn't running the applet, for some reason."
Your browser is completely ignoring the
<img alt="APPLET" tag, tag!
</applet>
</p></td></table><font color="#2E9BD3" face="Courier
New" size="-3"><p align=center>Tooth figure taken from
Microsoft Encarta 98 Encyclopedia. Copyright 1993-1997
Microsoft Corporation. All rights reserved.</p>
<p align=center>Animator v1.10 (02/05/97), by Herb
Jellinek. Copyright (c) 2003 Sun Microsystems, Inc. All
Rights Reserved.</p>

<font color="#2E9BD3" face="Courier New" size="+1">
<br><br>
<table border=0 align=left bgcolor="#DDEBF0"
cellpadding=5> <tr>
<td><a href="simles6.php">Previous </a>
<td><a href="simles.php">Main </a>
<td><a href="simles7.php">Repeat</a></td></tr></table>
</body>

</html>

```

takequiz.php

```

<?
if($curstat != "user" || $curname == ""){
require("alert3.php");
exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARRIES</title>
<body bgcolor="#DDEBF0" text=black>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">TAKE QUIZ</h2></font>
<font color="#5BAAD2" face="Helvetica"><br>

<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$var=1;

// $arr3 = array(0 => $temp); $count=0;
$arr = array(0 => 1); $count=1;
$result = mysql_query("SELECT * FROM questions where
quiz_id=$quizid" order by rand()");
printf("<form action='eval.php?arr=$arr'
method='post'>");

if ($myrow = mysql_fetch_array($result)) {
//printf("<form action='eval.php' method='post'>");

```

```

do{

printf("<table align='center' width='520'
border='0' cellspacing='2' cellpadding='0'>
<tr>
<td colspan='2' bgcolor=#2E9BD3><font color='black'
size='11'>%s</font></td>
</tr>
<tr>
<td><input
type='radio' name=vars.$var. value='a'>%s</td>
<td><input
type='radio' name=vars.$var. value='c'>%s</td>
</tr>
<tr>
<td><input
type='radio' name=vars.$var. value='b'>%s</td>
<td><input
type='radio' name=vars.$var. value='d'>%s</td>
</tr>
</table><br><br><br><br>
wrap($myrow["question"],$myrow["achoice"],$myrow["cch
oice"],$myrow["bchoice"],$myrow["dchoice"]);
printf("<input type='hidden' name=ids+$var.
value='%d'>", $myrow["ques_id"]);
$var+=$arr[$count]=$myrow["ques_id"]; $count++;

} while (($myrow = mysql_fetch_array($result)) &
$var<11);
$var-=$count-;
printf("<input type='hidden' name='quizid'
value='%d'>", $quizid);
printf("<input type='hidden' name='num1'
value='%d'>", $var);
printf("<input type='hidden' name='arr1'
value='%d'>", $arr);
printf("<input type='hidden' name='count1'
value='%d'>", $count);
printf("<p><input type='submit' name='submit'
value='Submit'></p></form>");
} else{
display_err_msg("No database records exist.");}?>

<br><br><a href='javascript:history.back()'>Back</a>

```

takequiz2.php

```

<?
if($curstat != "user" || $curname == ""){
require("alert3.php");
exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARRIES</title>
<body bgcolor="#DDEBF0" text=black>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">TAKE QUIZ</h2></font>
<font color="#5BAAD2" face="Helvetica"><br>

<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$var=1;

```

```

//$arr3 = array(0 => $temp); $count=0;
$arr = array(0 => 1); $count=1;
$result = mysql_query("SELECT * FROM questions where
quiz_id='$quizid' order by rand()");
$result2 = mysql_query("SELECT item FROM quiz where
quiz_id='$quizid'");
$myrow2 = mysql_fetch_array($result2);
$result2 = $myrow2["item"];

printf("<form action='\"'eval.php?arr=$arr1\"'
method='\"'post'\"'>");

if ($myrow = mysql_fetch_array($result0)) {
//printf("<form action='\"'eval.php'\"' method='\"'post'\"'>");

do {

printf("<table align='\"'center'\"' width='\"'520'\"'
border='\"'0'\"' cellpadding='\"'2'\"' cellspacing='\"'0'\"'>
<tr>
<td
colspan='\"'2'\"' bgcolor='#2E9BD3'><font color='\"'black'\"'
size='\"'+1'\"'%s</font></td>
</tr>
<tr>
<td><input
type='\"'radio'\"' name='vars['\"'$var.'\"'] value='\"'a'\"'%s</td>
<td><input
type='\"'radio'\"' name='vars['\"'$var.'\"'] value='\"'c'\"'%s</td>
</tr>
<tr>
<td><input
type='\"'radio'\"' name='vars['\"'$var.'\"'] value='\"'b'\"'%s</td>
<td><input
type='\"'radio'\"' name='vars['\"'$var.'\"'] value='\"'d'\"'%s</td>
</tr>
</table><br><br><br><br>";
wrap($myrow["question"], $myrow["achoice"], $myrow["cch
oice"], $myrow["bchoice"], $myrow["dchoice"]);

printf("<input type='\"'hidden'\"' name='ids['\"'$var.'\"']
value='\"'%d'\"'>", $myrow["ques_id"]);

$var++; $arr[$count]=$myrow["ques_id"]; $count++;

} while (($myrow = mysql_fetch_array($result0)) &
$var<$result2+1);
$var--; $count--;
printf("<input type='\"'hidden'\"' name='\"'quizid'\"'
value='\"'%d'\"'>", $quizid);
printf("<input type='\"'hidden'\"' name='\"'num'\"'
value='\"'%d'\"'>", $var);
printf("<input type='\"'hidden'\"' name='\"'arr'\"'
value='\"'%d'\"'>", $arr);
printf("<input type='\"'hidden'\"' name='\"'count2'\"'
value='\"'%d'\"'>", $count);
printf("<p><input type='\"'submit'\"' name='\"'submit'\"'
value='\"'Submit'\"'></p></form>");
} else {
display_err_msg("No database records exist."); } ?>

<br><br><a href='\"'javascript:history.back()'\"'>Back</a>

```

test.php

```

<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.0!
Transitional//EN">

<html>

<head>
<meta http-equiv="content-type"
content="text/html; charset=iso-8859-1">
<meta name="generator"
content="Adobe GoLive">
<title>Untitled Page</title>

</head>

<SCRIPT LANGUAGE="JavaScript">
function warnUser() {
return confirm(" This site is not for
minors. Click OK if you are at least 18 years
old and CANCEL otherwise.");
}
</SCRIPT>
</HEAD>
<BODY>

<map name="Teeth">
<AREA HREF="http://www.rassanmotors.com"
SHAPE=rect CCORDS="0,0,209,149" onMouseOver="
status=' go to Nissan Homepage' , return=true,"
onMouseOut=" status=" , ">
</map>
<A HREF="http://www.matureaudience.com"
onClick="return warnUser();" > Mature Audience Only
</A>
</BODY>

</html>

```

test2.php

```

<?
session_start();
session_register("SESSION");
if (!isset($SESSION)) {
$SESSION["count"] = 0;
echo "<b>Counter initialized, please reload this page to see it
increment";
} else {
echo "<br>Waking up session $PHPSESSID";
$SESSION["count"]++;
echo "<b>The counter is now $SESSION[count]"; }>

```

test22.php

```

<?
if ($curname == " ") {
require "alert3.php";
exit;} ?>

<?
require("4.php");

create_connection($databaseName);

$query=" select data.type from data3 where id=$i_d";

```

```

$q=mysql_query($query);
$i=mysql_fetch_array($q);
header("Content-type: $i[1]");
echo $i[0];?>

topf
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN">

<html>

    <head>

        <meta http-equiv="content-type"
content="text/html; charset=iso-8859-1">
        <meta name="generator"
content="Adobe GoLive">
        <title>Welcome! </title>

    </head>

    <body bgcolor="#CDDDF4"
background="images/tux.jpg" marginwidth="0"
marginheight="0">


    </body>

</html>

userframe.php

<?
if($curstat != "user" || $curname == " "){
require("main2.php");
exit;}?>

<HTML>
<HEAD>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARRIES</title>
</HEAD>

<frameset rows="107,*" framespacing="0" frameborder="0"
border=no>

<frame name="top" marginwidth="0" marginheight="0"
scrolling="no" src="topf.php" framespacing="0"
frameborder="0" bordercolor="#CDDDF4" border=no>

<FRAMESET COLS="270,*" FRAMEBORDER="0"
framespacing="0" scrolling=no>

<FRAME NAME="main" SRC="welcomestud.php"
scrolling=no>

<FRAME NAME="nght" SRC="welcomeuser.php"
NORESIZE>

</FRAMESET>

</HTML>

usermain.php

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARRIES</title>

```

```

<body text="black" bgcolor="#DDEBF0">
<h2 align="left"><font color="#2E9BD3" face="Courier New"
size="+2">USER MENU:</h2></font>
<h3 align="left"><font color="#2E9BD3" face="Courier New"
size="+1">What Would You Like To Do:</h3></font>
<font color="#2E9BD3" face="Courier New" size="+1">
<br><a href=viewuser.php>1 View Users</a>
<br><a href=adduser.php>2 Add Users</a>
<br><a href=edituserpre.php>3 Edit Users</a>
<br><a href=deleteuser.php>4 Delete Users</a>

```

```
</html>
```

```
vars.php
```

```
<?
```

```

$hostName="localhost";
$username="";
$password="";
$dbaseName="testdb";?>

```

```
vars2.php
```

```
<?php
```

```

function display_err_msg($message){
    printf("<html><body bgcolor='\\"eae6db\\""><p
align='\\"left\\""><font color='\\"b22222\\"" face='\\"verdana\\""
size='\\"2\\""><i>%s</i></body></html>\n", $message);}

```

```

//connects to the host & chooses $dbname as the database
function create_connection($dbname){

```

```
    global $hostName, $username, $password;
```

```
    //connect to database
```

```
    if
```

```
    ({ $link)=mysql_pconnect($hostName,$username,$password)
}){
```

```

        display_err_msg(sprintf("error connecting to host %s,
by user %s", $hostName,$username)),
        exit();}

```

```
    //select the database
```

```

    if (!mysql_select_db($dbname,$link)){
        display_err_msg(sprintf("Error in executing %s
sum", $sum));
        display_err_msg(sprintf("error:%d %s",
mysql_errno($link), mysql_error($link)));
        exit();} ?>

```

```
vars3.php
```

```
<?php
```

```

$hostName="localhost";
$username="";
$password="";
$dbaseName="dental3";

```

```

function display_err_msg($message){
    printf("<html><body bgcolor='\\"DDEBF0\\""><p
align='\\"left\\""><font color='\\"D0220B\\"" face='\\"Courier
New\\"" size='\\"+1\\"">%s</body></html>\n", $message);}

```

```
//connects to the host & chooses $dbname as the database
function create_connection($dbname){
```

```
// global $hostName, $userName, $password;
```

```
//connect to database
if
(!($link=mysql_pconnect($hostName,$userName,$password))){
display_err_msg(sprintf("error connecting to host %s,
by user %s", $hostName,$userName));
exit();}
```

```
//select the database
if (!mysql_select_db($dbname,$link)) {
display_err_msg(sprintf("Error in executing %s
stmt",$stmt));
display_err_msg(sprintf("error:%d %s",
mysql_errno($link), mysql_error($link)));
exit();}
```

viewlesson.php

```
<?
if ($curname == " " || $curstat != "admin"){
require "alert3.php";
exit();?>
```

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">VIEW MAIN LESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);
```

```
$result = mysql_query("SELECT * FROM topics ORDER
BY sequence");
```

```
if ($myrow = mysql_fetch_array($result)){
```

```
echo "<table width=70% align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\"'>";
echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Topic Title and
Description</font></td></tr>";
echo "</tr>";
```

```
do{
printf("<tr><td><a
href='\"viewsub.php?topicid=%d\">%s</a></td>\n",
$myrow["topic_id"],wrap($myrow["topic_title"]);

} while ($myrow = mysql_fetch_array($result));
echo "</table>\n";
}else{
display_err_msg("No Main Lessons.");
}
?><br><br><br>
<a href="download2.php">Download/View Lesson Files</a>
```

```
<br><br><a href="links.php">View Links</a>
<br><br><a href="javascript:history.back()">Back</a>
```

viewlessonstud.php

```
<?
if($curstat != "user" || $curname == " "){
require("alert3.php");
exit();?>
```

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">VIEW MAIN LESSONS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);
```

```
$result = mysql_query("SELECT * FROM topics ORDER
BY sequence");
```

```
if ($myrow = mysql_fetch_array($result)){
```

```
echo "<table width=70% align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\"'>";
echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Topic Title and
Description</font></td></tr>";
echo "</tr>";
```

```
do{
printf("<tr><td><a
href='\"viewsub.php?topicid=%d\">%s</a></td>\n",
$myrow["topic_id"],wrap($myrow["topic_title"]);

} while ($myrow = mysql_fetch_array($result));
echo "</table>\n";
```

```
}else{
display_err_msg("No records exist.");
}
?><br><br><br>
<a href="download2.php">Download/View Lesson Files</a>
<br><br><a href="links.php">View Links</a>
```

viewquiz.php

```
<?
if ($curname == " " || $curstat != "admin"){
require "alert3.php";
exit();?>
```

```
<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">VIEW QUIZZES</h2></font>
<font color="#5BAAD2" face="Helvetica"><br><br><br>
<?php
```

```

require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM quiz ORDER BY
quiz_id");

if ($myrow = mysql_fetch_array($result)) {

    echo "<table width=70% align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor=\"#CDDDF4\">";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color=\"#DDEBF0\" size=+1>Quiz Title and
Description</font></td><td CLASS='head'><font
color=\"#DDEBF0\" size=+1>Items</font></td>";
    echo "</tr>";

    do{

        printf("<tr><td><a
href='viewsquiz.php?quizid=%d'>%s</a></td><td><font
color=black>%d</td></tr></td>",$myrow["quiz_id"],wrap($myrow["
quiztitle"],$myrow["item"]);

    } while ($myrow = mysql_fetch_array($result));
    echo "</table>\n";

} else{
    display_err_msg("No records exist.");?>
}

```

viewquiz2.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body text="black" bgcolor="#CDDDF4">
<br>Choose the Quiz You Like To View<br>
</php>
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM quiz ORDER BY
quiz_id");

if ($myrow = mysql_fetch_array($result)) {

    echo "<table align=CENTER width=70%>";
    echo "<tr><td CLASS='head'>Question</td><td
CLASS='head'>Choice A</td><td CLASS='head'>Choice
B</td><td CLASS='head'>Choice C</td><td
CLASS='head'>Choice D</td><td
CLASS='head'>Answer</td>";
    echo "</tr>";

    do{

        printf("<tr><td>%s</td><td>%s</td><td>%s</td><td>%s</td><td>%s</td><td>%s</td></tr></td>",$myrow["question"],

```

```

wrap($myrow["achoice"],wrap($myrow["bchoice"],wrap($
myrow["cchoice"],wrap($myrow["dchoice"],wrap($myrow
["answer"])));

    } while ($myrow = mysql_fetch_array($result));
    echo "</table>\n";

} else{
    display_err_msg("No records exist.");?>
}

```


Back

viewquizstud.php

```

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=#5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">VIEW QUIZZES</h2></font>
<font color="#5BAAD2" face="Helvetica"><br>
<br>Choose the Quiz You Like To View<br><br><br><br>
</php>
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

$result = mysql_query("SELECT * FROM quiz ORDER BY
quiz_id");

if ($myrow = mysql_fetch_array($result)) {

    echo "<table width=70% align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor=\"#CDDDF4\">";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color=\"#DDEBF0\" size=+1>Quiz Title and
Description</font></td>";
    echo "</tr>";

    do{

        printf("<tr><td><a
href='takequiz2.php?quizid=%d'>%s</a></td>",$myrow["
quiz_id"],wrap($myrow["quiztitle"]);

    } while ($myrow = mysql_fetch_array($result));
    echo "</table>\n";

} else{
    display_err_msg("No records exist.");?>
}

```

viewsquiz.php

```

<?
if ($curname == " " || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARIES</title>
<body bgcolor="#DDEBF0" text=black>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">VIEW QUIZZES</h2></font>
<font color="black" face="Helvetica">

```

```
<?php  
require("vars3.php");  
require("wrap.php");  
create_connection($databaseName);  
  
$result = mysql_query('SELECT * FROM questions where  
quiz_id='.$quizid');  
  
if ($myrow = mysql_fetch_array($result)) {  
  
    echo "<table width=70% align=CENTER border=1  
cellspacing=1 cellpadding=2 bgcolor=#DDEEFF  
bordercolor='#CDDDF4'>;"  
  
    echo "<tr bgcolor=#E9BD3><td CLASS='head'><font  
color='\black\'' size=+1>Question</font></td><td  
CLASS='head'><font color='\black\'' size=+1>Choice  
A</font></td><td CLASS='head'><font color='\black\''  
size=+1>Choice B</font></td><td CLASS='head'><font  
color='\black\'' size=+1>Choice C</font></td><td  
CLASS='head'><font color='\black\'' size=+1>Choice  
D</font></td><td CLASS='head'><font color='\black\''  
size=+1>Answer</font></td><td CLASS='head'><font  
color='\black\'' size=+1>Explanation</font></td>";  
  
    echo "</tr>";  
  
do{  
  
    printf("<font color='\black\''  
face='Helvetica'><tr><td>%s</td><td>%s</td><td>%s</td>  
<td>%s</td><td>%s</td><td>%s</td><td>%s</td>\n</f  
ont>",wrap($myrow["question"]),wrap($myrow["achoice"],  
wrap($myrow["bchoice"]),wrap($myrow["cchoice"],wrap($  
myrow["dchoice"]),wrap($myrow["answer"]),wrap($myrow[  
"exp"]);,  
  
    } while ($myrow = mysql_fetch_array($result)).  
    echo "</table>\n";  
  
} else {  
    display_err_msg("No records exist.");}?>
```


Back

```

echo "<br><h2 align=center>SubLessons Under Topic ";
printf("%s", $myrow["lesstitle"]);
echo "<br></h2>";
echo "<table width=70% align=CE NTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor=\"#CDDDF4\">";
echo "<tr bgcolor=#2E9BD3><font color=\"#DDEBF0\"
size=+1>Lesson Title and Description</font></td>";
echo "</tr>";

do{

    printf("<tr><td><a
href=\"viewsub2.php?lessid=%d\">%s</a></td>\n",
    $myrow["less_id"],wrap($myrow["lesstitle"]));

    |while ($myrow = mysql_fetch_array($resubd));
    echo "</table>\n";

} else{
    display_err_msg("No SubLessons ");}?>

<br><a href=javascript:history.back()>Back</a>

viewsub2.php

<?
if ($countme == " "){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARES</title>
<body bgcolor="#DDEBF0" text=$BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">VIEW SUBLESSONS</h2></font>
<font color="#$BAAD2" face="Helvetica">
<?php
require("vars3.php");
require("wrap.php");
create_connection($databaseName);

```

```

do{
    $IMAGE="files/" . $myrow["title"];
    echo "<br><table align=CENTER border=1 cellpadding=1
cellpadding=2 bgcolor=white
bordercolor='\"#CDDDF4\"'>";
    printf("<TR><td align=left><img src=\"$IMAGE\"></td></tr>");
    echo "</table><br>";
    $title="" . $myrow["title"];
    echo "<p align=center>$title</p><br><br>";
    } while ($myrow = mysql_fetch_array($result));
} else{
    display_err_msg("No Sublessons.");} ?>

```

```

<br><br><a href='\"javascript:history.back()\"'>Back</a>

```

viewuser.php

```

<?
if ($curname == "" || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<html>
<title>ONLINE TRAINING SYSTEM FOR PIT AND
FISSURE DENTAL CARRIES</title>
<body bgcolor="#DDEBF0" text=5BAAD2>
<h2 align=center><font color="#2E9BD3" face="Courier
New" size="+2">VIEW USERS</h2></font>
<font color="#5BAAD2" face="Helvetica">
<?php
require("vars3.php");
create_correction($databaseName);

$result = mysql_query("SELECT * FROM user ORDER BY
status, uname");

```

```

if ($myrow = mysql_fetch_array($result)) {

    echo "<table width=70% align=CENTER border=1
cellspacing=1 cellpadding=2 bgcolor=#DDEBF0
bordercolor='\"#CDDDF4\"'>";
    echo "<tr bgcolor=#2E9BD3><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>Status</font></td><td
CLASS='head'><font color='\"#DDEBF0\"' size=+1>User
Name</font></td><td CLASS='head'><font
color='\"#DDEBF0\"' size=+1>User_id</font>";
    echo "</tr>";

    do{
        if ($myrow["status"]==1){
            $stats = "Administrator";
        } elseif ($myrow["status"]==2){
            $stats = "Student/User";
        }

        printf("<tr><td>%s</td><td>%s</td><td>%d</td>\n",
        $stats, $myrow["uname"], $myrow["user_id"]);

    } while ($myrow = mysql_fetch_array($result));
    echo "</table>\n";

} else{
    display_err_msg("No User Records.");} ?>

<br><br><a href='\"javascript:history.back()\"'>Back</a>

```

welcome.php

```

<?
if ($curname == "" || $curstat != "admin"){
    require "alert3.php";
    exit;}?>

<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN">

<html>

    <head>

        <meta http-equiv="content-type"
        content="text/html; charset=iso-8859-1">
        <meta name="generator"
        content="Adobe GoLive">
        <title>Welcome!</title>

    </head>

    <body bgcolor="#DDEBF0" marginwidth="0"
    marginheight="0">
    <tr><td align="center" colspan="2"><td align="center"><p
    align="center"><b><font color="#2E9BD3" face="Courier
    New" size="+3">WELCOME
    ADMINISTRATOR!</b></p></td>
    <tr><td align="center" colspan="2"><td align="center"><p>
    As an administrator, you
    have been given the privilege of modifying database entries
    in this system. You can add, edit or delete user accounts,
    lesson entries and quizzes. Just click on the buttons on the
    left panel to start </p></td></td>
    </body>

</html>

```

welcome2.php

```

<?
setcookie("curname", "", );
setcookie("curstat", "", );

<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN">

<html>

    <head>

        <meta http-equiv="content-type"
        content="text/html; charset=iso-8859-1">
        <meta name="generator"
        content="Adobe GoLive">
        <title>Welcome!</title>

    </head>

    <body bgcolor="#DDEBF0" marginwidth="0"
    marginheight="0">

    <a href="main.php">|</a>
    <?
    echo "OK";
    echo $_COOKIE["curname"];
    echo $_COOKIE["curstat"];
    echo "OK";?>

</body>

```



```

</html>

welcomeadmin.php

<?
if ($curname == " " || $curostat != "admin"){
    require "alert3.php";
    exit;}?>

<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN">

<html>

    <head>
        <meta http-equiv="content-type"
content="text/html;charset=iso-8859-1">
        <meta name="generator"
content="Adobe GoLive">
        <title>Welcome!</title>
    </head>

    <body bgcolor="#DDEBF0" marginwidth="0"
marginheight="0">
        <u><hr size="5" color="lightblue" noshade></u>
        <tr align=center><td align=center><p
align=center><b><font color="#2E9BD3" face="Courier
New" size="+3">WELCOME
ADMINISTRATOR!</b></p></td></tr>
        <u><hr size="5" color="lightblue" noshade></u>
        <u><font color="black" face="Courier New"
size="+1"><blockquote><p> As an administrator, you
have been given the privilege of modifying database entries
in this system. You can add, edit or delete user accounts,
lesson entries and quizzes. Just click on the buttons on the
left panel to start.</p></blockquote></u>
    </body>

</html>

```

```

welcomeprof.php

<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN">

<html>

    <head>
        <meta http-equiv="content-type"
content="text/html;charset=iso-8859-1">
        <meta name="generator"
content="Adobe GoLive">
        <title>Welcome!</title>
    </head>

    <body bgcolor="#9461F7" marginwidth="0"
marginheight="0" background="images/sl.gif"
text="#CDDDF4">
        <font color="#CDDDF4" face="Courier New" size="+2">
Welcome
        <?php
echo"$curname"?>
!</font>

        <font color="#CDDDF4" face="Courier New"
size="+1"><br><br>

```

```

<br><a href="usermain.php" target="right"></a><br>
<br><a href="lessonmain.php" target="right"></a><br>
<br><a href="quizmain.php" target="right"></a><br>
<br><a href="logout.php" target="_parent"></a>
<br><br><br>
</body>

```

```

</html>

```

```

dent.php

```

```

CREATE TABLE user (
    user_id int(10) NOT NULL default '0',
    uname varchar(15) NOT NULL default '',
    upassword varchar(16) NOT NULL default '',
    status int(1) default '0',
    PRIMARY KEY (user_id)
) TYPE=MyISAM;

insert into user values (1111,'prof','5d18b2f703f7f831','1');

```

```

CREATE TABLE topics (
    topic_id int(10) NOT NULL default '0',
    topicTitle tinytext NOT NULL default '',
    sequence varchar(10),
    PRIMARY KEY (topic_id)
) TYPE=MyISAM;

```

```

insert into topics values (1212,'Teeth and Dental Caries','1');
insert into topics values (2121,'Dental Caries Restoration
Techniques','2');

```

```

CREATE TABLE sublessons (
    less_id int(10) NOT NULL default '0',
    topic_id int(10) NOT NULL default '0',
    lessTitle tinytext NOT NULL default '',
    lesson mediumtext NOT NULL default '',
    sequence varchar(10),
    PRIMARY KEY (less_id)
) TYPE=MyISAM;

```

```

insert into sublessons values (1112,'1212','Dental
Caries','Teeth
Teeth, hard, calcified structures, attached to the upper and
lower jaws of vertebrates and of a few lower animals, and
used primarily for mastication. In some animals, teeth serve
other functions, such as gnawing, digging, and fighting. In
the course of evolution, various forms of teeth have
developed, from the simple, scalelike rows of cone-shaped
teeth found in sharks to the more complex structures common
in mammals.

```

Human Teeth

Human teeth also serve major functions other than chewing. The teeth are directly involved in the process of speech, acting as a brace against which the tongue presses in the formation of certain sounds. The teeth also affect the dimensions and the expression of the face, the appearance of which may be unpleasantly modified by the loss of neighboring teeth or by any irregularity in tooth growth or coloring.

Tooth Structure

Human teeth consist of an external portion, called the crown, and a root that is embedded within the jaw. The outer layer of the crown is composed of calcified tissue known as enamel,

which is the hardest substance in the body. Inside the enamel is the dentin, a bonelike substance extending from the inner surface of the enamel into the jaw to form the root. Covering the dentin of the root is a thin layer of a hard tissue called cementum. The roots are held in place by elastic fibers that constitute the periodontal membrane, which extends from the cementum to a thickened layer of bone, known as the lamina dura, within the jaw. The dentin of the crown encloses the pulpal chamber, which penetrates into the root as the root canal. Passing through the root canal opening at the end of the root are blood vessels, nerves, and connective tissue, which fill the root canal and pulpal chamber.

Embryological Development

The development of the tooth bud in the human embryo begins in the second month after conception. The tooth bud is composed of outer, or ectodermal, and inner, or mesodermal, tissues. The ectoderm calcifies into enamel rods that develop to cover the crown. Following the depositing of enamel, the mesoderm differentiates into the dentinal portion of the crown and the pulpal chamber. As the embryo develops, continuing calcification results in the formation of the root and a wide root canal, through which blood vessels, nerves, and connective-tissue elements extend into the pulpal chamber. As the tooth crown erupts and the root lengthens, the pulpal chamber and canal become more constricted because of the continuous production of dentin by special cells within the pulp. The crown is pushed through the gum by an eruptive force as the tooth continues to develop).

insert into sublessons values ('1113','1212','Dental Caries Part2','Deciduous and Permanent Teeth

In humans, one set of 20 teeth is produced for use during early jaw development; these are called the deciduous teeth or, more popularly, the baby teeth. A second set of 32 larger permanent teeth replaces the deciduous teeth as the jaw matures. As a result of the growth and enlargement of the jaw, the roots of the deciduous teeth separate, allowing space for the larger permanent teeth to develop between them. The pressure of developing permanent teeth causes the tissues of the jaw to resorb, or suck up, the roots of the corresponding deciduous teeth, leaving only the crowns. As each permanent tooth erupts, it dislodges the crown of the deciduous tooth.

Types of Teeth

The crowns of the permanent teeth are of three general types: the incisors, the cuspids, and the molars. The front teeth, or incisors, are spade shaped to facilitate the cutting of food. In each quarter of the mouth is a central and lateral incisor. Behind the incisors are the three cuspid, or ripping, teeth. The first cuspid, or "canine," situated directly back of the lateral incisor, has a single, pointed cusp. The two teeth back of the cuspid are called the bicuspids, as each has two cusps. Behind the bicuspids are the first, second, and third molars, which have a relatively flat chewing surface, permitting the grinding or milling of the food. In general, food is cut with the front incisal teeth, reduced in size by the cuspids and bicuspids, and ground to a digestible size by the molars. Human teeth are still evolving; dental scientists expect that third molars, or wisdom teeth, will eventually disappear as the human jawbone continues to shrink and as refined foods eliminate the need for extra molars.);

insert into sublessons values ('1113','1212','Tooth Alignment','The sequence of tooth eruption in the upper and lower jaws occurs in an ordered pattern. Occasional irregularities in the sequence of eruption may cause faulty alignment of the teeth. In some instances, the deciduous tooth is not shed, or the succeeding permanent tooth may be lacking. In other cases the permanent tooth may be impacted in the bone and incapable of eruption; supernumerary, or extra, teeth may also be present. Misalignment, or

malocclusion, of the teeth also may occur after eruption. Because the position of a tooth in the jaw is not static, the loss of a tooth may permit the adjoining teeth to tilt toward the empty space, and the corresponding tooth in the opposite jaw may continue to erupt into the space. Such a shift in position is possible because the tooth is attached to the jaw by the short elastic fibers of the periodontal membrane. The teeth are subjected to a wide range of jaw movements, which are permitted by the ball-and-hinge joints in the human jaw. Normally, each tooth is afforded protection by the adjoining and opposite teeth, which serve to equalize the forces of jaw motion and prevent shifts in position. When severe malocclusion occurs, the teeth should be brought into position by an orthodontist, a dental specialist).

insert into sublessons values ('1114','1212','Restoration Techniques','A fissure system found to be clinically and radiographically caries-free may be protected by a fissure sealant. In other cases where caries is rampant in parts of the fissure system, either clinically or radiographically, restoration using sealant restoration or a preventive resin restoration may be used. Another kind of restoration is by using amalgam.);

insert into sublessons values ('1115','1212','Restoration Techniques Part2','The use of composite and sealant restoration may look particularly appropriate for the management of the small carious lesion in posterior teeth, but amalgam is the material of choice in larger cavities where the restorative material must take considerable occlusal force.);

```
CREATE TABLE quiz (
  quiz_id int(10) NOT NULL default '0',
  question tinytext NOT NULL default '',
  PRIMARY KEY (quiz_id)
) TYPE=MyISAM;
```

insert into quiz values ('1111','Restoration Technique Quiz');

```
CREATE TABLE questions (
  ques_id int(10) NOT NULL default '0',
  quiz_id int(10) NOT NULL default '0',
  question tinytext NOT NULL default '',
  answer tinytext NOT NULL default '',
  achoice tinytext NOT NULL default '',
  bchoice tinytext NOT NULL default '',
  cchoice tinytext NOT NULL default '',
  dchoice tinytext NOT NULL default '',
  PRIMARY KEY (ques_id)
) TYPE=MyISAM;
```

insert into questions values ('1111','1111','What instrument is used in safely removing caries?',
'a','excavator','drill','carrier','spatula');

insert into questions values ('1112','1111','What instrument is used in applying amalgam?',
'c','excavator','drill','carrier','spatula');

insert into questions values ('1113','1111','What material is used in filling the tooth?',
'c','water','CaOH','amalgam','silver');

insert into questions values ('1114','1111','What material is used when you drilled the tooth too much?',
'a','CaOH','water','amalgam','silver');

SQL File

Dentalnew

```
create database dental2;
use dental2;
```

```
CREATE TABLE user (
  user_id int(10) NOT NULL default '0',
  username varchar(15) NOT NULL default '',
  upassword varchar(10) NOT NULL default '',
  status int(1) default '0',
  PRIMARY KEY (user_id)
) TYPE=MyISAM;

insert into user values ('1111','prof','5d18b2f703f7f831','1');
```

```
CREATE TABLE topics (
  topic_id int(10) NOT NULL default '0' AUTO_INCREMENT,
  topic_title tinytext NOT NULL default '',
  sequence int(10) NOT NULL,
  PRIMARY KEY (topic_id)
) TYPE=MyISAM;

insert into topics values ('0','Teeth and Dental Caries','1');
insert into topics values ('0','Dental Canes Restorauon Techniques','2');
```

```
CREATE TABLE sublessons (
  less_id int(10) NOT NULL default '0' AUTO_INCREMENT,
  topic_id int(10) NOT NULL default '0',
  less_title tinytext NOT NULL default '',
  lesson mediumtext NOT NULL default '',
  sequence int(10) NOT NULL,
  PRIMARY KEY (less_id)
) TYPE=MyISAM;
```

insert into sublessons values ('0','1','Dental Canes', 'Teeth
Teeth, hard, calcified structures, attached to the upper and
lower jaws of vertebrates and of a few lower animals, and
used primarily for mastication. In some animals, teeth serve
other functions, such as gnawing, digging, and fighting. In
the course of evolution, various forms of teeth have
developed, from the simple, scalelike rows of cone-shaped
teeth found in sharks to the more complex structures common
in mammals.

Human Teeth

Human teeth also serve major functions other than chewing. The teeth are directly involved in the process of speech, acting as a brace against which the tongue presses in the formation of certain sounds. The teeth also affect the dimensions and the expression of the face, the appearance of which may be unpleasantly modified by the loss of neighboring teeth or by any irregularity in tooth growth or coloring.

Tooth Structure

Human teeth consist of an external portion, called the crown, and a root that is embedded within the jaw. The outer layer of the crown is composed of calcified tissue known as enamel, which is the hardest substance in the body. Inside the enamel is the dentin, a bone-like substance extending from the inner surface of the enamel into the jaw to form the root. Covering the dentin of the root is a thin layer of a hard tissue called cementum. The roots are held in place by elastic fibers that constitute the periodontal membrane, which extends from the cementum to a thickened layer of bone, known as the lamina

dura, within the jaw. The dentin of the crown encloses the pulpal chamber, which penetrates into the root as the root canal. Passing through the root canal opening at the end of the root are blood vessels, nerves, and connective tissue, which fill the root canal and pulpal chamber.

Embryological Development

The development of the tooth bud in the human embryo begins in the second month after conception. The tooth bud is composed of outer, or ectodermal, and inner, or mesodermal, tissues. The ectoderm calcifies into enamel rods that develop to cover the crown. Following the depositing of enamel, the mesoderm differentiates into the dentinal portion of the crown and the pulpal chamber. As the embryo develops, continuing calcification results in the formation of the root and a wide root canal, through which blood vessels, nerves, and connective-tissue elements extend into the pulpal chamber. As the tooth crown erupts and the root lengthens, the pulpal chamber and canal become more constricted because of the continuous production of dentin by special cells within the pulp.

insert into sublessons values ('0','1','Dental Canes', 'Part2', 'Deciduous and Permanent Teeth

In humans, one set of 20 teeth is produced for use during early jaw development; these are called the deciduous teeth or, more popularly, the baby teeth. A second set of 32 larger permanent teeth replaces the deciduous teeth as the jaw matures. As a result of the growth and enlargement of the jaw, the roots of the deciduous teeth separate, allowing space for the larger permanent teeth to develop between them. The pressure of developing permanent teeth causes the tissues of the jaw to resorb, or suck up, the roots of the corresponding deciduous teeth, leaving only the crowns. As each permanent tooth erupts, it dislodges the crown of the deciduous tooth.

Types of Teeth

The crowns of the permanent teeth are of three general types: the incisors, the cuspids, and the molars. The front teeth, or incisors, are spade shaped to facilitate the cutting of food. In each quarter of the mouth is a central and lateral incisor. Behind the incisors are the three cuspid, or ripping, teeth. The first cuspid, or "canine," situated directly back of the lateral incisor, has a single, pointed cusp. The two teeth back of the cuspid are called the bicuspid, as each has two cusps. Behind the bicuspid are the first, second, and third molars, which have a relatively flat chewing surface, permitting the grinding or milling of the food. In general, food is cut with the front incisal teeth, reduced in size by the cuspid and bicuspid, and ground to a digestible size by the molars. Human teeth are still evolving; dental scientists expect that third molars, or wisdom teeth, will eventually disappear as the human jawbone continues to shrink and as refined foods eliminate the need for extra molars.

insert into sublessons values ('0','1','Tooth Alignment', 'The sequence of tooth eruption in the upper and lower jaws occurs in an ordered pattern. Occasional irregularities in the sequence of eruption may cause faulty alignment of the teeth. In some instances, the deciduous tooth is not shed, or the succeeding permanent tooth may be lacking. In other cases the permanent tooth may be impacted in the bone and incapable of eruption; supernumerary, or extra, teeth may also be present. Misalignment, or malocclusion, of the teeth also may occur after eruption. Because the position of a tooth in the jaw is not static, the loss of a tooth may permit the adjoining teeth to tilt toward the empty space, and the corresponding tooth in the opposite jaw may continue to erupt into the space. Such a shift in position is possible because the tooth is attached to the jaw by the short elastic fibers of the periodontal membrane. The teeth are subjected to a wide range of jaw movements, which are permitted by

the ball-and-socket joints in the human jaw. Normally, each tooth is afforded protection by the adjoining and opposite teeth, which serve to equalize the forces of jaw motion and prevent shifts in position. When severe malocclusion occurs, the teeth should be brought into position by an orthodontist, a dental specialist '3).

insert into sublessors values ('0','1','Restoration Techniques','A fissure system found to be clinically and radiographically caries-free may be protected by a fissure sealant. In other cases where caries is rampant in parts of the fissure system, either clinically or radiographically, restoration using sealant restoration or a preventive resin restoration may be used. Another kind of restoration is by using amalgam '4);

insert into sublessors values ('0','2','Restoration Techniques Part2',' The use of composite and sealant restoration may look particularly appropriate for the management of the small carious lesion in posterior teeth, but amalgam is the material of choice in larger cavities where the restorative material must take considerable occlusal force. '5);

```
create table quiz(
  quiz_id int(10) NOT NULL default '0'
  AUTO_INCREMENT,
  quiztitle tinytext NOT NULL default '',
  item int(10) NOT NULL default '0',
  PRIMARY KEY (quiz_id)
)TYPE=MyISAM;
```

insert into quiz values ('0','Restoration Technique Quiz','15');

```
CREATE TABLE questions (
  ques_id int(10) NOT NULL default '0'
  AUTO_INCREMENT,
  quiz_id int(10) NOT NULL default '0',
  question tinytext NOT NULL default '',
  answer tinytext NOT NULL default '',
  achoice tinytext NOT NULL default '',
  bchoice tinytext NOT NULL default '',
  cchoice tinytext NOT NULL default '',
  dchoice tinytext NOT NULL default '',
  exp_text NOT NULL default '',
  PRIMARY KEY (ques_id)
) TYPE=MyISAM,
```

insert into questions values ('0','1','What instrument is used in safely removing caries?','
a','excavator','drill','carrier','spatula');

insert into questions values ('0','1','What instrument is used in applying amalgam?','
c','excavator','drill','carrier','spatula');

insert into questions values ('0','1','What material is used in filling the tooth?','
c','water','CaOH','amalgam','silver');

insert into questions values ('0','1','What material is used when you drilled the tooth too much?','
a','CaOH','water','amalgam','silver');

```
create table links(
  link_id int(2) unsigned not null AUTO_INCREMENT,
  link varchar(50),
  PRIMARY KEY (link_id)
);
```

```
create table filename(
  f_id int(2) unsigned not null AUTO_INCREMENT,
  les_id int(2),
  title text,
  type varchar(10),
  PRIMARY KEY (f_id)
);
```

Java Files

exerTuano.java

```
import javax.swing.*;
import javax.swing.event.*;
import javax.swing.text.*;
import javax.swing.border.*;
import javax.swing.colorchooser.*;
import javax.swing.filechooser.*;
import javax.accessibility.*;
```

```
import java.awt.*;
import java.awt.event.*;
//import java.awt.Component;
//import java.awt.Toolkit;
//import java.awt.Cursor;
import java.beans.*;
import java.util.*;
import java.io.*;
import java.applet.*;
import java.net.*;
import java.util.Vector;
```

```
import java.applet.Applet;
import java.applet.AudioClip;
import java.util.Vector;
import java.util.Hashtable;
import java.util.Enumeration;
import java.net.URL;
import java.net.MalformedURLException;
import java.util.List;
import java.util.ArrayList;
import java.util.Iterator;
```

```
public class exerTuano3 extends Applet{
  DrawPanel panel;
  DrawControls controls;
  DrawControls controls2; JPanel pane= new JPanel();
  JButton button = new JButton(new
  ImageIcon(getClass().getResource(" cursors/drillicon.gif"),
  "teeth2.gif"));
  JButton button2 = new JButton(new
  ImageIcon(getClass().getResource(" cursors/excacon.gif"),
  "teeth2.gif"));
  JButton button3 = new JButton(new
  ImageIcon(getClass().getResource(" cursors/carricon.gif"),
  "teeth2.gif"));
  JButton button4 = new JButton(new
  ImageIcon(getClass().getResource(" cursors/polishicon.gif"),
  "teeth2.gif"));
  JButton button5 = new JButton(new
  ImageIcon(getClass().getResource(" cursors/spaicon.gif"),
  "teeth2.gif"));
  JButton button6 = new JButton("Finished");
```

```

JButton button7 = new JButton(new
ImageIcon(getClass().getResource("cursors/watercon.gif"),
"teeth2.gif"));
JButton button8 = new JButton("Help");

public void init() {
    button.setToolTipText("Drill Press Alt+Click for
Help");
    button2.setToolTipText("Excavator Press
Alt+Click for Help");
    button3.setToolTipText("Carner Press Alt+Click
for Help");
    button4.setToolTipText("Polisher Press
Alt+Click for Help");
    button5.setToolTipText("Spatula Press Alt+Click
for Help");
    button6.setToolTipText("Click when your
finished.");
    button7.setToolTipText("Air/Water Spray Press
Alt+Click for Help");
    button8.setToolTipText("Click to view
instruction");
    setLayout(new BorderLayout());
    panel = new JPanel();
    controls = new DrawControls(panel,
    add("Center", panel),
    //add("South", controls),
    add("South", panel);
    button.addActionListener(controls);button.setActi
onCommand("button");
    button2.addActionListener(controls);button2.setA
ctionCommand("button2");
    button3.addActionListener(controls);button3.setA
ctionCommand("button3");
    button4.addActionListener(controls);button4.setA
ctionCommand("button4");
    button5.addActionListener(controls);button5.setA
ctionCommand("button5");
    button6.addActionListener(controls);button6.setA
ctionCommand("Finished");//button6.setEnabled(false);
    button7.addActionListener(controls);button7.setA
ctionCommand("Water");
    button8.addActionListener(controls);button8.setA
ctionCommand("Inst");
    pane.add(button);
    pane.add(button2);
    pane.add(button3);
    pane.add(button4);
    pane.add(button5);
    pane.add(button7);
    pane.add(button6);
    pane.add(button8);
    instruction();}

protected static ImageIcon createImageIcon(String path) {
    java.net.URL imgURL =
    exerTuano3.class.getResource(path);
    return new ImageIcon(imgURL);}

void instruction() {
    InstructionFrame notes = new
InstructionFrame(Color.white,30,85,"Simulation
Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/logo3.gif"),
"teeth2.gif");
    Image image = image2.getImage();
    notes.setCordImage(image);
    notes.display("Online Training System for Pit
Fissure Dental Caries Tuano 2005\n\n\n\n\n");

```

```

    notes.display("Welcome!\n\n");
    notes.display("Each button acts a different dental
equipment\n");
    notes.display("Each one has its own special use.\n\n\n");

    notes.display("Choose Among the Buttons on the Lower
Panel to Start\n");
    notes.display("There will be pop-up advisory windows to
help you work properly\n");
    notes.display("Please take note of those advisories.\n");
    notes.display("Then choose finish to end the
training\n\n");
    notes.display("The buttons are as follows\n");
    notes.display("Drill point to the top-view tooth surface
then click to drill/hold down ctrl key\n");
    notes.display("Excavator: remove caries by clicking on
the drilled area\n");
    notes.display("Carner: used to apply amalgam, get some
amalgam from container then click on tooth\n");
    notes.display("Polariser: point to the top-view tooth
surface then click to polish/hold down shift key\n");
    notes.display("Spatula used to apply CaOH, get some
CaOH from container then click on tooth\n");
    notes.display("Air/Water Spray:Point to the top-view
tooth surface then click to spray (hold down ctrl key)\n");
    notes.show();}

```

```

public void play(String s) {
    play(getCodeBase(), s);}

```

```

public void destroy() {
    remove(panel);
    remove(controls);}

```

```

public static void main(String args[]) {
    Frame f = new Frame("DrawTest");
    exerTuano3 drawTest = new exerTuano3();
    drawTest.init();
    drawTest.start();

    f.add("Center", drawTest);
    f.setSize(150, 150);
    f.show();}

public String getAppletInfo() {
    return "Simulation Examination";}

```

```

class InstructionFrame extends Frame implements
ActionListener {

```

```

    TextArea inst;
    Button cancel = new Button("Close");

```

```

InstructionFrame(Color c,int x,int y,String s) {
    super(s);
    Panel buttons = new JPanel();
    add("Center", inst = new TextArea(x,y));
    inst.setBackground(0);
    inst.setEditable(false);
    add("South", buttons);
    buttons.add(cancel);
    cancel.addActionListener(this);
    pack();}

```

```

public void show() {
    inst.select(250,250);
    super.show();}

```

```

void display(String s) {

```

```

        inst.setFont(new Font("Courier
New",Font.BOLD,17));
        inst.append(s);

    public void actionPerformed(ActionEvent e) {
        setVisible(false);
    }

class DrawPanel extends Panel implements MouseListener,
MouseListener {
    public static final int LINES = 0;
    public static final int POINTS = 1;
    int mode = POINTS;
    Vector lines = new Vector();
    Vector lines2 = new Vector();
    Vector lines3 = new Vector();
    Vector lines4 = new Vector();
    Vector lines5 = new Vector();
    Vector lines6 = new Vector();
    Vector lines7 = new Vector();
    Vector lines8 = new Vector();
    Vector lines9 = new Vector();
    Vector colors = new Vector();
    Vector colors2 = new Vector();
    Vector colors3 = new Vector();
    int[] hh=new int[1000];
    int[] xpos=new int[1000];
    int[] ypos=new int[1000];
    int[] hh4=new int[1000];
    int[] hh3=new int[1000];
    int[] hh2=new int[1000];
    int[] hh5=new int[1000];
    int[] max=new int[1000];
    int[] max2=new int[1000];
    int[] maxy=new int[1000];
    int[] maxy2=new int[1000];
    int[] max3=new int[1000];
    int[] max4=new int[1000];
    int[] fault=new int[3];
    int[] excess=new int[30];
    int[] equipment=new int[6];
    int[] h2=new int[1000][1000];
    int[] click=new int[1000][1000];
    int x1,y1,h=75,ca=0,maxca=0,index,
    int
    x2,y2,pasta=0,polish=0,amcheck=0,cache=0,snl,polisher,f
   ushed=0,double area=0,water=0,watercheck=0;
    String stmg, string2;

```

```

    public DrawPanel() {
        Color col = new Color(221, 235, 240);
        setBackground(col);
        addMouseListener(this);
        addMouseListener(this);
    }

```

```

    for(int i=0;i<999;i++){
        hh[i]=74;}
    for(int i=0;i<9999;i++){
        hh3[i]=74;}
    for(int i=0;i<9999;i++){
        hh4[i]=85;}
    for(int i=0;i<9999;i++){
        hh2[i]=75;}
    for(int i=0;i<9999;i++){
        hh5[i]=75;}
    for(int i=0;i<999;i++){
        max[i]=0;}
    for(int i=0;i<999;i++){
        max2[i]=0;}
    for(int i=0;i<999;i++){

```

```

        maxy[i]=0;}
    for(int i=0;i<999,i++){
        maxy2[i]=0;}
    for(int i=0;i<999,i++){
        max3[i]=0;}
    for(int i=0;i<999,i++){
        max4[i]=0;}
    for(int i=0;i<2;i++){
        fault[i]=0;}
    for(int i=0;i<49;i++){
        excess[i]=1;}
    for(int i=0;i<5;i++){
        equipment[i]=0;}
    for(int i=0;i<999;i++){
        for(int j=0;j<999;j++){
            h2[i][j]=75;}
        for(int i=0;i<999,i++){
            for(int j=0;j<999;j++){
                click[i][j]=75;}}}

    public void setDrawMode(int mode) {
        switch (mode) {
            case LINES:
            case POINTS:
                this.mode = mode;
                break;
            default:
                throw new IllegalArgumentException();
        }
    }

```

```

    void ouch(String s,String s2,Color c,int x,int y) {
        ImageIcon image2 = new
        ImageIcon(getClass().getResource("cursors/logo3.gif"),
        "teeth2.gif");
        Image image = image2.getImage();
        InstructionFrame notes = new
        InstructionFrame(c,x,y,s2);
        notes.setIconImage(image);
        notes.display(s+"\\n");
        notes.show();
    }

```

```

    void cheursor(String s) {Point p;
        if(s=="carrier2.gif" ||
        s=="carrier.gif") {p = new Point(3,22);} else {p = new
        Point(0,0);}
        Toolkit toolkit =
        Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
        ImageIcon(getClass().getResource("cursors/" + s),
        "teeth2.gif");
        Image image =
        image2.getImage();
        Cursor cursor =
        toolkit.createCustomCursor(image, p, "img");
        this.setCursor(cursor);}

```

```

    public void mouseDragged(MouseEvent e) {
        if(fushed=1){
            e.consume();
            x1 = e.getX();
            y1 = e.getY();
            if(x1>150 && x1<200 && y1>85 &&
            y1<120){
                if(getForeground()==Color.black){equipment[5]=
                1;if(pasta=1){watercheck=1;}
                if((e.getModifiers() &
                InputEvent.CTRL_MASK) != 0) {
                    if(water==0){

```

```

        chcursor("water2.gif");water=1;} else
{chcursor("water.gif");water=0;} chcursor("water.gif");water
=0;}}

    ))repaint();

    if(finished==1){ouch("You already
have clicked finish.\nYou cannot do further revisions.\nYou
need to reload the exam.\nThank You!\n", "Advisory
(OTSPFDC)",Color.white,10,75);}

    public void mouseMoved(MouseEvent e) {
        e.consume();

    public void mousePressed(MouseEvent e) {

        if(finished==1){
            e.consume();
            x1 = e.getX();
            y1 = e.getY();
            x2 = e.getX();
            y2 = e.getY();

            if(getForeground()==Color.white){ouch("No
Materials Chosen Yet!\nPlease choose among the available
buttons on the panel to start.\n", "Advisory
(OTSPFDC)",Color.yellow,10,75);} else
            if(x1>150 && x1<200 && y1>85 &&
y1<120){

                if((e.getModifiers() &
InputEvent.CTRL_MASK) != 0) {
                    if(getForeground()==Color.blue){
                        if(pastal=1 && cal=1){

                            if(drill==0){
                                chcursor("drill2.gif");drill=1;} else
                                {chcursor("drill.gif");drill=0;}
                                equipment[0]=1;
                                Color col3 = new Color(136, 95, 5);
                                for(int i=x1-
2;j<x1+3;i++){//updates all points within arc
                                    for(int j=y1-
2;j<y1+3;j++){

                                        hh2[j]=hh2[i][j]+2;
                                    }}

                                for(int i=0;i<999;i++){//gets max
clicks for column x1

                                    if((max[x1]<hh2[x1][i]){

                                        max[x1]=hh2[x1][i];}}

                                for(int i=0;i<999;i++){//gets max
clicks for row y1

                                    if((maxy[y1]<hh2[i][y1]){

                                        maxy[y1]=hh2[i][y1].)}

                                lines.addElement(new Rectangle(e.getX(),
e.getY(), -1, -1));
                                lines2.addElement(new Rectangle(x1, hh[x1], -1, -
1));

                                if((max[x1]>max2[x1]){//updates
height of column x1

                                    hh[x1]=hh[x1]+2;

```

```

        max2[x1]=max[x1];

        if((maxy[y1]>maxy2[y1]){//updates
height of row y1

            hh2[y1]=hh2[y1]+2;

            maxy2[y1]=maxy[y1];

            if(x1>166 && x1<186 && y1>96
&& y1<105){

                int
                stat=0,count=0,count2=0;

                for(int i=x1-2,i<x1+3;i++){
                    for(int j=y1-
2;j<y1+3;j++){

                        if((hh[i]+2>90) && (hh2[j]+2>90)){

                            //if(h2[i][j]+2>90){

                                stat=1;

                                //count=count++;

                                }}}

                            for(int i=x1-2,i<x1+3;i++){
                                for(int j=y1-
2;j<y1+3;j++){

                                    if((hh[i]+2>90) && (hh2[j]+2>90)){

                                        //if(h2[i][j]+2>90){

                                            stat=2,

                                            //count2=count2++;

                                            }}}

                                            //if(count>9){stat=1;} else

                                            //if(count2>5){stat=2;}

                                if(stat==1){colors.addElement(Color.lightGray);}
                                else
                                if(stat==2){colors.addElement(Color.red);fault[0]++;ouch("
OUCH!That hurts!\nYou should not drill through the
pulp.\nBe careful with the drilling.", "Patient
(OTSPFDC)",Color.red,10,75);} else{colors.addElement(col3
);}

                                }else{int stat=0;
                                for(int i=x1-2,i<x1+3;i++){
                                    for(int j=y1-
2;j<y1+3;j++){

                                        if((hh[i]+2>90) && (hh2[j]+2>90)){

                                            stat=2;

                                            }}}

                                if(stat==2){colors.addElement(Color.red);fault[0]++;ouch("
OUCH!That hurts!\nYou should not drill through the
pulp.\nBe careful with the drilling.", "Patient
(OTSPFDC)",Color.red,10,75);} else{

                                    colors.addElement(Color.gray);}}
                                x1 = e.getX();

```

```

y1 = e.getY(); //pasta=0; chcursor("drill.gif");

} else { ouch("Wrong
Procedure\nYou must make sure that all caries is removed
first\nbefore applying CaOH or amalgam.\nYou can't use
drill anymore.", "Advisory
(OTSPFDC)", Color.yellow, 10, 75); fault[2]++;
})

if (getForeground() == Color.red) {
if (pasta=1 && cal=1) {
if (x1>165 && x1<186 && y1>95
&& y1<104) {

if (h2[x1][y1]>75) {

equipment[1]=1;
Color col3 = new Color(136, 95, 5);
for (int i=x1-
1; i<x1+1; i++) { //updates all points within arc
for (int j=y1-
1; j<y1+1; j++) {

h2[i][j]=h2[i][j]+2;
}}

for (int i=0; i<999; i++) { //gets max
clicks for column x1

if (max[x1]<h2[x1][i]) {

max[x1]=h2[x1][i];

for (int i=0; i<999; i++) { //gets max
clicks for row y1

if (maxy[y1]<h2[i][y1]) {

maxy[y1]=h2[i][y1];

lines3.addElement(new Rectangle(e.getX(),
e.getY(), -1, -1));
lines4.addElement(new Rectangle(x1, hh[x1], -1, -
1));

if (max[x1]>max2[x1]) { //updates
height of column x1

hh[x1]=hh[x1]+2;

max2[x1]=max[x1];

if (maxy[y1]>maxy2[y1]) { //updates
height of row y1

hh2[y1]=hh2[y1]+2;

maxy2[y1]=maxy[y1];

int stat=0;
for (int i=x1-1; i<x1+1; i++) {
for (int j=y1-
1; j<y1+1; j++) {

if ((h1[i][j]+2>87) && (h1[j][j]+2>87)) {

stat=2;

}}}

if (stat==2) { colors2.addElement(Color.gray); } else {

colors2.addElement(col3); }

```

```

for (int i=0; i<999; i++) {
if (hh[i]>89) {
hh[i]=89; }

} else { ouch("You need to
drill-off enamel first.", "Advisory
(OTSPFDC)", Color.yellow, 10, 75); fault[2]++;
}

} else { ouch("Wrong Procedure\nYou
must make sure that all caries is removed first\nbefore
applying CaOH or amalgam.\nYou can't use excavator
anymore.", "Advisory
(OTSPFDC)", Color.yellow, 10, 75); fault[2]++;
}

if (getForeground() == Color.yellow) {
equipment[2]=1;
if (pasta=1) {
if (h2[x1][y1]>75) {
if (cachec==1) { string2 =
"Can't use CaOH."; ouch("Use a spatula for CaOH
instead", "Advisory (OTSPFDC)", Color.yellow, 10, 75); }

if (amcheck==1) { chcursor("carrier.gif");

pasta=1; amcheck=0; cachec=0;

} else { fault[2]++; ouch("You need to drill-off
enamel first.", "Advisory
(OTSPFDC)", Color.yellow, 10, 75); }

} else { fault[2]++; ouch("Wrong Procedure\nYou
are putting too much amalgam.", "Advisory
(OTSPFDC)", Color.yellow, 10, 75); }

}

if ((e.getModifiers() &
InputEvent.SHIFT_MASK) != 0) {
if (getForeground() == Color.gray) {
if (pasta==1) {

if (polisher==0) {

chcursor("polish2.gif"); polisher=1; } else
{ chcursor("polish.gif"); polisher=0; }
//colors.addElement(Color.yellow);
polish=1; equipment[3]=1;
for (int
i=0; i<999; i++) { //gets max clicks for column x1

if (max3[x1]<h2[x1][i]) {

max3[x1]=h2[x1][i];

lines6.addElement(new Rectangle(e.getX(),
e.getY(), -1, -1));
lines7.addElement(new Rectangle(x1, hh3[x1], -1,
-1));

if (max[x1]>max2[x1]) { //updates height of column x1

hh3[x1]=hh3[x1]+2;

max4[x1]=max3[x1];

#####
int ij=185; ji=165; xy=1; counter=0;

```



```

for(int i=90;i<110,i=i+5){
    for(int j=i,j<y,j=j+5){
        if((y1>=j) && (y1<=:j+5) && (x1>=j) &&
(x1<=:j+5)){
            excess[counter]=0;hh5[counter]++;
            if(hh5[counter]>77){
                ouch("You are over polishing.\nYou
cannot do further polishing on this area \n","Advisory
(OTSPFDC)",Color.white,10,75);
                fault[2]++;
            }
            jcounter++,jxy++;
            if(xy==1){i=185;j=165;}
            if(xy==2){i=190;j=160;}
            if(xy==3){i=190;j=160;}
            if(xy==4){i=185;j=165;}
        }
    }
}
} else {fault[2]++;ouch("You need to
apply amalgam first","Advisory
(OTSPFDC)",Color.yellow,10,75);}}
}
}
if(getForeground()==Color.orange){
    if(pastai=1){if(amcheck==1){string2=
"Can't use amalgam.";ouch("Use a carrier for amalgam
instead","Advisory (OTSPFDC)",Color.yellow,10,75);}
    if(cachecl==1){
        x1 = e.getX();
        y1 = e.getY();

        if(ca==0){
            for(int
i=0;i<999;i++){

                if(hh1[i]>hh2[i]){

                    if(hh1[i]>99){

                        hh4[i]=93; } else hh4[i]=hh1[i];

                    if(hh1[i]<hh2[i]){

                        if(hh2[i]>89){

                            hh4[i]=87; } else hh4[i]=hh2[i]; } }

                    maxca=hh4[x1];
                    for(int i=x1-
2;i<x1+2,i=i++){

                        if(maxca<hh4[i]){maxca=hh4[i];index=i;}}

                        //if(index>81){
                        if(hh4[x1]>83){
                            equipment[4]=1;
                            lines8.addElement(new Rectangle(e.getX(),
e.getY(), -1, -1));
                            lines9.addElement(new Rectangle(x1, maxca, -1,-
1));
                            hh4[index]=hh4[index]-
2;ca=1;

                            x1 = e.getX();
                            y1 =
e.getY();cachecl=0;amcheck=0;chcursor("spatula.gif");} else
{ouch("Application of CaOH is not needed in this case.\nThe
hole is not near the pulp or there is no hole","Advisory
(OTSPFDC)",Color.yellow,10,75);fault[2]++;}
                            //} else {ouch("Wrong
Procedure\nApplication of CaOH in this spot is not

```

```

allowed \nThe enamel is still intact." , "Advisory
(OTSPFDC)",Color.yellow,10,75);fault[2]++;}

```

```

        } else {fault[2]++;ouch("Improper
procedure.\nYou need to get some CaOH from the container
first","Advisory (OTSPFDC)",Color.yellow,10,75);}}

```

```

////////////////////////////////////

```

```

        if(getForeground()==Color.green){

            this.setForeground(Color.white);
            for(int i=0;i<999;i++){
                for(int
j=0,j<999,j++){

                    if(hh1[i][j]>89){area++;}
                    } area=area/110*100; }

                repaint();

            } else if(x1>351 && x1<698 && y1>205 && y1<262){

                if((getForeground()==Color.yellow) ||
(getForeground()==Color.orange)){
                    if(e.getX()>351 &&
e.getX()<524 && e.getY()>205 &&
e.getY()<262){string2="Got enough
amalgam";amcheck=1;cachecl=0;if(getForeground()==Color
yellow){chcursor("carrier2.gif");} } else {string2="Got some
CaOH";cachecl=1;amcheck=0;if(getForeground()==Color.o
range){chcursor("spatula2.gif");} } } else {
                    ouch("You can't get the
following materials using this tool.\nUse a spatula or a carrier
instead","Dentist (OTSPFDC)",Color.yellow,10,75);}
                    else
                    {fault[1]++;ouch("You're missing the Spot.\nYou should
click only on the tooth area \nThe only editable area is the
top-view","Advisory (OTSPFDC)",Color.yellow,10,75);}
                    repaint();
                }

                if(finished==1){ouch("You already
have clicked finish.\nYou cannot do further revisions.\nYou
need to reload the exam.\nThank You!\n","Advisory
(OTSPFDC)",Color.white,10,75);}

                public void mouseReleased(MouseEvent e) {
                    e.consume();
                    switch (mode) {
                        case LINES:
                            if(x1>160 && x1<190 && y1>90 &&
y1<110){
                                colors.addElement(getForeground());
                                lines.addElement(new Rectangle(x1, y1, e.getX(),
e.getY()));
                                lines2.addElement(new Rectangle(x1, hh[x1], -1, -
1));
                                hh[x1]=hh[x1]+1;
                                x2 = -1;
                                break;
                            }
                        case POINTS:
                            default:
                                break;
                            repaint();
                }

                public void mouseEntered(MouseEvent e) {
                    if(getForeground()==Color.blue){

```

```

        string = "Using drill
handpiece.";
        string2 =
        "",cache=0;amcheck=0;checursor("drill.gif");drill=0;}
        if(getForeground()==Color.red){
            string = "Using excavator.";
            string2 =
            "",cache=0;amcheck=0;}
            if(getForeground()==Color.yellow){
                string = "Using carrier.";
                string2 =
                "Empty";cache=0;amcheck=0;checursor("carrier.gif");}
                if(getForeground()==Color.gray){
                    string = "Using polisher.";
                    string2 =
                    "",cache=0;amcheck=0;checursor("polish.gif");polisher=0;}
                    if(getForeground()==Color.orange){
                        string = "Using spanula.";
                        string2 =
                        "Empty";cache=0;amcheck=0;checursor("spanula.gif");}
                        if(getForeground()==Color.white){
                            string = "Empty Handed ";
                            string2 =
                            "",cache=0;amcheck=0;}
                            if(getForeground()==Color.green){
                                string = "Empty Handed ";
                                string2 =
                                "",cache=0;amcheck=0;finished=1;}
                                if(getForeground()==Color.black){
                                    string = "Using Air/Water
Spray.";
                                    string2 =
                                    "",cache=0;amcheck=0;}
                                    repaint();

        public void mouseExited(MouseEvent e) {}

        public void mouseClicked(MouseEvent e) {}

        public void paint(Graphics g) {

            Color col = new Color(170, 221, 244);
            Color col2 = new Color(145, 187, 244);
            g.setColor(Color.black);
            g.fillRect(100, 100, 150, 75, true);

            g.setColor(col2);
            g.fillRect(0, 0, 350, 200, true);
            g.fillRect(351, 0, 350, 200, true);

            g.setColor(col);
            g.fillRect(30, 40, 250, 125);
            g.fillRect(401, 40, 250, 125);

            g.setColor(Color.black);
            g.fillRect(100, 65, 150, 75);
            g.fillRect(451, 65, 150, 75, true);

            g.setColor(Color.pink);
            g.fillRect(451, 97, 150, 43);
            g.fillArc(137, 79, 75, 45, 0, 360);

            g.setColor(Color.white);
            g.fillRoundRect(305, 75, 45, 50, 15, 15);

            //if(pasta==1){
            //g.setColor(Color.gray);
            //g.fillRoundRect(507, 70, 41, 50, 15, 15);}

            g.setColor(Color.pink);

```

```

g.fillRoundRect(520, 106, 15, 25, 15, 15);

g.setColor(Color.gray);
g.fillArc(149, 84, 32, 24, 0, 360);
g.fillArc(169, 84, 32, 24, 0, 360);
g.fillArc(149, 96, 32, 24, 0, 360);
g.fillArc(169, 96, 32, 24, 0, 360);

g.setColor(Color.white);
g.fillArc(150, 85, 30, 20, 0, 360);
g.fillArc(170, 85, 30, 20, 0, 360);
g.fillArc(150, 97, 30, 20, 0, 360);
g.fillArc(170, 97, 30, 20, 0, 360);

g.setColor(Color.red);
g.fillArc(539, 92, 10, 15, 0, 360);
g.fillArc(507, 92, 10, 15, 0, 360);

g.setColor(Color.lightGray);
g.drawArc(150, 85, 22, 15, 0, -90);
g.drawArc(170, 97, 35, 27, 45, 135);

g.setColor(Color.white);
g.fillRoundRect(509, 110, 11, 25, 10, 10);
g.fillRoundRect(535, 110, 11, 25, 10, 10);

g.setColor(Color.pink);
g.fillArc(488, 90, 20, 45, 0, 360);
g.fillArc(547, 90, 20, 45, 0, 360);
g.fillRoundRect(494, 114, 15, 15, 1, 1);
g.fillRoundRect(546, 114, 15, 15, 1, 1);
g.fillRoundRect(518, 110, 19, 22, 10, 10);

g.setColor(Color.black);
g.fillArc(411, 82, 80, 25, 0, -90);
g.fillArc(564, 82, 74, 25, 180, 90);
g.fillRoundRect(512, 65, 30, 12, 20, 20);

g.setColor(Color.red);
g.fillRoundRect(512, 95, 3, 40, 1, 1);
g.fillRoundRect(540, 95, 3, 40, 1, 1);
g.fillRoundRect(512, 90, 31, 15, 1, 1);

g.setColor(Color.white);
g.fillRoundRect(512, 75, 30, 12, 22, 22);
g.fillRoundRect(513, 87, 30, 7, 25, 25);
g.fillRoundRect(515, 102, 25, 22, 10, 10);

g.setColor(Color.pink);
g.fillRoundRect(518, 110, 19, 22, 10, 10);

g.setColor(Color.blue);
g.drawLine(513, 137, 513, 95);
g.drawLine(513, 95, 526, 97);
g.drawLine(526, 97, 541, 95);
g.drawLine(541, 137, 541, 95);

g.setColor(Color.green);
g.drawLine(514, 137, 514, 94);
g.drawLine(514, 96, 526, 98);
g.drawLine(526, 98, 540, 96);
g.drawLine(540, 137, 540, 94);

Color col3 = new Color(136, 95, 5); //canes
g.setColor(col3);
g.fillRoundRect(519, 77, 19, 14, 5, 5);
g.fillRoundRect(517, 85, 19, 5, 2, 2);
g.drawLine(526, 79, 526, 75);
g.drawLine(527, 79, 527, 75);

```

```

g.drawLine(175, 99, 175, 103);
g.drawLine(176, 99, 176, 103);

g.setColor(Color.lightGray);
g.fillRect(451, 115, 45, 25);
g.fillRect(556, 115, 45, 25);
g.fillRoundRect(485, 107, 10, 30, 10, 10);
g.fillRoundRect(557, 109, 10, 30, 10, 10);
g.setColor(Color.pink);
g.fillArc(411, 95, 80, 25, 0, -90);
g.fillArc(564, 95, 74, 25, 180, 90);

g.setColor(Color.gray);
g.drawLine(451, 137, 600, 137);

g.setFont(new Font("Courier
New", Font.BOLD, 20));
g.drawString("TOP VIEW", 130, 25);
g.drawString("CROSS-SECTION
VIEW", 420, 25);

g.fillRoundRect(351, 205, 347, 57, 5, 5);
g.fillRoundRect(2, 205, 347, 57, 5, 5);
g.setColor(Color.white);
g.setFont(new Font("Courier
New", Font.BOLD, 15));
g.drawString("Hand
Position: (" + x2 + ", " + y2 + ")", 5, 230);
g.drawString(string5, 245);
g.drawString(string2, 145, 245);
g.drawString("Amalgam Container", 560, 220);
g.drawString("CaOH Container", 545, 220);

g.setColor(Color.black);
g.drawLine(325, 210, 525, 257);

g.setColor(Color.white);
g.fillRoundRect(426, 225, 35, 35, 5, 5);
g.fillRect(423, 225, 41, 3);
g.fillRoundRect(590, 225, 35, 35, 5, 5);
g.fillRect(587, 225, 41, 3);

g.setColor(Color.lightGray);
g.fillRect(428, 230, 31, 27);
g.setColor(Color.yellow);
g.fillRect(592, 230, 31, 27);

int np = lines.size();

/* draw the current lines */
g.setColor(getForegroundColor());
for (int i=0; i < np; i++) {
    Rectangle p = (Rectangle)lines.elementAt(i);
    Rectangle p2 = (Rectangle)lines2.elementAt(i);
    g.setColor((Color)colors.elementAt(i));
    /*if (watercheck==1) {

        if((Color)colors.elementAt(i)==Color.gray) { g.set
Color(Color.lightGray);} else { g.setColor((Color)colors.eleme
ntAt(i));}

    } else { g.setColor((Color)colors.elementAt(i)); */
    //////////////////////////////////////

    if((Color)colors.elementAt(i)==Color.red) {
        lines5.addElement(new Rectangle(p.x, p.y, -1, -
));)
    }
    //////////////////////////////////////
    if (pasta==1) {

        g.setColor(Color.gray);
        g.fillArc(p.x, p.y, 5, 5, 0, 360);
        if (p2.y < 95) { g.setColor(Color.black);
            if (pasta==1) {

                g.setColor(Color.gray);

                g.fillArc(p2.x+351, p2.y, 4, 4, 0, 360); //}}

                //////////////////////////////////////
                int np2 = lines3.size();
                for (int i=0; i < np2; i++) {
                    Rectangle p3 = (Rectangle)lines3.elementAt(i);
                    Rectangle p4 = (Rectangle)lines4.elementAt(i);

                    g.setColor((Color)colors2.elementAt(i));
                    /*if (watercheck==1) {

                        if((Color)colors.elementAt(i)==Color.gray) { g.set
Color(Color.lightGray);} else { g.setColor((Color)colors2.eleme
ntAt(i));}

                    } else { g.setColor((Color)colors2.elementAt(i)); */
                    if (pasta==1) {

                        g.setColor(Color.gray);
                        g.fillArc(p3.x, p3.y, 5, 5, 0, 360);

                        if (p4.y < 89) { g.setColor(Color.black);
                            if (pasta==1) {

                                g.setColor(Color.gray);

                                g.fillArc(p4.x+351, p4.y, 4, 4, 0, 360); //}}

                                //////////////////////////////////////
                                int np3 = lines5.size();
                                for (int i=0; i < np3; i++) {
                                    Rectangle p5 = (Rectangle)lines5.elementAt(i);
                                    g.setColor(Color.red);

                                    if (pasta==1) {

                                        g.setColor(Color.gray);

                                        g.fillArc(p5.x, p5.y, 5, 5, 0, 360);
                                        //////////////////////////////////////

                                        if (cx==1) {

                                            int np5 = lines8.size();
                                            for (int i=0; i < np5; i++) {
                                                Rectangle p8 = (Rectangle)lines8.elementAt(i);
                                                Rectangle p9 = (Rectangle)lines9.elementAt(i);
                                                g.setColor(Color.yellow);

                                                if (pasta==1) {

                                                    g.setColor(Color.gray);

                                                    g.fillArc(p8.x, p8.y, 5, 10, 0, 360);
                                                    //g.fillArc(p8.x, 100, 5, 5, 0, 360);
                                                    //g.fillArc(p8.x, 103, 5, 5, 0, 360);
                                                    if (p9.y > 75) { g.setColor(Color.yellow);
                                                        g.fillArc(p9.x+351, p9.y, 5,
5, 0, 360); //}}

                                                        //////////////////////////////////////

                                                    if (polish==1) {

                                                        int np4 = lines6.size();
                                                        for (int i=0; i < np4; i++) {
                                                            Rectangle p6 = (Rectangle)lines6.elementAt(i);
                                                            Rectangle p7 = (Rectangle)lines7.elementAt(i);
                                                            g.setColor(Color.white);

```

```

//g.fillArc(p6.x, p6.y, 10, 10, 0, 360);
if(p7.y<89) { g.setColor(Color.black);
               g.fillArc(p7.x+351, p7.y-2,
4, 4, 0, 360); }

//if(p7.y>95) {
//ouch("You are over polishing.\nYou
cannot do further polishing on this area.\n".Advisory
(OTSPFDC)",Color.white,10,75);
//}}}
////////////////////////////////////
////////////////////////////////////
int ij=185,ji=165,xy=1,counter=0;
if(pasta==1) {
    g.setColor(Color.gray);
    for(int i=90;i<110;i=i+5){
        for(int j=ji<ij;j=j+5){
            if(excess[counter]==1) {
                g.fillArc(i, j, 7, 7, 0, 360); counter++; xy++;
            if(xy==1) {ij=185;ji=165;}
            if(xy==2) {ij=190;ji=160;}
            if(xy==3) {ij=190;ji=160;}
            if(xy==4) {ij=185;ji=165;}}
        }

//if (mode == LINES) {
//    g.setColor(getForegroundColor());
//    if (x2 != -1) {
//        g.drawLine(x1, y1, x2, y2);
//    }
//}

class DrawControls extends JPanel implements ItemListener,
ActionListener, MouseListener {
    DrawPanel target;

    Button ok,ok2,ok3,ok4,ok5,ok6;int target2,target3;int[]
equipmentchecker=new int[6],double amarea;

    public DrawControls(DrawPanel target) {
        this.target = target;
        setLayout(new FlowLayout());
        setBackground(Color.lightGray);
        target.setForeground(Color.white);

        for(int i=0;i<5;i+4) {
            equipmentchecker[i]=0;}
        protected static ImageIcon createImageIcon(String path) {
            java.net.URL imgURL =
            DrawControls.class.getResource(path);
            //error handling omitted for clarity...
            return new ImageIcon(imgURL);}

        void goodbye() {
            InstructionFrame notes = new
            InstructionFrame(Color.white,20,75,"Simulation
            Examination (OTSPFDC)");
            ImageIcon image2 = new
            ImageIcon(getClass().getResource("cursors/logo3.gif"),
            "teeth2.gif");
            Image image = image2.getImage();
            notes.setIconImage(image);
            notes.display("Online Training System for Pit
            Fissure Dental Caries Tuano 2005\n\n\n\n");
            notes.display("Welcome!\n\n");
            notes.display("Each button acts a different dental
            equipment.\n\n");
            notes.display("Each one has its own special use.\n\n\n");

            notes.display("Choose Among the Buttons on the Lower
            Panel to Start.\n");
            notes.display("There will be pop-up advisory windows to
            help you work properly.\n");
            notes.display("Please take note of these advisories.\n");
            notes.display("Then choose finish to end the
            training.\n\n");
            notes.display("The buttons are as follows:\n");
            notes.display("Drill: point to the top-view tooth surface
            then click to drill(hold down ctrl key)\n");
            notes.display("Excavator: remove caries by clicking on
            the drilled area\n");
            notes.display("Carrier: used to apply amalgam, get some
            amalgam from container then click on tooth\n");
            notes.display("Polisher: point to the top-view tooth
            surface then click to polish(hold down shift key)\n");
            notes.display("Spatula: used to apply CaOH, get some
            CaOH from container then click on tooth\n");
            notes.display("Air/Water Spray: Point to the top-view
            tooth surface then click to spray (hold down ctrl key)\n");
            notes.show(); }

            String
            equip="",equip2="",equip3="",equip4="",equip5="",equip6=
            "",int check=0;

```

```

            if(equipmentchecker[0]==0) { equip="
            drill";check+=1;}
            if(equipmentchecker[1]==0) { equip2="
            excavator";check+=1;}
            if(equipmentchecker[2]==0) { equip3="
            carrier";check+=1;}
            if(equipmentchecker[3]==0) { equip4="
            polisher";check+=1;}
            if(equipmentchecker[4]==0) { equip5="
            spatula";check+=1;}
            if(equipmentchecker[5]==0) { equip6="
            air/water spray";check+=1;}
            if(check==1) {
                notes.display("\nYou did not use the following
            equipment/s.\n");
                if(equipmentchecker[0]==0) {
                    notes.display("\n"+equip);
                }
                if(equipmentchecker[1]==0) {
                    notes.display("\n"+equip2);
                }
                if(equipmentchecker[2]==0) {
                    notes.display("\n"+equip3);
                }
                if(equipmentchecker[3]==0) {
                    notes.display("\n"+equip4);
                }
                if(equipmentchecker[4]==0) {
                    notes.display("\n"+equip5);
                }
                if(equipmentchecker[5]==0) {
                    notes.display("\n"+equip6);
                }
                if(check==0) {
                    notes.display("\nYou have used all equipments\n");
                    notes.show(); }

            void instruction() {
                InstructionFrame notes = new
                InstructionFrame(Color.white,30,85,"Simulation
                Examination Instructions (OTSPFDC)");
                ImageIcon image2 = new
                ImageIcon(getClass().getResource("cursors/logo3.gif"),
                "teeth2.gif");
                Image image = image2.getImage();
                notes.setIconImage(image);
                notes.display("Online Training System for Pit
                Fissure Dental Caries Tuano 2005\n\n\n\n");
                notes.display("Welcome!\n\n");
                notes.display("Each button acts a different dental
                equipment.\n\n");
                notes.display("Each one has its own special use.\n\n\n");

                notes.display("Choose Among the Buttons on the Lower
                Panel to Start.\n");
                notes.display("There will be pop-up advisory windows to
                help you work properly.\n");
                notes.display("Please take note of these advisories.\n");
                notes.display("Then choose finish to end the
                training.\n\n");
                notes.display("The buttons are as follows:\n");
                notes.display("Drill: point to the top-view tooth surface
                then click to drill(hold down ctrl key)\n");
                notes.display("Excavator: remove caries by clicking on
                the drilled area\n");
                notes.display("Carrier: used to apply amalgam, get some
                amalgam from container then click on tooth\n");
                notes.display("Polisher: point to the top-view tooth
                surface then click to polish(hold down shift key)\n");
                notes.display("Spatula: used to apply CaOH, get some
                CaOH from container then click on tooth\n");
                notes.display("Air/Water Spray: Point to the top-view
                tooth surface then click to spray (hold down ctrl key)\n");
                notes.show(); }

            void drill() {

```

```

InstructionFrame notes = new
InstructionFrame(Color.white,15,85,"Simulation
Examination Instructions (OTSPFDC)");
ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/logo3.gif"),
"teeth2.gif");
Image image = image2.getImage();
notes.setIconImage(image);
notes.display("DRILL\n\n");
notes.display("Point to the top-view tooth surface then
click to drill (hold down ctrl key)\n");
notes.display("Ctrl key acts like the foot switch, drill
won't work without it.\n");
notes.show();

void excavator() {
InstructionFrame notes = new
InstructionFrame(Color.white,15,85,"Simulation
Examination Instructions (OTSPFDC)");
ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/logo3.gif"),
"teeth2.gif");
Image image = image2.getImage();
notes.setIconImage(image);
notes.display("EXCAVATOR\n\n");
notes.display("Remove caries by clicking on the drilled
area\n");
notes.show();

void carrier() {
InstructionFrame notes = new
InstructionFrame(Color.white,15,85,"Simulation
Examination Instructions (OTSPFDC)");
ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/logo3.gif"),
"teeth2.gif");
Image image = image2.getImage();
notes.setIconImage(image);
notes.display("CARRIER\n\n");
notes.display("Used to apply amalgam, get some
amalgam from container then click on tooth\n");
notes.show();

void polisher() {
InstructionFrame notes = new
InstructionFrame(Color.white,15,85,"Simulation
Examination Instructions (OTSPFDC)");
ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/logo3.gif"),
"teeth2.gif");
Image image = image2.getImage();
notes.setIconImage(image);
notes.display("POLISHER\n\n");
notes.display("Point to the top-view tooth surface then
click to polish(hold down shift key)\n");
notes.display("Shift key acts like the foot switch, polisher
won't work without it.\n");
notes.show();

void spatula() {
InstructionFrame notes = new
InstructionFrame(Color.white,15,85,"Simulation
Examination Instructions (OTSPFDC)");
ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/logo3.gif"),
"teeth2.gif");
Image image = image2.getImage();
notes.setIconImage(image);
notes.display("SPATULA\n\n");

```

```

notes.display("Used to apply CaOH, get some CaOH
from container then click on tooth\n");
notes.show();

void water() {
InstructionFrame notes = new
InstructionFrame(Color.white,15,85,"Simulation
Examination Instructions (OTSPFDC)");
ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/logo3.gif"),
"teeth2.gif");
Image image = image2.getImage();
notes.setIconImage(image);
notes.display("WATER\n\n");
notes.display("Point to the top-view tooth surface then
click to spray (hold down ctrl key)\n");
notes.display("Ctrl key acts like the foot switch, drill
won't work without it.\n");
notes.show();

public void mouseExited(MouseEvent e) {}
public void mouseEntered(MouseEvent e) {}
public void mouseClicked(MouseEvent e) {}

public void mouseReleased(MouseEvent e) {}

public void mousePressed(MouseEvent e) {
if((e.getModifiers() &
InputEvent.BUTTON2_MASK) != 0){
goodbye();}

public void actionPerformed(ActionEvent e){
String s=e.getActionCommand();

if((e.getModifiers() &
InputEvent.ALT_MASK) != 0){

if(s.equals("button")){
drill();}

if(s.equals("button2")){
excavator();}

if(s.equals("button3")){
carrier();}

if(s.equals("button4")){
polisher();}

if(s.equals("button5")){
spatula();}

if(s.equals(" Water ")){
water();}

if(s.equals("button")){
target.setForeground(Color.blue);
Toolkit toolkit =
Toolkit.getDefaultToolkit();
ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/drill.gif"),
"teeth2.gif");
Image image =
image2.getImage();
Cursor cursor =
toolkit.createCustomCursor(image, new Point(0,0), "img");
target.setCursor(cursor);
if(s.equals("button2")){

```

```

        target.setForeground(Color.red);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/excavator.gif"),
"teeth2.gif");
        Image image =
Cursor cursor =
toolkit.createCustomCursor(image, new Point(2,20), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);
        if(s.equals("button3")){
        target.setForeground(Color.yellow);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/carer.gif"),
"teeth2.gif");
        Image image =
Cursor cursor =
toolkit.createCustomCursor(image, new Point(4,24), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);
        if(s.equals("button4")){
        target.setForeground(Color.gray);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/polish.gif"),
"teeth2.gif");
        Image image =
Cursor cursor =
toolkit.createCustomCursor(image, new Point(0,0), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);
        if(s.equals("button5")){
        target.setForeground(Color.orange);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/spawla.gif"),
"teeth2.gif");
        Image image =
Cursor cursor =
toolkit.createCustomCursor(image, new Point(0,0), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);
        if(s.equals(" Water ")){
        target.setForeground(Color.black);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/water.gif"),
"teeth2.gif");
        Image image =

```

```

Cursor cursor =
toolkit.createCustomCursor(image, new Point(0,0), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);
        if(s.equals(" Finished ")){
        target.setForeground(Color.green);
        Cursor cursor = new
Cursor(0),
        target.setCursor(cursor);int
temp,
        for(int i=166;i<186;i++) {
            for(int
j=96;j<104;j++) {
                if((target.h2[i][j]>8)){target.area=target.area+10;}
                else {target.area=target.area+(target.h2[i][j]-75);}
            }}target.area=(target.area/1600)*100;target2=(int)
target.area;if(target.watercheck==0){if(target2>5){target2=ta
rget2-5;}}
            for(int i=0,i<6;i++){
                if(target.equipment[i]==1){equipmentchecker[i]=
1;}}
                amarea=0,
                for(int i=0;i<49;i++){
                    if(target.excess[i]==0){amarea++;}
                }target3=(int)((amarea/20)*100);
                goodbye();
                ok.setEnabled(false);
                ok2.setEnabled(false);
                ok3.setEnabled(false);
                ok4.setEnabled(false);
                ok5.setEnabled(false);
                ok6.setEnabled(false);
                if(s.equals(" Inst ")){
                    instruction();}}
        public void paint(Graphics g){
            Rectangle r = getBounds();
            g.setColor(Color.lightGray);
            g.draw3DRect(0, 0, r.width, r.height, true);
            int n = getComponentCount();
            for(int i=0, i<n; i++) {
                Component comp = getComponent(i);
                if (comp instanceof Checkbox) {
                    Point loc = comp.getLocation();
                    Dimension d = comp.getSize();
                    g.setColor(comp.getForeground());
                    g.drawRect(loc.x-1, loc.y-1, d.width+1,
d.height+1;)} )}
        }
    }
}
Tuanomed.java
import javax.swing.*;
import javax.swing.event.*;
import javax.swing.text.*;
import javax.swing.border.*;
import javax.swing.colorchooser.*;

```

```

import javax.swing.filechooser.*;
import javax.accessibility.*;

import java.awt.*;
import java.awt.event.*;
import java.awt.Component;
import java.awt.Toolkit;
import java.awt.Cursor;
import java.beans.*;
import java.util.*;
import java.io.*;
import java.applet.*;
import java.net.*;
import java.util.Vector;

import java.applet.Applet;
import java.applet.AudioClip;
import java.util.Vector;
import java.util.Hashtable;
import java.util.Enumeration;
import java.net.URL;
import java.net.MalformedURLException;
import java.util.List;
import java.util.ArrayList;
import java.util.Iterator;

public class Tuanomed extends Applet{
    Guihit panel;
    Butones controls;
    Butones controls2; JPanel pane= new JPanel();
    JButton button = new JButton(new
ImageIcon(getClass().getResource("cursors/drillicon.gif"),
"teeth2.gif"));
    JButton button2 = new JButton(new
ImageIcon(getClass().getResource("cursors/excavicon.gif"),
"teeth2.gif"));
    JButton button3 = new JButton(new
ImageIcon(getClass().getResource("cursors/caricon.gif"),
"teeth2.gif"));
    JButton button4 = new JButton(new
ImageIcon(getClass().getResource("cursors/polshicon.gif"),
"teeth2.gif"));
    JButton button5 = new JButton(new
ImageIcon(getClass().getResource("cursors/spaticon.gif"),
"teeth2.gif"));
    JButton button6 = new JButton("Finished");
    JButton button7 = new JButton(new
ImageIcon(getClass().getResource("cursors/watericon.gif"),
"teeth2.gif"));
    JButton button8 = new JButton("Help");

    public void init() {
        button.setToolTipText("Drill Press Alt+Click for
Help");
        button2.setToolTipText("Excavator Press
Alt+Click for Help");
        button3.setToolTipText("Carrier Press Alt+Click
for Help");
        button4.setToolTipText("Polisher Press
Alt+Click for Help");
        button5.setToolTipText("Spatula Press Alt+Click
for Help");
        button6.setToolTipText("Click when your
finished.");
        button7.setToolTipText("Air/Water Spray Press
Alt+Click for Help");
        button8.setToolTipText("Click to view
instruction.");
        setLayout(new BorderLayout());
        panel = new Guihit();

        controls = new Butones(panel);
        add("Center",panel);
        //add("South",controls);
        add("South",panel);
        button.addActionListener(controls);button.addActionListener
onCommand("button");
        button2.addActionListener(controls);button2.setA
ctionCommand("button2");
        button3.addActionListener(controls);button3.setA
ctionCommand("button3");
        button4.addActionListener(controls);button4.setA
ctionCommand("button4");
        button5.addActionListener(controls);button5.setA
ctionCommand("button5");
        button6.addActionListener(controls);button6.setA
ctionCommand("Finished");button6.setEnabled(false);
        button7.addActionListener(controls);button7.setA
ctionCommand("Water");
        button8.addActionListener(controls);button8.setA
ctionCommand("Inst");
        pane.add(button);
        pane.add(button2);
        pane.add(button3);
        pane.add(button4);
        pane.add(button5);
        pane.add(button7);
        pane.add(button6);
        pane.add(button8);
        instruction();
    }

    void instruction() {
        InstructionFrame notes = new
InstructionFrame(Color.white,30,85,"Simulation
Examination Instructions (OTS PFDC)");
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/logo3.gif"),
"teeth2.gif");
        image = image2.getImage();
        notes.setConImage(image);
        notes.display("Online Training System for Pit
Fissure Dental Caries Tuano 2005\n\n\n");
        notes.display("Welcome\n");
        notes.display("Each button acts a different dental
equipment\n");
        notes.display("Each one has its own special use\n\n");

        notes.display("Choose Among the Buttons on the Lower
Panel to Start\n");
        notes.display("There will be pop-up advisory windows to
help you work properly\n");
        notes.display("Please take note of those advisories\n");
        notes.display("Then choose finish to end the
training\n\n");
        notes.display("The buttons are as follows\n");
        notes.display("Drill: point to the top-view tooth surface
then click to drill(hold down ctrl key)\n");
        notes.display("Excavator: remove caries by clicking on
the drilled area\n");
        notes.display("Carrier: used to apply amalgam, get some
amalgam from container then click on tooth\n");
        notes.display("Polariser: point to the top-view tooth
surface then click to polish(hold down shift key)\n");
        notes.display("Spatula: used to apply CaOH, get some
CaOH from container then click on tooth\n");
        notes.display("Air/Water Spray: Point to the top-view
tooth surface then click to spray (hold down ctrl key)\n");
        notes.show();
    }

    public void play(String s) {
        play(getCodeBase(), s);
    }
}

```

```

public void destroy() {
    remove(panel);
    remove(controls);}

public static void main(String args[]) {
    Frame f = new Frame("DrawTest");
    TAnimator drawTest = new TAnimator();
    drawTest.init();
    drawTest.start();

    f.add("Center", drawTest);
    f.setSize(150, 150);
    f.show();}

public String getAppletInfo() {
    return "Simulation Examination".;}

```

class InstructionFramed extends Frame implements ActionListener {

```

    TextArea inst;
    Button cancel = new Button("Close");

```

```

InstructionFramed(Color c,int x,int y,String s) {
    super(s);
    Panel buttons = new Panel();
    add("Center", inst = new TextArea(x,y));
    inst.setBackground(c);
    inst.setEditable(false);
    add("South", buttons);
    buttons.add(cancel);
    cancel.addActionListener(this);
    pack();}

```

```

public void show() {
    inst.select(0,0);
    super.show();}

```

```

void display(String s) {
    inst.setFont(new Font("Courier
New",Font.BOLD,17));
    inst.append(s);}

```

```

public void actionPerformed(ActionEvent e) {
    setVisible(false);}

```

class Guhit extends Panel implements MouseListener,

```

MouseListener{
    public static final int LINES = 0;
    public static final int POINTS = 1;
    int mode = POINTS;
    Vector lines = new Vector();
    Vector lines2 = new Vector();
    Vector lines3 = new Vector();
    Vector lines4 = new Vector();
    Vector lines5 = new Vector();
    Vector lines6 = new Vector();
    Vector lines7 = new Vector();
    Vector lines8 = new Vector();
    Vector lines9 = new Vector();
    Vector colors = new Vector();
    Vector colors2 = new Vector();
    Vector colors3 = new Vector();
    int[] hh=new int[1000];
    int[] xpos=new int[1000];
    int[] ypos=new int[1000];
    int[] hh4=new int[10000];
    int[] hh3=new int[10000];
    int[] hh2=new int[10000];
    int[] hh5=new int[10000];

```

```

int[] max=new int[1000];
int[] max2=new int[1000];
int[] maxy=new int[1000];
int[] maxy2=new int[1000];
int[] max3=new int[1000];
int[] max4=new int[1000];
int[] fault=new int[3];
int[] excess=new int[50];
int[] equipment=new int[6];
int[] h2=new int[1000][1000];
int[] click=new int[1000][1000];
int x1,y1,h=75,ca=0,maxca=0,index;
int
x2,y2,pasta=0,polish=0,amcheck=0,cacheck=0,drill,polisher,f
inished=0;double area=0,water=0,watercheck=0;
String string,string2;

```

```

    public Guhit() {
        Color col = new Color(221, 235, 240);
        setBackground(col);
        addMouseListener(this);
        addMouseListener(this);

```

```

for(int i=0;i<999;i++){
    hh[i]=74;}
for(int i=0;i<9999;i++){
    hh3[i]=74;}
for(int i=0;i<9999,i++){
    hh4[i]=85;}
for(int i=0;i<9999,i++){
    hh2[i]=75;}
for(int i=0;i<9999,i++){
    hh5[i]=75;}
for(int i=0;i<999,i++){
    max[i]=0;}
for(int i=0;i<999,i++){
    max2[i]=0;}
for(int i=0;i<999,i++){
    maxy[i]=0;}
for(int i=0;i<999,i++){
    maxy2[i]=0;}
for(int i=0;i<999,i++){
    max3[i]=0;}
for(int i=0;i<999,i++){
    max4[i]=0;}
for(int i=0;i<2,i++){
    fault[i]=0;}
for(int i=0;i<49,i++){
    excess[i]=1;}
for(int i=0;i<5,i++){
    equipment[i]=0;}
for(int i=0;i<999,i++){
    for(int j=0;j<999,j++){
        h2[i][j]=75;}}
for(int i=0;i<999,i++){
    for(int j=0;j<999,j++){
        click[i][j]=75;}}}

```

```

public void setDrawMode(int mode) {
    switch (mode) {
        case LINES:
        case POINTS:
            this.mode = mode;
            break;
        default:
            throw new IllegalArgumentException();}
}

```

```

void ouch(String s,String s2,Color c,int x,int y) {

```



```

        ImageIcon image2 = new
        ImageIcon(getClass().getResource(" cursors/logo3.gif"),
        "teeth2.gif");
        Image image = image2.getImage();
        InstructionFrame notes = new
        InstructionFrame(e, x, y, s2);
        notes.setIconImage(image);
        notes.display(s+"v");
        notes.show();

        void chcursor(String s) {Point p;
        if(s=="carrier2.gif" ||
        s=="camer.gif") {p = new Point(3,22);} else {p = new
        Point(0,0);}

        Toolkit toolkit =
        Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
        ImageIcon(getClass().getResource(" cursors/" +s),
        "teeth2.gif");
        Image image =
        image2.getImage();
        Cursor cursor =
        toolkit.createCustomCursor(image, p, "img");
        this.setCursor(cursor);}

        public void mouseDragged(MouseEvent e) {
        if(finished==1){
        e.consume();
        x1 = e.getX();
        y1 = e.getY();
        if(x1>150 && x1<200 && y1>85 &&
        y1<120){

        if(getForeground()==Color.black){equipment[5]=
        1;if(pastal=1){watercheck=1;}
        if((e.getModifiers() &
        InputEvent.CTRL_MASK) != 0) {
        if(water==0){
        chcursor("water2.gif");water=1;} else
        {chcursor("water.gif");water=0;} chcursor("water.gif");water
        =0;}}}}

        if(finished==1){ouch("You already
        have clicked finish.\nYou cannot do further revisions.\nYou
        need to reload the exam.\nThank You!\n", "A dvisory
        (OTSPFDC)",Color.white,10,75);}

        public void mouseMoved(MouseEvent e) {
        e.consume();

        public void mousePressed(MouseEvent e) {

        if(finished==1){
        e.consume();
        x1 = e.getX();
        y1 = e.getY();
        x2 = e.getX();
        y2 = e.getY();

        if(getForeground()==Color.white){ouch("No
        Materials Chosen Yet!\nPlease choose among the available
        buttons on the panel to start.\n", "A dvisory
        (OTSPFDC)",Color.yellow,10,75);} else
        if(x1>150 && x1<200 && y1>85 &&
        y1<120){

        if((e.getModifiers() &
        InputEvent.CTRL_MASK) != 0) {
        if(getForeground()==Color.blue){

```

```

        if(pastal=1 && cal=1){

        if(drill==0){
        chcursor("drill2.gif");drill=1;} else
        {chcursor("drill.gif");drill=0;}
        equipment[0]=1;
        Color col3 = new Color(136, 95, 3);
        for(int i=x1-
        2,i<x1+3;i++){//updates all points within arc
        for(int j=y1-
        2,j<y1+3;j++){

        h2[i][j]=h2[i][j]+2;
        }}

        for(int i=0;i<999;i++){//gets max
        clicks for column x1

        if(max[x1]<h2[x1][i]){
        max[x1]=h2[x1][i];}

        for(int i=0;i<999;i++){//gets max
        clicks for row y1

        if(maxy[y1]<h2[i][y1]){
        maxy[y1]=h2[i][y1];}

        lines.addElement(new Rectangle(e.getX(),
        e.getY(), -1, -1));
        lines2.addElement(new Rectangle(x1, hh[x1], -1, -
        1));

        if(max[x1]>max2[x1]){//updates
        height of column x1

        hh[x1]=hh[x1]+2,
        max2[x1]=max[x1];

        if(maxy[y1]>maxy2[y1]){//updates
        height of row y1

        hh2[y1]=hh2[y1]+2,
        maxy2[y1]=maxy[y1];}

        if(x1>172 && x1<187 && y1>96
        && y1<105){

        int
        stat=0,count=0,count2=0;
        for(int i=x1-2;i<x1+3;i++){
        for(int j=y1-
        2;j<y1+3;j++){

        if((hh[i]+2>90) && (hh2[j]+2>90)){
        //if(h2[i][j]+2>90){

        stat=1,
        //count=count++;
        }}}
        for(int i=x1-2;i<x1+3;i++){
        for(int j=y1-
        2;j<y1+3;j++){

        if((hh[i]+2>90) && (hh2[j]+2>90)){
        //if(h2[i][j]+2>90){

```

```

stat=2;

//count2=count2++;}}

//if(count>3){stat=1;}else

//if(count>5){stat=2;}

if(stat==1){ colors.addElement(Color.lightGray);}
else
if(stat==2){ colors.addElement(Color.red);fault[0]++;ouch("
OUCH!That hurts!\nYou should not drill through the
pulp.\nBe careful with the drilling.", "Patient
(OTSPFDC)",Color.red,10,75);}else{ colors.addElement(col3
);}

} else{int stat=0;
for(int i=x1-2;i<x1+3;i++){
for(int j=y1-
2;j<y1+3;j++){

if((hh[i]+2>93)&&(hh2[j]+2>93)){

stat=2;}}
if(stat==2){ colors.addElement(Color.red);fault[0]++;ouch("
OUCH!That hurts!\nYou should not drill through the
pulp.\nBe careful with the drilling.", "Patient
(OTSPFDC)",Color.red,10,75);}else{

colors.addElement(Color.gray);}
x1 = e.getX();
y1 = e.getY();//pasta=0,checkboxor(" drill.gif");

} else{ ouch("Wrong
Procedure!\nYou must make sure that all caries is removed
first\nbefore applying CaOH or amalgam.\nYou can't use
drill anymore.", "A advisory
(OTSPFDC)",Color.yellow,10,75);fault[2]++;}

}

if(getForeground()==Color.red){
if(pasta=1 && cal=1){
if(x1>171 && x1<185 && y1>95
&& y1<104){

if(h2[x1][y1]>75){

equipment[1]=1;
Color col3 = new Color(136, 95, 5);
for(int i=x1-
1;i<x1+1;i++){//updates all points within arc
for(int j=y1-
1;j<y1+1;j++){

h2[i][j]=h2[i][j]+2;}}

for(int i=0;i<999;i++){//gets max
clicks for column x1

if(max[x1]<h2[x1][i]){

max[x1]=h2[x1][i];}}

for(int i=0;i<999;i++){//gets max
clicks for row y1

if(maxy[y1]<h2[i][y1]){

```

```

maxy[y1]=h2[i][y1];}}

lines3.addElement(new Rectangle(e.getX(),
e.getY(), -1, -1)),
lines4.addElement(new Rectangle(x1, hh[x1], -1, -
1));

if(max[x1]>max2[x1]){//updates
height of column x1

hh[x1]=hh[x1]+2,

max2[x1]=max[x1];

if(maxy[y1]>maxy2[y1]){//updates
height of row y1

hh2[y1]=hh2[y1]+2,

maxy2[y1]=maxy[y1];

int stat=0,
for(int i=x1-1,i<x1+1;i++){
for(int j=y1-
1,j<y1+1,j++){

if((hh[i]+2>87)&&(hh2[j]+2>87)){

stat=2,

}}}
if(stat==2){ colors2.addElement(Color.gray);}else{

colors2.addElement(col3);}

for(int i=0;i<999;i++){
if(hh[i]>85){
hh[i]=85;}}

x1 = e.getX(),
y1 = e.getY();//pasta=0;

} else{ ouch("You need to
drill-off enamel first.", "A advisory
(OTSPFDC)",Color.yellow,10,75);fault[2]++;}
} //polish=1;
} else{ ouch("Wrong Procedure!\nYou
must make sure that all caries is removed first\nbefore
applying CaOH or amalgam.\nYou can't use excavator
anymore.", "A advisory
(OTSPFDC)",Color.yellow,10,75);fault[2]++;}

if(getForeground()==Color.yellow){
if(pasta=1){
if(h2[x1][y1]>75){
if(cache=1){string2 =
"Can't use CaOH.", ouch("Use a spatula for CaOH
instead.", "A advisory (OTSPFDC)",Color.yellow,10,75),}

if(amcheck=1){checkboxor(" carrier.gif");

pasta=1;amcheck=0;cache=0;
equipment[2]=1;}

} else{fault[2]++;ouch("You need to drill-off
enamel first.", "A advisory
(OTSPFDC)",Color.yellow,10,75);}

} else{fault[2]++;ouch("Wrong Procedure!\nYou
are putting too much amalgam.", "A advisory
(OTSPFDC)",Color.yellow,10,75);}

```

```

        if ((e.getModifiers() &
InputEvent.SHIFT_MASK) != 0) {
            if (getForeground() == Color.gray) {
                if (pasta == 1) {

                    if (polisher == 0) {

                        chcursor("polish2.gif"); polisher = 1; } else
{ chcursor("polish.gif"); polisher = 0; }
                        // colors.addElement(Color.yellow);
                        polisher = 1;
                        equipment[3] = 1;

                        for (int
i = 0; i < 999; i++) { // gets max clicks for column x1

                            if (max3[x1] < h2[x1][i]) {

                                max3[x1] = h2[x1][i];
                                lines6.addElement(new Rectangle(e.getX(),
e.getY(), -1, -1));
                                lines7.addElement(new Rectangle(x1, h3[x1], -1,
-1));

                                if (max[x1] > max2[x1]) { // updates height of column x1

                                    h3[x1] = h3[x1] + 2;

                                    max4[x1] = max3[x1];
                                }
                                ///////////////////////////////////////////////////
                                int ij = 185, ji = 165, xy = 1, counter = 0;
                                for (int i = 90; i < 110; i += 5) {
                                    for (int j = ij; j < ji; j += 5) {
                                        if ((y1) >= j) && (y1 <= j + 5) && (x1 >= j) &&
(x1 <= j + 5)) {
                                            excess[counter] = 0;
                                            if (h3[counter] > 77) {
                                                ouch("You are over polishing. You
cannot do further polishing on this area.\n", "Advisory
(OTSPFDC)", Color.white, 10, 75);
                                                fault[2]++;
                                            }
                                            } counter++; } xy++;
                                            if (xy == 1) { ij = 185; ji = 165; }
                                            if (xy == 2) { ij = 190; ji = 160; }
                                            if (xy == 3) { ij = 190; ji = 160; }
                                            if (xy == 4) { ij = 185; ji = 165; }
                                        }
                                }
                                ///////////////////////////////////////////////////
                                } else { fault[2]++; ouch("You need to
apply amalgam first.", "Advisory
(OTSPFDC)", Color.yellow, 10, 75); }
                                }
                                ///////////////////////////////////////////////////
                                if (getForeground() == Color.orange) {
                                    if (pasta == 1) { if (amcheck == 1) { string2 =
"Can't use amalgam."; ouch("Use a carrier for amalgam
instead.", "Advisory (OTSPFDC)", Color.yellow, 10, 75); }
                                    if (cachec == 1) {
                                        x1 = e.getX();
                                        y1 = e.getY();

                                        if (ca == 0) {
                                            for (int
i = 0; i < 999; i++) {

                                                if (h4[i] > h2[i]) {

                                                    if (h4[i] > 95) {

```

```

                                                hh4[i] = 93; } else hh4[i] = hh4[i]; }

                                                if (h4[i] < h2[i]) {

                                                    if (h2[i] > 89) {

                                                        hh4[i] = 87; } else hh4[i] = h2[i]; } }

                                                maxca = hh4[x1];
                                                for (int i = x1 -
2; i < x1 + 2; i++) {

                                                    if (maxca < hh4[i]) { maxca = hh4[i]; index = i; }
                                                    }
                                                    // if (index > 81) {
                                                    if (hh4[x1] > 83) {
                                                        equipment[4] = 1;
                                                        lines8.addElement(new Rectangle(e.getX(),
e.getY(), -1, -1));
                                                        lines9.addElement(new Rectangle(x1, maxca, -1, -
1));

                                                        hh4[index] = hh4[index] -
2; ca = 1;

                                                        x1 = e.getX();
                                                        y1 =
e.getY(); cachec = 0, amcheck = 0; chcursor("spatula.gif"); } else
{ ouch("Application of CaOH is not needed in this case.\n The
hole is not near the pulp or there is no hole.", "Advisory
(OTSPFDC)", Color.yellow, 10, 75); fault[2]++; }
                                                        // else { ouch("Wrong
Procedure.\n Application of CaOH in this spot is not
allowed.\n The enamel is still intact.", "Advisory
(OTSPFDC)", Color.yellow, 10, 75); fault[2]++; }

                                                        } else { fault[2]++; ouch("Improper
procedure.\n You need to get some CaOH in the container
first.", "Advisory (OTSPFDC)", Color.yellow, 10, 75); } }

                                ///////////////////////////////////////////////////

                                if (getForeground() == Color.green) {

                                    thus.setForeground(Color.white); }
                                    repaint();

                                    } else if (x1 > 351 && x1 < 698 && y1 > 205 && y1 < 262) {

                                        if ((getForeground() == Color.yellow) ||
(getForeground() == Color.orange)) {
                                            if (e.getX() > 351 &&
e.getX() < 524 && e.getY() > 205 &&
e.getY() < 262) { string2 = "Got enough
amalgam."; amcheck = 1; cachec = 0; if (getForeground() == Color
yellow) { chcursor("carrier2.gif"); } } else { string2 = "Got some
CaOH."; cachec = 1; amcheck = 0; if (getForeground() == Color.o
range) { chcursor("spatula2.gif"); } } } else {
                                            ouch("You can't get the
following materials using this tool.\n Use a spatula or a carrier
instead.", "Dentist (OTSPFDC)", Color.yellow, 10, 75); }
                                            else
{ fault[1]++; ouch("You're missing the Spot.\n You should
click only on the tooth area.\n The only editable area is the
top-view.", "Advisory (OTSPFDC)", Color.yellow, 10, 75); }
                                            repaint(); }

                                            if (finished == 1) { ouch("You already
have clicked finish.\n You cannot do further revisions.\n You

```

```

need to reload the exam \nThank You!\n", "Advisory
(OTSPFDC)", Color.white, 10, 75);}

```

```

public void mouseReleased(MouseEvent e) {
    e.consume();
    switch (mode) {
        case LINES:
            if (x1 > 160 && x1 < 190 && y1 > 90 &&
y1 < 110) {
                colors.addElement(getForeground());
                lines.addElement(new Rectangle(x1, y1, e.getX()
e.getY()));
                lines2.addElement(new Rectangle(x1, hh[x1], -1, -
1));
                hh[x1] = hh[x1] + 1;
                x2 = -1;
                break;
            }
            case POINTS:
            default:
                break;
            repaint();
    }
}

```

```

public void mouseEntered(MouseEvent e) {
    if (getForeground() == Color.blue) {
        string = "Using drill
handpiece.";
        string2 =
        ""; cacheck=0; amcheck=0; chcursor("drill.gif"); drill=0;
        if (getForeground() == Color.red) {
            string = "Using excavator ";
            string2 =
            ""; cacheck=0; amcheck=0;
            if (getForeground() == Color.yellow) {
                string = "Using carrier.";
                string2 =
                "Empty"; cacheck=0; amcheck=0; chcursor("carrier.gif");
            }
            if (getForeground() == Color.gray) {
                string = "Using polisher.";
                string2 =
                ""; cacheck=0; amcheck=0; chcursor("polish.gif"); polisher=0;
            }
            if (getForeground() == Color.orange) {
                string = "Using spatula.";
                string2 =
                "Empty"; cacheck=0; amcheck=0; chcursor("spatula.gif");
            }
            if (getForeground() == Color.white) {
                string = "Empty Handed.";
                string2 =
                ""; cacheck=0; amcheck=0;
            }
            if (getForeground() == Color.green) {
                string = "Empty Handed.";
                string2 =
                ""; cacheck=0; amcheck=0; finished=1;
            }
            if (getForeground() == Color.black) {
                string = "Using Air/Water
Spray ";
                string2 =
                ""; cacheck=0; amcheck=0;
            }
            repaint();
        }
    }
}

```

```

public void mouseExited(MouseEvent e) {}

```

```

public void mouseClicked(MouseEvent e) {}

```

```

public void paint(Graphics g) {

```

```

    Color col = new Color(170, 221, 244);
    Color col2 = new Color(145, 187, 244);
    g.setColor(Color.black);
    g.fillRect(100, 100, 150, 75, true);

```

```

    g.setColor(col2);
    g.fillRect(0, 0, 350, 200, true);
    g.fillRect(351, 0, 350, 200, true);

```

```

    g.setColor(col);
    g.fillRect(50, 40, 250, 125);
    g.fillRect(401, 40, 250, 125);

```

```

    g.setColor(Color.black);
    g.fillRect(100, 65, 150, 75);
    g.fillRect(451, 65, 150, 75, true);

```

```

    g.setColor(Color.pink);
    g.fillRect(451, 97, 150, 43);
    g.fillArc(137, 79, 75, 45, 0, 360);

```

```

    g.setColor(Color.white);
    g.fillRoundRect(505, 75, 45, 50, 15, 15);

```

```

    //if(pasta==1){
    //g.setColor(Color.gray);
    //g.fillRoundRect(507, 70, 41, 50, 15, 15);
    }

```

```

    g.setColor(Color.pink);
    g.fillRoundRect(520, 106, 15, 25, 15, 15);

```

```

    g.setColor(Color.gray);
    g.fillArc(149, 84, 32, 24, 0, 360);
    g.fillArc(169, 84, 32, 24, 0, 360);
    g.fillArc(149, 96, 32, 24, 0, 360);
    g.fillArc(169, 96, 32, 24, 0, 360);

```

```

    g.setColor(Color.white);
    g.fillArc(150, 85, 30, 20, 0, 360);
    g.fillArc(170, 85, 30, 20, 0, 360);
    g.fillArc(150, 97, 30, 20, 0, 360);
    g.fillArc(170, 97, 30, 20, 0, 360);

```

```

    g.setColor(Color.red);
    g.fillArc(539, 92, 10, 15, 0, 360);
    g.fillArc(507, 92, 10, 15, 0, 360);

```

```

    g.setColor(Color.lightGray);
    g.drawArc(150, 85, 22, 15, 0, -90);
    g.drawArc(170, 97, 35, 27, 45, 135);

```

```

    g.setColor(Color.white);
    g.fillRoundRect(509, 110, 11, 25, 10, 10);
    g.fillRoundRect(535, 110, 11, 25, 10, 10);

```

```

    g.setColor(Color.pink);
    g.fillArc(488, 90, 20, 45, 0, 360);
    g.fillArc(547, 90, 20, 45, 0, 360);
    g.fillRoundRect(494, 114, 15, 15, 1, 1);
    g.fillRoundRect(546, 114, 15, 15, 1, 1);
    g.fillRoundRect(518, 110, 19, 22, 10, 10);

```

```

    g.setColor(Color.black);
    g.fillArc(411, 82, 80, 25, 0, -90);
    g.fillArc(564, 82, 74, 25, 180, 90);
    g.fillRoundRect(512, 65, 30, 12, 20, 20);

```

```

    g.setColor(Color.red);
    g.fillRoundRect(512, 95, 3, 40, 1, 1);
    g.fillRoundRect(546, 95, 3, 40, 1, 1);
    g.fillRoundRect(512, 90, 31, 15, 1, 1);

```

```

    g.setColor(Color.white);
    g.fillRoundRect(512, 75, 30, 12, 22, 22);
    g.fillRoundRect(513, 87, 30, 7, 25, 25);

```

```

g.fillRect(515, 102, 25, 22, 10, 10);

g.setColor(Color.pink);
g.fillRect(518, 110, 19, 22, 10, 10);

g.setColor(Color.blue);
g.drawLine(513, 137, 513, 95);
g.drawLine(513, 95, 526, 97);
g.drawLine(526, 97, 541, 95);
g.drawLine(541, 137, 541, 95);

g.setColor(Color.green);
g.drawLine(514, 137, 514, 94);
g.drawLine(514, 96, 526, 98);
g.drawLine(526, 98, 540, 96);
g.drawLine(540, 137, 540, 94);

Color col3 = new Color(136, 95, 5); //earies
g.setColor(col3);
g.fillRect(525, 77, 15, 12, 7, 7);
//g.fillRect(517, 85, 19, 5, 2, 2);
g.drawLine(531, 79, 531, 75);
g.drawLine(532, 79, 532, 75);

g.drawLine(180, 99, 180, 103);
g.drawLine(181, 99, 181, 103);

g.setColor(Color.lightGray);
g.fillRect(451, 115, 45, 25);
g.fillRect(556, 115, 45, 25);
g.fillRect(485, 107, 10, 30, 10, 10);
g.fillRect(557, 109, 10, 30, 10, 10);
g.setColor(Color.pink);
g.fillRect(411, 95, 30, 25, 0, -90);
g.fillRect(564, 95, 74, 25, 180, 90);

g.setColor(Color.gray);
g.drawLine(451, 137, 600, 137);

g.setFont(new Font("Courier
New", Font.BOLD, 20));
g.drawString("TOP VIEW", 130, 25);
g.drawString("CROSS-SECTION
VIEW", 420, 25);

g.fillRect(351, 205, 347, 57, 5, 5);
g.fillRect(2, 205, 347, 57, 5, 5);
g.setColor(Color.white);
g.setFont(new Font("Courier
New", Font.BOLD, 15));
g.drawString("Hand
Position: (" + x2 + ", " + y2 + ")", 5, 230);
g.drawString(string5, 245);
g.drawString(string2, 145, 245);
g.drawString("Amalgam Container", 365, 220);
g.drawString("CaOH Container", 545, 220);

g.setColor(Color.black);
g.drawLine(525, 210, 525, 237);

g.setColor(Color.white);
g.fillRect(426, 225, 35, 35, 5, 5);
g.fillRect(423, 225, 41, 3);
g.fillRect(590, 225, 35, 35, 5, 5);
g.fillRect(587, 225, 41, 3);

g.setColor(Color.lightGray);
g.fillRect(428, 230, 31, 27);
g.setColor(Color.yellow);

```

```

g.fillRect(592, 230, 31, 27);

int np = lines.size();

/* draw the current lines */
g.setColor(getForeground());
for (int i=0; i < np; i++) {
    Rectangle p = (Rectangle)lines.elementAt(i);
    Rectangle p2 = (Rectangle)lines2.elementAt(i);
    g.setColor((Color)colors.elementAt(i));

    if((Color)colors.elementAt(i) == Color.red {
        lines5.addElement(new Rectangle(p.x, p.y, -1, -
    ));
}

if(pasta==1) {
    g.setColor(Color.gray);
    g.fillRect(p.x, p.y, 5, 5, 0, 360);
    if(p2.y < 95) { g.setColor(Color.black);
        if(pasta==1) {

g.setColor(Color.gray);

g.fillRect(p2.x+351, p2.y, 4, 4, 0, 360);
}

}

int np2 = lines3.size();
for (int i=0; i < np2; i++) {
    Rectangle p3 = (Rectangle)lines3.elementAt(i);
    Rectangle p4 = (Rectangle)lines4.elementAt(i);
    g.setColor((Color)colors2.elementAt(i));

    if(pasta==1) {
        g.setColor(Color.gray);
        g.fillRect(p3.x, p3.y, 5, 5, 0, 360);
        /*if(getForeground() == Color.red ||

polish==1) {
        if(p2.y < 89) { g.setColor(Color.black);
            if(pasta==1) {

g.setColor(Color.gray);

g.fillRect(p4.x+351, p4.y, 4, 4, 0, 360);
} else {
    if(p4.y < 85) { g.setColor(Color.black);
        if(pasta==1) {

g.setColor(Color.gray);

g.fillRect(p4.x+351, p4.y, 4, 4, 0, 360);
}

}

int np3 = lines5.size();
for (int i=0; i < np3; i++) {
    Rectangle p5 = (Rectangle)lines5.elementAt(i);
    g.setColor((Color)red);
    if(pasta==1) {

g.setColor(Color.gray);

g.fillRect(p5.x, p5.y, 5, 5, 0, 360);

}

if(ca==1) {
    int np5 = lines8.size();
    for (int i=0; i < np5; i++) {
        Rectangle p8 = (Rectangle)lines8.elementAt(i);
        Rectangle p9 = (Rectangle)lines9.elementAt(i);
        g.setColor(Color.yellow);
        if(pasta==1) {

```

```

        g.setColor(Color.gray);
        g.fillArc(p8.x, p8.y, 5, 10, 0, 360);
        //g.fillArc(p8.x, 100, 5, 5, 0, 360);
        //g.fillArc(p8.x, 103, 5, 5, 0, 360);
        if(p9.y>75) {g.setColor(Color.yellow);
            g.fillArc(p9.x+351, p9.y, 5,
5, 0, 360);}}
////////////////////////////////////

if(polish==1) {
    int np4 = lines6.size();
    for (int i=0; i < np4; i++) {
        Rectangle p6 = (Rectangle)lines6.elementAt(i);
        Rectangle p7 = (Rectangle)lines7.elementAt(i);
        g.setColor(Color.white);
        //g.fillArc(p6.x, p6.y, 10, 10, 0, 360);
        if(p7.y<89) {g.setColor(Color.black);
            g.fillArc(p7.x+351, p7.y-2,
4, 4, 0, 360);}}
////////////////////////////////////

int ij=185,ji=165,xy=1,counter=0;
if(pasta==1) {
    g.setColor(Color.gray);
    for(int i=90,i<110;i=i+5) {
        for(int j=i,j<110;j=j+5) {
            if(excess[counter]==1) {
                g.fillArc(i, j, 7, 0, 360); counter++; } xy++;
            if(xy==1) {ij=185,ji=165;}
            if(xy==2) {ij=190,ji=160;}
            if(xy==3) {ij=190,ji=160;}
            if(xy==4) {ij=185,ji=165;}} }

////////////////////////////////////

//if (mode == LINES) {
//    g.setColor(getForeground());
//    if (x2 != -1) {
//        g.drawLine(x1, y1, x2, y2);
//    }
//}

class Butones extends JPanel implements ItemListener,
ActionListener {
    Guihit target;
    Button ok,ok2,ok3,ok4,ok5,ok6;int target2,target3;int[]
equipmentchecker=new int[6];double amarea;

    public Butones(Guihit target) {
        this.target = target;
        setLayout(new FlowLayout());
        setBackground(Color.lightGray);
        target.setForeground(Color.white);

        for(int i=0;i<5;i++) {
            equipmentchecker[i]=0;}}

void goodbye() {
    InstructionFrame notes = new
InstructionFrame(Color.white,20,75,"Simulation
Examination (OTSPFDC)");
    ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/logo3.gif"),
"teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("Thank!: Goodbye!\nSummary:\nNumber of
times drilled through the pulp:" +target.fault[0]+" \nNumber
of times missed the tooth:" +target.fault[1]+" \nNumber of
times tools are incorrectly used:" +target.fault[2]+" \nCaries

```

```

Area Cleared:" +target2+"%" +'\nTooth Area
Polished " +target3+"%");

    String
equip="",equip2="",equip3="",equip4="",equip5="",equip6=
"";int check=0;
    if(equipmentchecker[0]==0) {equip="
drill",check=1;}
    if(equipmentchecker[1]==0) {equip2="
excavator",check=1;}
    if(equipmentchecker[2]==0) {equip3="
carrier",check=1;}
    if(equipmentchecker[3]==0) {equip4="
polisher",check=1;}
    //if(equipmentchecker[4]==0) {equip5="
sprayula",check=1;}
    if(equipmentchecker[5]==0) {equip6="
air/water spray",check=1;}
    if(check==1) {
        notes.display("\nYou did not use the following
equipment/s: \n");
        if(equipmentchecker[0]==0) {
            notes.display("\n"+equip);}
        if(equipmentchecker[1]==0) {
            notes.display("\n"+equip2);}
        if(equipmentchecker[2]==0) {
            notes.display("\n"+equip3);}
        if(equipmentchecker[3]==0) {
            notes.display("\n"+equip4);}
        //if(equipmentchecker[4]==0) {
            notes.display("\n"+equip5);}
        if(equipmentchecker[5]==0) {
            notes.display("\n"+equip6);}
        if(check==0) {
            notes.display("\nYou have used all equipments\n");
            notes.show();}

void instruction() {
    InstructionFrame notes = new
InstructionFrame(Color.white,30,85,"Simulation
Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/logo3.gif"),
"teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("Online Training System for Pit
Fissure Dental Caries Tuano 2005\n\n\n");
    notes.display("Welcome!\n");
    notes.display("Each button acts a different dental
equipment.\n");
    notes.display("Each one has its own special use.\n\n\n");

    notes.display("Choose Among the Buttons on the Lower
Panel to Start.\n");
    notes.display("There will be pop-up advisory windows to
help you work properly.\n");
    notes.display("Please take note of those advisories.\n");
    notes.display("Then choose finish to end the
training.\n");
    notes.display("The buttons are as follows.\n");
    notes.display("Drill: point to the top-view tooth surface
then click to drill(hold down ctrl key)\n");
    notes.display("Excavator: remove caries by clicking on
the drilled area\n");
    notes.display("Carrier: used to apply amalgam, get some
amalgam from container then click on tooth\n");
    notes.display("Polisher: point to the top-view tooth
surface then click to polish(hold down shift key)\n");
}

```

```

        notes.display("Spatula: used to apply CaOH, get some  

        CaOH from container then click on tooth\n");
        notes.display("Air/Water Spray: Point to the top-view  

        tooth surface then click to spray (hold down ctrl key)\n");
        notes.show();

```

```

void drill() {
    InstructionFrame notes = new
    InstructionFrame(Color.white, 15, 85, "Simulation  

    Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
    ImageIcon(getClass().getResource("cursors/logo3.gif"),
    "teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("DRILL\n\n");
    notes.display("Point to the top-view tooth surface then  

    click to drill (hold down ctrl key)\n");
    notes.display("Ctrl key acts like the foot switch, drill  

    won't work without it\n");
    notes.show();
}

```

```

void excavator() {
    InstructionFrame notes = new
    InstructionFrame(Color.white, 15, 85, "Simulation  

    Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
    ImageIcon(getClass().getResource("cursors/logo3.gif"),
    "teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("EXCAVATOR\n\n");
    notes.display("Remove caries by clicking on the drilled  

    area\n");
    notes.show();
}

```

```

void carrier() {
    InstructionFrame notes = new
    InstructionFrame(Color.white, 15, 85, "Simulation  

    Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
    ImageIcon(getClass().getResource("cursors/logo3.gif"),
    "teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("CARRIER\n\n");
    notes.display("Used to apply amalgam, get some  

    amalgam from container then click on tooth\n");
    notes.show();
}

```

```

void polisher() {
    InstructionFrame notes = new
    InstructionFrame(Color.white, 15, 85, "Simulation  

    Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
    ImageIcon(getClass().getResource("cursors/logo3.gif"),
    "teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("POLISHER\n\n");
    notes.display("Point to the top-view tooth surface then  

    click to polish (hold down shift key)\n");
    notes.display("Shift key acts like the foot switch, polisher  

    won't work without it\n");
    notes.show();
}

```

```

void spatula() {

```

```

    InstructionFrame notes = new
    InstructionFrame(Color.white, 15, 85, "Simulation  

    Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
    ImageIcon(getClass().getResource("cursors/logo3.gif"),
    "teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("SPATULA\n\n");
    notes.display("Used to apply CaOH, get some CaOH  

    from container then click on tooth\n");
    notes.show();
}

```

```

void water() {
    InstructionFrame notes = new
    InstructionFrame(Color.white, 15, 85, "Simulation  

    Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
    ImageIcon(getClass().getResource("cursors/logo3.gif"),
    "teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("WATER\n\n");
    notes.display("Point to the top-view tooth surface then  

    click to spray (hold down ctrl key)\n");
    notes.display("Ctrl key acts like the foot switch, drill  

    won't work without it\n");
    notes.show();
}

```

```

public void actionPerformed(ActionEvent e) {
    String s = e.getActionCommand();

    if((e.getModifiers() &
    InputEvent.ALT_MASK) != 0) {

        if(s.equals("button")) {
            drill();
        }

        if(s.equals("button2")) {
            excavator();
        }

        if(s.equals("button3")) {
            carrier();
        }

        if(s.equals("button4")) {
            polisher();
        }

        if(s.equals("button5")) {
            spatula();
        }

        if(s.equals("Water")) {
            water();
        }

        if(s.equals("button")) {
            target.setForeground(Color.blue);
            Toolkit toolkit =
            Toolkit.getDefaultToolkit();
            ImageIcon image2 = new
            ImageIcon(getClass().getResource("cursors/drill.gif"),
            "teeth2.gif");
            Image image =
            image2.getImage();
            Cursor cursor =
            toolkit.createCustomCursor(image, new Point(0, 0), "img");
            target.setCursor(cursor);

            //target.button6.setEnabled(true);
            if(s.equals("button2")) {

```

```

        target.setForeground(Color.red);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/excavator.gif"),
"teeth2.gif");
        Image image =
image2.getImage();
        Cursor cursor =
toolkit.createCustomCursor(image, new Point(2,20), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);
        if(s.equals("button3")){
        target.setForeground(Color.yellow);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/camer.gif"),
"teeth2.gif");
        Image image =
image2.getImage();
        Cursor cursor =
toolkit.createCustomCursor(image, new Point(4,24), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);
        if(s.equals("button4")){
        target.setForeground(Color.gray);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/polish.gif"),
"teeth2.gif");
        Image image =
image2.getImage();
        Cursor cursor =
toolkit.createCustomCursor(image, new Point(0,0), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);
        if(s.equals("button5")){
        target.setForeground(Color.orange);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/spawula.gif"),
"teeth2.gif");
        Image image =
image2.getImage();
        Cursor cursor =
toolkit.createCustomCursor(image, new Point(0,0), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);
        if(s.equals("Water")){
        target.setForeground(Color.black);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/water.gif"),
"teeth2.gif");
        Image image =
image2.getImage();

```

```

        Cursor cursor =
toolkit.createCustomCursor(image, new Point(0,0), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);
        if(s.equals("Finished")){
        target.setForeground(Color.green);
        Cursor cursor = new
Cursor();
        target.setCursor(cursor);
        for(int i=172;i<186;i++){
            for(int
j=96;j<104;j++){
                if(target.h2[i][j]>85){target.area=target.area+10;}
                else {target.area=target.area+(target.h2[i][j]-75);}
            }}target.area=(target.area/1120)*100;target2=(int)
target.area;if(target.watercheck==0){if(target2>5){target2=ta
rget2-5;}}
            for(int i=0;i<6;i++){
                if(target.equipment[i]==1){equipmentchecker[i]=
1;}}
                amarea=0;
                for(int i=0;i<49;i++){
                    if(target.excess[i]==0){amarea++;}
                    }target3=(int)((amarea/20)*100);
                    goodbye();
                    ok.setEnabled(false);
                    ok2.setEnabled(false);
                    ok3.setEnabled(false);
                    ok4.setEnabled(false);
                    ok5.setEnabled(false);
                    ok6.setEnabled(false);
                    if(s.equals("Inst")){
                    instruction();}
                public void paint(Graphics g){
                    Rectangle r = getBounds();
                    g.setColor(Color.lightGray);
                    g.draw3DRect(0, 0, r.width, r.height, true);
                    int n = getComponentCount();
                    for(int i=0, i<n; i++) {
                        Component comp = getComponent(i);
                        if (comp instanceof JCheckBox) {
                            Point loc = comp.getLocation();
                            Dimension d = comp.getSize();
                            g.setColor(comp.getForeground());
                            g.drawRect(loc.x-1, loc.y-1, d.width+1,
d.height+1); } } }

```

Tuxnosmall.java

```

import javax.swing.*;
import javax.swing.event.*;
import javax.swing.text.*;
import javax.swing.border.*;
import javax.swing.colorchooser.*;
import javax.swing.filechooser.*;
import javax.accessibility.*;

```



```

import java.awt.*;
import java.awt.event.*;
//import java.awt.Component;
//import java.awt.Toolkit;
//import java.awt.Cursor;
import java.beans.*;
import java.util.*;
import java.io.*;
import java.applet.*;
import java.net.*;
import java.util.Vector;

import java.applet.Applet;
import java.applet.AudioClip;
import java.util.Vector;
import java.util.Hashtable;
import java.util.Enumeration;
import java.net.URL;
import java.net.MalformedURLException;
import java.util.List;
import java.util.ArrayList;
import java.util.Iterator;

public class TuanoSmall extends Applet{
    GUIT2 panel;
    Butones2 controls;
    Butones2 controls2; JPanel pane= new JPanel();
    JButton button = new JButton(new
    ImageIcon(getClass().getResource("cursors/drillcon.gif"),
    "teeth2.gif"));
    JButton button2 = new JButton(new
    ImageIcon(getClass().getResource("cursors/excavcon.gif"),
    "teeth2.gif"));
    JButton button3 = new JButton(new
    ImageIcon(getClass().getResource("cursors/carricon.gif"),
    "teeth2.gif"));
    JButton button4 = new JButton(new
    ImageIcon(getClass().getResource("cursors/polishcon.gif"),
    "teeth2.gif"));
    JButton button5 = new JButton(new
    ImageIcon(getClass().getResource("cursors/spatcon.gif"),
    "teeth2.gif"));
    JButton button6 = new JButton(" Finished ");
    JButton button7 = new JButton(new
    ImageIcon(getClass().getResource("cursors/watercon.gif"),
    "teeth2.gif"));
    JButton button8 = new JButton(" Help ");

    public void init() {
        button.setToolTipText("Drill Press Alt+Click for
        Help");
        button2.setToolTipText("Excavator Press
        Alt+Click for Help");
        button3.setToolTipText("Carrier Press Alt+Click
        for Help");
        button4.setToolTipText("Polisher Press
        Alt+Click for Help");
        button5.setToolTipText("Spatula Press Alt+Click
        for Help");
        button6.setToolTipText("Click when your
        finished.");
        button7.setToolTipText("Air/Water Spray Press
        Alt+Click for Help");
        button8.setToolTipText("Click to view
        instruction.");
        setLayout(new BorderLayout());
        panel = new GUIT2();
        controls = new Butones2(panel);
        add("Center",panel);

```

```

//add("South",controls);
add("South",pane);
button.addActionListener(controls);button.addActionListener(controls);
button2.addActionListener(controls);button2.addActionListener(controls);
button3.addActionListener(controls);button3.addActionListener(controls);
button4.addActionListener(controls);button4.addActionListener(controls);
button5.addActionListener(controls);button5.addActionListener(controls);
button6.addActionListener(controls);button6.addActionListener(controls);
button7.addActionListener(controls);button7.addActionListener(controls);
button8.addActionListener(controls);button8.addActionListener(controls);

pane.add(button);
pane.add(button2);
pane.add(button3);
pane.add(button4);
pane.add(button5);
pane.add(button7);
pane.add(button6);
pane.add(button8);

void instruction() {
    InstructionFrame notes = new
    InstructionFrame(Color.white,30,35,"Simulation
    Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
    ImageIcon(getClass().getResource("cursors/logo3.gif"),
    "teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("Online Training System for Pit
    Fissure Dental Caries Tuano 2005\n\n\n\n\n");
    notes.display("Welcome\n\n");
    notes.display("Each button acts a different dental
    equipment.\n");
    notes.display("Each one has its own special use.\n\n\n");

    notes.display("Choose Among the Buttons on the Lower
    Panel to Start.\n");
    notes.display("There will be pop-up advisory windows to
    help you work properly.\n");
    notes.display("Please take note of those advisories.\n");
    notes.display("Then choose finish to end the
    training.\n\n");
    notes.display("The buttons are as follows:\n");
    notes.display("Drill: point to the top-view tooth surface
    then click to drill (hold down ctrl key)\n");
    notes.display("Excavator: remove caries by clicking on
    the drilled area.\n");
    notes.display("Carrier: used to apply amalgam, get some
    amalgam from container then click on tooth.\n");
    notes.display("Polisher: point to the top-view tooth
    surface then click to polish (hold down shift key)\n");
    notes.display("Spatula: used to apply CaOH, get some
    CaOH from container then click on tooth.\n");
    notes.display("Air/Water Spray: Point to the top-view
    tooth surface then click to spray (hold down ctrl key)\n");
    notes.show();

    public void play(String s) {
        play(getCodeBase(), s);
    }

    public void destroy() {

```

```

remove(panel);
remove(controls);

public static void main(String args[]) {
    Frame f = new Frame("DrawTest");
    Tuanosmall drawTest = new Tuanosmall();
    drawTest.init();
    drawTest.start();

    f.add("Center", drawTest);
    f.setSize(150, 150);
    f.show();
}

public String getAppletInfo() {
    return "Simulation Examination:");
}

```

```

class InstructionFramesmall extends Frame implements
ActionListener {

```

```

    TextArea inst;
    Button cancel = new Button("Close").

```

```

    InstructionFramesmall(Color c, int x, int y, String s) {
        super(s);
        Panel buttons = new Panel();
        add("Center", inst = new TextArea(x, y));
        inst.setBackground(c);
        inst.setEditable(false);
        add("South", buttons);
        buttons.add(cancel);
        cancel.addActionListener(this);
        pack();
    }

```

```

    public void show() {
        inst.select(0, 0);
        super.show();
    }

```

```

    void display(String s) {
        inst.setFont(new Font("Courier
New", Font.BOLD, 17));
        inst.append(s);
    }

```

```

    public void actionPerformed(ActionEvent e) {
        setVisible(false);
    }

```

```

class GuiH2 extends Panel implements MouseListener,
MouseListener {

```

```

    public static final int LINES = 0;
    public static final int POINTS = 1;
    int mode = POINTS;
    Vector lines = new Vector();
    Vector lines2 = new Vector();
    Vector lines3 = new Vector();
    Vector lines4 = new Vector();
    Vector lines5 = new Vector();
    Vector lines6 = new Vector();
    Vector lines7 = new Vector();
    Vector lines8 = new Vector();
    Vector lines9 = new Vector();
    Vector colors = new Vector();
    Vector colors2 = new Vector();
    Vector colors3 = new Vector();
    int[] hh = new int[1000];
    int[] xpos = new int[1000];
    int[] ypos = new int[1000];
    int[] hh4 = new int[10000];
    int[] hh3 = new int[10000];
    int[] hh2 = new int[10000];
    int[] hh5 = new int[10000];
    int[] max = new int[1000];
    int[] max2 = new int[1000];

```

```

    int[] maxy = new int[1000];
    int[] maxy2 = new int[1000];
    int[] max3 = new int[1000];
    int[] max4 = new int[1000];
    int[] fault = new int[3];
    int[] excess = new int[50];
    int[] equipment = new int[6];
    int[] h2 = new int[1000][1000];
    int[] click = new int[1000][1000];
    int x1, y1, h = 75, ca = 0, maxca = 0, index,
    int
    x2, y2, pasta = 0, polish = 0, sincheck = 0, cachec = 0, drill, polisher, f
    inished = 0; double area = 0, water = 0, watercheck = 0;
    String string2;

```

```

        public GuiH2() {
            Color col = new Color(221, 235, 240);
            setBackground(col);
            addMouseListener(this);
            addMouseListener(this);

```

```

            for (int i = 0; i < 999; i++) {
                hh[i] = 74;
            }
            for (int i = 0; i < 999; i++) {
                hh3[i] = 74;
            }
            for (int i = 0; i < 999; i++) {
                hh4[i] = 85;
            }
            for (int i = 0; i < 999; i++) {
                hh2[i] = 75;
            }
            for (int i = 0; i < 999; i++) {
                hh5[i] = 75;
            }
            for (int i = 0; i < 999; i++) {
                max[i] = 0;
            }
            for (int i = 0; i < 999; i++) {
                max2[i] = 0;
            }
            for (int i = 0; i < 999; i++) {
                maxy[i] = 0;
            }
            for (int i = 0; i < 999; i++) {
                maxy2[i] = 0;
            }
            for (int i = 0; i < 999; i++) {
                max3[i] = 0;
            }
            for (int i = 0; i < 999; i++) {
                max4[i] = 0;
            }
            for (int i = 0; i < 2; i++) {
                fault[i] = 0;
            }
            for (int i = 0; i < 49; i++) {
                excess[i] = 1;
            }
            for (int i = 0; i < 5; i++) {
                equipment[i] = 0;
            }
            for (int i = 0; i < 999; i++) {
                for (int j = 0; j < 999; j++) {
                    h2[i][j] = 75;
                }
            }
            for (int i = 0; i < 999; i++) {
                for (int j = 0; j < 999; j++) {
                    click[i][j] = 75;
                }
            }

```

```

        public void setDrawMode(int mode) {
            switch (mode) {
                case LINES:
                case POINTS:
                    this mode = mode;
                    break;
                default:
                    throw new IllegalArgumentException();
            }
        }

        void euch(String s, String s2, Color c, int x, int y) {
            ImageIcon image2 = new
            ImageIcon(getClass().getResource("cursors/logo3.gif"));
            "teeth2.gif");
            Image image = image2.getImage();

```

```

InstructionFramesmall notes = new
InstructionFramesmall(c,x,y,s2),
    notes.setConImage(image),
    notes.display(s+"n");
    notes.show();

    void chcursor(String s){Point p;
        if(s=="carrier2.gif" ||
s=="carrier.gif"){p = new Point(3,22);} else {p = new
Point(0,0);}

        Toolkit toolkit =
Toolkit.getDefaultToolkit();

ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/"+s),
"teeth2.gif");

Image image =
image2.getImage();

Cursor cursor =
toolkit.createCustomCursor(image, p, "img");
this.setCursor(cursor);}

    public void mouseDragged(MouseEvent e) {
        if(finished==1){
            e.consume();
            x1 = e.getX();
            y1 = e.getY();
            if(x1>150 && x1<200 && y1>85 &&
y1<120){
                if(getForeground()==Color.black){equipment[5]=
1;if(pastal=1){watercheck=1;}
                if((e.getModifiers() &
InputEvent.CTRL_MASK) != 0) {
                    if(water==0){
                        chcursor("water2.gif");water=1;} else
{chcursor("water.gif");water=0;}chcursor("water.gif").water
=0;}}}}

                if(finished==1){ouch("You already
have clicked finish.\nYou cannot do further revisions\nYou
need to reload the exam\nThank You!\n","Advisory
(OTSPFDC)",Color.white,10,75);}

    public void mouseMoved(MouseEvent e) {
        e.consume();}

    public void mousePressed(MouseEvent e) {

        if(finished==1){
            e.consume();
            x1 = e.getX();
            y1 = e.getY();
            x2 = e.getX();
            y2 = e.getY();

            if(getForeground()==Color.white){ouch("No
Materials Chosen Yet!\nPlease choose among the available
buttons on the panel to start.\n","Advisory
(OTSPFDC)",Color.yellow,10,75);}else
            if(x1>150 && x1<200 && y1>85 &&
y1<120){
                if((e.getModifiers() &
InputEvent.CTRL_MASK) != 0) {
                    if(getForeground()==Color.blue){
                        if(pastal=1 && cal=1){
                            if(drill==0){

```

```

                        chcursor("drill2.gif");drill=1;} else
{chcursor("drill.gif");drill=0;}
                        equipment[0]=1;
                        Color col3 = new Color(136, 95, 5);
                        for(int i=x1-
2,i<x1+3;i++){//updates all points within arc
                        for(int j=y1-
2;j<y1+3;j++){
                            h2[i][j]=h2[i][j]+2;}}

                            for(int i=0;i<999;i++){//gets max
clicks for column x1
                                if(max[x1]<h2[x1][i]){
                                    max[x1]=h2[x1][i];}

                                    for(int i=0;i<999,i++){//gets max
clicks for row y1
                                        if(maxy[y1]<h2[i][y1]){
                                            maxy[y1]=h2[i][y1];}

                                            lines.addElement(new Rectangle(e.getX(),
e.getY(), -1, -1));
                                            lines2.addElement(new Rectangle(x1, hh[x1], -1, -
1));
                                            if(max[x1]>max2[x1]){//updates
height of column x1
                                                hh[x1]=hh[x1]+2;
                                                max2[x1]=max[x1];}

                                                if(maxy[y1]>max2[y1]){//updates
height of row y1
                                                    hh2[y1]=hh2[y1]+2;
                                                    maxy2[y1]=maxy[y1];}

                                                    if(x1>166 && x1<175 && y1>96
&& y1<105){
                                                        int
stat=0,count=0,count2=0;
                                                        for(int i=x1-2,i<x1+3;i++){
                                                            for(int j=y1-
2;j<y1+3;j++){
                                                                if((hh[i]+2>90) && (hh2[j]+2>90)){
                                                                    //if(h2[i][j]+2>90){
                                                                        stat=1;
                                                                        //count=count++;}}
                                                                        for(int i=x1-2,i<x1+3;i++){
                                                                            for(int j=y1-
2;j<y1+3;j++){
                                                                                if((hh[i]+2>93) && (hh2[j]+2>93)){
                                                                                    //if(h2[i][j]+2>93){
                                                                                        stat=2;
                                                                                        //count2=count2++;}}

```

```

//if(count>5) {stat=1;}else

//if(count>5) {stat=2;}

if(stat==1) { colors.addElement(Color.lightGray);}
else
if(stat==2) { colors.addElement(Color.red);fault[0]++;ouch("
OUCH!That hurts!\nYou should not drill through the
pulp.\nBe careful with the drilling.", "Patient
(OTSPFDC)",Color.red,10,75);}else{colors.addElement(col3
);}

} else {int stat=0;
for(int i=x1-2;i<x1+3;i++) {
for(int j=y1-

2;j<y1+3;j++){

if((hh[i]+2>93)&&(hh2[j]+2>93)){

stat=2;}}}
if(stat==2) { colors.addElement(Color.red);fault[0]++;ouch("
OUCH!That hurts!\nYou should not drill through the
pulp.\nBe careful with the drilling.", "Patient
(OTSPFDC)",Color.red,10,75);}else{

colors.addElement(Color.gray);}
x1 = e.getX();
y1 = e.getY();//pasta=0;checkboxor("drill.gif");

} else {ouch("Wrong Procedure!\nYou must make sure that all
caries is removed first\nbefore applying CaOH or
amalgam.\nYou can't use drill anymore.", "Advisory
(OTSPFDC)",Color.yellow,10,75);fault[2]++;}}

if(getForeground()==Color.red {
if(pasta=1 && cal=1) {
if(x1>167 && x1<175 && y1>95

&& y1<107) {

if(h2[x1][y1]>75) {

equipment[1]=1;
Color col3 = new Color(136, 95, 5);
for(int i=x1-
1,i<x1+1;i++){//updates all points within arc
for(int j=y1-
1,j<y1+1;j++){

h2[i][j]=h2[i][j]+2;}}

for(int i=0;i<999;i++){//gets max
clicks for column x1

if(max[x1]<h2[x1][i]){

max[x1]=h2[x1][i];}}

for(int i=0;i<999;i++){//gets max
clicks for row y1

if(maxy[y1]<h2[i][y1]){

maxy[y1]=h2[i][y1];}}

lines3.addElement(new Rectangle(e.getX(),
e.getY(), -1, -1));
lines4.addElement(new Rectangle(x1, hh[x1], -1, -
1));

if(max[x1]>max2[x1]){//updates
height of column x1

```

```

hh[x1]=hh[x1]+2;

max2[x1]=max[x1];

if(maxy[y1]>max2[y1]){//updates
height of row y1

hh2[y1]=hh2[y1]+2;

maxy2[y1]=maxy[y1];

int stat=0;
for(int i=x1-1;i<x1+1;i++){
for(int j=y1-
1,j<y1+1;j++){

if((hh[i]+2>87)&&(hh2[j]+2>87)){

stat=2;

}}}
if(stat==2) { colors2.addElement(Color.gray);} else{

colors2.addElement(col3);}

for(int i=0;i<999;i++){
if(hh[i]>89){
hh[i]=89;}}

x1 = e.getX();
y1 = e.getY();//pasta=0;

} else {ouch("You need to
drill-off enamel first.", "Advisory
(OTSPFDC)",Color.yellow,10,75);fault[2]++;}
//polish=1;
} else {ouch("Wrong Procedure!\nYou
must make sure that all caries is removed first\nbefore
applying CaOH or amalgam.\nYou can't use excavator
anymore.", "Advisory
(OTSPFDC)",Color.yellow,10,75);fault[2]++;}}

if(getForeground()==Color.yellow) {
if(pasta=1) {
if(h2[x1][y1]>75) {
if(cache==1) {string2 =
"Can't use CaOH.",ouch("Use a spatula for CaOH
instead.", "Advisory (OTSPFDC)",Color.yellow,10,75);}

if(amcheck==1) {checkboxor("carrier.gif");

pasta=1,amcheck=0;cache=0;
equipment[2]=1;}

} else {fault[2]++;ouch("You need to drill-off
enamel first.", "Advisory
(OTSPFDC)",Color.yellow,10,75);}

} else {fault[2]++;ouch("Wrong Procedure!\nYou
are putting too much amalgam.", "Advisory
(OTSPFDC)",Color.yellow,10,75);}}

if ((e.getModifiers() &
InputEvent.SHIFT_MASK) != 0) {
if(getForeground()==Color.gray) {
if(pasta==1) {

if(polisher==0) {

checkboxor("polish2.gif");polisher=1;} else
{checkboxor("polish.gif");polisher=0;}

```

```

//colors.addElement(Color.yellow);
polish=1;
equipment[3]=1;
for(int
i=0;i<999;i++){//gets max clicks for column x1

    if(max3[x1]<h2[x1][i]){

        max3[x1]=h2[x1][i];
        lines6.addElement(new Rectangle(e.getX(),
e.getY(), -1, -1));
        lines7.addElement(new Rectangle(x1, hh3[x1], -1,
-1));

    if(max[x1]>max2[x1]){//updates height of column x1

        hh3[x1]=hh3[x1]+2;

        max4[x1]=max3[x1];
        ///////////////////////////////////////////////////
        int ij=185,ji=165,xy=1,counter=0;
        for(int i=90;i<110,i=i+5){
            for(int j=ji,j<ij,j=j+5){
                if((y1>=i) && (y1<=i+5) && (x1>=j) &&
(x1<=j+5)){
                    excess[counter]=0;
                    if(hh3[counter]>77){
                        ouch("You are over polishing \n You
cannot do further polishing on this area \n","Advisory
(OTSPFDC)",Color.white,10,75);
                        fault[2]++;
                    }
                    counter++;
                    xy++;
                    if(xy==1){ ij=185;ji=165;}
                    if(xy==2){ ij=190;ji=160;}
                    if(xy==3){ ij=190;ji=160;}
                    if(xy==4){ ij=185;ji=165;}
                    ///////////////////////////////////////////////////
                } else {fault[2]++;ouch("You need to
apply amalgam first","Advisory
(OTSPFDC)",Color.yellow,10,75);}}
                ///////////////////////////////////////////////////
                if(getForeground()==Color.orange){
                    if(pasta!=1){if(amcheck==1){string2=
"Can't use amalgam.";ouch("Use a carrier for amalgam
instead","Advisory (OTSPFDC)",Color.yellow,10,75);}
                    if(cacheck==1){
                        x1 = e.getX();
                        y1 = e.getY();

                        if(ca==0){
                            for(int
i=0;i<999;i++){

                                if(hh1[i]>hh2[i]){

                                    if(hh[i]>95){

                                        hh4[i]=93;} else hh4[i]=hh[i];

                                    if(hh[i]<hh2[i]){

                                        if(hh2[i]>89){

                                            hh4[i]=87;} else hh4[i]=hh2[i];}}

                                        maxca=hh4[x1];
                                        for(int i=x1-2;i<x1+2;i++){

                                            if(maxca<hh4[i]){maxca=hh4[i];index=i;}}

```

```

//if(index>81){
    if(hh4[x1]>83){
        equipment[4]=1;
        lines8.addElement(new Rectangle(e.getX(),
e.getY(), -1, -1));
        lines9.addElement(new Rectangle(x1, maxca, -1, -
1));
        hh4[index]=hh4[index]-
2;ca=1;

        x1 = e.getX();
        y1 =
e.getY();cacheck=0;amcheck=0;chcusror("spatula.gif");} else
{ouch("Application of CaOH is not needed in this case.\nThe
hole is not near the pulp or there is no hole.","Advisory
(OTSPFDC)",Color.yellow,10,75);fault[2]++;}
        //} else {ouch("Wrong
Procedure\nApplication of CaOH in this spot is not
allowed \nThe enamel is still intact","Advisory
(OTSPFDC)",Color.yellow,10,75);fault[2]++;}

        } else {fault[2]++;ouch("Improper
procedure.\nYou need to get some CaOH from the container
first","Advisory (OTSPFDC)",Color.yellow,10,75);}}

        ///////////////////////////////////////////////////

        if(getForeground()==Color.green){

            this.setForeground(Color.white);
            repaint();

            } else if(x1>351 && x1<698 && y1>205 && y1<262){

                if((getForeground()==Color.yellow) ||
(getForeground()==Color.orange)){
                    if(e.getX()>351 &&
e.getX()<524 && e.getY()>205 &&
e.getY()<262){string2="Got enough
amalgam.";amcheck=1;cacheck=0;if(getForeground()==Color
yellow){chcusror("carrier2.gif");} else {string2="Got some
CaOH.";cacheck=1;amcheck=0;if(getForeground()==Color.o
range){chcusror("spatula2.gif");} } else {
                        ouch("You can't get the
following materials using this tool.\nUse a spatula or a carrier
instead","Dentist (OTSPFDC)",Color.yellow,10,75);}
                        else
                        {fault[1]++;ouch("You're missing the Spot\nYou should
click only on the tooth area.\nThe only editable area is the
top-view","Advisory (OTSPFDC)",Color.yellow,10,75);}
                        repaint();}

                if(finished==1){ouch("You already
have clicked finish.\nYou cannot do further revisions.\nYou
need to reload the exam.\nThank You!\n","Advisory
(OTSPFDC)",Color.white,10,75);}}

                public void mouseReleased(MouseEvent e) {
                    e.consume();
                    switch (mode) {
                        case LINES:
                            if(x1>160 && x1<190 && y1>90 &&
y1<110){
                                colors.addElement(getForeground());
                                lines.addElement(new Rectangle(x1, y1, e.getX(),
e.getY()));
                                lines2.addElement(new Rectangle(x1, hh[x1], -1, -
1));

```

```

        hh[x1]=hh[x1]+1;
        x2 = -1;
        break;}
    case FOINTS:
        default:
            break;}
    repaint();
}

public void mouseEntered(MouseEvent e) {
    if(getForeground()==Color.blue){
        string = "Using drill";
        string2 =
        "";cacheck=0;amcheck=0,cheursor("drill.gif");drill=0;}

        if(getForeground()==Color.red){
            string = "Using excavator.";
            string2 =
            "";cacheck=0;amcheck=0;}

        if(getForeground()==Color.yellow){
            string = "Using carrier.";
            string2 =
            "Empty";cacheck=0;amcheck=0,cheursor("carrier.gif");}

        if(getForeground()==Color.gray){
            string = "Using polisher.";
            string2 =
            "";cacheck=0;amcheck=0,cheursor("polish.gif");polisher=0;}

        if(getForeground()==Color.orange){
            string = "Using spatula";
            string2 =
            "Empty";cacheck=0;amcheck=0;cheursor("spatula.gif");}

        if(getForeground()==Color.white){
            string = "Empty Handed.";
            string2 =
            "";cacheck=0;amcheck=0;}

        if(getForeground()==Color.green){
            string = "Empty Handed.";
            string2 =
            "";cacheck=0;amcheck=0,finished=1;}

        if(getForeground()==Color.black){
            string = "Using Air/Water
            Spray.";
            string2 =
            "";cacheck=0;amcheck=0;}

        repaint();
    }

    public void mouseExited(MouseEvent e) {}

    public void mouseClicked(MouseEvent e) {}

    public void paint(Graphics g) {

        Color col = new Color(170, 221, 244);
        Color col2 = new Color(145, 187, 244);
        g.setColor(Color.black);
        g.fillRect(0, 0, 100, 150, 75, true);

        g.setColor(col2);
        g.fillRect(0, 0, 350, 200, true);
        g.fillRect(351, 0, 350, 200, true);

        g.setColor(col);
        g.fillRect(30, 40, 250, 125);

```

```

        g.fillRect(401, 40, 250, 125);

        g.setColor(Color.black);
        g.fillRect(100, 65, 150, 75);
        g.fillRect(451, 65, 150, 75, true);

        g.setColor(Color.pink);
        g.fillRect(451, 97, 150, 43);
        g.fillArc(137, 79, 75, 45, 0, 360);

        g.setColor(Color.white);
        g.fillRoundRect(505, 75, 45, 50, 15, 15);

        //if(pasta==1){
        //g.setColor(Color.gray);
        //g.fillRoundRect(507, 70, 41, 50, 15, 15);}

        g.setColor(Color.pink);
        g.fillRoundRect(520, 106, 15, 25, 15, 15);

        g.setColor(Color.gray);
        g.fillArc(149, 84, 32, 24, 0, 360);
        g.fillArc(169, 84, 32, 24, 0, 360);
        g.fillArc(149, 96, 32, 24, 0, 360);
        g.fillArc(169, 96, 32, 24, 0, 360);

        g.setColor(Color.white);
        g.fillArc(150, 85, 30, 20, 0, 360);
        g.fillArc(170, 85, 30, 20, 0, 360);
        g.fillArc(150, 97, 30, 20, 0, 360);
        g.fillArc(170, 97, 30, 20, 0, 360);

        g.setColor(Color.red);
        g.fillArc(539, 92, 10, 15, 0, 360);
        g.fillArc(507, 92, 10, 15, 0, 360);

        g.setColor(Color.lightGray);
        g.drawArc(150, 85, 22, 15, 0, -90);
        g.drawArc(170, 97, 35, 27, 45, 135);

        g.setColor(Color.white);
        g.fillRoundRect(509, 110, 11, 25, 10, 10);
        g.fillRoundRect(535, 110, 11, 25, 10, 10);

        g.setColor(Color.pink);
        g.fillArc(488, 90, 20, 45, 0, 360);
        g.fillArc(547, 90, 20, 45, 0, 360);
        g.fillRoundRect(494, 114, 15, 15, 1, 1);
        g.fillRoundRect(546, 114, 15, 15, 1, 1);
        g.fillRoundRect(518, 110, 19, 22, 10, 10);

        g.setColor(Color.black);
        g.fillArc(411, 82, 80, 25, 0, -90);
        g.fillArc(564, 82, 74, 25, 180, 90);
        g.fillRoundRect(512, 65, 30, 12, 20, 20);

        g.setColor(Color.red);
        g.fillRoundRect(512, 95, 3, 40, 1, 1);
        g.fillRoundRect(540, 95, 3, 40, 1, 1);
        g.fillRoundRect(512, 90, 31, 15, 1, 1);

        g.setColor(Color.white);
        g.fillRoundRect(512, 75, 30, 12, 22, 22);
        g.fillRoundRect(513, 87, 30, 7, 25, 25);
        g.fillRoundRect(515, 102, 25, 22, 10, 10);

        g.setColor(Color.pink);
        g.fillRoundRect(518, 110, 19, 22, 10, 10);

        g.setColor(Color.blue);

```

```

g.drawLine(513, 137, 513, 95);
g.drawLine(513, 95, 526, 97);
g.drawLine(526, 97, 541, 95);
g.drawLine(541, 137, 541, 95);

g.setColor(Color.green);
g.drawLine(514, 137, 514, 94);
g.drawLine(514, 96, 526, 98);
g.drawLine(526, 98, 540, 96);
g.drawLine(540, 137, 540, 94);

Color col3 = new Color(136, 95, 5); //canes
g.setColor(col3);
g.fillRect(519, 77, 10, 14, 5, 5);
//g.fillRect(517, 85, 19, 5, 2, 2);
g.drawLine(520, 79, 526, 75);
g.drawLine(521, 79, 527, 75);

g.drawLine(169, 99, 175, 103);
g.drawLine(170, 99, 176, 103);

g.setColor(Color.lightGray);
g.fillRect(451, 115, 45, 25);
g.fillRect(556, 115, 45, 25);
g.fillRect(485, 107, 10, 30, 10, 10);
g.fillRect(557, 109, 10, 30, 10, 10);
g.setColor(Color.pink);
g.fillRect(411, 95, 80, 25, 0, -90);
g.fillRect(564, 95, 74, 25, 180, 90);

g.setColor(Color.gray);
g.drawLine(451, 137, 600, 137);

g.setFont(new Font("Courier
New", Font.BOLD, 20));
g.drawString("TOP VIEW", 130, 20);
g.drawString("CROSS SECTION
VIEW", 420, 25);

g.fillRect(351, 205, 347, 57, 5, 5);
g.fillRect(2, 205, 347, 57, 5, 5);
g.setColor(Color.white);
g.setFont(new Font("Courier
New", Font.BOLD, 15));
g.drawString("Hand
Position: (" + x2 + ", " + y2 + ")", 5, 230);
g.drawString(string5, 245);
g.drawString(string2, 145, 245);
g.drawString("Amalgam Container", 365, 220);
g.drawString("CaOH Container", 545, 220);

g.setColor(Color.black);
g.drawLine(525, 210, 525, 257);

g.setColor(Color.white);
g.fillRect(426, 225, 35, 35, 5, 5);
g.fillRect(423, 225, 41, 3);
g.fillRect(590, 225, 35, 35, 5, 5);
g.fillRect(587, 225, 41, 3);

g.setColor(Color.lightGray);
g.fillRect(428, 230, 31, 27);
g.setColor(Color.yellow);
g.fillRect(592, 230, 31, 27);

int np = lines.size();

/* draw the current lines */
g.setColor(getForeground());

for (int i=0; i < np; i++) {
    Rectangle p = (Rectangle)lines.elementAt(i);
    Rectangle p2 = (Rectangle)lines2.elementAt(i);
    g.setColor((Color)colors.elementAt(i));

    if((Color)colors.elementAt(i) == Color.red) {
        lines5.addElement(new Rectangle(p.x, p.y, -1, -
    ));
    }

    if(pasta==1) {
        g.setColor(Color.gray);
        g.fillRect(p.x, p.y, 5, 0, 360);
        if(p2.y < 95) { g.setColor(Color.black);
            if(pasta==1) {
                g.setColor(Color.gray);
                g.fillRect(p2.x+351, p2.y, 4, 4, 0, 360);
            }
        }
        int np2 = lines3.size();
        for (int i=0; i < np2; i++) {
            Rectangle p3 = (Rectangle)lines3.elementAt(i);
            Rectangle p4 = (Rectangle)lines4.elementAt(i);
            g.setColor((Color)colors2.elementAt(i));
            if(pasta==1) {
                g.setColor(Color.gray);
                g.fillRect(p3.x, p3.y, 5, 5, 0, 360);
                /* if getForeground() == Color.red {
                    if(p2.y < 69) { g.setColor(Color.black);
                        if(pasta==1) {
                            g.setColor(Color.gray);
                            g.fillRect(p4.x+351, p4.y, 4, 4, 0, 360);
                        } else {
                            if(p4.y < 89) { g.setColor(Color.black);
                                if(pasta==1) {
                                    g.setColor(Color.gray);
                                    g.fillRect(p4.x+351, p4.y, 4, 4, 0, 360);
                                }
                            }
                        }
                    }
                }

                int np3 = lines5.size();
                for (int i=0; i < np3; i++) {
                    Rectangle p5 = (Rectangle)lines5.elementAt(i);
                    g.setColor((Color)red);
                    if(pasta==1) {
                        g.setColor(Color.gray);
                        g.fillRect(p5.x, p5.y, 5, 5, 0, 360);
                    }
                }

                if(ca==1) {
                    int np5 = lines8.size();
                    for (int i=0; i < np5; i++) {
                        Rectangle p8 = (Rectangle)lines8.elementAt(i);
                        Rectangle p9 = (Rectangle)lines9.elementAt(i);
                        g.setColor((Color)yellow);
                        if(pasta==1) {
                            g.setColor(Color.gray);
                            g.fillRect(p8.x, p8.y, 5, 10, 0, 360);
                            //g.fillRect(p8.x, 100, 5, 5, 0, 360);
                        }
                    }
                }
            }
        }
    }
}

```

```

//g.fillRect(p8.x, 103, 5, 5, 0, 360),
if(p9.y>72) { g.setColor(Color.yellow);
               g.fillRect(p9.x+351, p9.y, 5,
5, 0, 360); } }
////////////////////////////////////

if(polish==1) {
    int np4= lines6.size();
    for (int i=0; i < np4; i++) {
        Rectangle p6 = (Rectangle)lines6.elementAt(i);
        Rectangle p7 = (Rectangle)lines7.elementAt(i);
        g.setColor(Color.white);
        //g.fillRect(p6.x, p6.y, 10, 10, 0, 360);
        if(p7.y<89) { g.setColor(Color.black);
                     g.fillRect(p7.x+351, p7.y-2,
4, 4, 0, 360); } }
////////////////////////////////////

int ij=185,ji=165,xy=1,counter=0;
if(pasta==1) {
    g.setColor(Color.gray);
    for(int i=90;i<110,i=i+2) {
        for(int j=i;j<ij,j=j+5) {
            if(excess[counter]==1) {
                g.fillRect(i, 7, 7, 0, 360); counter++; } xy++;
            if(xy==1) { ij=185;ji=165; }
            if(xy==2) { ij=190;ji=160; }
            if(xy==3) { ij=190;ji=160; }
            if(xy==4) { ij=185;ji=165; } }
        }
////////////////////////////////////

//if (mode == LINES) {
//    g.setColor(getForeground());
//    if (x2 != -1) {
//        g.drawLine(x1, y1, x2, y2); // } // }

class Butones2 extends JPanel implements ItemListener,
ActionListener {
    GuiH2 target;
    Button ok.ok2,ok3,ok4,ok5,ok6:int target2,target3:int[]
equipmentchecker=new int[6],double xmarex;

    public Butones2(GuiH2 target) {
        this.target = target;
        setLayout(new FlowLayout());
        setBack:ground(Color.lightGray);
        target.setForeground(Color.white);

        for(int i=0;i<5;i++) {
            equipmentchecker[i]=0; }

    void goodbye() {
        InstructionFrame notes = new
        InstructionFrame(Color.white,20,75,"Simulation
        Examination (OTSPFDC)");
        ImageIcon image2 = new
        ImageIcon(getClass().getResource("cursors/logo3.gif").
        "teeth2.gif");
        Image image = image2.getImage();
        notes.setIconImage(image);
        notes.display("Thanks! Goodbye!\nSummary:\nNumber of
        times drilled through the pulp:" +target.fault[0]+ "\nNumber
        of times missed the tooth:" +target.fault[1]+ "\nNumber of
        times tools are incorrectly used:" +target.fault[2]+ "\nCaries
        Area Cleared:" +target.i2+ "% "+ "\nTooth Area
        Polished:" +target.i3+ "%");

```

```

String
equip="",equip2="",equip3="",equip4="",equip5="",equip6=
"",int check=0;
    if(equipmentchecker[0]==0) { equip="
    drill";check=1; }
    if(equipmentchecker[1]==0) { equip2="
    excavator";check=1; }
    if(equipmentchecker[2]==0) { equip3="
    carrier";check=1; }
    if(equipmentchecker[3]==0) { equip4="
    polisher";check=1; }
    if(equipmentchecker[4]==0) { equip5="
    spatula";check=1; }
    if(equipmentchecker[5]==0) { equip6="
    air/water spray";check=1; }
    if(check==1) {
        notes.display("\nYou did not use the following
        equipment/s. \n");
    }
    if(equipmentchecker[0]==0) {
        notes.display("\n"+equip); }
    if(equipmentchecker[1]==0) {
        notes.display("\n"+equip2); }
    if(equipmentchecker[2]==0) {
        notes.display("\n"+equip3); }
    if(equipmentchecker[3]==0) {
        notes.display("\n"+equip4); }
    if(equipmentchecker[4]==0) {
        notes.display("\n"+equip5); }
    if(equipmentchecker[5]==0) {
        notes.display("\n"+equip6); }
    if(check==0) {
        notes.display("\nYou have used all equipments\n");
        notes.show(); }

    void instruction() {
        InstructionFrame notes = new
        InstructionFrame(Color.white,30,85,"Simulation
        Examination Instructions (OTSPFDC)");
        ImageIcon image2 = new
        ImageIcon(getClass().getResource("cursors/logo3.gif").
        "teeth2.gif");
        Image image = image2.getImage();
        notes.setIconImage(image);
        notes.display("Online Training System for Pit
        Fissure Dental Caries Tuano 3005\n\n\n");
        notes.display("Welcome!\n\n");
        notes.display("Each button acts a different dental
        equipment.\n");
        notes.display("Each one has its own special use.\n\n\n");

        notes.display("Choose Among the Buttons on the Lower
        Panel to Start.\n");
        notes.display("There will be pop-up advisory windows to
        help you work properly.\n");
        notes.display("Please take note of these advisories.\n");
        notes.display("Then choose finish to end the
        training.\n\n");
        notes.display("The buttons are as follows:\n");
        notes.display("Drill: point to the top-view tooth surface
        then click to drill(hold down ctrl key)\n");
        notes.display("Excavator: remove caries by clicking on
        the drilled area.\n");
        notes.display("Carrier: used to apply amalgam, get some
        amalgam from container then click on tooth.\n");
        notes.display("Polisher: point to the top-view tooth
        surface then click to polish(hold down shift key)\n");
        notes.display("Spatula: used to apply CaOH, get some
        CaOH from container then click on tooth.\n");

```



```

        notes.display("Air/Water Spray:Point to the top-view  
tooth surface then click to spray (hold down ctrl key)\n"),
        notes.show();}

```

```

void drill() {
    InstructionFrame notes = new
    InstructionFrame(Color.white,15,85,"Simulation  
Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
    ImageIcon(getClass().getResource("cursors/logo3.gif"),
    "teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("DRILL\n\n");
    notes.display("Point to the top-view tooth surface then  
click to drill (hold down ctrl key)\n");
    notes.display("Ctrl key acts like the foot switch, drill  
won't work without it\n");
    notes.show();}

```

```

void excavator() {
    InstructionFrame notes = new
    InstructionFrame(Color.white,15,85,"Simulation  
Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
    ImageIcon(getClass().getResource("cursors/logo3.gif"),
    "teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("EXCAVATOR\n\n");
    notes.display("Remove caries by clicking on the drilled  
area\n");
    notes.show();}

```

```

void carrier() {
    InstructionFrame notes = new
    InstructionFrame(Color.white,15,85,"Simulation  
Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
    ImageIcon(getClass().getResource("cursors/logo3.gif"),
    "teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("CARRIER\n\n");
    notes.display("Used to apply amalgam, get some  
amalgam from container then click on tooth\n");
    notes.show();}

```

```

void polisher() {
    InstructionFrame notes = new
    InstructionFrame(Color.white,15,85,"Simulation  
Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
    ImageIcon(getClass().getResource("cursors/logo3.gif"),
    "teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("POLISHER\n\n");
    notes.display("Point to the top-view tooth surface then  
click to polish(hold down shift key)\n");
    notes.display("Shift key acts like the foot switch, polisher  
won't work without it\n");
    notes.show();}

```

```

void spatula() {
    InstructionFrame notes = new
    InstructionFrame(Color.white,15,85,"Simulation  
Examination Instructions (OTSPFDC)");

```

```

        ImageIcon image2 = new
        ImageIcon(getClass().getResource("cursors/logo3.gif"),
        "teeth2.gif");
        Image image = image2.getImage();
        notes.setIconImage(image);
        notes.display("SPATULA\n\n");
        notes.display("Used to apply CaOH, get some CaOH  
from container then click on tooth\n");
        notes.show();}

```

```

void water() {
    InstructionFrame notes = new
    InstructionFrame(Color.white,15,85,"Simulation  
Examination Instructions (OTSPFDC)");
    ImageIcon image2 = new
    ImageIcon(getClass().getResource("cursors/logo3.gif"),
    "teeth2.gif");
    Image image = image2.getImage();
    notes.setIconImage(image);
    notes.display("WATER\n\n");
    notes.display("Point to the top-view tooth surface then  
click to spray (hold down ctrl key)\n");
    notes.display("Ctrl key acts like the foot switch, drill  
won't work without it\n");
    notes.show();}

```

```

public void actionPerformed(ActionEvent e) {
    String s=e.getActionCommand();

```

```

        if((e.getModifiers() &
        InputEvent.ALT_MASK) != 0){

```

```

            if(s.equals("button")){
                drill();

```

```

            if(s.equals("button2")){
                excavator();

```

```

            if(s.equals("button3")){
                carrier();

```

```

            if(s.equals("button4")){
                polisher();

```

```

            if(s.equals("button5")){
                spatula();

```

```

            if(s.equals(" Water ")){
                water();

```

```

            if(s.equals("button")){

```

```

                target.setForeground(Color.blue);
                Toolkit toolkit =

```

```

                Toolkit.getDefaultToolkit();
                ImageIcon image2 = new

```

```

                ImageIcon(getClass().getResource("cursors/drill.gif"),
                "teeth2.gif");
                Image image =

```

```

                image2.getImage();
                Cursor cursor =

```

```

                toolkit.createCustomCursor(image, new Point(0,0), "img");
                target.setCursor(cursor);

```

```

                //target.button6.setEnabled(true);
                if(s.equals("button2")){

```

```

        target.setForeground(Color.red);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/excavator.gif"),
"teeth2.gif");
        Image image =
Cursor cursor =
toolkit.createCustomCursor(image, new Point(2,20), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);)
        if(s.equals("button3")){
        target.setForeground(Color.yellow);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/camer.gif"),
"teeth2.gif");
        Image image =
Cursor cursor =
toolkit.createCustomCursor(image, new Point(4,24), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);)
        if(s.equals("button4")){
        target.setForeground(Color.gray);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/polish.gif"),
"teeth2.gif");
        Image image =
Cursor cursor =
toolkit.createCustomCursor(image, new Point(0,0), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);)
        if(s.equals("button5")){
        target.setForeground(Color.orange);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/spmula.gif"),
"teeth2.gif");
        Image image =
Cursor cursor =
toolkit.createCustomCursor(image, new Point(0,0), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);)
        if(s.equals(" Water ")){
        target.setForeground(Color.black);
        Toolkit toolkit =
Toolkit.getDefaultToolkit();
        ImageIcon image2 = new
ImageIcon(getClass().getResource("cursors/water.gif"),
"teeth2.gif");
        Image image =

```

```

Cursor cursor =
toolkit.createCustomCursor(image, new Point(0,0), "img");
        target.setCursor(cursor);
        ok6.setEnabled(true);)
        if(s.equals(" Finished ")){
        target.setForeground(Color.green);
        Cursor cursor = new
Cursor(0),
        target.setCursor(cursor);
        for(int i=168,i<175,i++) {
            for(int
j=96,j<104,j++) {
                if((target.h2[i][j]>85) {target.area=target.area+10;}
                else {target.area=target.area+(target.h2[i][j]-75);}
            }
        }
        target.area= (target.area/560)*100;target2= (int)
target.area;if(target.watercheck==0){if(target2>5) {target2=tar
get2-5;}}
        for(int i=0;i<6;i++) {
            if(target.equipment[i]==1) {equipmentchecker[i]=
1;}}
            amarea=0;
            for(int i=0,i<49,i++) {
                if(target.excess[i]==0) {amarea++;}
            }
            target3=(int)((amarea/20)*100);
            goodbye();
            ok.setEnabled(false);
            ok2.setEnabled(false);
            ok3.setEnabled(false);
            ok4.setEnabled(false);
            ok5.setEnabled(false);
            ok6.setEnabled(false);}
        if(s.equals(" Inst ")){
            instruction();}
        public void paint(Graphics g) {
            Rectangle r = getBounds();
            g.setColor(Color.lightGray);
            g.draw3DRect(0, 0, r.width, r.height, true);
            int n = getComponentCount();
            for(int i=0; i<n; i++) {
                Component comp = getComponent(i);
                if (comp instanceof Checkbox) {
                    Point loc = comp.getLocation();
                    Dimension d = comp.getSize();
                    g.setColor(comp.getForeground());
                    g.drawRect(loc.x-1, loc.y-1, d.width+1,
d.height+1);} } }

```

XI. ACKNOWLEDGEMENTS

This is one of the hardest thing to do in the SP documentation. Pero, eto naman ang pinaka masaya at pinaka magaan sa loob na gawin.

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GOD BLESS sa ating lahat!

JAMES