

Public High Schools Online Library System
PHOLS

Analee E. Mayo
Department of Physical Sciences and Mathematics
University of the Philippines Manila

Adviser: Avegail D. Carpio

February 2016

Abstract

Over time, information and communication technology (ICT) have shown unprecedented changes to the services ad operations of modern libraries.Today, carrying out library task and services through information and communication technology (ICT) are established to complement all types of libraries, but still unsubstantiated in the majority of school libraries.The Library Information Library Information System aids in borrowing and returning books and reading materials via shopping cart and provides an organized tool in performing library tasks and services in public high schools from basic to complementary. The librarian can add newly acquired library materials in the online catalog.Library users can easily track reading materials usage and availability through the system.The librarian can monitor users overdue books and reading materials borrowed by users. Inventory Report generation in Portable Data Format (PDF),for submission purposes, can be done by the system without manual counting.

Keywords: Library,information system,DDC,online catalog

Contents

Abstract	2
I. Introduction	1
A. Background of the Study	1
B. Statement of the Problem	2
C. Objectives of the Study	3
D. Scope and Limitations	4
E. Significance of the Study	4
F. Assumptions	5
II. Review of Related Literature	6
III. Theoretical Framework	10
A. Library System in Public High Schools	10
B. Dewey Decimal Classification System	13
1. Structure and Notation	13
2. The Ten Main Classes	14
C. Hierarchy	15
D. Web Applications	17
E. Web Browser	17
F. Programming Language	18
G. Information System	18
H. Database Management System	18
IV. Design and Implementation	20
A. Conceptual Diagram	20
B. Use Case Diagram	21
C. Activity Diagram	22
1. Input reading material	22
2. Search reading material	22

3.	Borrow reading material	23
4.	Return reading material	23
5.	Reserve reading material	24
6.	Suggest reading material for acquisition	24
7.	Approve reading material for acquisition	25
8.	View library reports	25
9.	View library users	26
D.	Entity Relationship Diagram	27
E.	Data Dictionary	28
F.	Technical Architecture	30
V.	Results and Discussions	31
VI.	Discussions	59
VII.	Conclusions	63
VIII.	Recommendations	64
IX.	Bibliography	65
X.	Appendix	70
A.	Forms	70
B.	Source Code	89
1.	Configs	89
2.	Controllers	106
3.	Models	138
4.	Layouts	162

I. Introduction

A. Background of the Study

“What a school thinks about its library is a measure of what it thinks about education” said a former U.S Commissioner of Education, compelling words that point toward the importance of library in education. In a news article, Lajollalight stated that the Philippine government meagerly funds its public schools, and does not consider establishing libraries for its million students a priority. To be a real partner in the attainment of educational goals and in order to assure the continuity and quality instruction in both the public and private secondary school sectors in the Philippines, an effective school library must reflect the needs of its school population. It must be properly and adequately equipped to meet the needs of the curriculum and the users [1].

Providing people access to the information they need to work, play, learn and govern, the library contains collection of books and other informational materials that are preserved in a valuable record and made available for later use. Four separate card catalogs: one each for author, title and subject as well as a card for the call-number shelf list are usually arranged in school’s library shelves [2]. In order for users to find reading materials, they need to look through the catalog array and write the catalog information on the provided scratch paper. The library allows users to borrow and gives the borrower a time when to return the borrowed item. If the item is not returned on the due date, the person pays infringements for late or lost book charges [3].

Students use libraries to supplement and enhance their classroom experiences, to learn skills in locating sources of information, and to develop good reading and study habits. High school students devote more of their time in conducting research. Also, some teachers incorporate reading assignments in daily classroom instructions which in turn forced students to use the school library in a daily basis.

Over time, information and communication technology (ICT) have shown unprecedented changes to the services ad operations of modern libraries. The widespread use of computing and rapid spread of internet have enabled low-cost digital storage of information, rapid transmission of data across computer networks, and sophisticated retrieval and processing

of electronic documents and information.

Instead, online catalogs offers rapid searching of books by entering keywords for any of possible search fields, such as title, author, subject, publisher. Also, online public access catalogs (OPAC) allows more sophisticated searching of the catalog, providing information on the status of the reading materials' availability in the library. Today, carrying out library task and services through information and communication technology (ICT) are established to complement all types of libraries, but still unsubstantiated in the majority of school libraries.

B. Statement of the Problem

According to Olaniyi et al, the existing library management system processes in public high schools in the developing countries is not fast enough and it is mainly manually processed. It requires more staff, so more salary has to be given. Filing cabinets are needed to store the records so the space in the library will be less.

Most of the time, under-loaded school teachers are assigned to handle library tasks and services, only afterwards they are oriented in schools divisions meeting and seminars. Overwhelmed by additional load of library management, errors on call number assignment, reading materials' usage and availability tracking, users monitoring, report and inventory generation are alarming. In manual library system, usually it is necessary for students to browse through the array of card catalog. Limited time are granted for them in using library during school day break time. Getting the book's call number from the card catalog will consume their time regardless of the time they will spend in finding the necessary information.

C. Objectives of the Study

This research Public High Schools Online Library System will help to perform tasks in the public general high school libraries with the following functionalities :

1. Allow the School Librarians to:

- Input reading materials in the online catalog
- Allow borrowing and returning of reading materials
- Track reading materials usage and availability
- Monitor users overdue books and reading materials borrowed by users
- Generate reports
 - Yearly Inventory Listings - to know the different collections filed and shelved as an official collection of the library for supply office copy and school copy.
 - Yearly Statistical Data Record of Books
 - Monthly Data of Borrowers and Borrowed Books - for statistical analysis

2. Allow the Library users to:

- Login / Change profile and password
- Search reading materials in the online catalog
- Borrow and return reading materials via a shopping cart
- View library transaction (materials borrowed, returned, overdue)

3. Allow the Principal to:

- View reports similar to the librarian
- Approve list of reading materials for acquisition
- Manage his/her account

4. Allow System Administrator to:

- Manage users
- Backup Data

D. Scope and Limitations

1. The system will comply with the library rules set out by the school (borrowing privileges, number of books to be borrowed, duration, suspension of privileges, fines imposed).
2. The system is designed only for the library center of general public high schools.
3. The monitoring and acceptance of payments of fine is done outside the system.

E. Significance of the Study

The system is capable of reducing time spent and errors associated with the identification and verification library reading materials as well as charging-in and charging out through the use of computer technology. Since the system will hold an online public access catalog (OPAC), the library will be kept organize and library collection will be located immediately, if in case available on shelf. Nevertheless, whether the book or any other reading material has been checked-in or checked-out will appear in the book information.

Speed of data retrieval for library users will also be more appreciated. Users should be able to enter/exit the library with minimal sign in/out time. Also, because of the absence of human intervention, the report generated by the system is perfect and accurate.

Moreover, there is a lack of this system that will perform some of library tasks and services in public high schools. Due to changing demand, like the implementation of K-12, there is a necessity to enhance the quality of education including the library where most students spend time for reading assignment, research or even past time. So, not only to be recognized as comparable to other developing countries in Asia but also to be proven efficient in providing quality basic education.

F. Assumptions

1. The username and password is system generated. The username is composed of the first letter of the first name, first letter of the middle name, and the entire last name of the user. And if ever the username is already taken, a digit indicating the number of persons with the same username will be appended to the generated username.
2. Shopping cart does not entail the student will get the book.
3. Only officially enrolled students, duly authorized faculty and staff can be included as library users.
4. Generation of student and employee clearance at the end of the school year is not included in the system.

II. Review of Related Literature

The Philippine government is doing its best to provide the rudiments of basic schooling to its people for free, and setting education as one of its priority. Similarly, the 1987 Philippine Constitution provides that public secondary education must be free [4]. However, the quality of education is being challenged with crucial problems. Along with other developing country in Southeast Asia, the Philippines shares many of the same problems and limitations as those of its fellow developing nations [5]. Reality tells us that even if the public school teachers are qualified to teach, the lack of instructional materials, inadequate facilities that students reach up to sixty pupils in a classroom and lack of training for professional growth hindered them to perform at their best[4].

At the same time, the gap between the elites and the grassroots communities within these developing countries is also expanding in terms of their access to ICTs. The divide creates an environment where the disadvantage groups in society are unable to contribute and benefit from the information age and global communities created by the Internet [6].

Nevertheless, prospects on emerging technology alleviate the burden of dealing with enhancement of quality basic education. Supporting a goal of sustained, broad-based development, the Philippines government has developed the Philippine Digital Strategy (2011-2016) as their ICT blueprint [7]. The Philippine Government has shown serious commitment to ICT in education by announcing a series of initiatives to apply ICT in teaching and learning. Aligned with ICT4E Master Plans the government envisioned Philippine education in 21st Century Education for All Filipinos, Anytime, Anywhere [8].

The Department of Education believes that ICT plays a major role in creating a new and improved model of teaching and learning where education happens anytime, anywhere. In order to achieve that vision Five-Year ICT Strategic Plan which aims to, completely integrate ICT into the curriculum, including the development of multimedia instructional materials, and to establish the necessary ICT infrastructure and applications has taken place. At the elementary level, ICT integration in existing curriculum contributed to meeting the student performance targets [9].

[4] also supported the fact that there is a great need in the use of advanced science and

technology in order to enhance teaching skills. Since the integration of multimedia learning environments, simulations and computer-based laboratory analysis tools foster superior math, science, and language skills. Bridged communication and collaboration between and among students, teachers, educators and outside experts take place easily. Some researchers also believe that ICT fosters self-direction. Students learn to initiate their own learning or develop better understanding by asking questions and seeking out answers using a variety of resources [5].

Similarly, [10], asserted that the progressive increase in the use of ICTs in education has drastically changed teaching/learning process” He further stated that the field of education has been affected by the penetrating influence of ICTs. ICTs has undoubtedly, impacted on the quality of teaching, learning and research in various educational institutions.

In concrete terms, ICTs can enhance teaching and learning through its dynamic interactive and engaging students in learning, helps to relate school experience to work practices, enrich and deepen skills, help to create economic viability for tomorrow's makers, contribute to radical changes in the school teaching process, and provide opportunities for connection between schools and the world [11].

On the other hand, alarming situations in library system management are often neglected and not prioritized. The majority of the schools claim to have used computers for educational purposes for at least two years and teacher-to-computer ratios appear slightly better, with almost a quarter (24.2 percent) of the schools that allow teacher access to computers having one computer for four or less teachers. Almost half of the public high schools, however, have not computerized their library database, assuming that they have one in the first place [12]. The question of digital divide has appeared in library and information science literature frequently as impacting negativity on the provision of library and information services [6].

Findings in South Africa established that access to information by teachers and learners is a daunting challenge in the majority of the schools for only a few schools have functional libraries [13]. Study conducted in assessing school library information resources by secondary schools students in Morogoro municipality Tanzania revealed that secondary school students face many constraints in using school library including lack of current and up

to date reading materials, restricted reading hours, lack of sitting facilities, and lack of informational professional/ librarian for processing materials[14].

School libraries are a vital part of the education system [15]. Researchers agree that information resources are imperative for curriculum support. Equitable access to information resources by teachers and learners is absolutely essential to enable them to execute their curriculum-related tasks [13]. Principals have been using management information systems to improve the efficiency of administrative services. Research indicated that although technologic infrastructures of elementary schools are insufficient, school management information systems have an important contribution to school management which includes library organization [16].[17] argues that without libraries and dedicated school-or teacher-librarians the millions spent on book donations and literacy projects might be wasted.

Tantamount to other developing countries, the Philippine quality basic education dealt also with issues on enhancing the quality of education, including the library system, as a vital factor in assuring its aim. The country takes remarkable advantage with the information and communication technology (ICT) while implementing policy on it. 76 percent of the schools have a written policy or statement regarding the use of computers and/or the Internet but ICT use in some of the schools has also not been formalized. While, 51.3 percent focused on planning for software acquisition [7].The government recognizes the importance of ICT for citizens access to information, participation and empowerment, in pursuit of Philippine development goals. Philippine Government ICT access initiatives to date include:

- Establishment of the ICT Office (ICTO) under the Department of Science and Technology (DOST) (2000);
- Creation of e-Government funding mechanisms to develop and support government ICT programs and initiatives;
- Establishment of government websites and online services;
- Creation of ICT access points such as the CeCs and the FITS Centers for citizens in remote areas.

Some public libraries in the Philippines are already introducing new ICT services craft-

ing a model that works for their communities that could be replicated throughout the country. The Quezon City Public Library, Pasig City Public Library and Davao City Public Library provides a wide array of services including digital access to legal ordinances, as well as computer and internet services for employment, government services and health needs of its citizens.

Inevitably, technological advancement heals the glitches in library management system. To be effective in providing information in this digital age, it is necessary for libraries to reinvent themselves through heavily utilizing information and communication technology in most library services such as storage, processing and dissemination of information [18]. An automated library's readers desk management system, a modern innovation in Nigeria, is designed to help in the circulation registration of processed books and register users using barcode technology and biometrics [3]. According to another study, [18] also showed that 72 percent of librarians opined that acquisition of digital materials required more collaboration including IT developments and legal developments. Since library support is an integral part of quality education and a vital service that should be available to all students whether on-campus or off-campus, by utilization of ICT, librarians have sought providing services to distance learners that are equivalent to those available to on-campus learners [19]. Koha Library Integrated Open Source software, an integrated software system with all the required models is implemented in Chemistry Library, Bharathidasan University. [20] suggested that the utilization of this system in library management system automation is viable for small, including school library to very large libraries. The Education Library Information and Technology Services (ELITS) of the KwaZulu-Natal Department of Education made significant contribution to the development and resourcing of school libraries in public schools [15].

III. Theoretical Framework

A. Library System in Public High Schools

Library is a collection of books and other informational materials made available to people for reading, study, or reference. The word library comes from liber, the Latin word for book. However, library collections have almost always contained a variety of materials. Contemporary libraries maintain collections that include not only printed materials such as manuscripts, books, newspapers, and magazines, but also art reproductions, films, sound and video recordings, maps, photographs, microfiches, CD-ROMs, computer software, online databases, and other media.

Different type of libraries exist to serve different type of needs, since no single library can contain the information sought by every potential user. There are several types of libraries: public libraries, school libraries, academic libraries, special libraries and government libraries. Public libraries and government libraries often serve the general public, however, the government libraries are specially designed for governmental departments and agencies. Academic libraries serve colleges and universities, their students, staff and faculty. Larger institutions may have several libraries on their campuses dedicated to serving particular schools such as law and science libraries [21]. Special libraries serve various organizations, industries and governmental agencies.

On the other hand, school libraries are usually part of a school system, and serve students between Kindergarten and grade 12 [21]. It is a fundamental resource for supporting students learning, and a key support for teaching staff [22]. Unlike most public libraries, school libraries uphold the teaching-information literacy skills wherein the school librarians can collaborate and co-teach with classroom teachers by knowing what topics teachers focus on and when [21]. School libraries are places for learning and thinking, and play a key role in supporting and developing enjoyment of reading and multiple literacies [22] which equip students with life-long learning skills and develops the imagination, enabling them to live as responsible citizens [23].

From the previous school year 2013-2014, the Department of Education (DepED) registered 5,602,327 public secondary schools enrollees which contained in only 7,913 total public

schools in 17 regions[24]. As of June 2014, the agency has 9,855 registered public schools with libraries while there are 188 library hubs in divisions nationwide [25]. School libraries must contain recommended size of the various collections of 5,000 titles for the secondary level to support the curricular offerings of the school for an enrollment of less than 1000 students and twenty percent of the total collection shall be published within the last ten (10) years [1].

To determine whether the library owns the materials they need, library catalog, an index to the library's collection, is provided. It enables user to find materials upon searching through the catalog records. There are different kinds of catalogs, including book catalogs, card catalogs, microform catalogs, and computerized catalogs in either CD-ROM or online format. The majority of library patrons now use computerized catalogs if present.

Catalog records typically contains the items author, its title, its subjects, the date it was published, the name of its publisher and other information which may be used as determinant for the users about whether the item listed suits his or her needs. In addition, the catalog record contains the items call number, a combination of letters and numbers used to classify the work. The call number also indicates the items location in the library. School library usually contains card catalogs, which are entries printed on cards and are arranged alphabetically in drawers. A card catalog usually contains three types of cards for each item in the library's collection, the author, title and subject card.

In school library, users should have school id presented to borrow library materials. The identification card contains users name, section, year level, address, contact number and other basic information. Students, faculties and employees should sign the book card and log book before borrowing books from the library. Librarians attached pocket envelopes containing circulation cards to each circulating item in its collection which records the date borrowed, borrower as well as year and section when checking out a book from the library. Also, slip of paper is attached and stamped with the due date to remind users of borrowing period.

Books that are limited in number are not allowed for home loan use but may be used for reproduction only. General reference books such as encyclopedias, almanacs, atlases, biographical, special books, periodicals and magazines cannot be taken out except for re-

production and for evaluation purposes only. Non-books materials such as globes and maps can be taken out only for an hour for presentation purpose. Reserved books (busy books) may be borrowed for overnight use but should be returned on the following day. Circulation and revivals may be loaned for three (3) days. Fiction books may be borrowed for a week.

Part of school librarian task is generation of reports for monitoring and documenting. Quarterly reports is conceived by the school librarian for submission to Schools Division Library Hub. To know the different collections filed and shelved as an official collection of the library for supply office copy and school copy, Inventory Listings are tracked in a yearly basis. There are separate listings for Filipiniana, General References, Fil-Reference Books, another for Foreign Books, additional for Reserved, Textbooks, Rizaliana and Revival Books, Library Materials and Equipment. A further list is provided for Juvenile and Fiction books. To tally the school library collection, yearly statistical data record of books, which contains columns for filipiniana and foreign, is made. For statistical analysis, record purposes and School Information Record, monthly and yearly data of borrowers and borrowed books are also generated.

School librarian also maintained accession book, which contains important information on library reading materials such as accession number, date received, class author, title, edition, volumes, pages, source of fund, cost, publisher, year published and remarks. Accession number is a unique identifier, assigned sequentially to each material acquired by the library. When a material is condemned, it still possess its accession number, but condemned will be indicated in the accessed book as a remark. However, when a material is lost, its accession number can be used as unique identifier by other material, as long as replaced or is remarked in the accession book.

Libraries constantly revise and update their collections to ensure that the information they offer is reliable, up-to-date, and valued by their users. University and school libraries measure the quality of their existing collections by assessing their ability to support teaching and research at their institutions. Library materials are included in the list for acquisition depending on the demands and suggestions of students as well as faculty.

Once librarians assess the quality of their existing collections, they must select and acquire new library materials. Most libraries can buy only a small fraction of the millions of

books, periodicals, CD-ROMs, audio and video recordings, and other materials published every year. In school libraries, senior librarians and other staff members share responsibilities for developing the library's collection which includes canvassing of price of library materials in publishing houses or bookstores. List of library materials with an equivalent amount is submitted in the supply and administration office for approval. Also, school libraries acquire a significant number of their materials as gifts from various organizations, foundations, and individuals. Frequently, however, libraries in turn donate their removed collections to other institutions or sell them in public book sales.

B. Dewey Decimal Classification System

In organizing library resources, classification systems are used to arrange and to locate reading materials systematically. American librarian and library educator Melvil Dewey devised the Dewey Decimal system in 1873 and was first published in 1876. The Dewey Decimal Classification (DDC) system is published by OCLC Online Computer Library Center, Inc. that is continuously revised to keep pace with knowledge. OCLC owns all copyright rights in the Dewey Decimal Classification, and licenses the system for a variety of uses [26].

1. Structure and Notation

The DDC is built on sound principles that make it ideal as a general knowledge organization tool: meaningful notation in universally recognized Arabic numerals, well-defined categories, well-developed hierarchies and a rich network of relationships among topics. In the DDC, basic classes are organized by disciplines or fields of study. At the broadest level, the DDC is divided into ten main classes, which together cover the entire world of knowledge. Each main class is further divided into ten divisions, and each division into ten sections (not all the numbers for the divisions and sections have been used). In structuring his system, Dewey used numbers and decimal fractions to indicate the subject content of a given work. For example, the numbers 200-290 denote all works on the subject of religion, and the numbers 900-990 denote all works on the subject of geography and history. Today, the ten main classes are as follows:

2. The Ten Main Classes

- 000 Computer science, information & general works
- 100 Philosophy & psychology
- 200 Religion
- 300 Social sciences
- 400 Language
- 500 Science
- 600 Technology
- 700 Arts & recreation
- 800 Literature
- 900 History & geography

The first digit in each three-digit number represents the main class. For example, 600 represents technology. The second summary contains the hundred divisions. The second digit in each three-digit number indicates the division. For example, 600 is used for general works on technology, 610 for medicine and health, 620 for engineering and 630 for agriculture. The third summary contains the thousand sections. The third digit in each three-digit number indicates the section. Thus, 610 is used for general works on medicine and health, 611 for human anatomy, 612 for human physiology and 613 for personal health and safety. Arabic numerals are used to represent each class in the DDC. A decimal point follows the third digit in a class number, after which division by ten continues to the specific degree of classification needed. A subject may appear in more than one discipline. For example, "clothing" has aspects that fall under several disciplines. The psychological influence of clothing belongs in 155.95 as part of the discipline of psychology; customs associated with clothing belong in 391 as part of the discipline of customs; and clothing in the sense of fashion design belongs in 746.92 as part of the discipline of the arts.

Upon determining the subject of the work, relative index is also consulted. It is an alphabetical list of subjects with the discipline in which they are treated subarranged alphabetically under each entry. Six numbered tables of notation can be added to class numbers to provide greater specificity.

C. Hierarchy

Notational hierarchy is expressed by length of notation. Numbers at any given level are usually subordinate to a class whose notation is one digit shorter; coordinate with a class whose notation has the same number of significant digits; and superordinate to a class with numbers one or more digits longer. The underlined digits in the following example demonstrate this notational hierarchy:

600 Technology

630 Agriculture and related technologies

636 Animal husbandry

636.7 Dogs

636.8 Cats

"Dogs" and "Cats" are more specific than (i.e., are subordinate to) "Animal husbandry," they are equally specific as (i.e., are coordinate with) each other, and "Animal husbandry" is less specific than (i.e., is superordinate to) "Dogs" and "Cats." Sometimes, other devices must be used to express the hierarchy when it is not possible or desirable to do so through the notation. Special headings, notes and entries indicate relationships among topics that violate notational hierarchy.

The Dewey Decimal Classification number that appears on the spine label for a book is part of the call number. In a library using Dewey Decimal Classification, the call number is a combination of the Dewey Decimal number and an alphanumeric (consisting of both letters and numbers) notation that usually represents the surname of the author and the initial letter of the first word of the title.

This secondary notation is called the book number or the cutter number. It was developed and popularized in the late 19th century by Charles A. Cutter, a librarian in Boston. For example, the call number for the book *The World of Antiques*, by Richard Landon,

might be

745.1

L259w

The Dewey Decimal number is 745.1 and the cutter number is L259w. The alphanumeric combination L259 in the cutter number is derived from a special table to represent the name Landon, while the w represents the first significant word of the title, world. If Landon wrote other books on antiques, the use of a letter to represent the title would allow librarians to easily arrange his books alphabetically on the shelf. In a smaller collection, the cutter number is often simplified by indicating the first few letters of the authors name. For the same book, a simplified call number might be

745.1

Lan

The edition of the book is also incorporated in the call number. For example c.1 indicates that the copy contained in the library is the first edition of a book. When a newly published editions are acquired by the school library, c.2 and so on, will appear as their call number.

D. Web Applications

A Web-based application (also known as Web apps) refers to any program that is downloaded from the Web each time it is run [27]. Web-based applications often run inside a Web browser. However, Web-based applications also may be client-based, where a small part of the program is downloaded to a users desktop, but processing is done over the Internet on an external server.

Nowadays, common web applications allow the capture, processing, storage and transmission of sensitive customer data (e.g., personal details, credit card numbers, social security information, etc.) for immediate and recurrent use. Such features as webmail, login pages, support and product request forms, shopping carts and content management systems, shape modern websites and provide businesses with the means necessary to communicate with prospects and customers.

Web applications are, therefore, computer programs allowing website visitors to submit and retrieve data to/from a database over the Internet using their preferred web browser. The data is then presented to the user within their browser as information is generated dynamically (in a specific format, e.g. in HTML using CSS) by the web application through a web server [28].

E. Web Browser

A browser is an application program that provides a way to look at and interact with all the information on the World Wide Web[29].It allows users to retrieve data and interact with content located on a web pages within a website [?].These pieces of content, including pictures, videos, and web pages, are connected using hyperlinks [30].

In a technical sense, a Web browser is a client program that uses HTTP (Hypertext Transfer Protocol) to make requests of Web servers throughout the Internet on behalf of the browse [29].Some popular web browsers of today are Google Chrome, Microsoft Internet Explorer, Safari, Mozilla Firefox, Opera etc.

F. Programming Language

A programming language is a set of commands, instructions, and other syntax used to create a software program[31] for computer to execute. It lets the programmer express data processing in a symbolic manner without regard to machine-specific details[32].

Languages that programmers use to write code are called "high-level languages." This code can be compiled into a "low-level language," which is recognized directly by the computer hardware[31]. Like human languages, each programming language has its own grammar and syntax.

HTML, JavaScript, PHP, CSS are some languages used in creating web pages, developing Internet applications, or Internet related tasks. Database developers create and maintain databases using MySQL ,SQL and others[33].

G. Information System

Information system is an integrated set of components for collecting, storing, and processing data and for delivering information, knowledge, and digital products [34] within a computer system [35]. Computer hardware and software, telecommunications, databases and data warehouses, human resources, and procedures constitute an information system. The information held may include sound fragments, images, and video sequences in addition to the usual textual and numerical information[35].

Information system has enabled more diverse human activities in a quick paced manner, influencing the nature of work. Business firms and other organizations rely on information systems to carry out and manage their operations, interact with their customers and suppliers, and compete in the marketplace [34].

H. Database Management System

Data is a collection of distinct pieces of information that is organized or formatted in some specific way for further analysis and decision making. In order for the computer system to find the desired information easily, database containing set of data, is designed in a regular structure. A database contains records, each of which contains one or more fields about

some entity or object; a file is a collection of records [36].

A database management system (DBMS) is system software for creating and managing databases. The DBMS provides users and programmers with a systematic way to create, retrieve, update and manage data. Ensuring that data is consistently organized and remains easily accessible, DBMS essentially serves as an interface between the database and end users or application programs [37].

IV. Design and Implementation

A. Conceptual Diagram

The Figure 1 is the context diagram of the library database system. It is composed of four external entities: the school librarian, the school principal, the library user which can be a student, a teacher, faculty visitor and the system administrator. The school librarian can add, update, and view reading material in the online catalog, as well as generate call number for newly acquired reading material. The school librarian can also generate summary reports which include Yearly Inventory Listings, Yearly Statistical Data Record of Books, Monthly and Yearly Data of Borrowers and Borrowed Books. Those summary reports can be modeled using graphs. The school librarian also approves list of suggested reading materials for acquisition by the library user and submit that list to the school principal. The school principal can view summary reports and approve reading materials for acquisition. The library users can search, borrow, return and reserve reading materials. They can also suggest reading materials for acquisition. The system administrator can add a new user. The admin can also activate and deactivate a user account.

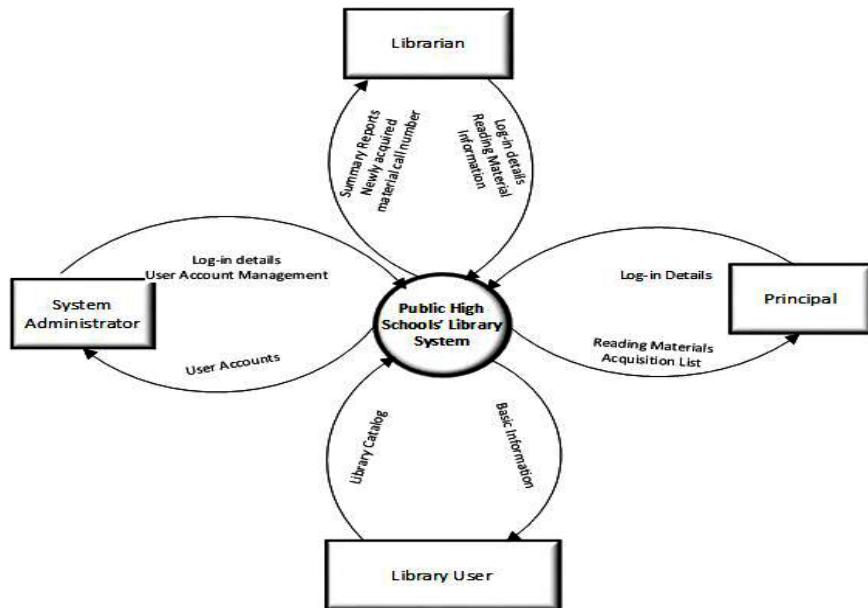


Figure 1: Context Diagram

B. Use Case Diagram

The Figure 2 shows the use case diagram of the system. It has 4 actors: school librarian, school principal, library user and system administrator; and 4 use cases: manage reading materials, manage user accounts, log in and manage reports. In the manage reading materials, the system permits the Librarian to add, update and view reading materials information. The library user are permitted to view and to reserve library reading materials. In the manage user accounts use case, the system lets the administrator to activate/deactivate them, and view user information. All of the actors except the library user in the system are permitted to change their password and view their own information. In the manage reports use case, the system allows the librarian to generate, update and view summary reports. The school principal is only allowed to view the generated summary reports.

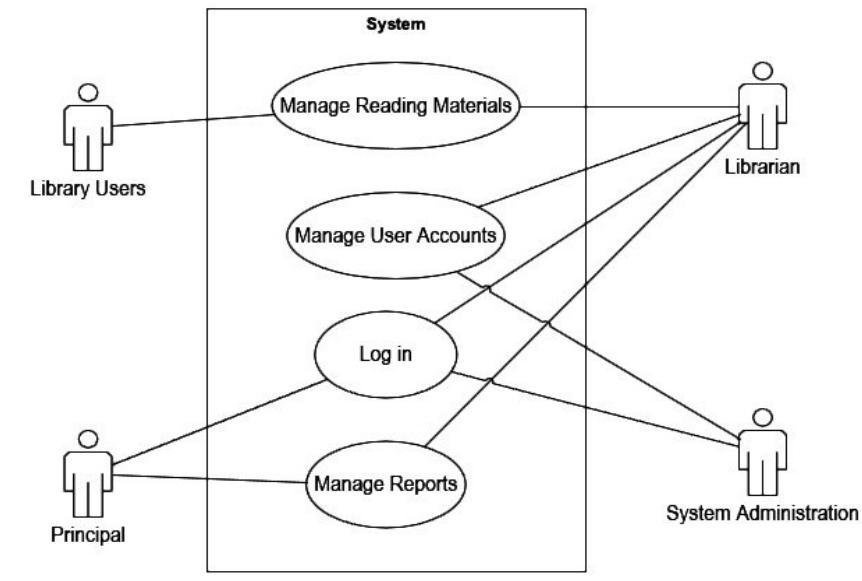


Figure 2: Use Case Diagram

C. Activity Diagram

1. Input reading material

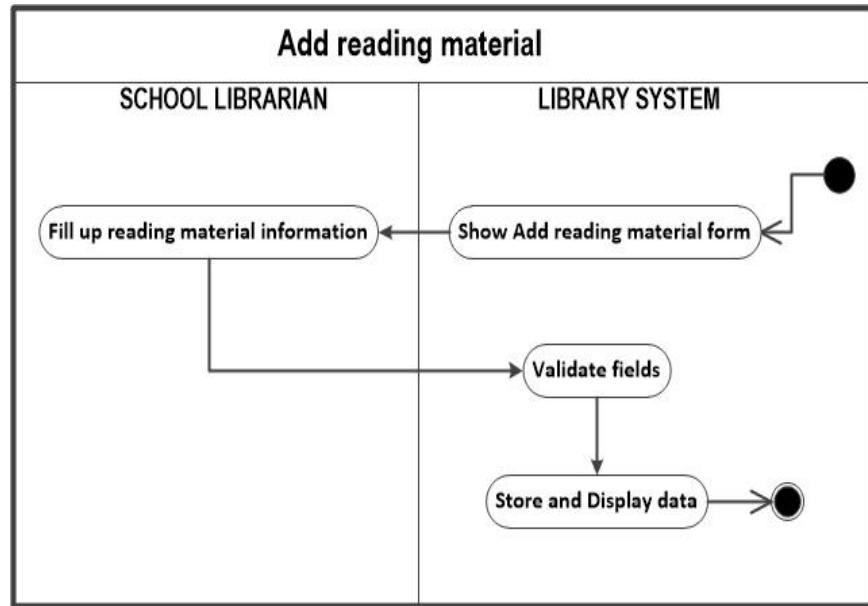


Figure 3: Activity Diagram: Adding newly acquired reading material into the library catalog

2. Search reading material

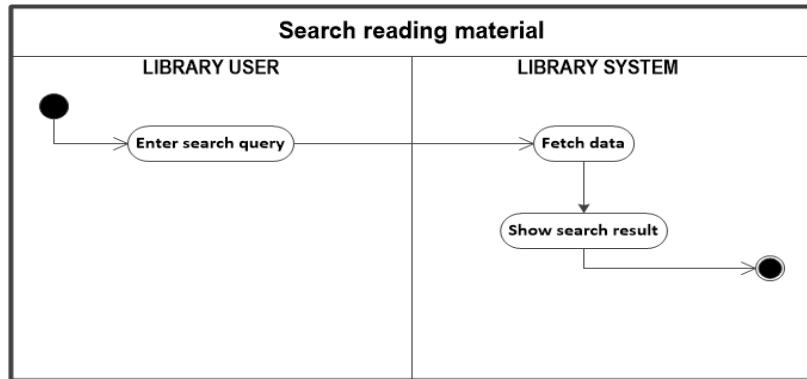


Figure 4: Activity Diagram: Search reading materials in the library catalog

3. Borrow reading material

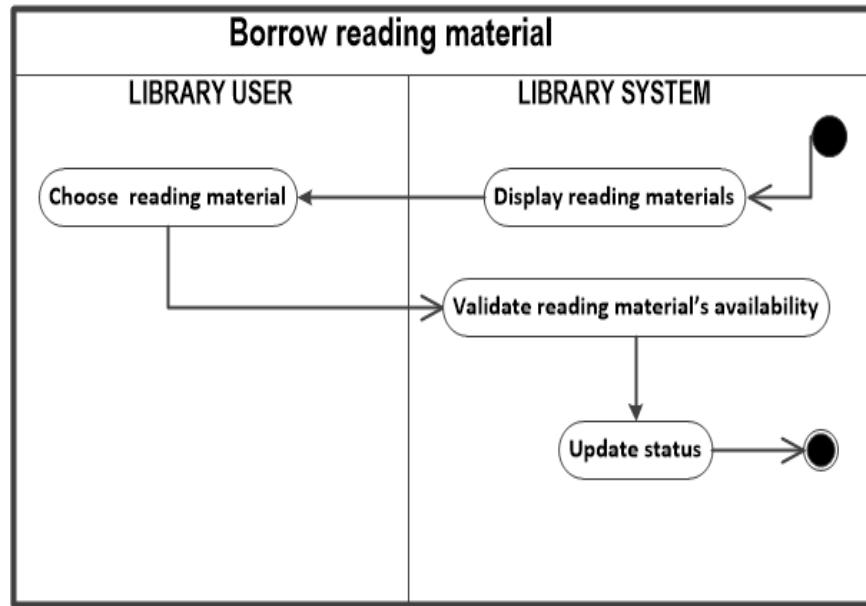


Figure 5: Activity Diagram: Borrowing of reading materials in the library

4. Return reading material

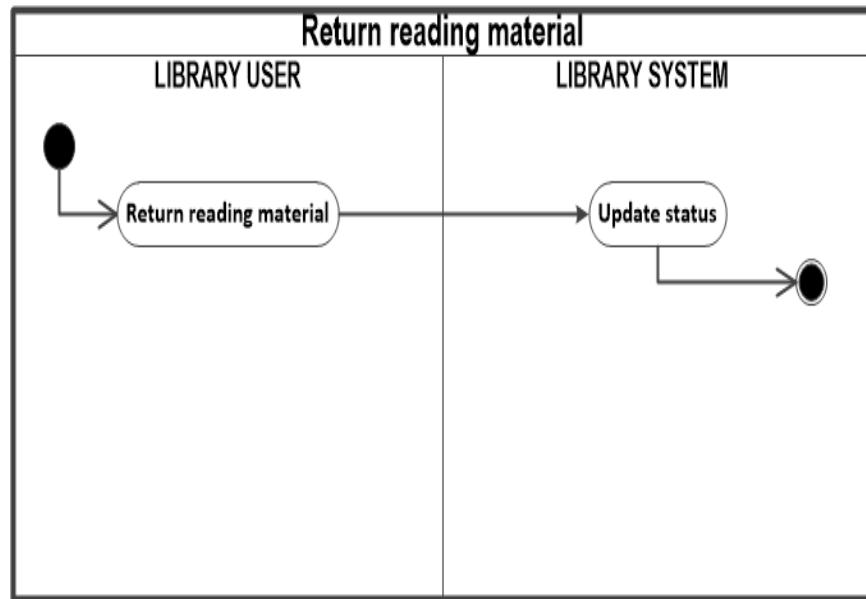


Figure 6: Activity Diagram: Returning of reading materials in the library

5. Reserve reading material

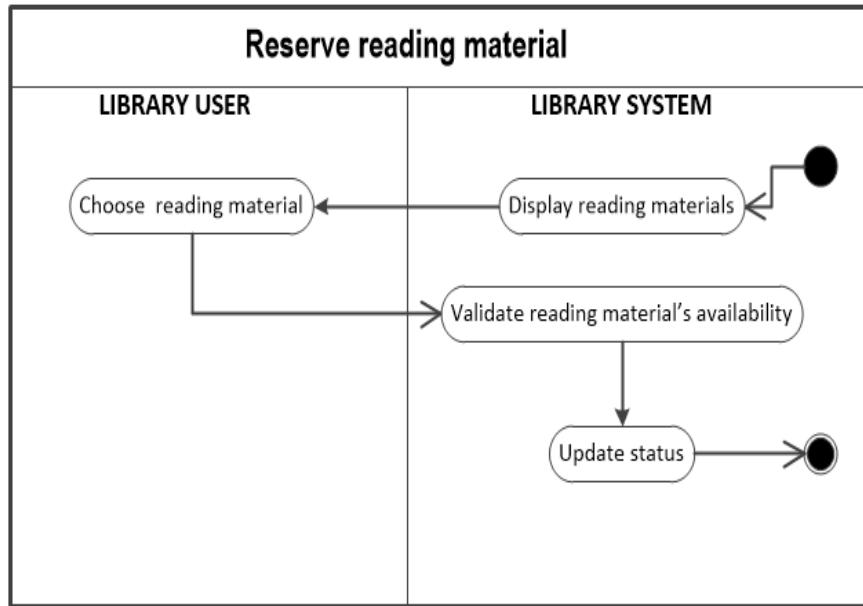


Figure 7: Activity Diagram: Reservation of reading materials in the library

6. Suggest reading material for acquisition

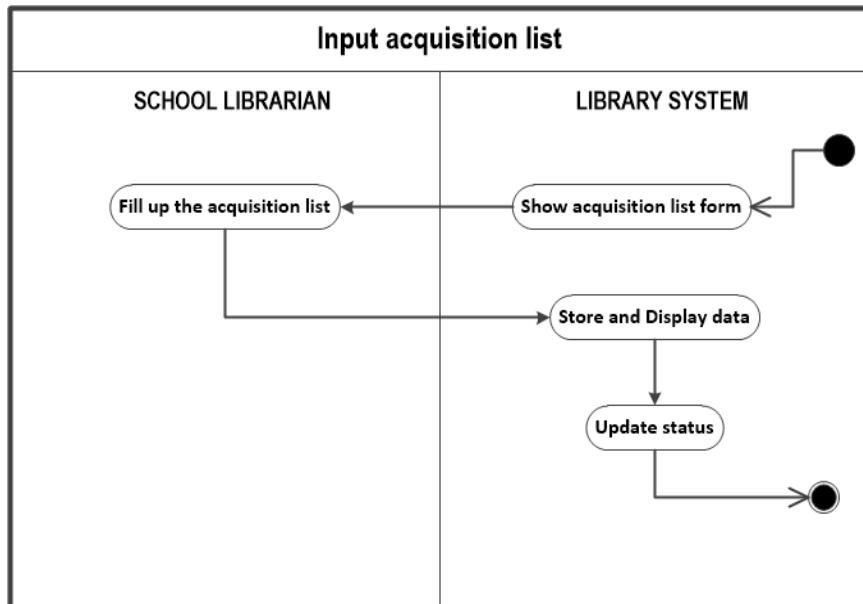


Figure 8: Activity Diagram: Suggesting reading materials for acquisition

7. Approve reading material for acquisition

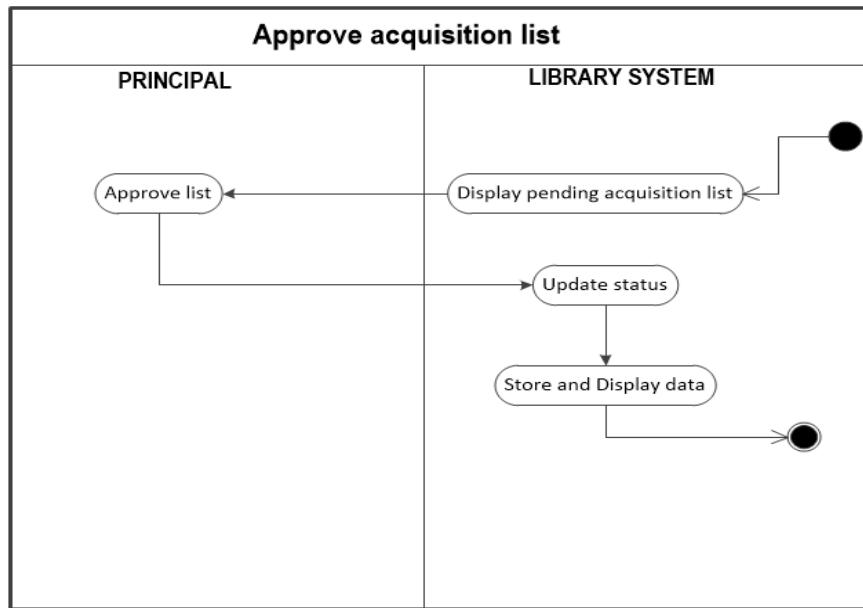


Figure 9: Activity Diagram: Approve reading materials for acquisition

8. View library reports

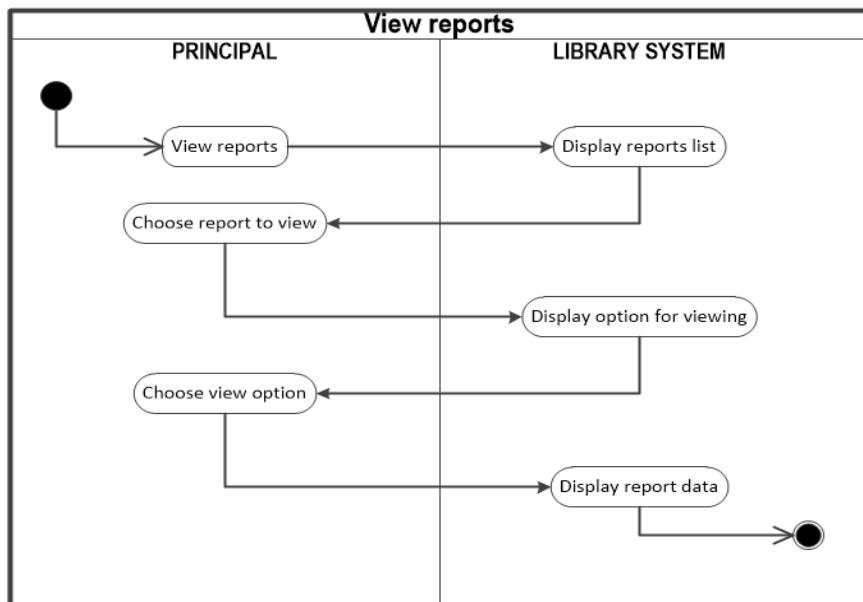


Figure 10: Activity Diagram: View library reports

9. View library users

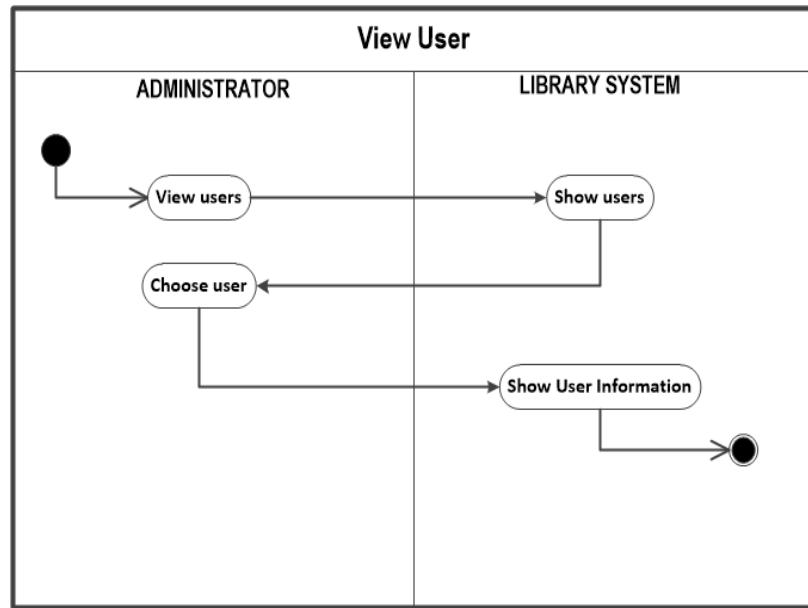


Figure 11: Activity Diagram: View library users

D. Entity Relationship Diagram

The figure 3 shows the Entity Relationship Diagram for the system. The system will be implemented using HTML with server side scripting using PHP and MySQL for handling database queries.

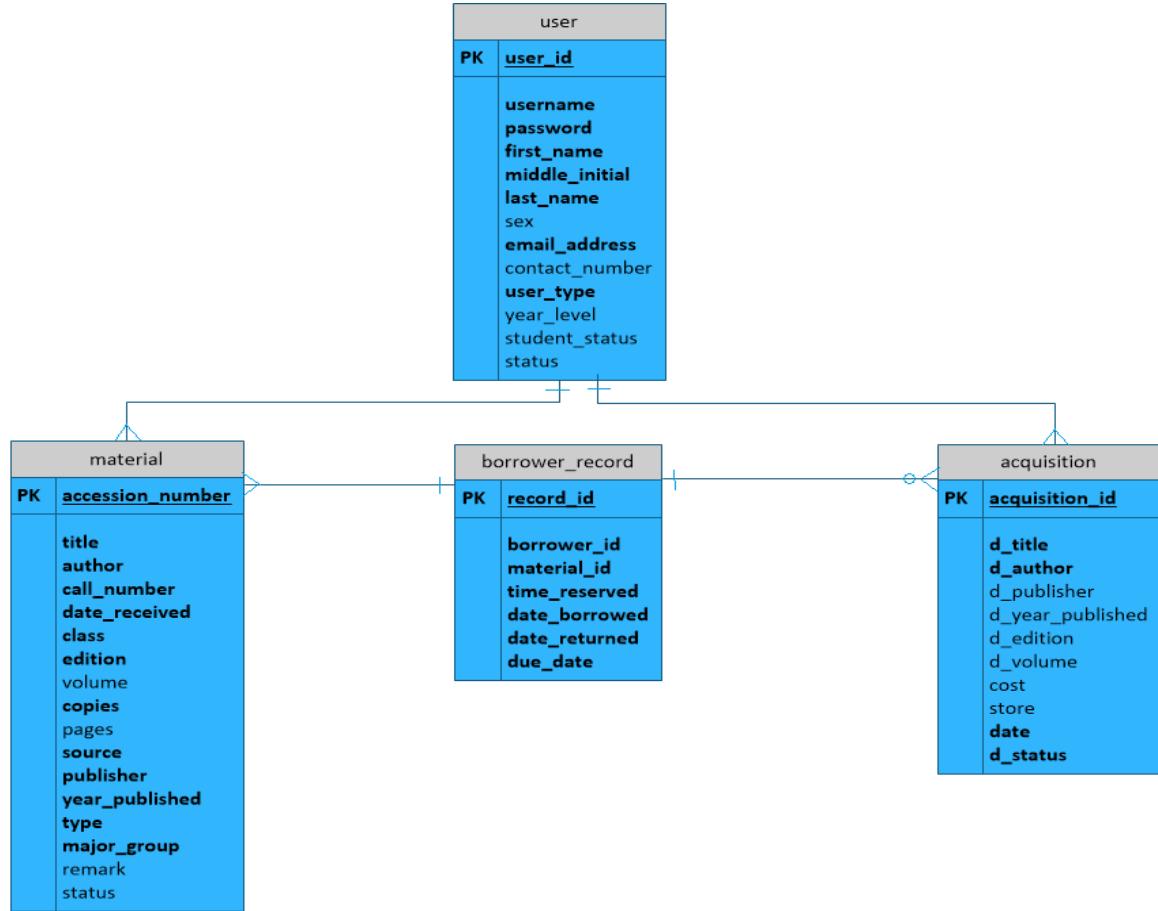


Figure D. shows the Entity Relationship Diagram of the Library Classification of the Library System. Each registered user has his/her own user information(User table). The school librarian can manage multiple library reading material (material table).The borrower's usage of reading materials are keep track and stored (borrower record table). The borrower(s) can also suggest reading materials for acquisition, then the principal(user) will then approve the suggested acquisition list (acquisition list table).

E. Data Dictionary

The database in the schema for the system contains the following tables and their respective fields.

Fields	Type	Description
user_id	int(10)	unique identifier of the user table
username	varchar(20)	username of the user
password	varchar(20)	password of the user
first_name	varchar(20)	first name of the user
middle_initial	varchar(5)	middle initial of the user
last_name	varchar(20)	last name of the user
sex	enum('male', 'female')	sex of the user
email_address	varchar(20)	email address of the user
contact_number	varchar(20)	contact number of the user
user_type	enum('admin', 'faculty', 'principal', 'student', 'teacher')	type of the user
year_level	enum('7', '8', '9', '10')	year level of the student
status	varchar(1)	identifier for different user type

Table 1: User table

Fields	Type	Description
accession_number	int(10)	accession number of the material and unique identifier
title	varchar(25)	title of the material
author	varchar(25)	author of the material
call_number	varchar(25)	call number of the material
date_received	date	date received by the library
class	varchar(25)	classification of library material
edition	varchar(10)	edition of the library material
volume	int(5)	volume of the library material
copies	int(5)	number of copies of library material
pages	int(5)	number of pages
fund_source	varchar(20)	source of fund
publisher	varchar(30)	publisher of the library material
year_published	year(4)	year of publication
type	varchar(25)	type of library material
major_group	enum('foreign','filipiniana')	major group classification of library material
remark	varchar(30)	additional notes or comments
status	enum('checked out','on shelf','reserved')	status of library material's availability

Table 2: Material table

Fields	Type	Description
record_id	int(10)	unique identifier of the record table
borrower_id	int(10)	identifier of the borrower
material_id	int(10)	identifier of the material
time_reserved	timestamp	time when the material is reserved
date_borrowed	datetime	date and time the material is borrowed
date_returned	datetime	date and time the material is returned
due_date	datetime	due date and time to return the material

Table 3: Borrower Record table

Fields	Type	Description
acquisition_id	int(10)	unique identifier of the acquisition table
title	varchar(50)	title of the library material
author	varchar(50)	author of the library material
publisher	varchar(50)	publisher of the library material
year_published	year(4)	year of publication
edition	varchar(7)	edition of the library material
volume	varchar(7)	volume of the library material
cost	double	cost of the library material
store	varchar(50)	place where the library material is offered
date	timestamp	date of suggestion
status	enum('approved', 'pending', 'disapproved')	status whether the library material for acquisition is approved or not

Table 4: Acquisition List Table

F. Technical Architecture

Hardware requirements for the server:

1. 1GHz processor or higher
2. At least 2GB of free disk space
3. 1GB of RAM or higher

Hardware requirements for the client:

1. PC with Intel Pentium 4 or later
2. At least 100MB of free disk space
3. 128MB of RAM or higher

V. Results and Discussions

General View

Sign Up

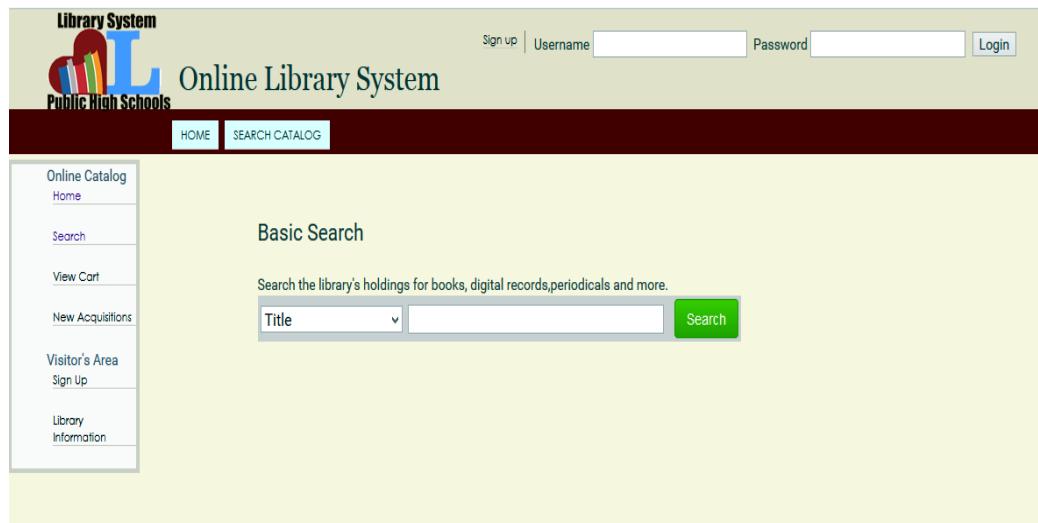


Figure 12: PHOLS Home Page

A screenshot of the 'Sign Up' form. The title 'Sign Up' is at the top. The form fields include: 'Name' (example: Juan R. Dela Cruz), 'Password' (At least 6 characters), 'Confirm Password', 'Sex' (radio buttons for Male and Female), 'Email address' (A valid email address), 'Contact number' (A valid contact number, at least 11 digits), 'User type' (dropdown menu showing 'Student'), and 'Year Level' (dropdown menu). At the bottom are 'Reset' and 'Submit' buttons.

Figure 13: PHOLS Sign Up Form

Figure 12 shows the home page of Public High Schools Library System. The adminis-

trator, school librarian, school principal and library users can login to their accounts using this page.

If a user does not have an account yet, he/she may register also through this sign up page. The user should fill up all necessary information as shown in Figure 13.

The image shows a 'Sign Up' form with a light blue background. At the top, there is a yellow box containing four error messages: 'The Name field is required.', 'The Password field is required.', 'The Confirm Password field is required.', and 'The Email address field is required.' Below this, the form has the title 'Sign Up'. It contains fields for Name, Password, Confirm Password, Sex (Male/Female), Email address, Contact number, User type (Student), and Year Level. Each field has a corresponding validation message below it. At the bottom right are 'Reset' and 'Submit' buttons.

Name	(i.e. Juan R. Dela Cruz)
Password	At least 6 characters
Confirm Password	Confirm password
Sex	<input type="radio"/> Male <input type="radio"/> Female
Email address	A valid email address
Contact number	A valid contact number, at least 11 digits
User type	Student
Year Level	

Figure 14: PHOLS Sign Up Form Required Field

Figure 14 shows that the user needs to specify his/her name using the First name, Middle Initial ,Last name format. Password field and confirm password field must also filled out. Password should match the Confirm Password field. Valid and unique email address is also needed. To determine the view pages that will be allowed and will be shown to a system user, the User Type field is required. If a user specifies that he/she is a student, the Year Level field must needed to be set.

Login

The login interface features a light beige background. At the top left is a text input field labeled "Username" containing "edcruz". To its right is another text input field labeled "Password" containing five black dots ("*****"). On the far right is a blue rectangular button with the word "Login" in white.

Figure 15: Login

The user can access his/her account by entering his/her username composed of first letter of the first name, the first letter of the middle initial and the complete last name. The password must also be set. In case, that the user enters wrong username or password or do not have an account and attempts to log in, the system is reloaded to its home page.

Basic Search

The basic search interface has a light beige header with the title "Basic Search". Below it is a search bar with the placeholder text "Search the library's holdings for books, digital records,periodicals and more.". A dropdown menu is open next to the search bar, listing "Title", "Author", "Accession Number", "Call Number", "Subject", and "Any Field". To the right of the search bar is a green rectangular "Search" button.

Figure 16: PHOLS Basic Search in the Online Library Catalog

This screenshot of the basic search interface shows the same layout as Figure 16, but the dropdown menu is closed. The search bar and "Search" button are visible, and the background is a lighter shade of beige.

Figure 17: PHOLS Basic Search in the Online Library Catalog

Figure 16 allows users to browse the library collection through basic search. The user can search reading materials by title, author, accession number, call number, subject or any field as shown in figure 17.

Basic Search

Search the library's holdings for books, digital records,periodicals and more.



Figure 18: Online Catalog Search by Title

For instance, the user search the library collection by title. He/ she specifies “Can plants talk”, in figure 18. The user is redirected to the search result page as shown in figure 17.

Search result

Accession Number	Call number	Title	Author	Action
5	001 L578	Can Plants Talk?	Levinson,Ralph	<input type="button" value="Add to Cart"/>



Figure 19: Online Catalog Results Page

Upon the submission of the search button, Figure 19 displays the search result. Add to Cart and View cart button are working properly only for registered system users. Otherwise, users are redirected to the home page

Librarian View

Reading Materials Management



Figure 20: Reading Material Management

Figure 20 lists down all the reading materials available in the library collection arranged according to section or type. A reading materials can be grouped into different sections such as General Reference, Generalities, Fiction, Rizaliana, Textbooks, Revivals, Juvenile .

Figure 21 displays of General Reference section which includes encyclopedias, almanacs, atlases, biographical, special books, periodicals and magazines. The Add New, Edit, Delete buttons are clickable.

Call number	Title	Author	Edit	Delete
F 121.3 T893	Community Builder III	Tuvilla Ma. Victoria L.	Edit	Delete
R 030 En19	Encyclopedia Americana	Grolier	Edit	Delete
R 030 En19e	Encyclopedia of Questions and Answers	Bounty Books	Edit	Delete
004 Sh44	Introduction to Computers and Data Processing(WorkBook)	Shelly,Gary	Edit	Delete
FR 959.9 K15	Kasaysayan: The Story of the Filipino People	Reader's Digest	Edit	Delete
FR 603 M72	Modern Technical Dictionary	Vikas Publishing	Edit	Delete
R 030 H97	The Hutchinson Encyclopedia 2000	Colour Library Direct	Edit	Delete
001 B734	Word Box	Brandeth,Gyles	Edit	Delete

Figure 21: General Reference Section

Title	Call Number
Author	Major Group Filipiniana
Date received	Class —Add class—
Edition	Volume
Pages	Fund Source —Add source—
Publisher	Year Published
Type :	<input type="radio"/> General reference <input type="radio"/> Fiction <input type="radio"/> Textbook <input type="radio"/> Reserved book <input type="radio"/> Revival <input type="radio"/> Juvenile <input type="radio"/> Rizaliana
Remark	
<input type="button" value="Reset"/> <input type="button" value="Add"/>	

Figure 22: Input books and reading materials in the online catalog

The librarian needs to fill up all necessary information displays in Figure 22 regarding the newly acquired reading material. Title, author, call number, class, source of reading materials, publisher, year published , type and in which major group a reading material

belongs to are necessary information in order to successfully add a reading material in the online catalog.



Figure 23: Library Cart Management



Figure 24: Library Request Management

All reading materials requested by the library users are directed to the Library Cart organized into different sections. Figure 24 previews all the reservation and borrowing of reading materials under the General reference section. When Allow button is clicked the reading material is granted for borrowing to the library users. When Decline is clicked,

the reserve reading material is automatically removed in the list. Returning can be also performed using this view page.

Edit Reading Material

Title	Can Plants Talk?	Call Number	001 L578
Author	Levinson,Ralph	Major Group	Filipiniana
Date received	2015-06-02	Class	science
Edition	1st ed.	Volume	1
Pages	265	Fund Source	donation
Publisher	Mc Graw Hill	Year Published	1994
Type:	<input type="radio"/> general_reference <input type="radio"/> Fiction <input type="radio"/> Textbook <input type="radio"/> Reserved book <input type="radio"/> Revival <input type="radio"/> Juvenile <input type="radio"/> Rizaliana		
Remark	found in Generalities		
<input type="button" value="Submit"/>			

Figure 25: Edit books and reading materials data in the online catalog

When edit button is clicked, the librarian is directed to this view page Figure 25. Reading material fields are set to the information provided by the librarian in adding that material to the library collection.

Online Library System					
HOME SEARCH CATALOG MANAGEMENT TRACKING MATERIAL REPORT Logout					
Library Reading Material					
Are you sure you want to delete?					
Call number	Title	Author	Edit	Delete	
001 L578	Can Plants Talk?	Levinson,Ralph	Edit	Delete	
TEXT 400 D896	Communication for Progress	Dumiao,Maribeth	Edit	Delete	
F 121.3 T893	Community Builder III	Tuvilla Ma. Victoria L.	Edit	Delete	
R 030 En19	Encyclopedic Americana	Grolier	Edit	Delete	
R 030 En19e	Encyclopedia of Questions and Answers	Bounty Books	Edit	Delete	
TEXT 428 En36 Bk1	English I Textbook	DECS	Edit	Delete	
Fic F119	Fact and Story	Reid,Jessie	Edit	Delete	
Fic G568	Goldilocks: Including Beauty and the Beast and the Ugly Duckling	WS Pacific	Edit	Delete	

Figure 26: Delete books and reading materials data in the online catalog

To delete reading material from the library collection, Delete button, which appears in pinkish-red, can be used. A prompt asks the librarian if he/she surely wants to delete the reading material from the library collection.

No	First name	Middle name	Last name	Year Level	Status
<input type="checkbox"/> 1	Juan	Manuel	Dela Cruz	Grade 7	SUSPENDED ▾
<input type="checkbox"/> 2	Juan	R.	Dela Cruz	Grade 9	SUSPENDED ▾
<input type="checkbox"/> 3	Juana	R.	Dela Rosa	Grade 10	BANNED ▾
<input type="checkbox"/> 4	Josefina	K.	Santos	Grade 8	ENROLLED ▾
<input type="checkbox"/> 5	Arnold	R.	Mayo	Grade	Enrolled ▾

Update

Figure 27: Library User Management

The librarian allows or disallows library user in borrowing reading material using this view page, figure 27. Users are sorted by Grade level in ascending order. User status such as suspended, enrolled and banned can be updated using the status drop-down menu. The librarian can update multiple users by ticking the check boxes before the user's name then, clicking the update button below.

- Online Catalog Home
- Search
- Library Cart
- Suggested List

Library Reading Materials Usage

- General Reference
- Fiction
- Textbook
- Reserved Book
- Revival

Figure 28: Tracking reading materials usage

PHOLS helps tracking reading materials' usage and availability of borrowed materials through this view page figure 29. Aside from the title, call number and author, number of times borrowed and number of copies available are also displayed. This helps the librarian to determine which reading materials are frequently borrowed. Those information also are

The screenshot shows the 'Online Library System' interface. At the top, there is a navigation bar with links: HOME, SEARCH CATALOG, MANAGEMENT, TRACKING MATERIAL, and REPORT. Below the navigation bar, the title 'Reading Materials Usage' is displayed. There is a search input field labeled 'mm/dd/yyyy' and a blue 'Submit' button. A table lists five reading materials with their details: Title, Call Number, Author, Number of Times Borrowed, and Number of Copies Available.

Title	Call Number	Author	Number of Times Borrowed	Number of Copies Available
Love's Enduring Hope	Fic B123	Bacher, June Master	1	0
Things Full Apart	Fic Ac45	Achebe, Chinua	2	28
Introduction to Computers and Data Processing	004 Sh44	Shelly, Gary	5	7
Presentation of Making and Web Design	F 005.72 Es65p	Espiritu-Enriques, Alloid	3	10
Philippine Community Life I	RIV 307.7599	Capino, Diosdado	8	17

Figure 29: Tracking reading materials usage

useful in determining whether a reading material has an allowable number of copy for borrowing.



Figure 30: Monitor users overdue books

Reading materials are clustered in different library sections. This helps the librarian monitor reading materials overdue in an orderly manner.

The screenshot shows the 'Online Library System' interface. At the top, it says 'Welcome edelacosta !' and has a 'Logout' button. Below that is a navigation bar with links for Home, Search Catalog, Library, and Account. The main content area is titled 'Transaction' and has a sub-section titled 'OVERDUE'. There is a dropdown menu labeled 'All Transaction' with a 'View' button next to it. The table below lists three items:

Date overdue	Title	Fines
January 28, 2016, 1:25 pm	Kalipunan ng mga bugtong	P307
January 30, 2016, 12:00 am	Modem Technical Dictionary	P272
February 5, 2016, 10:14 am	Iaccocca	P118

Figure 31: Monitor users overdue books

The school librarian can easily fetch all overdue reading materials. Figure 31 shows all necessary information to address that need of users overdue. In the last column, the fine associated with borrowing beyond the due date is shown in red ink.

Borrower ID	Name	Title	Accession Number	Date Borrowed	Due Date
10	Dela Cruz Juan R.	Homeroom Guide	27	2016-02-19 11:41:46	2016-02-21 11:41:46
12	Santos Josefina K.	Reading and Writing for Enrichment	28	2016-02-17 09:27:32	2016-02-21 09:27:32

Figure 32: Monitor users overdue books and reading materials borrowed by users

Borrower ID	Name	Title	Accession Number	Date Borrowed	Date Due	Fines
8	Dela Costa Erwin J.	Kalipunan ng mga bugtong	43	2016-02-10 08:38:04	2016-02-13 08:38:04	186
6	Mayo Analee E.	Nubs: the true story of a mutt, a Marine & a miracle	3	2016-02-02 11:25:27	2016-02-05 11:25:27	375
12	Santos Josefina K.	Kalipunan ng mga bugtong	43	2016-02-10 08:37:32	2016-02-13 08:37:32	186

Figure 33: Monitor users overdue books and reading materials borrowed by users

Library Reading materials that are due today can be directly view by the librarian using this view page figure 33. She/He would not need to browse through the sets of books to know which are due or not. She/He is informed which books are expected to be returned for today or even beyond this day. Those materials that are not returned on their due date will appear on the overdue reading materials page.

The library holds a yearly inventory listings of books and reading materials. Subdivided into different sections, the librarian can view them according to section.

Title,which is underlined, call number, number of copies available, author and the

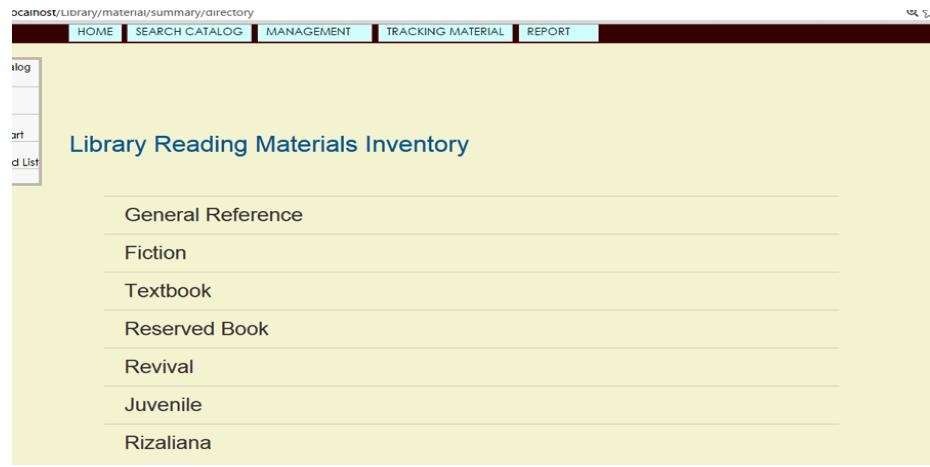


Figure 34: Yearly Inventory Listings Directory

RESERVED BOOK				
Qty	Call Number	Title	Author	Source
1	636.7	Nubs: the true story of a mutt, a Marine & a miracle	Dennis Brian	F
4	RS F 226.8 C165m	Makabagong Parabula (Parable) Book 1	Canonigo, Cristina	F
1	RS F 398.6 Al13	Mga Bugtong Filipino	Alba, Rene	R
2	RS F 398.6 O13	Kalipunan ng mga bugtong	Olino, Rogelio	F
1	RS F 398.6 V541b	Book of Filipino and Foreign Riddles	Velasco, Rheno A.	F
1	RS F 398.8 C165	Tongue Twisters	Canigo, C.S.	F

Figure 35: Yearly Inventory Listings - to know the different collections filed and shelved as an official collection of the library for supply office copy and school copy.

source of book acquisition are included in the inventory listings. Source of fund is also included which appear in the last column of the table. D means donated, S as school fund, R replaced and F as fine.

Pdf format of the Inventory Listings is available for download and ready to be printed for report submission purposes.

Number of books or reading materials in library collection are summarized in this page. Library materials are sorted according to type and in which major group they belong to -

Inventory_Listings.pdf - Adobe Acrobat Reader DC

Home Tools Inventory_Listings... 1 / 5 125% Sign In

Reading Materials Inventory Listings

FILIPINIANA

Qty	Call Number	Title	Author	Source
1	636.7	Nubs: the true story of a mutt, a Marine & a miracle	Dennis Brian	F
2	F 001.3 Zu84	The Humanities	Zulueta, Francisco M.	S
14	F 005.72 Es65p	Presentation Making and Web Design	Espiritu-Enriques, Alloid	D
13	F 070.4 C766j	Journalism Handbook	Constantino-Pangilinan, Estelita	R
20	FR 959.9 K15	Kasaysayan: The Reader's Digest	Reader's Digest	S

localhost/Library/material/statistics

Welcome Librarian Logout

Online Library System

HOME SEARCH CATALOG MANAGEMENT TRACKING MATERIAL REPORT

Online Catalog Home Search Library Cart Suggested List View as Pdf

Statistical Data Record of Books

	FILIPINIANA		FOREIGN	
	Title	Volume	Title	Volume
General works	10	10	10	10
Philosophy	0	0	2	2
Religion	0	0	0	0
Social Science	0	0	0	0
Languages	1	1	4	4
Science	1	1	0	0

Figure 36: Yearly Statistical Data Record of Books

filipliniana or foreign. Reading materials are numbered based on the title and volume that specifies the number of copies available for each title.

The screenshot shows a web browser window with the URL `localhost/Library/statistics`. The page title is "Online Library System Statistics". The main content is a table titled "Reading Materials Statistical Data".

Reading Materials Statistical Data

FILIPINIANA		FOREIGN	
<u>Title</u>	<u>Volume</u>	<u>Title</u>	<u>Volume</u>
<i>General works</i>	10	10	10
<i>Philosophy</i>	0	0	2
<i>Religion</i>	0	0	0
<i>Social Science</i>	0	0	0
<i>Languages</i>	1	1	4

Figure 37: Yearly Statistical Data Record of Books

Portable Data format is also available and can be downloaded. Once the View as Pdf button is clicked, the report can be readily viewed in downloadable format. This is similar to exporting the generated report to the local computer.

Monthly Data of Borrowers and Borrowed Books																		
Date:				View														
2016		GRADE 7			GRADE 8			GRADE 9			GRADE 10			TEACHERS				
FEBRUARY		Students	Books	Overnight	Teachers	Books												
2016-02-01	34	23	45	36	42	16	26	28	10	17	25	15	1	3				
2016-02-02	24	20	14	30	23	25	18	27	6	10	23	12	1	2				
2016-02-03	13	17	5	27	20	15	10	23	27	40	36	18	6	7				
2016-02-04	18	13	19	56	67	12	34	17	27	27	30	12	10	8				
2016-02-05	13	15	10	16	24	5	29	19	8	27	30	12	10	8				
2016-02-06	3	6	6	108	73	6	4	9	8	6	6	7	5	2				
2016-02-07	27	8	0	4	4	2	23	16	8	8	22	4	6	3				

Figure 38: Monthly Data of Borrowed Books and Borrowers

Figure 38 presents the monthly record of books and borrowers in each year level, Grade 7 to 10, as well as teachers. Overnight books are also recorded.

Monthly Data of Borrowers and Borrowed Books																
2016		GRADE 7			GRADE 8			GRADE 9			GRADE 10			TEACHERS		
FEBRUARY		Students	Books	Overnight	Teachers	Books										
2016-02-01	34	23	45	36	42	16	26	28	10	17	25	15	1	3		
2016-02-02	24	20	14	30	23	25	18	27	6	10	23	12	1	2		
2016-02-03	13	17	5	27	20	15	10	23	27	40	36	18	6	7		
2016-02-04	18	13	19	56	67	12	34	17	27	27	30	12	10	8		
2016-02-05	13	15	10	16	24	5	29	19	8	27	30	12	10	8		
2016-02-06	3	6	6	108	73	6	4	9	8	6	6	7	5	2		
2016-02-07	27	8	0	4	4	2	23	16	8	8	22	4	6	3		

Figure 39: Monthly Data of Borrowed Books and Borrowers in PDF

PDF format is also supported by PHOLS which alleviates the tedious manual counting and auditing done in usual schools library. The Monthly Data of Borrowed Books and Borrowers in PDF is available for download.

Library Users

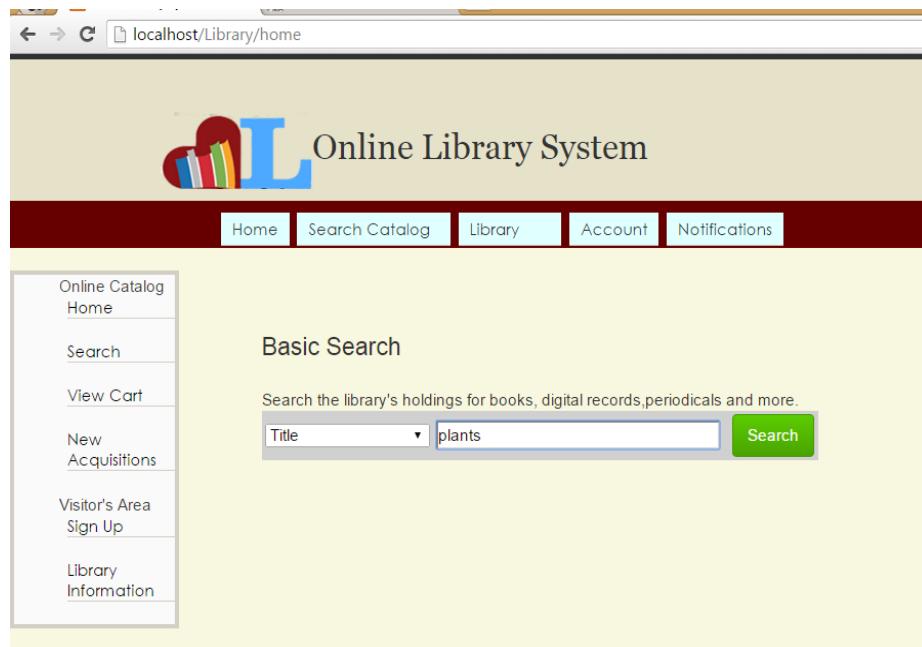


Figure 40: Home view for the Library Users

Figure 40 is the default home view of an registered library users. He/she can search through the online catalog, using this page. He/she can specify which field is needed to match the entered keywords.

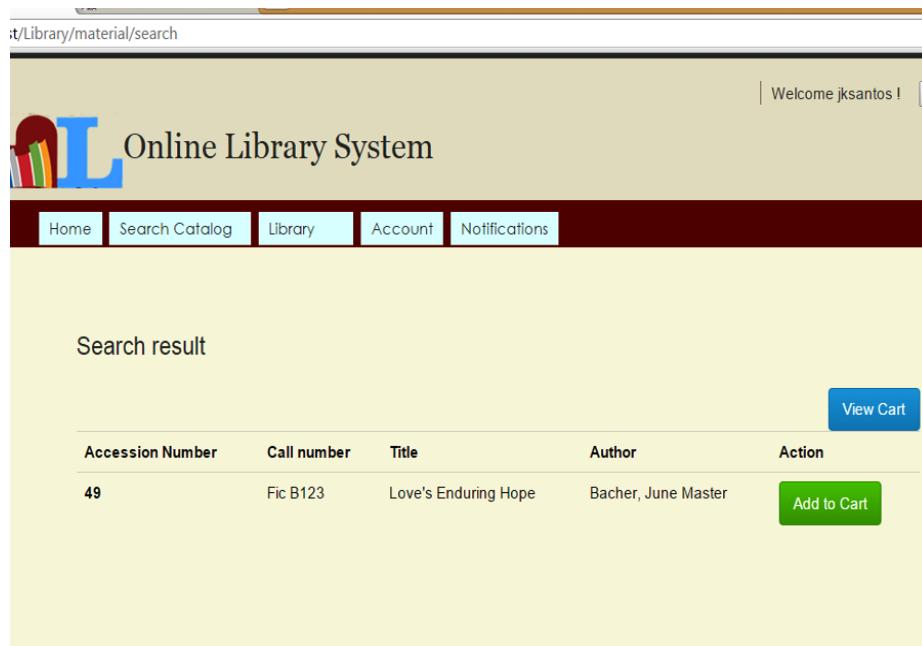


Figure 41: Library Users Search Result

Upon the submission of the Search button, library users is redirected to result page as shown in the figure 41 above. The search query entered is “love” and the result page returns the reading material entitled Love’s Enduring Hope by Bacher, June Master. He/she has an option of adding it to his/her own library cart.



Online Library System

Home	Search Catalog	Library	Account	
Library User Cart				
Title Author Class Type Action				
Nubs: the true story of a mutt, a Marine & a miracle	Dennis Brian	Technology	Reserved book	Remove
Love's Enduring Hope	Bacher, June Master	Languages	Fiction	Remove
Mathematics IV	DECS	General works	Revival	Remove
Moving ahead with Mathematics I	Misas, Estrellita	General works	Textbook	Remove

Figure 42: Library User Cart

When the View Cart button is clicked in 41, the user is redirected to his/her own library cart. He/she still has an option of removing the previously added reading materials to his/her shopping cart. He/she can use the Remove button, which appears in pinkish-red color. That process of removing reading materials to user's library cart is irrevocable.



Transaction

All Transaction

ALL

Date	Title
February 10, 2016, 8:29 am	Mga Bugtong Filipino
February 10, 2016, 8:37 am	Kalipunan ng mga bugtong
February 17, 2016, 9:27 am	Reading and Writing for Enrichment
February 21, 2016, 5:44 am	Things Full Apart

Figure 43: Library Users Transaction

Library users can also monitor their borrowing/returning transactions or other transactions done using PHOLS. Using this page figure 43, he/she can specify which transaction he/she wants to view. A drop-down list, appeared in upper-top left of the page, can be used for that purpose. The pre-selected value for the transaction is "All transaction". All transactions done, such as borrowing, returning and overdue, are returned.

Edit Account

Name	Erwin Dela Costa
Password	erwin19*
Confirm Password	
Email address	erwin@gmail.com
Contact number	
User type	student

Update **Back**

Figure 44: View Library User Account

All library user can view and modify their user account. The name field is disabled and cannot be modified.

Edit Account

The Year Level field is required.

Name	Erwin Dela Costa
Password	erwin19*
Confirm Password	
Email address	erwindelacosta01@gmail.com
Contact number	
User type	student
Year Level	

Update **Back**

Figure 45: Library Users Transaction

For students as library user, specifying his/her year level is required to successfully edit his/her account.

Principal

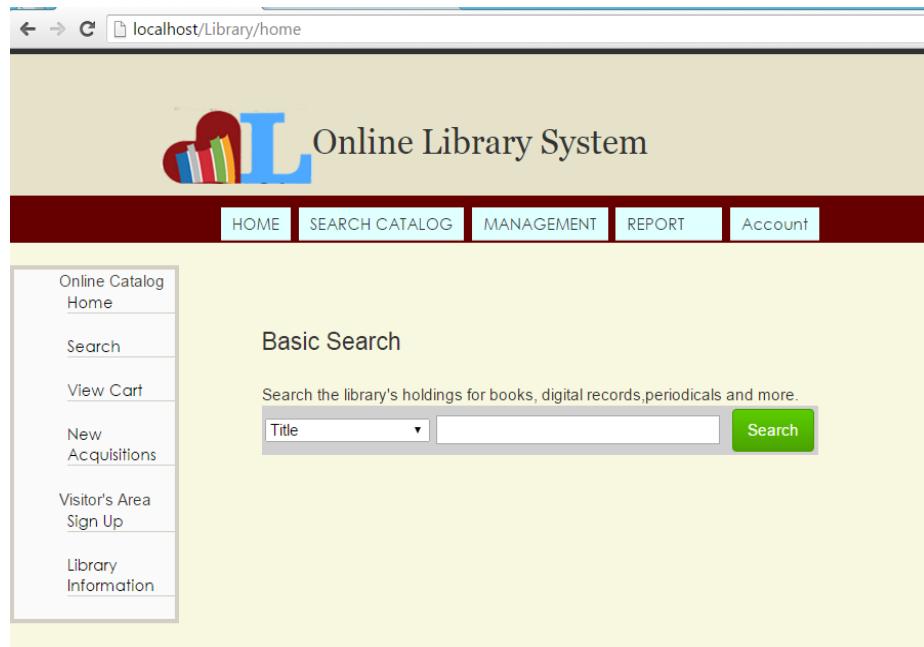


Figure 46: Home view for the Principal

When the user logged in as Principal, he/she is redirected to this page, figure 46. Similar with other system users, he/she can search through the online catalog, using this page. He/she can specify which field is needed to match the entered keywords.

A screenshot of the 'Edit Account' page. The title is 'Edit Account'. The form contains fields for Name (disabled), Password, Confirm Password, Email address, Contact number, User type (dropdown menu with 'faculty' selected), and Year Level (dropdown menu). At the bottom are 'Update' and 'Back' buttons.

Figure 47: Edit Account

The School Principal can edit his/her account using this page 47. The name field is disabled for modification. He/She cannot change his/her username, however he/she can change his/her password,email address and contact number.

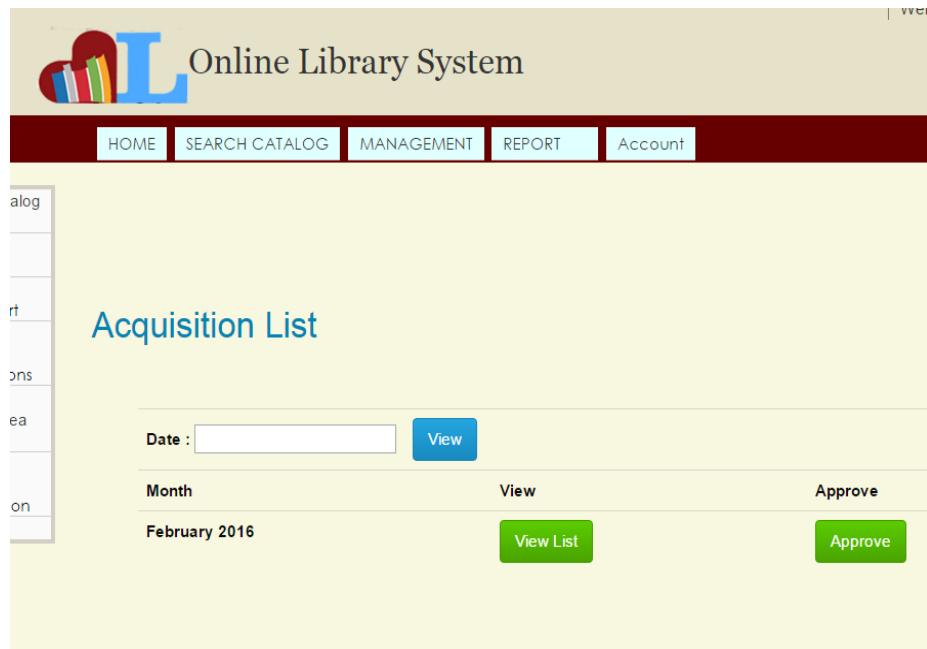


Figure 48: Acquisition List Arranged in Month

Acquisition List is directed to the School Principal for approval. Figure 48 shows that the list is clustered in month, since the approval is likely done as a group. The principal can review the list, before approval, using the View List button.

Acquisition ID	Title	Author	Publisher	Approve	Decline
2	Encyclopedia Britannica	Brittanica		Add to List	Delete
6	Examining the Daily Scriptures - 2015	Watch Tower and Bible Tract Society		Add to List	Delete
5	What Does the Bible Really Teach	Watchtower and Bible Tract Society		Add to List	Delete

Figure 49: Suggested Reading Materials in February

Figure 49 lists down all suggested reading materials for acquisition in the month of February. They are suggested reading materials by library users such as students and teachers. This is done by filling out the acquisition form. The School Principal can remove the reading material from the list.

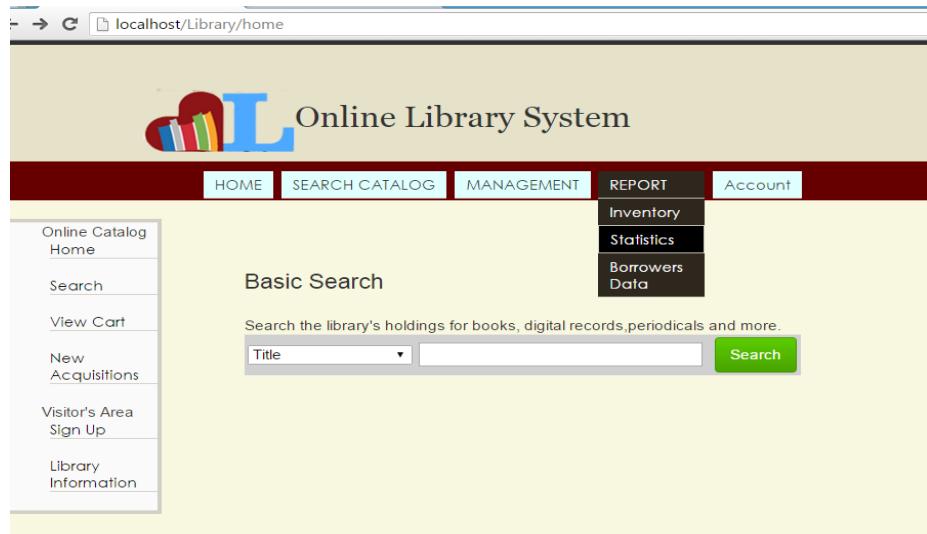


Figure 50: View Reports

All library reports, similar with the librarian, are available for the School Principal. He/She can also view and download library reports such as Inventory Listings, Yearly Statistical Data and Monthly Borrowers and Borrowed Books.

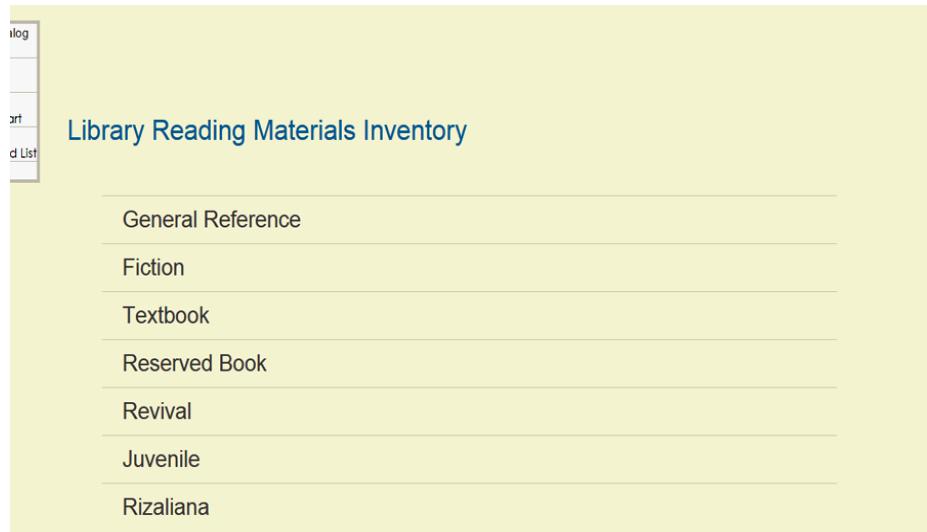


Figure 51: Yearly Inventory Listings

The library holds a yearly inventory listings of books and reading materials. Subdivided into different sections, the principal can view them in an organized manner.

The screenshot shows a PDF document titled "Reading Materials Inventory Listings". The table has a header row "FILIPINIANA" and columns for Qty, Call Number, Title, Author, and Source. The data includes:

Qty	Call Number	Title	Author	Source
1	636.7	Nubs: the true story of a mutt, a Marine & a miracle	Dennis Brian	F
2	F 001.3 Zu84	The Humanities	Zulueta, Francisco M.	S
14	F 005.72 Es65p	Presentation Making and Web Design	Espiritu-Enriques, Alloid	D
13	F 070.4 C766j	Journalism Handbook	Constantino-Pangilinan, Estelita	R
20	FR 959.9 K15	Kasaysayan: The Reader's Digest		S

Figure 52: Yearly Inventory Listings PDF Format

Inventory listings, which contain the different collections filed and served as an official collection of the library for supply office copy and school copy, are available in Pdf format.

The screenshot shows a table titled "Monthly Data of Borrowers and Borrowed Books" for February 2016. The table has columns for Date, GRADE 7, GRADE 8, GRADE 9, GRADE 10, and TEACHERS. The data includes:

Date	GRADE 7			GRADE 8			GRADE 9			GRADE 10			TEACHERS	
	Students	Books	Overnight	Teachers	Books									
2016-02-01	34	23	45	36	42	16	26	28	10	17	25	15	1	3
2016-02-02	24	20	14	30	23	25	18	27	6	10	23	12	1	2
2016-02-03	13	17	5	27	20	15	10	23	27	40	36	18	6	7
2016-02-04	18	13	19	56	67	12	34	17	27	27	30	12	10	8
2016-02-05	13	15	10	16	24	5	29	19	8	27	30	12	10	8
2016-02-06	3	6	6	108	73	6	4	9	8	6	6	7	5	2
2016-02-07	27	8	0	4	4	2	23	16	8	8	22	4	6	3

Figure 53: Monthly Data of Borrowed Books and Borrowers

Figure 53 presents the monthly record of books and borrowers in each year level, Grade 7 to 10, as well as teachers. Overnight books are also recorded.

2016	GRADE 7			GRADE 8			GRADE 9			GRADE 10			TEACHERS		
	FEBRUARY	Students	Books	Overnight	Teachers	Books									
2016-02-01	34	23	45	36	42	16	26	28	10	17	25	15	1	3	
2016-02-02	24	20	14	30	23	25	18	27	6	10	23	12	1	2	
2016-02-03	13	17	5	27	20	15	10	23	27	40	36	18	6	7	
2016-02-04	18	13	19	56	67	12	34	17	27	27	30	12	10	8	
2016-02-05	13	15	10	16	24	5	29	19	8	27	30	12	10	8	
2016-02-06	3	6	6	108	73	6	4	9	8	6	6	7	5	2	
2016-02-07	27	8	0	4	4	2	23	16	8	8	22	4	6	3	

Figure 54: Monthly Data of Borrowed Books and Borrowers in PDF

PDF format is also supported by PHOLS. The Monthly Data of Borrowed Books and Borrowers in PDF is available for download.

	FILIPINIANA		FOREIGN	
	Title	Volume	Title	Volume
General works	10	10	10	10
Philosophy	0	0	2	2
Religion	0	0	0	0
Social Science	0	0	0	0
Languages	1	1	4	4
Science	1	1	0	0

Figure 55: Yearly Statistical Data Record of Books

Number of books or reading materials, which are contained in the library collection, are summarized in this page.

localhost/Library/statistics

Online Library System Statistics

1 / 1

Reading Materials Statistical Data

FILIPINIANA		FOREIGN		
	<u>Title</u>	<u>Volume</u>	<u>Title</u>	<u>Volume</u>
<i>General works</i>	10	10	10	10
<i>Philosophy</i>	0	0	2	2
<i>Religion</i>	0	0	0	0
<i>Social Science</i>	0	0	0	0
<i>Languages</i>	1	1	4	4

Figure 56: Yearly Statistical Data Record of Books
 Portable Data format is also available and can be downloaded.

System Administrator



Figure 57: Home view for the Administrator

When the user logged in as System Administrator, he/she is redirected to this page, figure 57. He/she can search through the online catalog, using this page. He/she can specify which field is needed to match the entered keywords.

First name	Middle name	Last name	Sex	Action	Action
Juan	Manuel	Dela Cruz	MALE	Activate	Deactivate
Analee	E.	Mayo	FEMALE	Activate	Deactivate
Erwin	J.	Dela Costa	MALE	Activate	Deactivate
Juan	R.	Dela Cruz	MALE	Activate	Deactivate
Juana	R.	Dela Rosa	FEMALE	Activate	Deactivate
Josefina	K.	Santos	FEMALE	Activate	Deactivate
Librarian	In	School	FEMALE	Activate	Deactivate
Eduardo	Dela Rosa	Cruz	MALE	Activate	Deactivate

Figure 58: Managing PHOLS Users

The System Administrator has the privilege of managing system's users. He/She can activate or deactivate users. He/she can activate users by clicking the blue button for activation and can deactivate users through the pinkish-red button. When the user is already activated, the Deactivate button is the only button that is enabled. Otherwise, the Activate button is enabled when the user has been deactivated and needed to be reactivated. This is easily observable since all disabled button appear in gray and all enabled button appear in their blue or pinkish-red color.

Edit Account

Name	<input type="text" value="Librarian in School"/>
Password	<input type="password" value="admin_lib"/>
Confirm Password	<input type="password"/>
Email address	<input type="text" value="adminmhs@gmail.com"/>
Contact number	<input type="text" value="09158645823"/>
User type	<input type="text" value="student"/>
Year Level	<input type="text"/>
<input type="button" value="Update"/> <input type="button" value="Back"/>	

Figure 59: Edit His/Her User Account

All PHOLS users can edit their account including the System Administrator. He/She can use this page, figure 59. The Name field is not allowable for modification. The Password field is required. Confirm password field must matched the Password.

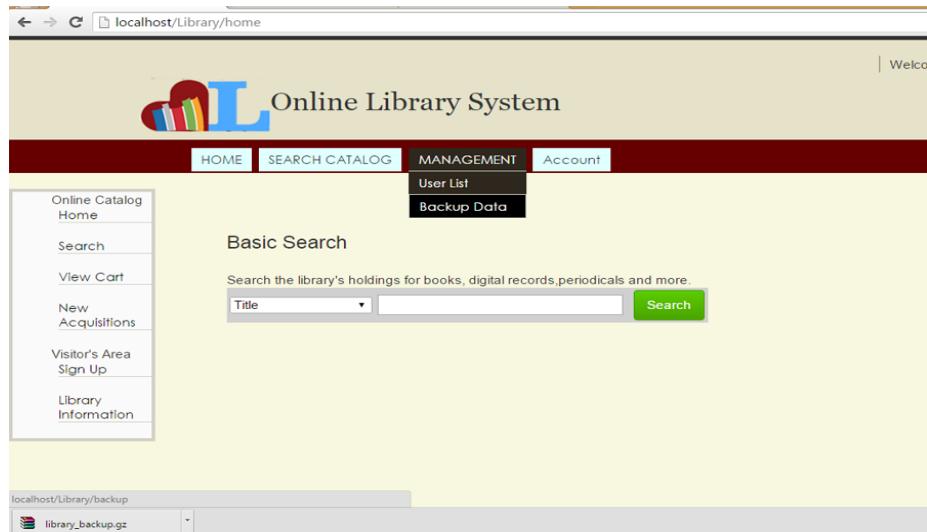


Figure 60: Backup PHOLS Data

The System Administrator is allowed to Backup PHOLS data. When he/she clicks the Backup Data tab in the navigation, PHOLS database file in compressed format is automatically downloaded.

VI. Discussions

Public High Schools Online Library System (PHOLS) basically helps to perform tasks associated with library management in the public general high school. It reduces time spent and identification and verification errors of library reading materials mainly composed of books as well magazine, brochures, newspapers etc. The system enables the school librarian to add new books and reading materials with ease so that library users can browse most updated books and reading materials in the online catalog.

The accession number of books is unique and assigned sequentially by the system based on the period of acquisition. When a book is removed from the library collection, its still possess its accession number, material record is deleted from the system. PHOLS also handles accession number of lost books. When a book is lost, its accession number can be used as unique identifier by other books. The system performs this using an edit function on reading materials management. For books having multiple copies, accession numbers are sequentially assigned starting from the first book copy up to the last. Thus, an additional field, number of copies, in the material's table found in the database is added. To determine whether a book or reading material has multiple copies, the MySQL query from that table and shows it in the manage reading material view for the librarian.

When reading materials is updated by the librarian, all its copy are also updated. PHOLS matches the the call number of that material to those in the collection. Since multiple copies of books possess the same call number, all reading materials having the same call number is also updated. Basically, PHOLS aids librarians to keep the library collection organized.

Also, PHOLS organizes the library collection in a more handy manner. It lists down all books according to section. PHOLS determines where a book belongs based on the materials' type. Since the system holds an online public access catalog (OPAC), speed of data retrieval for library users is more appreciated.

Borrowing of book and reading material through PHOLS is done via cart . The library users add materials to their cart that entails them reservation. However, reservation does not assure them materials' possession, since borrowing is done in first come first serve

basis.Those users who reserved materials can get the reserved reading materials in the library desk. For those who do not, they cannot borrow book or reading material without reservation. PHOLS requires reservation before borrowing. It is parallel to the process of filling up borrowing information in students borrower card or teachers borrowing log book, if present.Borrowing information is recorded to the users record when the reservation is granted. However, when reservation is declined by the librarian, record of reservation is automatically removed from PHOLS.

When multiple users reserved a book, prioritization is based on the time of reservation. Library cart view for the librarian, which contains reading materials' reservation, is arranged according to the time of reservation. For multiple copies of books, allowable number of copies is determined by considering the number of copies already borrowed and the number of copies that are still available.

However, suspended students are not allowed to use their shopping cart. They cannot reserve reading materials but can only browse the online library catalog. Librarian can set this through PHOLS.View page showing lists of library users, arranged by year level, can be used by the librarian to allow/disallow library users. Library users' status (enrolled, suspended, not enrolled, banned) can be changed using a dropdown list. The librarian updates list of library users' status at a time upon clicking the submit button.

View page for returning reading materials is listed by section, with the current date as default.It means that PHOLS shows all books and reading materials that must be returned today.Otherwise, dates can be specified by the librarian using date picker. All books and reading materials that are not returned on time, is added to the librarian's reading materials' overdue view page.

PHOLS helps in tracking reading materials' usage and availability by another view page of borrowed materials, with its number of copies, number of copies already borrowed and number of materials that are still available.It also monitors users overdue reading materials borrowed by users, arranged by section.This is done through MySQL query from the library record table.

Because of the absence of human intervention, reports generated by the system is perfect and accurate. PHOLS keeps Inventory Listings, which contain the official library

collection in a yearly basis. PHOLS also generates the statistical data record of books in a yearly basis. Data of Borrowers and Borrowed Books are presented in monthly basis. All reports can be viewed and downloaded as Portable Document Format (pdf). Aside from the librarian, the school principal is allowed to view library reports through PHOLS.

All actions are directed to library users through notifications. Notification button is found in the navigation, as a last tab. The notification button appear appears as a blue book type image if there are notifications. Library users can click the button to view all his notifications.

Reserved books or reading materials appear in user's library cart and reservation expire within one day. Upon the approval for borrowing,PHOLS automatically removed the reading materials from the list. Library user's transactions are also available in the system.Overdue reading materials appear first in the user's transactions view page, along with the computed fines.The system administrator allows or declines users' access to the system. PHOLS enables the administrator to backup data using MySQL query.

User table contains systems' users information. When a user can access the system,it means that he/she has a privilege also of being a library user. Therefore, no separate table is designated for a library user to keep the database simple and clear. Instead, user_type field such as student, teacher and faculty is a required field. It entails what privilege access is available for each individual user. The school librarian can manage multiple library reading materials (material table). All basic information regarding the reading material can be fetch in the material table. The borrower's usage of reading materials are keep track and stored (borrower record table). To know to whom the material is granted, the unique identifier of the user table which is the user_id is mapped to the borrower record table. Also, the material_id serves as a foreign key for keeping track of what materials have been used (reserved, borrowed and returned) by the user. All reports can be generated by the system easily through the borrower record table. Detailed description regarding with the user and material can be fetched by mapping the user_id and material_id to user and material table respectively.

With the Codeigniter Framework having an MVC (Model-View-Controller) development pattern, there was not so much difficulty experienced in developing the system. Cre-

ation of forms with the Code igniter validation and designing of forms were done using HTML, PHP, Jquery, Javascript, and CSS through Aptana Studio. The view files, which are in the presentation layer of the system architecture, contain the web interface made using the mentioned programming languages. The controller files, which contain the functionalities, serve as the link between the service layer and the database layer in which MySQL queries are made through the model files using PHP. Codeigniters database class containing database functions made it easier to perform MySQL queries. Given this flow, it was not too difficult combining the three parts.

VII. Conclusions

Public High School Online Library System (PHOLS) could surely aid borrowing and returning process of reading materials via cart and definitely could provide an organized tool in performing library tasks and services in public high schools. PHOLS allows addition of newly acquired reading material in the online catalog, borrowing and returning of reading materials, helps tracking reading materials usage and availability, aids monitoring users' overdue books and reading materials and generates library report perfectly and accurately. Access to these functionalities could be gained by registering an account and logging in as librarian using registered username and password, provided that the account is activated. For the library users, they can access the online library collection without logging in but can only add reading materials into their cart upon logging in using their username (composed of first letter of the first name, first letter of the middle name and the complete last name) and password.

Library collection could be updated using the suggested reading materials from the library users. These suggested reading materials is included to the acquisition list and subjected to approval from the principal. An administrator is responsible for managing user accounts. He/she can activate/deactivate an account. He can also backup library's data.

In meeting the changing demand in basic education, like the implementation of K to 12, and the necessity to enhance the quality of education in the country, PHOLS could speed up accurate performance of library tasks and services. The system provides an accurate generation of library data within minimal time allowing any one with the basic knowledge of computer to play his/her part in providing quality basic education through its heart, the library. Thus, not only to be recognized as comparable to other developing countries in Asia but also proven efficient in providing quality basic education.

VIII. Recommendations

Public High Schools Online Library System (PHOLS) is a library system application. Its goal is to help performing library tasks and services in public high schools efficiently. It also aims reducing time spent and errors in library collection management. Borrowing and returning of reserved books could be also implemented as an additional functionality to the system. To have a more powerful library system, classification of reading materials based on the Dewey Decimal Classification system as an additional functionality can be added. Development of a offline and mobile version can also be done to make the system more accessible to the library users anytime, anywhere. Connection to the reading materials' provider and bidding is suggested in acquisition process of reading materials. The library hub coordinator as a user can also be added to easily direct concerns from school librarian regarding library management. Submission of library yearly reports and other quarterly reports can be added through the system. Other advanced functionalities can be added to the system. Integrated online library system within the divisions schools can be also considered as an improved version of the system.

IX. Bibliography

- [1] Professional Regulations Commission, School Library and Media Centers Manila, *Standards for Philippine Libraries*, 2007.
- [2] R. S. Halsey and et.al., “Library(institution).” Microsoft Student [DVD], 2008. Redmond, WA: Microsoft Corporation.
- [3] O. Olaniyi, A. Omotosho, E. Oluwatosin, O. Towolawi, and G. Grant-Ezeronye, “Application of information communication technology to the management of library’s readers desk,” *DESIDOC Journal of Library and Information Technology*, vol. 32, no. 6.
- [4] J. M. Durban and R. D. Catalan, “Issues and concerns of philippine education through the years,” *Asian Journal of Social Sciences and Humanities*, vol. 1, no. 2, pp. 61–69, 2012. Accessed 15 July 2015.
- [5] M. Rodrigo, “Information and communication technology use in the philippine public and private schools.” Electronic file. Department of Information Systems and Computer Science Ateneo de Manila University, Quezon City. <http://curry.ateneo.net/didith/2001ICTUse.pdf>.
- [6] E. E. Baro, “A critical examination of information and communication technology policies: Effects on library services in nigeria,” *Library Philosophy and Practice (e-journal)*, no. 464, 2011. <http://digitalcommons.unl.edu/libphilprac/464>.
- [7] “Bringing libraries into the ict policy conversation in the philippines.” Electronic file. <http://beyondaccess.net/wp-content/uploads/2013/07/Beyond-Access Philippines-Country-Brief.pdf>. Accessed 16 July 2015.
- [8] D. of Education, “Ict implementation plan for elementary schools (ict4es) deped master plan for elementary education.” Electronic file, 2010. <http://www.fit-ed.org/congress2010/pdf/ICT Plan for Elementary Schools.pdf>. Accessed 16 July 2015.
- [9] D. of Education, “Five-year information and communication technology for education strategic plan (deped ict4e strategic plan).” Electronic file. Accessed 16 July 2015.

- [10] H. Al-Ansari, "Internet use by the faculty members of kuwait university," *The Electronic Library*, vol. 21, no. 5.
- [11] E. Adomi, "Application of information and communication technologies (icts) in nigerian high schools," *DESIDOC Journal of Library and Information Technology*, 2006. Warri: Nigerian Library Association, Delta State Chapter. AGM.
- [12] G. o. J. Center of International Cooperation for Computerization, "Survey of information and communication technology utilization in philippine public high schools preliminary findings." Electronic file, 2002. <http://www.fit-ed.org/downloads/ICT Utilization Survey.pdf>, Accessed 16 July 2015.
- [13] S. M.Mojapelo and D. Luyanda, "Information access in high school libraries in limpopo province,south africa," *South African Journal of Libraries and Information Science*, vol. 80, no. 2, 2014. <http://sajlis.journals.ac.za/pub/article/view/1401/1422> Accessed 17 July 2015.
- [14] R. Benard and F. Dulle, "Assessment of access and use of school library information resources by secondary schools students in morogoro municipality, tanzania.," *Library Philosophy and Practice (e-journal)*, no. 1107, 2014. <http://digitalcommons.unl.edu/libphilprac/1107>.
- [15] K. Dubazana and R. Hoskins, "Promoting equitable access to school libraries in kwazulu-natal: The role of the education library information and technology services (elits)," *Innovation*, vol. 42, pp. 114–131, 2011. <http://www.ajol.info/index.php/innovation/article/view/97038/86332> Accessed 17 July 2015.
- [16] K. Demir, "School management information systems in primary schools," *The Turkish Online Journal of Educational Technology (TOJET)*, vol. 5, no. 2, pp. 32–45, 2006. <http://www.tojet.net/articles/v5i2/526.pdf> Accessed 17 July 2015.
- [17] G. Hart, "How school libraries improve literacy: Some evidence from the trenches," *Mousaion*, vol. 47, 2013. Accessed 17 July 2015.

- [18] C.Sasikala, G. Nagaratnamani, and V. Dhanraju, “Pattern of collection development in academic libraries in andhra pradesh: A study,” *IOSR Journal Of Humanities And Social Science (IOSR-JHSS)*, vol. 19, no. 2.
- [19] N. Hermosa and A. Anday, “Distance learning and digital libraries: The up open university experience,” *Journal of Philippine Librarianship*, vol. 28, no. 1, pp. 90–105, 2008.
- [20] B. Neelakandan, S. Duraisekar, S. Balasubramani, R. Srinivasa, and S. Ragavan, “Implementation of automated library management system in the school of chemistry bharathidasan university using open source software,” *International Journal of Applied Engineering Research, Dindigul*, vol. 1, no. 1, pp. 149–167, 2010. Accessed 16 July 2015.
- [21] ALA, “Types of libraries.” Web. <http://www.ala.org/educationcareers/careers/librarycareerssite/types> Accessed 22 July 2015.
- [22] natlib, “School library: purpose.” Web. <http://schools.natlib.govt.nz/supporting-learners/effective-practice/school-library-purpose/introduction-to-the-school-library>.Accessed 22 July 2015.
- [23] UNESCO, “Unesco/ifla school library manifesto.” Web. http://www.unesco.org/webworld/libraries/manifestos/school_festo.html.Accessed 22 July 2015.
- [24] G. of the Republic of the Philippines, “Total public school enrollment.” Web. <http://data.gov.ph/infographics/education/2013/hs/nat>. Accessed 22 July 2015.
- [25] Newsbytes.ph, “Deped unveils online library locator map in public schools.” Online News Article. <http://newsbytes.ph/2014/06/27/deped-unveils-online-library-locator-map-in-public-schools/>.Accessed 22 July 2015.
- [26] O. Organization, “Dewey decimal.” Web. <https://www.oclc.org/dewey/features/summaries.en.html>. Accessed 22 July 2015.

- [27] J. I. Inc., “Web-based application.” Web, 2015. <https://www.techopedia.com/definition/26002/web-based-application>. Accessed 27 November 2015.
- [28] acunetix, “Web applications: What are they? want of them?.” Web, 2015. <http://www.acunetix.com/websitetecurity/web-applications/>. Accessed 27 November 2015.
- [29] TechTarget, “browser definition.” Web, 2015. <http://searchwindevelopment.techtarget.com/definition/browser>. Accessed 27 November 2015.
- [30] C. Hope, “Browser.” Web, 2015. <http://www.computerhope.com/jargon/b/browser.htm>. Accessed 27 November 2015.
- [31] TechTerms, “Programming language.” Web, 2015. <http://techterms.com/definition/programming-language.htm>. Accessed 28 November 2015.
- [32] pcmag, “Programming language.” Web, 2015. <http://www.pc当地.com/encyclopedia/term/49829/programming-language>. Accessed 28 November 2015.
- [33] C. Hope, “Programming language.” Web, 2015. <http://www.computerhope.com/jargon/p/proglang.htm>. Accessed 28 November 2015.
- [34] E. B. Inc., “Information system.” Web, 2015. <http://www.britannica.com/topic/information-system>. Accessed 22 July 2015.
- [35] J. Daintith, “Information management system.” Web, 2004. <http://www.encyclopedia.com>. Accessed 28 November 2015.
- [36] linfo, “Database definition.” Web. <http://www.linfo.org/database.html>. Accessed 22 July 2015.

[37] TechTarget, “database management system.” Web.
<http://searchsqlserver.techtarget.com/definition/database-management-system>. Accessed 22 July 2015.

X. Appendix

A. Forms

```
<div class="wrapper col3">
<div id="featured_slide_form">
<div id="featured_wrap_form">
<?php echo form_open('user/register'); ?>
<?php if(isset($message)){ ?>
<div style="display:block; width:85%; border-color: #a2d246; margin: .5em 15% 0.5em; border: 1px solid; background-repeat: no-repeat; background-position: 10px 5px; border-radius: 5px; -moz-border-radius: 5px; -webkit-border-radius: 5px; border-radius: 5px; -moz-box-shadow: 0 1px 1px #fff inset; -webkit-box-shadow: 0 1px 1px #fff inset; box-shadow: 0 1px 1px #fff inset; color: #000; background-color: #ebf8a4; ">
<?php
echo $message;
?>
</div>
<?php
}?
<div style="display:block; width:450px; height:450px; background-color:#eae8e8; margin-left:30%;">
<table style="border-spacing:5px;">
<tr>
<td colspan="3" style="font-style:Impact,sans-serif; font-size:30px; color:#008e8e;"> Sign Up</td>
</tr>
<tr>
<td align="right">Name</td>
<td colspan="2"><input type="text" name="name" value="<?php echo set_value('name');?>" size="30px"/></td>
</tr>
<tr>
<td align="right">Password</td>
<td colspan="2" style="font-size: 0.9em; color:#0084b4;" nowrap><small>(i.e. Juan R. Dela Cruz)</small></td>
</tr>
<tr>
<td align="right" nowrap>Confirm Password</td>
<td colspan="2"><input type="text" name="passconf" size="30px"/></td>
<!--<td style="color: #ff0000;"><?php echo form_error('password','<small>', '</small>'); ?></td>-->
</tr>
<tr>
<td colspan="3" style="font-size: 0.9em; color:#0084b4;" nowrap><small>At least 6 characters</small></td>
</tr>
<tr>
<td align="right" nowrap>Confirm Password</td>
<td colspan="2"><input type="text" name="passconf" size="30px"/></td>
<!--<td style="color: #ff0000;"><?php echo form_error('passconf','<small>', '</small>'); ?></td>-->
</tr>
<tr>
<td colspan="3" style="font-size: 0.9em; color:#0084b4;" nowrap><small>Confirm password</small></td>
</tr>
<tr>
```

```

<td align="right">Sex</td>
<td><input type="radio" name="sex" value="male" />&nbsp;Male</td>
<td><input type="radio" name="sex" value="female" />&nbsp;Female</td>
</tr>
<tr>
<td align="right" nowrap>Email address</td>
<td colspan="2"><input type="text" name="email_address" value=<?php echo set_value('email_address');?>" size="30px"/></td>
<!--<td style="color: #ff0000;"><?php echo form_error('email_address','<small>', '</small>');?></td>-->
</tr>
<tr>
<td></td>
<td colspan="2" style="font-size: 0.9em; color:#0084b4;" nowrap><small>A valid email address</small></td>
</tr>
<tr>
<td align="right" nowrap>Contact number</td>
<td colspan="2"><input type="text" name="contact_number" value=<?php echo set_value('contact_number');?>" size="30px"/></td>
<!--<td style="color: #ff0000;"><?php echo form_error('contact_number','<small>', '</small>');?></td>-->
</tr>
<tr>
<td></td>
<td colspan="2" style="font-size: 0.9em; color:#0084b4;" nowrap><small>A valid contact number, at least 11 digits</small></td>
</tr>
<tr>
<td align="right" nowrap>User type</td>
<td colspan="2">
<select name="user_type" id="user_type" style="width:290px;">
<option value="student" <?php echo set_select('user_type','student');?> selected>Student</option>
<option value="teacher" <?php echo set_select('user_type','teacher');?> >Teacher</option>
<option value="faculty" <?php echo set_select('user_type','faculty');?> >Faculty</option>

</select>
</td>
</tr>

<tr id="year_level" disabled>
<td align="right" nowrap>Year Level</td>
<td colspan="2">
<select name="year_level" id="year_level" style="width:290px;">
<option value="NULL" <?php echo set_select('year_level',NULL);?> ></option>
<option value="7" <?php echo set_select('year_level','7');?> >Grade 7</option>
<option value="8" <?php echo set_select('year_level','8');?> >Grade 8</option>
<option value="9" <?php echo set_select('year_level','9');?> >Grade 9</option>
<option value="10" <?php echo set_select('year_level','10');?> >Grade 10</option>
</select>
</td>
</tr>

<tr>
<td colspan="3" align="right">
<button name="reset" type="reset" class="reset" value="Reset" >Reset</button>
&nbsp;&nbsp;&nbsp;
<button name="submit" class="submit" value="Submit" style="float: right;">Submit</button>
</td>
</tr>

```

```

        </table>
        <?php echo form_close();?>
    </div>
    <br clear/>

    </div>
    </div>
    </div>
<!-- ##### -->
<div class="wrapper col5">
    <div name="footer">
        <p class="fl_left">Copyright ©, 2016 - All Rights Reserved </p>
        <p class="fl_right"></p>
        <br class="clear" />
    </div>
</div>
<!-- ##### -->
</body>
</html>

<div class="wrapper col3">
    <div id="featured_slide_form">
        <div id="featured_wrap_form">
            <?php echo form_open('material/add');?>
            <?php if(isset($message)) {
                ?>
                <div style="display:block; width:90%; border-color: #a2d246; margin: .5em 15% 0.5em; border: 1px solid; background-repeat: no-repeat; background-position: 10px -15px; border-radius: 5px; -moz-border-radius: 5px; -webkit-border-radius: 5px; border-radius: 5px; border: 1px solid #a2d246; padding: 10px; color: #000; background-color: #ebf8a4; ">
                    <?php
                        echo $message;
                    ?>
                </div>
                <?php
                    }if(isset($errors)) {
                ?>
                <div style="display:block; width:85%; border-color: #E8124F; margin: .5em 15% 0.5em; border: 1px solid; background-repeat: no-repeat; background-position: 10px -15px; border-radius: 5px; border: 1px solid #E8124F; padding: 10px; color: #000; background-color: #E94A86; ">
                    <?php echo $errors; ?>
                </div>
                <?php }?>
            <div style=" width:800px; height: 600px; background-color:#eae8e8; margin-left: 13%; ">
                <div style="font-style:Impact,Charcoal,sans-serif; font-size:30px; color:#0084b4; margin: 5% 2% 2% 2%; ">
                    Add Reading Material
                </div>
            <div class="featured_box_formGroup2">
                <table class="table" style="display: block;">
                    <tr>
                        <td>Title</td>
                        <td><input type="text" name="title" size="30px" value="<?php echo set_value('title');?>" /></td>
                        <td nowrap>Call Number</td>
                
```

```

<td><input type="text" name="call_number" size="20px" value="php echo set_value('call_number');?&gt;"/&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td&gt;Author&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="author" size="30px" value="<?php echo set_value('author');?&gt;"/&gt;&lt;/td&gt;
&lt;td&gt;Major Group&lt;/td&gt;
&lt;td&gt;
&lt;select name="major_group" style="width: 150px;"&gt;
&lt;?php
$group_list = array(
'Filipiniana' =&gt;'filipiniana',
'Foreign' =&gt; 'foreign'
);
foreach($group_list as $key =&gt; $each_group){
?&gt;
&lt;option value="<?php echo $each_group ?&gt;""><?php echo $key;?></option>
<?php
}
?>
?>
</select>
</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td nowrap>Date received</td>
<td><input type="text" name="date_received" id="datepicker" size= "30px" value="php echo set_value('date_received');?&gt;"/&gt;&lt;/td&gt;
&lt;td&gt;Class&lt;/td&gt;
&lt;td&gt;
&lt;select name="class" style="width: 150px;"&gt;
&lt;option value=NULL&gt;---Add class---&lt;/option&gt;
&lt;?php
$class_list = array(
'General works' =&gt;'general_works',
'Philosophy' =&gt; 'philosophy',
'Religion' =&gt; 'religion',
'Social Science' =&gt; 'social_science',
'Languages' =&gt; 'languages',
'Science' =&gt; 'science',
'Technology' =&gt;'technology',
'Arts and Recreation' =&gt;'arts_recreation',
'Literature' =&gt; 'literature',
'History and Geography' =&gt; 'history_geography');

foreach($class_list as $key =&gt; $each_class){
?&gt;
&lt;option value="<?php echo $each_class ?&gt;""><?php echo $key;?></option>
<?php
}
?>
?>
</select>

```

```

</td>
</tr>
<tr></tr>
<!--</table>-->

<!--</div>

<br clear />
<div class="featured_box_formGroup2">
<table class="table">-->
<tr>
</tr>
<tr>
<td>Edition</td>
<td><input type="text" name="edition" size="30px" value="php echo set_value('edition');??" /&gt;&lt;/td&gt;
&lt;td&gt;Volume&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="volume" size="20px" value="<?php echo set_value('volume');??" /&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td&gt;Pages&lt;/td&gt;
&lt;td&gt;&lt;input type="number" name="pages" style="width: 220px;" min="1" value="<?php echo set_value('pages');??" /&gt;&lt;/td&gt;
&lt;td nowrap&gt;Fund Source&lt;/td&gt;
&lt;td&gt;
&lt;select name="source" id="source" style="width: 150px;"&gt;
&lt;option value=""&gt;---Add source---&lt;/option&gt;
&lt;?php
$source_list = array(
    'Fines' =&gt;'fines',
    'Donation' =&gt;'donation',
    'Replaced' =&gt; 'replaced',
    'School Funds' =&gt; 'school_funds',
);
foreach($source_list as $key =&gt; $each_source){

    ?&gt;
&lt;option value="<?php echo $each_source ?;" &gt;&lt;?php echo set_select('source',$key);?&gt; &gt;&lt;?php echo $key;?&gt;&lt;/option&gt;
&lt;?php
}
?&gt;
?&gt;
&lt;/select&gt;
&lt;/td&gt;
&lt;/tr&gt;

&lt;tr&gt;
&lt;td&gt;Publisher&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="publisher" size="30px" value="<?php echo set_value('publisher');??" /&gt;&lt;/td&gt;
&lt;td nowrap&gt;Year Published&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="year_published" size="20px" value="<?php echo set_value('year_published');??" /&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;!--&lt;/table&gt;
&lt;/div&gt;&lt;!--&gt;
---&gt;&lt;!--&lt;div class="featured_box_formGroup2"&gt;
&lt;table class="table"&gt;--&gt;
&lt;tr&gt;
&lt;td&gt;Type&ampnbsp;:&lt;/td&gt;
</pre

```

```

<td colspan="3" align="center">
<?php
$typeList = array(
'General reference' => 'general_reference',
'Fiction' => 'fiction',
'Textbook' => 'textbooks',
'Reserved book' => 'reserved_books',
'Revival' => 'revivals',
'Juvenile' => 'juvenile',
'Rizaliana' => 'rizaliana'
);
foreach($typeList as $key => $type){
?>
<input type="radio" name="type" value="<?php echo $type;?>">&ampnbsp<?php echo $key;?> &ampnbsp&ampnbsp&ampnbsp
<?php
}
?>
</td>
</tr>
<tr>
<td>Remark</td>
<td colspan="3" align="center"><textarea name="remark" rows="3" cols="70" value="<?php echo set_value('remark');?>"></textarea></td>
</tr>
<tr>
<td colspan="4" align="right"><input type = "reset" value = "Reset" class="reset">&ampnbsp<input type = "submit" value = "Add" class="submit"></td>

</tr>
</table>
</div>

</div>
<?php echo form_close();?>
</div>
</div>
</div>
<!-- ##### -->
<!--<div class="wrapper col5">
<div name="footer">
<p class="fl_left">Copyright ©, 2016 - All Rights Reserved </p>
<p class="fl_right"></p>
<br class="clear" />
</div>-->
<!-- ##### -->
</div>
</body>
</html>

<!-- ##### -->
<div id="wrapper col3">
<div id="featured_slide_form">
<div id="featured_wrap_form">
<div id="featured_content_form">
<div class="featured_box_formSearch">
<legend> Basic Search</legend>

```

```

Search the library's holdings for books, digital records,periodicals and more.






```

```

<td align="right">Title</td>
<td><input type="text" name="title" size="45px" value="php echo set_value('title');?&gt;"&gt;&lt;/td&gt;

&lt;tr&gt;
&lt;td align="right"&gt;Author&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="author" size="45px" value="<?php echo set_value('author');?&gt;"&gt;&lt;/td&gt;

&lt;/tr&gt;
&lt;tr&gt;
&lt;td align="right"&gt;Publisher&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="publisher" size="45px" value="<?php echo set_value('publisher');?&gt;"&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td align="right"&gt;Year Published&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="year_published" size="45px" value="<?php echo set_value('year_published');?&gt;"&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td align="right"&gt;Edition&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="edition" size="45px" value="<?php echo set_value('edition');?&gt;"&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td align="right"&gt;Volume&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="volume" size="45px" value="<?php echo set_value('volume');?&gt;"&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td align="right"&gt;Cost&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="cost" size="45px" value="<?php echo set_value('cost');?&gt;"&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td align="right"&gt;Store&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="store" size="45px" value="<?php echo set_value('store');?&gt;"&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td align="right" colspan="2"&gt;
&lt;input type="submit" value="Submit" class="submit"/&gt;
&lt;input type="reset" value="Reset" class="reset"/&gt;
&lt;/td&gt;
&lt;/tr&gt;
&lt;/table&gt;
&lt;/div&gt;
&lt;?php echo form_close();&gt;
} elseif(isset($message)){?
&lt;div style="display:block; width:85%; border-color: #A2D246; margin: .5em 15% 0 .5em; border: 1px solid; background-repeat: no-repeat; background-position: -webkit-border-radius: 5px; border-radius: 5px; -moz-box-shadow: 0 1px 1px #fff inset; -webkit-box-shadow: 0 1px 1px #fff inset; box-shadow: 0 1px 1px #fff inset; color: #000; background-color: #ebf8a4;"&gt;
&lt;?php echo $message; ?&gt;
&lt;/div&gt;

&lt;div id="featured_wrap_form"&gt;
&lt;div style="display:block; width:540px; height: 500px; background-color:#eae8e8; margin-left: 25%;"&gt;
&lt;table style="border-collapse: separate; border-spacing: 5px; padding-top: 3%;" class="table"&gt;
&lt;tr&gt;
&lt;td align="right"&gt;Title&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="title" size="45px" value="<?php echo set_value('title');?&gt;" disabled/&gt;&lt;/td&gt;

&lt;/tr&gt;
</pre

```

```

<td align="right">Author</td>
<td><input type="text" name="author" size="45px" value=<?php echo set_value('author');?>" disabled/></td>

</tr>
<tr>
<td align="right">Publisher</td>
<td><input type="text" name="publisher" size="45px" value=<?php echo set_value('publisher');?>" disabled/></td>
</tr>
<tr>
<td align="right">Year Published</td>
<td><input type="text" name="year_published" size="45px" value=<?php echo set_value('year_published');?>" disabled/></td>
</tr>
<tr>
<td align="right">Edition</td>
<td><input type="text" name="edition" size="45px" value=<?php echo set_value('edition');?>" disabled/></td>
</tr>
<tr>
<td align="right">Volume</td>
<td><input type="text" name="volume" size="45px" value=<?php echo set_value('volume');?>" disabled/></td>
</tr>
<tr>
<td align="right">Cost</td>
<td><input type="text" name="cost" size="45px" value=<?php echo set_value('cost');?>" disabled/></td>
</tr>
<tr>
<td align="right">Store</td>
<td><input type="text" name="store" size="45px" value=<?php echo set_value('store');?>" disabled/></td>
</tr>
<tr>
<td colspan="2">
<input type="button" value="Back" style="float: right;" class="okay" onclick="window.location='<?php echo base_url('home');?>'"/>
</td>
</tr>
</table>
</div>
<?php }else{?>
<div id="featured_wrap_form">
<?php echo form_open('material/suggest');?>
<div style="display:block; width:540px; height: 500px; background-color:#eae8e8; margin-left: 25%;">
<table style="border-collapse: separate; border-spacing: 5px; padding-top: 3%;" class="table">
<tr>
<td align="right">Title</td>
<td><input type="text" name="title" size="45px" value=<?php echo set_value('title');?>/></td>

<tr>
<td align="right">Author</td>
<td><input type="text" name="author" size="45px" value=<?php echo set_value('author');?>/></td>

</tr>
<tr>
<td align="right">Publisher</td>
<td><input type="text" name="publisher" size="45px" value=<?php echo set_value('publisher');?>/></td>
</tr>
<tr>
<td align="right">Year Published</td>
<td><input type="text" name="year_published" size="45px" value=<?php echo set_value('year_published');?>/></td>
</tr>

```

```

<tr>
<td align="right">Edition</td>
<td><input type="text" name="edition" size="45px" value=<?php echo set_value('edition');?>"></td>
</tr>
<tr>
<td align="right">Volume</td>
<td><input type="text" name="volume" size="45px" value=<?php echo set_value('volume');?>"></td>
</tr>
<tr>
<td align="right">Cost</td>
<td><input type="text" name="cost" size="45px" value=<?php echo set_value('cost');?>"></td>
</tr>
<tr>
<td align="right">Store</td>
<td><input type="text" name="store" size="45px" value=<?php echo set_value('store');?>"></td>
</tr>
<tr>
<td align="right" colspan="2">
<input type="submit" value="Submit" class="submit"/>
<input type="reset" value="Reset" class="reset"/>
</td>
</tr>
</table>
</div>
<?php echo form_close();
?>
</div>
</div>
<!-- ##### -->
<!-- <div class="wrapper col5">
<div id="footer">
</div>-->
<!-- ##### -->
</div>
</body>
</html>

<div class="wrapper col3">
<div id="featured_slide_form">
<div id="featured_wrap_form">
<?php $material_id = $material['accession_number']; ?>
<?php echo form_open("material/edit/$material_id");?>
<?php if(isset($message)){ ?>
<div style="display:block; width:90%; border-color: #a2d246; margin: .5em 15% 0.5em; border: 1px solid; background-repeat: no-repeat; background-position: 10px -moz-border-radius: 5px;
-webkit-border-radius: 5px;
border-radius: 5px;
-moz-box-shadow: 0 1px 1px #fff inset; -webkit-box-shadow: 0 1px 1px #fff inset; box-shadow: 0 1px 1px #fff inset; color: #000; background-color: #ebf8a4; ">
<?php
echo $message;
?>
</div>
<?php

```

```

    }?>

<div style=" display: block; width:800px; height: 600px; background-color:#eae8e8; margin-left: 13%;">
    <div style="font-style:Impact,Charcoal,sans-serif; font-size:30px; color:#0084b4; margin: 5% 2% 2% 2%;">
        Edit Reading Material
    </div>
    <div class="featured_box_formGroup2">
        <table class="table">
            <tr>
                <td>Title</td>
                <td><input type="text" name="title" size="30px" required value="php echo set_value('title', $material['title']); ?&gt;" /&gt;&lt;/td&gt;
            &lt;td nowrap&gt;Call Number&lt;/td&gt;
            &lt;td&gt;&lt;input type="text" name="call_number" size="20px" name="call_number" required value="<?php echo set_value('call_number', $material['call_number']); ?&gt;" /&gt;&lt;/td&gt;
        &lt;/tr&gt;
        &lt;tr&gt;
            &lt;td&gt;Author&lt;/td&gt;
            &lt;td&gt;&lt;input type="text" name="author" size="30px" required value="<?php echo set_value('author', $material['author']); ?&gt;" /&gt;&lt;/td&gt;
            &lt;td&gt;Major Group&lt;/td&gt;
            &lt;td&gt;
                &lt;select name="major_group" style="width: 150px;"&gt;
                    &lt;?php
                        $group_list = array(
                            'Filipiniana' =&gt;'filipiniana',
                            'Foreign' =&gt; 'foreign'
                        );
                        foreach ($group_list as $key =&gt; $each_group) {
                            if($each_group == $material['major_group']){
                                $key = $material['major_group'];
                            }
                        }
                    &lt;option required value="<?php echo set_value('major_group',$key); ?&gt;" selected&gt;&lt;?php echo $key;?&gt;&lt;/option&gt;
                    &lt;?php
                }
                &lt;?&gt;
                &lt;option required value="<?php echo set_value('major_group',$key); ?&gt;"<?php echo $key;?></option>
                <?php
            }
            </select>
        </td>
    </tr>
    <tr>
        <td></td>
        <td></td>
        <td></td>
        <td></td>
    </tr>
    <tr>
        <td nowrap>Date received</td>
        <td><input type="text" name="date_received" id="datepicker" size="30px" required value="php echo set_value('date_received', $material['date_received']); ?&gt;" /&gt;&lt;/td&gt;
        &lt;td&gt;Class&lt;/td&gt;
        &lt;td&gt;
            &lt;select name="class" style="width: 150px;"&gt;
                &lt;?php
                    $class_list = array(
                        'General works' =&gt;'general_works',
                        'Philosophy' =&gt; 'philosophy',
</pre

```

```

'Religion' => 'religion',
'Social Science' => 'social_science',
'Languages' => 'languages',
'Science' => 'science',
'Technology' => 'technology',
'Arts and Recreation' => 'arts_recreation',
'Literature' => 'literature',
'History and Geography' => 'history_geography');

foreach ($class_list as $key => $each_class) {
    if($each_class == $material['class']){
        $key = $material['class'];
    ?>

        <option required value="php echo set_value('class',$key); ?&gt;" selected&gt;&lt;?php echo $key;?&gt;&lt;/option&gt;
        &lt;?php
    }
    ?&gt;
        &lt;option required value="<?php echo set_value('class',$key); ?&gt;"><?php echo $key;?></option>

        <?php
    }
    ?>
</select>
</td>
</tr>
<!--</table>
</div><!--
--><!--<div class="featured_box_formGroup2">
<table class="table">-->
<tr>
<td>Edition</td>
<td><input type="text" name="edition" size="30px" value="php echo set_value('edition',$material['edition']);?&gt;"/&gt;&lt;/td&gt;
&lt;td&gt;Volume&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="volume" size="20px" value="<?php echo set_value('volume',$material['volume']); ?&gt;"/&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td&gt;Pages&lt;/td&gt;
&lt;td&gt;&lt;input type="number" name="pages" style="width: 220px;min="1"/&gt;&lt;/td&gt;
&lt;td nowrap&gt;Fund Source&lt;/td&gt;
&lt;td&gt;
&lt;select name="source" style="width: 150px;"&gt;
&lt;?php
    $source_list = array(
        'Fines' =&gt;'fines',
        'Donation' =&gt;'donation',
        'Replaced' =&gt; 'replaced',
        'School Funds' =&gt; 'school_funds'
    );
    foreach ($source_list as $key =&gt; $source) {
        if($source == $material['source']){
            $key = $material['source'];
        ?&gt;

            &lt;option required value="<?php echo set_value('source',$key); ?&gt;" selected&gt;&lt;?php echo $key;?&gt;&lt;/option&gt;
            &lt;?php
</pre

```

```

        }

    ?>
<option required value="=php echo set_value('source',$key); ?&gt;"&gt;&lt;?php echo $source;?&gt;&lt;/option&gt;

&lt;?php
}
?&gt;
?&gt;
&lt;/select&gt;
&lt;/td&gt;
&lt;/tr&gt;

&lt;tr&gt;
&lt;td&gt;Publisher&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="publisher" size="30px" value="<?=php echo set_value('publisher',$material['publisher']);?&gt;"&gt;&lt;/td&gt;
&lt;td nowrap=""&gt;Year Published&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="year_published" size="20px" value="<?=php echo set_value('year_published',$material['year_published']);?&gt;"&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;!--&lt;/table&gt;
&lt;/div&gt;&lt;!--
---&gt;&lt;!--&lt;div class="featured_box_formGroup2"&gt;
&lt;table class="table"&gt;--&gt;
&lt;tr&gt;
&lt;td&gt;Type&nbsp;:&lt;/td&gt;
&lt;td colspan="3" align="center"&gt;
&lt;?php
$typeList = array(
    'General reference' =&gt; 'general_reference',
    'Fiction' =&gt; 'fiction',
    'Textbook' =&gt; 'textbooks',
    'Reserved book' =&gt; 'reserved_books',
    'Revival' =&gt; 'revivals',
    'Juvenile' =&gt; 'juvenile',
    'Rizaliana' =&gt; 'rizaliana'
);
foreach($typeList as $key =&gt; $type){
    if($type == $material['type']){
        $key = $material['type'];
    }
}

&lt;input type="radio" name="type" value="<?=php echo set_radio('source',$key,TRUE); ?&gt;" /&gt;&lt;?php echo $key;?&gt;
&lt;?php
} else{
?&gt;

&lt;input type="radio" name="type" value="<?=php echo $type;?&gt;" &gt;&ampnbsp;&lt;?php echo $key;?&gt; &ampnbsp;&ampnbsp;&ampnbsp;
&lt;?php
}
?&gt;
&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td&gt;Remark&lt;/td&gt;
&lt;td colspan="3" align="center"&gt;&lt;textarea name="remark" rows="3" cols="70"&gt;&lt;?php echo set_value('remark',$material['remark']);?&gt;&lt;/textarea&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;/tr&gt;
</pre

```

```

        <td colspan="4" align="right"><input type = "submit" value = "Submit" class="submit"></td>
        </tr>
    </table>
</div>
<?php echo form_close(); ?>
</form>
</div>
</div>
</div>
</div>
<!-- ##### -->
<!!--<div class="wrapper col5">
<div name="footer">
<p class="fl_left">Copyright © 2016 - All Rights Reserved </p>
<p class="fl_right"></p>
<br class="clear" />
</div>
</div>-->
<!-- ##### -->
</div>
</body>
</html>

<div class="wrapper col3">
<div id="featured_slide_form">
<div id="featured_wrap_form">
<?php $material_id = $material['accession_number']; ?>
<?php if(isset($message)){>
?>
<div style="display:block; width:90%; border-color: #a2d246; margin: .5em 15% 0.5em; border: 1px solid; background-repeat: no-repeat; background-position: 10px -10px; border-radius: 5px; -moz-border-radius: 5px; -webkit-border-radius: 5px; border-radius: 5px; -moz-box-shadow: 0 1px 1px #fff inset; -webkit-box-shadow: 0 1px 1px #fff inset; box-shadow: 0 1px 1px #fff inset; color: #000; background-color: #ebf8a4; ">
<?php
echo $message;
?>
</div>
<?php
}?
<div style=" display: block; width:800px; height: 600px; background-color:#eae8e8; margin-left: 13%; ">
<div style="font-style:Impact,Charcoal,sans-serif; font-size:30px; color:#0084b4; margin: 5% 2% 2% 2%; ">
Edit Reading Material
</div>
<div class="featured_box_formGroup2">
<table class="table">
<tr>
<td>Title</td>
<td><input type="text" name="title" size="30px" disabled="" value="<?php echo set_value('title', $material['title']); ?>"></td>
<td nowrap>Call Number</td>
<td><input type="text" name="call_number" size="20px" name="call_number" disabled value="<?php echo set_value('call_number', $material['call_number']); ?>"></td>
</tr>
<tr>
<td>Author</td>
<td><input type="text" name="author" size="30px" disabled value="<?php echo set_value('author', $material['author']); ?>"></td>
<td>Major Group</td>

```

```

<td>
<select name="major_group" style="width: 180px;" disabled>
<?php
$group_list = array(
    'Filipiniana' => 'filipiniana',
    'Foreign' => 'foreign'
);
foreach ($group_list as $key => $each_group) {
    if($each_group == $material['major_group']){
        $key = $material['major_group'];
    ?>

        <option required value="php echo set_value('major_group',$key); ?&gt;" selected&gt;&lt;?php echo $key;?&gt;&lt;/option&gt;
    &lt;?php
}
?&gt;
&lt;option required value="<?php echo set_value('major_group',$key); ?&gt;&gt;&lt;?php echo $key;?&gt;&lt;/option&gt;

&lt;?php
}
?&gt;
&lt;/select&gt;
&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td&gt;&lt;/td&gt;
&lt;td&gt;&lt;/td&gt;
&lt;td&gt;&lt;/td&gt;
&lt;td&gt;&lt;/td&gt;
&lt;td&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td nowrap&gt;Date received&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="date_received" id="datepicker" size="30px" disabled value="<?php echo set_value('date_received', $material['date_received']); ?&gt;"&gt;
&lt;td&gt;Class&lt;/td&gt;
&lt;td&gt;
&lt;select name="class" style="width: 180px;" disabled&gt;
&lt;?php
$class_list = array(
    'General works' =&gt; 'general_works',
    'Philosophy' =&gt; 'philosophy',
    'Religion' =&gt; 'religion',
    'Social Science' =&gt; 'social_science',
    'Languages' =&gt; 'languages',
    'Science' =&gt; 'science',
    'Technology' =&gt; 'technology',
    'Arts and Recreation' =&gt; 'arts_recreation',
    'Literature' =&gt; 'literature',
    'History and Geography' =&gt; 'history_geography');
foreach ($class_list as $key =&gt; $each_class) {
    if($each_class == $material['class']){
        $key = $material['class'];
    ?&gt;

        &lt;option required value="<?php echo set_value('class',$key); ?&gt;" selected disabled&gt;&lt;?php echo $key;?&gt;&lt;/option&gt;
    &lt;?php
}
?&gt;
</pre

```

```

?>
<option required value="php echo set_value('class',$key); ?&gt;" disabled&gt;&lt;?php echo $key;?&gt;&lt;/option&gt;

&lt;?php
}
?&gt;
&lt;/select&gt;
&lt;/td&gt;
&lt;/tr&gt;
&lt;!--&lt;/table&gt;
&lt;/div&gt;&lt;!--
--&gt;&lt;!--&lt;div class="featured_box_formGroup2"&gt;
&lt;table class="table"&gt;--&gt;
&lt;tr&gt;
&lt;td&gt;Edition&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="edition" size="30px" value="<?php echo set_value('edition',$material['edition']);?&gt;" disabled/&gt;&lt;/td&gt;
&lt;td&gt;Volume&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="volume" size="20px" value="<?php echo set_value('volume',$material['volume']);?&gt;" disabled/&gt;&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td&gt;Pages&lt;/td&gt;
&lt;td&gt;&lt;input type="number" name="pages" style="width: 250px;" min="1" disabled/&gt;&lt;/td&gt;
&lt;td nowrap&gt;Fund Source&lt;/td&gt;
&lt;td&gt;
&lt;select name="source" style="width: 180px;" disabled&gt;
&lt;?php
$source_list = array(
'Fines' =&gt;'fines',
'Donation' =&gt;'donation',
'Replaced' =&gt; 'replaced',
'School Funds' =&gt; 'school_funds'
);
foreach ($source_list as $key =&gt; $source) {
if($source == $material['source']){
$key = $material['source'];
?&gt;
&lt;option required value="<?php echo set_value('source',$key); ?&gt;" selected&gt;&lt;?php echo $key;?&gt;&lt;/option&gt;
&lt;?php
}
?&gt;
&lt;option required value="<?php echo set_value('source',$key); ?&gt;" disabled&gt;&lt;?php echo $source;?&gt;&lt;/option&gt;
&lt;?php
}
?&gt;
?&gt;
&lt;/select&gt;
&lt;/td&gt;
&lt;/tr&gt;
&lt;tr&gt;
&lt;td&gt;Publisher&lt;/td&gt;
&lt;td&gt;&lt;input type="text" name="publisher" size="30px" value="<?php echo set_value('publisher',$material['publisher']);?&gt;" disabled/&gt;&lt;/td&gt;
&lt;td nowrap="">Year Published</td>
<td><input type="text" name="year_published" size="20px" value="php echo set_value('year_published',$material['year_published']);?&gt;" disabled/&gt;&lt;/td&gt;
</pre

```

```

        </tr>
    <!--</table>
</div><!--
--><!--<div class="featured_box_formGroup2">
<table class="table">-->
    <tr>
        <td>Type &nbsp;</td>
        <td colspan="3" align="center" >
<?php
$typeList = array(
    'General reference' => 'general_reference',
    'Fiction' => 'fiction',
    'Textbook' => 'textbooks',
    'Reserved book' => 'reserved_books',
    'Revival' => 'revivals',
    'Juvenile' => 'juvenile',
    'Rizaliana' => 'rizaliana'
);
foreach($typeList as $key => $type){
    if($type == $material['type']){
        $key = $material['type'];
    }
}

<input type="radio" name="type" value="<?php echo set_radio('source',$key,TRUE); ?>" disabled/><?php echo $key;?>
<?php
} else{
?>

<input type="radio" name="type" value="<?php echo $type;?>" disabled>&nbsp;<?php echo $key;?> &nbsp;&nbsp;&nbsp;
<?php
}
?>
</td>
</tr>
<tr>
    <td>Remark</td>
    <td colspan="3" align="center"><textarea name="remark" rows="3" cols="70" disabled><?php echo set_value('remark',$material['remark']);?></textarea><?php
}
?>
<td colspan="4" align="right"><input type = "submit" value = "Back" class="okay" onclick="window.location='<?php echo base_url('material');?>'></td>
</tr>
</table>
</div>
</form>
</div>
</div>
</div>
<!-- ##### -->
<!--<div class="wrapper col5">
<div name="footer">
<p class="fl_left">Copyright &copy; 2016 - All Rights Reserved </p>
<p class="fl_right"></p>
<br class="clear" />
</div>
</div>-->

```

```

<!-- ##### -->
</div>
</body>
</html>

<!-- ##### -->
<div class="wrapper col3">
<div id="featured_slide_list">
<div style="font-style:Impact,Charcoal,sans-serif; font-size:30px; color:#0084b4; margin: 5% 2% 2%;">
    Library Users
</div>
<div id="featured_wrap_list">
<div id="featured_content_list">
<div class="featured_box_list">
<table class="table">
<tr>
<th><strong>No</strong></th>
<th><strong>First name</strong></th>
<th><strong>Middle name</strong></th>
<th><strong>Last name</strong></th>
<th><strong>Year Level</strong></th>
<th><strong>Borrower Type </strong></th>
<th><strong>Allow</strong></th>
<th><strong>Decline</strong></th>
</tr>
<?php
$i = 0;
foreach ($library_users as $library_user){
    $library_user_id = $library_user['user_id'];
    $i++;
?>
<tr>
<td><b><?php echo $i; ?></b></td>
<td><b><?php echo $library_user['first_name'] ?></b></td>
<td><?php echo $library_user['middle_name'] ?></td>
<td><?php echo $library_user['last_name'] ?></td>
<td><!--<?php echo $library_user['year_level'] ?>--></td>
<td><!--<?php echo $library_user['type'] ?>--></td>
<td><a href="php echo base_url('library_user/add/'.$library_user_id);?&gt;"Allow</a></td>
<td>
<!--<?php
    echo anchor('', 'Decline', array('onClick' => "return confirm('Are you sure you want to decline access?')"));
?>-->
</td>
</tr>
<?php
}
?>
</table>
</div>

</div>
</div>
</div>
<!-- ##### -->
<!--<div class="wrapper col5">

```

```

<div name="footer">
</div>
</div>-->
<!-- ##### -->
</div>
</body>
</html>

<!-- ##### -->
<div class="wrapper col3">
<div id="featured_slide_list">
<button style = "float: right;" type="submit" class="okay" value="Add" onclick="window.location='<?php echo base_url('material/add');?>'">Add New</button>
<div style="font-style:Impact,Charcoal,sans-serif; font-size:30px; color:#0084b4; margin: 5% 2% 2% 2%;">
    Library Reading Materials
</div>
<div id="featured_wrap_list">
<div id="featured_content_list">
<div class="featured_box_list">

    <table class="table">
        <tr>
            <!--<th><strong>Accession Number</strong></th>-->
            <th ><strong>Call number</strong></th>
            <th ><strong>Title</strong></th>
            <th ><strong>Author</strong></th>
            <th><strong>Edit</strong></th>
            <th><strong>Delete</strong></th>
        </tr>
        <tr>
            <?php if(isset($hold)){>
                $material_id = $hold['accession_number']; ?>
            <td><?php echo $hold['call_number'] ?></td>
            <td><b><a href= "<?php echo base_url('material/view/'.$material_id);?>" ><?php echo $hold['title'] ?></b></a></td>
            <td><?php echo $hold['author'] ?></td>

            <td>
                <a href="<?php echo base_url('material/edit/'.$material_id);?>" >Edit</a></td>
            <td>

                <?php
                    echo anchor('material/delete/'.$material_id, 'Delete', array('onClick' => "return confirm('Are you sure you want to delete?')"));
                ?>
            </td>
        </tr>
        <?php
    }
    ?>
    <?php
        foreach ($results as $material){
            $material_id = $material['accession_number'];
        ?>
        <tr>
            <!--<td><b><?php echo $material['accession_number'] ?></b></td>-->
            <td><?php echo $material['call_number'] ?></td>
            <td><a href= "<?php echo base_url('material/view/'.$material_id);?>" ><?php echo $material['title'] ?></a></td>
            <td><?php echo $material['author'] ?></td>
            <td><a href="<?php echo base_url('material/edit/'.$material_id);?>">Edit</a></td>
        </tr>
    }
    <?php
}
?>
<?php

```

```

<td>
<?php
echo anchor('material/delete/'.$material_id, 'Delete', array('onClick' => "return confirm('Are you sure you want to delete?')"));
?>
</td>
</tr>
<?php
}
?>
</table>
<div>
<p class="pagination"><?php echo $links;?></p>
</div>
</div>

</div>
</div>
</div>
</div>

<!-- ##### -->
<!-- <div class="wrapper col5">
<div id="footer">
</div>
</div>-->
<!-- ##### -->
</div>
</body>
</html>

```

B. Source Code

1. Configs

```

<?php
defined('BASEPATH') OR exit('No direct script access allowed');

/*
| -----
| AUTO-LOADER
| -----
| This file specifies which systems should be loaded by default.
|
| In order to keep the framework as light-weight as possible only the
| absolute minimal resources are loaded by default. For example,
| the database is not connected to automatically since no assumption
| is made regarding whether you intend to use it. This file lets
| you globally define which systems you would like loaded with every
| request.
|
| -----
| Instructions
| -----
|

```

```

| These are the things you can load automatically:
|
| 1. Packages
| 2. Libraries
| 3. Drivers
| 4. Helper files
| 5. Custom config files
| 6. Language files
| 7. Models
|
*/

```

```

/*
| -----
| Auto-load Packages
| -----
| Prototype:
|
| $autoload['packages'] = array(APPPATH.'third_party', '/usr/local/shared');
|
*/
$autoload['packages'] = array();

/*
| -----
| Auto-load Libraries
| -----
| These are the classes located in system/libraries/ or your
| application/libraries/ directory, with the addition of the
| 'database' library, which is somewhat of a special case.
|
| Prototype:
|
| $autoload['libraries'] = array('database', 'email', 'session');
|
| You can also supply an alternative library name to be assigned
| in the controller:
|
| $autoload['libraries'] = array('user_agent' => 'ua');
*/
$autoload['libraries'] = array('database', 'session', 'form_validation');

/*
| -----
| Auto-load Drivers
| -----
| These classes are located in system/libraries/ or in your
| application/libraries/ directory, but are also placed inside their
| own subdirectory and they extend the CI_Driver_Library class. They
| offer multiple interchangeable driver options.
|
| Prototype:
|
| $autoload['drivers'] = array('cache');
*/
$autoload['drivers'] = array();

```

```

/*
| -----
| Auto-load Helper Files
| -----
| Prototype:
|
| $autoload['helper'] = array('url', 'file');
*/
$autoload['helper'] = array('form','url');

/*
| -----
| Auto-load Config files
| -----
| Prototype:
|
| $autoload['config'] = array('config1', 'config2');
|
| NOTE: This item is intended for use ONLY if you have created custom
| config files. Otherwise, leave it blank.
|
*/
$autoload['config'] = array();

/*
| -----
| Auto-load Language files
| -----
| Prototype:
|
| $autoload['language'] = array('lang1', 'lang2');
|
| NOTE: Do not include the "_lang" part of your file. For example
| "codeigniter_lang.php" would be referenced as array('codeigniter');
|
*/
$autoload['language'] = array();

/*
| -----
| Auto-load Models
| -----
| Prototype:
|
| $autoload['model'] = array('first_model', 'second_model');
|
| You can also supply an alternative model name to be assigned
| in the controller:
|
| $autoload['model'] = array('first_model' => 'first');
|
*/
$autoload['model'] = array();


---


<?php
defined('BASEPATH') OR exit('No direct script access allowed');

/*

```

```

|-----|
| Base Site URL
|-----|
|
| URL to your CodeIgniter root. Typically this will be your base URL,
| WITH a trailing slash:
|
| http://example.com/
|
| If this is not set then CodeIgniter will try guess the protocol, domain
| and path to your installation. However, you should always configure this
| explicitly and never rely on auto-guessing, especially in production
| environments.
|
*/
$config['base_url'] = 'http://localhost/Library/';

/*
|-----|
| Index File
|-----|
|
| Typically this will be your index.php file, unless you've renamed it to
| something else. If you are using mod_rewrite to remove the page set this
| variable so that it is blank.
|
*/
// $config['index_page'] = 'index.php';
$config['index_page'] = '';

/*
|-----|
| URI PROTOCOL
|-----|
|
| This item determines which server global should be used to retrieve the
| URI string. The default setting of 'REQUEST_URI' works for most servers.
| If your links do not seem to work, try one of the other delicious flavors:
|
| 'REQUEST_URI'  Uses $_SERVER['REQUEST_URI']
| 'QUERY_STRING' Uses $_SERVER['QUERY_STRING']
| 'PATH_INFO'    Uses $_SERVER['PATH_INFO']
|
| WARNING: If you set this to 'PATH_INFO', URIs will always be URL-decoded!
*/
$config['uri_protocol'] = 'REQUEST_URI';

/*
|-----|
| URL suffix
|-----|
|
| This option allows you to add a suffix to all URLs generated by CodeIgniter.
| For more information please see the user guide:
|
| http://codeigniter.com/user_guide/general/urls.html
*/

```

```

$config['url_suffix'] = '';

/*
|-----
| Default Language
|-----
|
| This determines which set of language files should be used. Make sure
| there is an available translation if you intend to use something other
| than english.
|
*/
$config['language'] = 'english';

/*
|-----
| Default Character Set
|-----
|
| This determines which character set is used by default in various methods
| that require a character set to be provided.
|
| See http://php.net/htmlspecialchars for a list of supported charsets.
|
*/
$config['charset'] = 'UTF-8';

/*
|-----
| Enable/Disable System Hooks
|-----
|
| If you would like to use the 'hooks' feature you must enable it by
| setting this variable to TRUE (boolean). See the user guide for details.
|
*/
$config['enable_hooks'] = FALSE;

/*
|-----
| Class Extension Prefix
|-----
|
| This item allows you to set the filename/classname prefix when extending
| native libraries. For more information please see the user guide:
|
| http://codeigniter.com/user\_guide/general/core\_classes.html
| http://codeigniter.com/user\_guide/general/creating\_libraries.html
|
*/
$config['subclass_prefix'] = 'MY_';

/*
|-----
| Composer auto-loading
|-----
|

```

```

| Enabling this setting will tell CodeIgniter to look for a Composer
| package auto-loader script in application/vendor/autoload.php.
|
|
| $config['composer_autoload'] = TRUE;
|
|
| Or if you have your vendor/ directory located somewhere else, you
| can opt to set a specific path as well:
|
|
| $config['composer_autoload'] = '/path/to/vendor/autoload.php';
|
|
| For more information about Composer, please visit http://getcomposer.org/
|
|
| Note: This will NOT disable or override the CodeIgniter-specific
| autoloading (application/config/autoload.php)
*/
$config['composer_autoload'] = FALSE;

/*
-----+
| Allowed URL Characters
-----+
|
|
| This lets you specify which characters are permitted within your URLs.
| When someone tries to submit a URL with disallowed characters they will
| get a warning message.
|
|
| As a security measure you are STRONGLY encouraged to restrict URLs to
| as few characters as possible. By default only these are allowed: a-z 0-9%:_-
|
|
| Leave blank to allow all characters -- but only if you are insane.
|
|
| The configured value is actually a regular expression character group
| and it will be executed as: ! preg_match('/^<permitted_uri_chars>+$/'i
|
|
| DO NOT CHANGE THIS UNLESS YOU FULLY UNDERSTAND THE REPERCUSSIONS!!
|
*/
$config['permitted_uri_chars'] = 'a-z 0-9%:_\r\n';

/*
-----+
| Enable Query Strings
-----+
|
|
| By default CodeIgniter uses search-engine friendly segment based URLs:
| example.com/who/what/where/
|
|
| By default CodeIgniter enables access to the $_GET array. If for some
| reason you would like to disable it, set 'allow_get_array' to FALSE.
|
|
| You can optionally enable standard query string based URLs:
| example.com?who=me&what=something&where=here
|
|
| Options are: TRUE or FALSE (boolean)
|
|
| The other items let you set the query string 'words' that will
| invoke your controllers and its functions:

```

```

| example.com/index.php?c=controller&m=function
|
| Please note that some of the helpers won't work as expected when
| this feature is enabled, since CodeIgniter is designed primarily to
| use segment based URLs.
|
*/
$config['allow_get_array'] = TRUE;
$config['enable_query_strings'] = FALSE;
$config['controller_trigger'] = 'c';
$config['function_trigger'] = 'm';
$config['directory_trigger'] = 'd';

/*
|-----
| Error Logging Threshold
|-----
|
| You can enable error logging by setting a threshold over zero. The
| threshold determines what gets logged. Threshold options are:
|
| 0 = Disables logging, Error logging TURNED OFF
| 1 = Error Messages (including PHP errors)
| 2 = Debug Messages
| 3 = Informational Messages
| 4 = All Messages
|
| You can also pass an array with threshold levels to show individual error types
|
| array(2) = Debug Messages, without Error Messages
|
| For a live site you'll usually only enable Errors (1) to be logged otherwise
| your log files will fill up very fast.
|
*/
$config['log_threshold'] = 0;

/*
|-----
| Error Logging Directory Path
|-----
|
| Leave this BLANK unless you would like to set something other than the default
| application/logs/ directory. Use a full server path with trailing slash.
|
*/
$config['log_path'] = '';

/*
|-----
| Log File Extension
|-----
|
| The default filename extension for log files. The default 'php' allows for
| protecting the log files via basic scripting, when they are to be stored
| under a publicly accessible directory.
|

```

```

| Note: Leaving it blank will default to 'php'.
|
*/
$config['log_file_extension'] = '';

/*
|-----
| Log File Permissions
|-----
|
| The file system permissions to be applied on newly created log files.
|
| IMPORTANT: This MUST be an integer (no quotes) and you MUST use octal
|           integer notation (i.e. 0700, 0644, etc.)
*/
$config['log_file_permissions'] = 0644;

/*
|-----
| Date Format for Logs
|-----
|
| Each item that is logged has an associated date. You can use PHP date
| codes to set your own date formatting
|
*/
$config['log_date_format'] = 'Y-m-d H:i:s';

/*
|-----
| Error Views Directory Path
|-----
|
| Leave this BLANK unless you would like to set something other than the default
| application/views/errors/ directory. Use a full server path with trailing slash.
|
*/
$config['error_views_path'] = '';

/*
|-----
| Cache Directory Path
|-----
|
| Leave this BLANK unless you would like to set something other than the default
| application/cache/ directory. Use a full server path with trailing slash.
|
*/
$config['cache_path'] = '';

/*
|-----
| Cache Include Query String
|-----
|
| Whether to take the URL query string into consideration when generating
| output cache files. Valid options are:

```

```

|
| FALSE      = Disabled
| TRUE       = Enabled, take all query parameters into account.
|           Please be aware that this may result in numerous cache
|           files generated for the same page over and over again.
| array('q') = Enabled, but only take into account the specified list
|           of query parameters.
|
*/
$config['cache_query_string'] = FALSE;

/*
-----
| Encryption Key
-----
|
| If you use the Encryption class, you must set an encryption key.
| See the user guide for more info.
|
| http://codeigniter.com/user_guide/libraries/encryption.html
|
*/
$config['encryption_key'] = 'REALLY_LONG_NUMBER';

/*
-----
| Session Variables
-----
|
| 'sess_driver'
|
| The storage driver to use: files, database, redis, memcached
|
| 'sess_cookie_name'
|
| The session cookie name, must contain only [0-9a-z_-] characters
|
| 'sess_expiration'
|
| The number of SECONDS you want the session to last.
| Setting to 0 (zero) means expire when the browser is closed.
|
| 'sess_save_path'
|
| The location to save sessions to, driver dependent.
|
| For the 'files' driver, it's a path to a writable directory.
| WARNING: Only absolute paths are supported!
|
| For the 'database' driver, it's a table name.
| Please read up the manual for the format with other session drivers.
|
| IMPORTANT: You are REQUIRED to set a valid save path!
|
| 'sess_match_ip'
|
| Whether to match the user's IP address when reading the session data.

```

```

|
| 'sess_time_to_update'
|
| How many seconds between CI regenerating the session ID.
|
| 'sess_regenerate_destroy'
|
| Whether to destroy session data associated with the old session ID
| when auto-regenerating the session ID. When set to FALSE, the data
| will be later deleted by the garbage collector.
|
| Other session cookie settings are shared with the rest of the application,
| except for 'cookie_prefix' and 'cookie_httponly', which are ignored here.
|
*/
$config['sess_driver'] = 'files';
$config['sess_cookie_name'] = 'ci_session';
$config['sess_expiration'] = 7200;
$config['sess_save_path'] = NULL;
$config['sess_match_ip'] = FALSE;
$config['sess_time_to_update'] = 300;
$config['sess_regenerate_destroy'] = FALSE;
$config['sess_use_database'] = FALSE;
/*
-----
| Cookie Related Variables
-----
|
| 'cookie_prefix' = Set a cookie name prefix if you need to avoid collisions
| 'cookie_domain' = Set to .your-domain.com for site-wide cookies
| 'cookie_path'   = Typically will be a forward slash
| 'cookie_secure' = Cookie will only be set if a secure HTTPS connection exists.
| 'cookie_httponly' = Cookie will only be accessible via HTTP(S) (no javascript)
|
| Note: These settings (with the exception of 'cookie_prefix' and
|       'cookie_httponly') will also affect sessions.
|
*/
$config['cookie_prefix'] = '';
$config['cookie_domain'] = '';
$config['cookie_path'] = '/';
$config['cookie_secure'] = FALSE;
$config['cookie_httponly'] = FALSE;

/*
-----
| Standardize newlines
-----
|
| Determines whether to standardize newline characters in input data,
| meaning to replace \r\n, \r, \n occurrences with the PHP_EOL value.
|
| This is particularly useful for portability between UNIX-based OSes,
| (usually \n) and Windows (\r\n).
|
*/
$config['standardize_newlines'] = FALSE;

```

```

/*
|-----
| Global XSS Filtering
|-----
|
| Determines whether the XSS filter is always active when GET, POST or
| COOKIE data is encountered
|
| WARNING: This feature is DEPRECATED and currently available only
|           for backwards compatibility purposes!
|
*/
$config['global_xss_filtering'] = FALSE;

/*
|-----
| Cross Site Request Forgery
|-----
|
| Enables a CSRF cookie token to be set. When set to TRUE, token will be
| checked on a submitted form. If you are accepting user data, it is strongly
| recommended CSRF protection be enabled.
|
| 'csrf_token_name' = The token name
| 'csrf_cookie_name' = The cookie name
| 'csrf_expire' = The number in seconds the token should expire.
| 'csrf_regeneration' = Regenerate token on every submission
| 'csrf_exclude_uris' = Array of URIs which ignore CSRF checks
|
$config['csrf_protection'] = FALSE;
$config['csrf_token_name'] = 'csrf_test_name';
$config['csrf_cookie_name'] = 'csrf_cookie_name';
$config['csrf_expire'] = 7200;
$config['csrf_regeneration'] = TRUE;
$config['csrf_exclude_uris'] = array();

/*
|-----
| Output Compression
|-----
|
| Enables Gzip output compression for faster page loads. When enabled,
| the output class will test whether your server supports Gzip.
| Even if it does, however, not all browsers support compression
| so enable only if you are reasonably sure your visitors can handle it.
|
| Only used if zlib.output_compression is turned off in your php.ini.
| Please do not use it together with httpd-level output compression.
|
| VERY IMPORTANT: If you are getting a blank page when compression is enabled it
| means you are prematurely outputting something to your browser. It could
| even be a line of whitespace at the end of one of your scripts. For
| compression to work, nothing can be sent before the output buffer is called
| by the output class. Do not 'echo' any values with compression enabled.
|
*/
$config['compress_output'] = FALSE;

```

```

/*
|-----
| Master Time Reference
|-----
|
| Options are 'local' or any PHP supported timezone. This preference tells
| the system whether to use your server's local time as the master 'now'
| reference, or convert it to the configured one timezone. See the 'date
| helper' page of the user guide for information regarding date handling.
|
*/
$config['time_reference'] = 'local';

/*
|-----
| Rewrite PHP Short Tags
|-----
|
| If your PHP installation does not have short tag support enabled CI
| can rewrite the tags on-the-fly, enabling you to utilize that syntax
| in your view files. Options are TRUE or FALSE (boolean)
|
| Note: You need to have eval() enabled for this to work.
|
*/
$config['rewrite_short_tags'] = FALSE;

/*
|-----
| Reverse Proxy IPs
|-----
|
| If your server is behind a reverse proxy, you must whitelist the proxy
| IP addresses from which CodeIgniter should trust headers such as
| HTTP_X_FORWARDED_FOR and HTTP_CLIENT_IP in order to properly identify
| the visitor's IP address.
|
| You can use both an array or a comma-separated list of proxy addresses,
| as well as specifying whole subnets. Here are a few examples:
|
| Comma-separated: '10.0.1.200,192.168.5.0/24'
| Array: array('10.0.1.200', '192.168.5.0/24')
*/
$config['proxy_ips'] = '';



---


<?php
defined('BASEPATH') OR exit('No direct script access allowed');

/*
|-----
| File and Directory Modes
|-----
|
| These prefs are used when checking and setting modes when working
| with the file system. The defaults are fine on servers with proper
| security, but you may wish (or even need) to change the values in

```

```

| certain environments (Apache running a separate process for each
| user, PHP under CGI with Apache suEXEC, etc.). Octal values should
| always be used to set the mode correctly.
|
*/
define('FILE_READ_MODE', 0644);
define('FILE_WRITE_MODE', 0666);
define('DIR_READ_MODE', 0755);
define('DIR_WRITE_MODE', 0755);

/*
|-----+
| File Stream Modes
|-----+
|
| These modes are used when working with fopen()/popen()
|
*/
define('FOPEN_READ', 'rb');
define('FOPEN_READ_WRITE', 'r+b');
define('FOPEN_WRITE_CREATE_DESTRUCTIVE', 'wb'); // truncates existing file data, use with care
define('FOPEN_READ_WRITE_CREATE_DESTRUCTIVE', 'w+b'); // truncates existing file data, use with care
define('FOPEN_WRITE_CREATE', 'ab');
define('FOPEN_READ_WRITE_CREATE', 'a+b');
define('FOPEN_WRITE_CREATE_STRICT', 'xb');
define('FOPEN_READ_WRITE_CREATE_STRICT', 'x+b');

/*
|-----+
| Display Debug backtrace
|-----+
|
| If set to TRUE, a backtrace will be displayed along with php errors. If
| error_reporting is disabled, the backtrace will not display, regardless
| of this setting
|
*/
define('SHOW_DEBUG_BACKTRACE', TRUE);

/*
|-----+
| Exit Status Codes
|-----+
|
| Used to indicate the conditions under which the script is exit()ing.
| While there is no universal standard for error codes, there are some
| broad conventions. Three such conventions are mentioned below, for
| those who wish to make use of them. The CodeIgniter defaults were
| chosen for the least overlap with these conventions, while still
| leaving room for others to be defined in future versions and user
| applications.
|
| The three main conventions used for determining exit status codes
| are as follows:
|
| Standard C/C++ Library (stdlibc):
|     http://www.gnu.org/software/libc/manual/html\_node/Exit-Status.html

```

```

|      (This link also contains other GNU-specific conventions)
|
|  BSD sysexists.h:
|      http://www.gsp.com/cgi-bin/man.cgi?section=3&topic=sysexists
|
|  Bash scripting:
|      http://tldp.org/LDP/abs/html/exitcodes.html
|
| */
|
define('EXIT_SUCCESS', 0); // no errors
define('EXIT_ERROR', 1); // generic error
define('EXIT_CONFIG', 3); // configuration error
define('EXIT_UNKNOWN_FILE', 4); // file not found
define('EXIT_UNKNOWN_CLASS', 5); // unknown class
define('EXIT_UNKNOWN_METHOD', 6); // unknown class member
define('EXIT_USER_INPUT', 7); // invalid user input
define('EXIT_DATABASE', 8); // database error
define('EXIT_AUTO_MIN', 9); // lowest automatically-assigned error code
define('EXIT_AUTO_MAX', 125); // highest automatically-assigned error code

<?php
defined('BASEPATH') OR exit('No direct script access allowed');

/*
| -----
| DATABASE CONNECTIVITY SETTINGS
| -----
|
| This file will contain the settings needed to access your database.
|
|
| For complete instructions please consult the 'Database Connection'
| page of the User Guide.
|
| -----
| EXPLANATION OF VARIABLES
| -----
|
|
| ['dsn']      The full DSN string describe a connection to the database.
| ['hostname'] The hostname of your database server.
| ['username'] The username used to connect to the database
| ['password'] The password used to connect to the database
| ['database'] The name of the database you want to connect to
| ['dbdriver'] The database driver. e.g.: mysqli.
|
| Currently supported:
|
|     cubrid, ibase, mssql, mysql, mysqli, oci8,
|     odbc, pdo, postgre, sqlite, sqlite3, sqlsrv
|
| ['dbprefix'] You can add an optional prefix, which will be added
|     to the table name when using the Query Builder class
|
| ['pconnect'] TRUE/FALSE - Whether to use a persistent connection
| ['db_debug'] TRUE/FALSE - Whether database errors should be displayed.
| ['cache_on'] TRUE/FALSE - Enables/disables query caching
|
| ['cachedir'] The path to the folder where cache files should be stored
| ['char_set'] The character set used in communicating with the database
| ['dbcollat'] The character collation used in communicating with the database
|
| NOTE: For MySQL and MySQLi databases, this setting is only used
|       as a backup if your server is running PHP < 5.2.3 or MySQL < 5.0.7
|       (and in table creation queries made with DB Forge).
|
| There is an incompatibility in PHP with mysql_real_escape_string() which
|       can make your site vulnerable to SQL injection if you are using a
|       multi-byte character set and are running versions lower than these.

```

```

|     Sites using Latin-1 or UTF-8 database character set and collation are unaffected.
| ['swap_pre'] A default table prefix that should be swapped with the dbprefix
| ['encrypt'] Whether or not to use an encrypted connection.
|
|     'mysql' (deprecated), 'sqlsrv' and 'pdo/sqlsrv' drivers accept TRUE/FALSE
|     'mysqli' and 'pdo/mysql' drivers accept an array with the following options:
|
|     'ssl_key' - Path to the private key file
|     'ssl_cert' - Path to the public key certificate file
|     'ssl_ca' - Path to the certificate authority file
|     'ssl_capath' - Path to a directory containing trusted CA certificates in PEM format
|     'ssl_cipher' - List of *allowed* ciphers to be used for the encryption, separated by colons (':')
|     'ssl_verify' - TRUE/FALSE; Whether verify the server certificate or not ('mysqli' only)
|
| ['compress'] Whether or not to use client compression (MySQL only)
| ['stricton'] TRUE/FALSE - forces 'Strict Mode' connections
|     - good for ensuring strict SQL while developing
| ['ssl_options'] Used to set various SSL options that can be used when making SSL connections.
| ['failover'] array - A array with 0 or more data for connections if the main should fail.
| ['save_queries'] TRUE/FALSE - Whether to "save" all executed queries.
|     NOTE: Disabling this will also effectively disable both
|     $this->db->last_query() and profiling of DB queries.
|     When you run a query, with this setting set to TRUE (default),
|     CodeIgniter will store the SQL statement for debugging purposes.
|     However, this may cause high memory usage, especially if you run
|     a lot of SQL queries ... disable this to avoid that problem.
|
|     The $active_group variable lets you choose which connection group to
|     make active. By default there is only one group (the 'default' group).
|
|     The $query_builder variables lets you determine whether or not to load
|     the query builder class.
*/
$active_group = 'default';
$query_builder = TRUE;

$db['default'] = array(
    'dsn' => '',
    'hostname' => 'localhost',
    'username' => 'root',
    'password' => '',
    'database' => 'library',
    'dbdriver' => 'mysqli',
    'dbprefix' => '',
    'pconnect' => FALSE,
    'db_debug' => (ENVIRONMENT !== 'production'),
    'cache_on' => FALSE,
    'cachedir' => '',
    'char_set' => 'utf8',
    'dbcollat' => 'utf8_general_ci',
    'swap_pre' => '',
    'encrypt' => FALSE,
    'compress' => FALSE,
    'stricton' => FALSE,
    'failover' => array(),
    'save_queries' => TRUE
);

```

```

<?php
defined('BASEPATH') OR exit('No direct script access allowed');

/*
| -----
| URI ROUTING
| -----
| This file lets you re-map URI requests to specific controller functions.
|
| Typically there is a one-to-one relationship between a URL string
| and its corresponding controller class/method. The segments in a
| URL normally follow this pattern:
|
| example.com/class/method/id/
|
| In some instances, however, you may want to remap this relationship
| so that a different class/function is called than the one
| corresponding to the URL.
|
| Please see the user guide for complete details:
|
| http://codeigniter.com/user_guide/general/routing.html
|
| -----
| RESERVED ROUTES
| -----
|
| There are three reserved routes:
|
| $route['default_controller'] = 'welcome';
|
| This route indicates which controller class should be loaded if the
| URI contains no data. In the above example, the "welcome" class
| would be loaded.
|
| $route['404_override'] = 'errors/page_missing';
|
| This route will tell the Router which controller/method to use if those
| provided in the URL cannot be matched to a valid route.
|
| $route['translate_uri_dashes'] = FALSE;
|
| This is not exactly a route, but allows you to automatically route
| controller and method names that contain dashes. '-' isn't a valid
| class or method name character, so it requires translation.
| When you set this option to TRUE, it will replace ALL dashes in the
| controller and method URI segments.
|
| Examples: my-controller/index -> my_controller/index
| my-controller/my-method -> my_controller/my_method
*/
$route['default_controller'] = 'welcome';

/*in routing the URI is placed inside while the name of the controller and the method what is found
*on the right side
*
*/

```

```

$route['default_controller'] = 'user';
$route['home'] = 'user';
$route['login'] = 'user/verify_login';
$route['logout'] = 'user/logout';

$route['user/signup'] = 'user/load_form';

*****SYSTEM USER MANAGEMENT ADMIN*****
//$route['user/list/(:any)'] = 'user/manage_user/$1';
$route['user/list']= 'user/manage_user';

$route['user/edit/(:any)'] = 'user/edit_user/$1'; //FOR THE LIBRARY USER ITO

$route['user/update/(:any)'] = 'user/update_user/$1';
$route['user/delete/(:any)'] = 'user/delete_user/$1';

$route['user/register'] = 'user/save_user';
//$route['user/manage/(:any)'] = 'user/view_account/$1';
$route['user/manage']= 'user/view_account';

*****SEARCH*****
$route['material/search'] = 'read_material/search';
$route['material/advanced'] = 'read_material/advanced_search';
$route['material/advanced_search'] = 'read_material/get_advanced_search';

*****LIBRARY USER OWN CART MANAGEMENT*****
$route['material/cart'] = 'read_material/view_user_cart';
$route['material/record/(:any)'] = 'read_material/add_to_cart/$1';

*****LIBRARY USER OTHER*****
$route['material/transaction']= 'borrower/show_transaction';
$route['material/suggest'] = 'read_material/add_acquisition';

*****LIBRARIAN READING MATERIAL MANAGEMENT*****
$route['material'] = 'read_material';
$route['material/view/(:any)'] = 'read_material/view_material/$1';
$route['material/add'] = 'read_material/add_material';
$route['material/edit/(:any)'] = 'read_material/edit_material/$1';
$route['material/delete/(:any)'] = 'read_material/delete/$1';

*****LIBRARIAN LIBRARY CART MANAGEMENT*****
$route['material/grant'] = 'borrower/show_borrowing_request';
$route['material/allow/(:any)'] = 'borrower/borrow_read_material/$1';
$route['material/back/(:any)'] = 'borrower/return_read_material/$1';
$route['material/decline/(:any)'] = 'borrower/delete_record/$1';

*****LIBRARIAN ACQUISITION MANAGEMENT*****
$route['material/acquisition'] = 'read_material/acquisition_list';
//$route['material/approve_entry/(:any)'] = 'read_material/update_acquisition/$1';
$route['acquisition/update/(:any)'] = 'read_material/update_acquisition/$1';
$route['acquisition/delete/(:any)'] = 'read_material/delete_entry/$1';

*****REPORT FOR LIBRARIAN*****
*****Note: Some can be viewed by the Principal*****
$route['material/statistics'] = 'read_material/generate_statistics';
$route['material/summary'] = 'read_material/generate_summary';

```

```

$route['material/monthly'] = 'borrower/get_monthly_data';

$route['material/available'] = 'borrower/show_available';
$route['material/available/(:any)'] = 'borrower/show_available';

$route['material/usage'] = 'borrower/track_usage';
$route['material/overdue'] = 'borrower/get_overdue';
$route['material/due'] = 'borrower/get_due';

/*********************FOR PRINCIPAL******************/


/*********************LIBRARY USER MANAGEMENT FOR LIBRARIAN*****/
$route['library_user'] = 'borrower/show_library_user_list';
$route['library_user/add/(:any)'] = 'borrower/add_to_borrower_list/$1';

/*$route['material/borrow/(:any)'] = 'read_material/borrow_read_material/$1';
$route['material/return/(:any)'] = 'read_material/return_read_material/$1';*/
/*
$route['user/manage'] = 'user/add_privilege';
$route['user/update/(:any)'] = 'user/update_user/$1'
$route['user/edit/(:any)'] = 'user/edit_user/$1';
$route['user/delete/(:any)'] = 'user/delete_user/$1';*/
/*
$route['admin'] = 'user/login';
$route['verifylogin'] = 'user/verifylogin';
$route['logout'] = 'user/logout';
*/
$route['404_override'] = 'errors/page_missing';
$route['translate_uri_dashes'] = FALSE;

```

2. Controllers

```

<?php if(!defined('BASEPATH'))exit ('No direct script access allowed');

class User extends CI_Controller{

    public function __construct(){
        parent::__construct();
        $this->load->helper(array('form','url','security'));
        $this->load->model('materials_model');
        $this->load->model('users_model');
        $this->load->library('session');
    }

    public function index(){
        $data['title'] = 'Online Library System';

        $this->load->helper(array('form'));

        $data['username'] = $this->session->userdata('username');
    }
}
```

```

if($this->_is_logged_in()){
    $user = $this->users_model->get_user_by_name($data['username']);
    $user_status = $user['status'];

    switch($user['status']){
        case "1":
            $this->load->view('templates/header_user',$data);
            $this->load->view('home',$data);
            break;
        case "2":
            $this->load->view('templates/header_librarian',$data);
            $this->load->view('home',$data);
            break;
        case "3":
            $this->load->view('templates/header_principal',$data);
            $this->load->view('home',$data);
        case "4":
            $this->load->view('templates/header_admin',$data);
            $this->load->view('home',$data);
            break;
        default:
            $this->load->view('templates/header',$data);
            $this->load->view('home',$data);
            break;
    }
}

else{
    $this->load->view('templates/headermain',$data);
    $this->load->view('home',$data);
}

public function load_form(){
    $data['title'] = 'Online Library System';
    $this->load->helper(array('form','url'));

    $this->load->view('templates/headermain',$data);
    $this->load->view('sign_up',$data);
    // $this->load->view('templates/footer',$data);
}

public function verify_login(){
    // session_start();
    $data['title'] = 'Online Library System';
    $this->load->helper(array('form','url','security'));
    $this->load->library('form_validation');

    $this->form_validation->set_rules('username','Username','trim|required|xss_clean');
    $this->form_validation->set_rules('password','Password','trim|required|xss_clean|callback_check_database');

    if($this->form_validation->run() == TRUE){
        // if($this->_is_logged_in()){
        $username = $this->session->get_userdata('username');
        $data['username'] = $username['username'];

        $result = $this->users_model->get_user_status($this->input->post('username'));
        $status = $result['status'];
    }
}

```

```

        if($status == '4'){
            $this->load->view('templates/header_admin',$data);
            $this->load->view('user_list',$data);
        }elseif($status=='3'){
            redirect(base_url().'material/acquisition');
        }elseif($status=='2'){
            redirect(base_url().'material');
        }else{
            redirect(base_url().'home');
        }

        //}
    }
    else{
        $data['message'] = (validation_errors() ? validation_errors() : $this->session->flashdata('message'));
        $this->load->view('templates/headermain',$data);
        redirect(base_url().'home');
    }
}

public function _is_logged_in(){
    $logged_in = $this->session->userdata('logged_in'); //don't have yet an element of the array 'logged_in'
    //not yet set using $this->session->set_userdata('logged_in');
    //$$this->session->set_userdata('some_name', 'some_value');

    $status = $this->users_model->check_if_valid_user($this->session->userdata('username'));

    if($logged_in && $status){
        return TRUE;
    }
    else{
        return FALSE;
    }
}

public function check_database($password){
    $username = $this->input->post('username');

    $this->session->set_userdata('username',$username);

    $result = $this->users_model->login($username,$password);

    if($result){
        $session_array = array();

        foreach ($result as $row) {
            $session_array = array(
                'username' => $row->username
            );
        };

        $this->session->set_userdata('username',$row->username);
        $this->session->set_userdata('logged_in',$session_array);
    }

    return TRUE;
}

```

```

else{
    $this->form_validation->set_message('check_database', 'Invalid username or password');
    return FALSE;
}
}

public function logout(){
// Removing session data
$sess_array = array(
    'username' => '',
);
$this->session->unset_userdata('logged_in', $session_array);
$data['message_display'] = 'Successfully Logout';
redirect(base_url().'home');
}

function save_user(){
$data['title'] ='Online Library System';

$this->load->library('form_validation');
$this->load->helper(array('form','url','security'));


$this->form_validation->set_rules('name','Name','required|xss_clean|min_length[2]');
$this->form_validation->set_rules('password','Password','trim|required|min_length[6]|max_length[12]|xss_clean');
$this->form_validation->set_rules('passconf','Confirm Password','trim|required|matches[password]|xss_clean');
$this->form_validation->set_rules('email_address','Email address','required|xss_clean|valid_email|is_unique[user.email_address]');
$this->form_validation->set_rules('contact_number','Contact number','trim|min_length[11]|max_length[12]|xss_clean');
$this->form_validation->set_rules('user_type','User Type','required');
// $this->form_validation->set_rules('year_level','Year Level','required');

if($this->form_validation->run() == FALSE){
    $data['message'] = (validation_errors() ? validation_errors() : $this->session->flashdata('message'));
    $data['username'] = $this->session->userdata('username');
    $this->load->view('templates/headermain',$data);
    $this->load->view('sign_up',$data);

}
else{
    $this->form_validation->set_rules('passconf','Password','md5');
    $this->load->library('parsename');
    $parse_full_name = $this->parsename->process_name($this->input->post('name'));

    $first_name = $parse_full_name['first'];
    $middle_name = $parse_full_name['middle'];
    $last_name = $parse_full_name['last'];
    $user_name = $parse_full_name[0];

    $count = $this->users_model->count_username($user_name);

    if ($count > 0){
        $user_name = $user_name.$count+1;
    }

    $hold = array(
        'first_name' => $first_name,
        'middle_name' => $middle_name,
}
}

```

```

'last_name' => $last_name,
'password' => set_value('password'),
'username' => $user_name,
'sex' => set_value('sex'),
'email_address' => set_value('email_address'),
'contact_number' => set_value('contact_number'),
'user_type' => set_value('user_type'),
'year_level' => set_value('year_level'),
'status' => '0',
);

if(set_value('user_type')=='student'||set_value('user_type')=='teacher'||set_value('user_type')=='faculty'){
$hold['status'] = '1';
}elseif(set_value('user_type')=='librarian'){
$hold['status'] = '2';
}elseif(set_value('user_type')=='principal'){
$hold['status'] = '3';
}else{
$hold['status'] = '0';
}

$this->users_model->save_user($hold);
$data['message'] = $this->session->set_flashdata('message',"<p>User has signed up successfully<br />
Wait for your Account Authentication </p>");

$data['username'] = $this->session->userdata('username');
$data['users'] = $this->users_model->get_users();

$this->load->view('templates/headermain',$data);
redirect(base_url().'home');
}
}
}

```

```

public function view_account(){
$data['title'] = 'Online Library System';

if($this->_is_logged_in()){
$data['username'] = $this->session->userdata('username');
$userdata = $this->users_model->get_user_by_name($data['username']);

$user_id = $userdata['user_id'];
$user = $this->users_model->get_user($user_id);

$name = $user['first_name'].'.'.$user['middle_name'].'.'.$user['last_name'];
$data['name'] = $name;
$data['user'] = $user;
$data['user_id'] = $user_id;

switch($userdata['status']) {
case "1":
$this->load->view('templates/header_user',$data);
$this->load->view('view_account',$data);
break;
}
}
}

```

```

        case "2":
            $this->load->view('templates/header_librarian',$data);
            $this->load->view('view_account',$data);
            break;
        case "3":
            $this->load->view('templates/header_principal',$data);
            $this->load->view('view_account',$data);
            break;
        case "4":
            $this->load->view('templates/header_admin',$data);
            $this->load->view('view_account',$data);
            break;
        default:
            $this->load->view('templates/header',$data);
            $this->load->view('view_account',$data);
            break;
    }

}

}else{
    redirect(base_url().'home');
}
}

public function edit_user($user_id){
    $data['title'] = 'Online Library System';

    $user = $this->users_model->get_user($user_id);

    if($this->_is_logged_in()){
        $data['username'] = $this->session->userdata('username');

        $userdata = $this->users_model->get_user_by_name($data['username']);
        $user_id = $userdata['user_id'];

        $status= $userdata['status'];

        $name = $user['first_name'].' '.$user['middle_name'].' '.$user['last_name'];
        $data['name'] = $name;
        // $data['user_id'] = $user['user_id'];

        $this->load->helper(array('form','url','security'));
        $this->load->library('form_validation');

        // $this->form_validation->set_rules('name','Name','required|xss_clean|min_length[2]');
        $this->form_validation->set_rules('password','Password','trim|required|min_length[6]|max_length[12]|xss_clean');
        $this->form_validation->set_rules('passconf','Confirm Password','trim|required|matches[password]|xss_clean');
        $this->form_validation->set_rules('email_address','Email address','required|xss_clean|valid_email|is_unique[user.email_address]');
        $this->form_validation->set_rules('contact_number','Contact number','trim|min_length[11]|max_length[12]|xss_clean');
        $this->form_validation->set_rules('user_type','User Type','required');
        $this->form_validation->set_rules('year_level','Year Level');

        if(isset($_POST) && !empty($_POST)){
            $user= array(
                'user_id' => $user_id,
                'password' => $this->input->post('password'),
                'email_address' => $this->input->post('email_address'),

```

```

'contact_number' => $this->input->post('contact_number'),
'user_type' => $this->input->post('user_type'),
'year_level' => $this->input->post('year_level')

};

}

if($this->form_validation->run() == TRUE){
$this->users_model->update_user($user_id,$user);
$data['message'] = "User updated successfully!";
$data['user'] = $user;

if($status=='3'){
$this->load->view('templates/header_principal',$data);
$this->load->view('view_account',$data);
}elseif($status=='2'){
$this->load->view('templates/header_librarian',$data);
$this->load->view('view_account',$data);
}else{
$this->load->view('templates/header_user',$data);
$this->load->view('view_account',$data);
}
}elseif{
$data['errors'] = (validation_errors() ? validation_errors() : $this->session->flashdata('message'));
$data['user'] = $user;

if($status=='3'){
$this->load->view('templates/header_principal',$data);
$this->load->view('view_account',$data);
}elseif($status=='2'){
$this->load->view('templates/header_librarian',$data);
$this->load->view('view_account',$data);
}else{
$this->load->view('templates/header_user',$data);
$this->load->view('view_account',$data);
}
}

}

}else{
redirect(base_url().'home');
}
}

public function manage_user(){
$data['title'] = 'Online Library System';

if($this->_is_logged_in()){
$username = $this->session->userdata('username');
$userdata = $this->users_model->get_user_by_name($username);
$data['username'] = $username;

if(isset($_POST['type'])&& !empty($_POST['type'])){
$type = $this->input->post('type');
}elseif{
$type = 'all';
}

$data['users']= $this->users_model->get_user_by_type($type);
}
}

```

```

        $data['type'] = $type;

        if($userdata['status'] == '4'){
            $this->load->view('templates/header_admin',$data);
            $this->load->view('user_list',$data);
        }else{
            redirect(base_url().'home');
        }

    }else{
        redirect(base_url().'home');
    }
}

public function update_user($user_id){
    $hold = array();

    if(isset($_POST['approve'])){
        $hold = array(
            'status' => '0',
        );
    }else{
        $hold = array(
            'status' => '1',
        );
    }

    $this->users_model->update_user($user_id,$status);
}

public function delete_user($user_id){
    $data['title'] = 'Online Library System';

    $this->users_model->delete_user($user_id);
    $this->session->set_flashdata('message', "<p>User were successfully deleted.</p>");
}

}

?>
<?php if(!defined('BASEPATH')) exit('No direct script access allowed');

class Read_Material extends CI_Controller{

    public function __construct(){
        parent::__construct();
        $this->load->model('materials_model');
        $this->load->model('users_model');
        $this->load->model('borrowers_model');
        $this->load->library('session');
        $this->load->library('pagination');
    }

    function index(){

        $data['materials'] = $this->materials_model->get_all();

```

```

$data['title'] = 'Online Library System';
$data['username'] = $this->session->userdata('username');

$config = array();
$config['base_url'] = base_url() . 'read_material/index';
$config['total_rows'] = $this->materials_model->record_count();
$config['per_page'] = 10;
$config['uri_segment'] = 3;

$this->pagination->initialize($config);
$page = ($this->uri->segment(3)) ? $this->uri->segment(3) : 0;
$data['results'] = $this->materials_model->fetch_materials($config['per_page'], $page);
$data['links'] = $this->pagination->create_links();

$this->load->view('templates/header_librarian',$data);
$this->load->view('manage_read_material',$data);
}

function _is_logged_in(){

$logged = $this->session->userdata('logged_in');
if ($logged)
{
    return TRUE;
}
else
{
    return FALSE;
}
}

public function view_material($material_id){

$data['title'] = 'Online Library System';
$data['username'] = $this->session->userdata('username');
$user = $this->users_model->get_user_by_name($data['username']);

$data['material'] = $this->materials_model->get_each($material_id);

switch($user['status']) {
    case "1":
        $this->load->view('templates/header_user',$data);
        $this->load->view('material_description',$data);
        break;
    case "2":
        $this->load->view('templates/header_librarian',$data);
        $this->load->view('material_description',$data);
        break;
    case "3":
        $this->load->view('templates/header_principal',$data);
        $this->load->view('material_description',$data);
        break;
    case "4":
        $this->load->view('templates/header_admin',$data);
        $this->load->view('material_description',$data);
        break;
    default:
        $this->load->view('templates/header',$data);
}
}

```

```

        $this->load->view('material_description',$data);
        break;
    }

}

public function add_material(){
    $data['title'] = 'Online Library System';
    if($this->_is_logged_in()){

        $data['username'] = $this->session->userdata('username');
        $this->load->view('templates/header_librarian',$data);

        $this->load->helper(array('form','url','security'));
        $this->load->library('form_validation');

        $this->form_validation->set_rules('title','Title','required|xss_clean');
        $this->form_validation->set_rules('author','Author','required|xss_clean');
        $this->form_validation->set_rules('call_number','Call Number','required|xss_clean');
        $this->form_validation->set_rules('date_received','Data Received','trim|xss_clean');
        $this->form_validation->set_rules('class','Class','required');

        $this->form_validation->set_rules('edition','Edition','trim|xss_clean');
        $this->form_validation->set_rules('volume','Volume','trim|xss_clean');
        $this->form_validation->set_rules('pages','Page','trim|xss_clean');

        $this->form_validation->set_rules('source','Source','required');

        $this->form_validation->set_rules('publisher','Publisher','required|xss_clean');
        $this->form_validation->set_rules('year_published','Year Published','required|trim|xss_clean');
        $this->form_validation->set_rules('type','Type','required');
        $this->form_validation->set_rules('major_group','Group','required');

        $this->form_validation->set_rules('remark','Remark','xss_clean');
        // $this->form_validation->set_rules('status','Status','required');

        if($this->form_validation->run() == FALSE){
            $data['errors'] = validation_errors() ? validation_errors() : $this->session->flashdata('message');
            $this->load->view('add_material',$data);
            // $this->load->view('templates/footer',$data);
        }
        else{
            $hold =array(
                'title' => set_value('title'),
                'author' => set_value('author'),
                'call_number' => set_value('call_number'),
                'date_received' => set_value('date_received'),
                'class' => set_value('class'),
                'edition' => set_value('edition'),
                'volume' => set_value('volume'),
                'pages' => set_value('pages'),
                'source' => set_value('source'),
                'publisher' => set_value('publisher'),
                'year_published' => set_value('year_published'),
                'type' => set_value('type'),
                'major_group' => set_value('major_group'),
            );
        }
    }
}

```

```

'remark' => set_value('remark'),
'status' => 'on shelf'
);
$this->materials_model->add($hold);
$data['message'] = "Reading material added successfully";

$config = array();
$config['base_url'] = base_url() . 'read_material/index';
$config['total_rows'] = $this->materials_model->record_count();
$config['per_page'] = 10;
$config['uri_segment'] = 3;

$this->pagination->initialize($config);
$page = ($this->uri->segment(3)) ? $this->uri->segment(3) : 0;
$data['results'] = $this->materials_model->fetch_materials($config['per_page'], $page);
$data['links'] = $this->pagination->create_links();

$info = $this->materials_model->get_by_title($hold['title']);

$hold = array_merge($hold, array('accession_number'=>$info['accession_number']));

$data['hold'] = $hold;
$this->load->view('manage_read_material', $data);

}

}

else{
	redirect(base_url().'home');
}
}

public function edit_material($material_id){
$data['title'] = 'Edit Reading Material';

$data = $this->materials_model->get_each($material_id);

if($this->_is_logged_in()){
$data['username'] = $this->session->userdata('username');
$this->load->view('templates/header_librarian', $data);

$this->load->helper(array('form', 'url', 'security'));
$this->load->library('form_validation');

$this->form_validation->set_rules('title', 'Title', 'required|xss_clean');
$this->form_validation->set_rules('author', 'Author', 'required|xss_clean');
$this->form_validation->set_rules('call_number', 'Call Number', 'required|xss_clean');
$this->form_validation->set_rules('date_received', 'Date Received', 'required');
$this->form_validation->set_rules('class', 'Class', 'required|xss_clean');

$this->form_validation->set_rules('edition', 'Edition', 'xss_clean');
$this->form_validation->set_rules('volume', 'Volume', 'xss_clean');
$this->form_validation->set_rules('pages', 'Page', 'xss_clean');

$this->form_validation->set_rules('source', 'Fund Source', 'required');
}

```

```

$this->form_validation->set_rules('publisher','Publisher','required|xss_clean');
$this->form_validation->set_rules('year_published','Year Published','required|xss_clean');
$this->form_validation->set_rules('type','Type','required|xss_clean');
$this->form_validation->set_rules('major_group','Group','required|xss_clean');

$this->form_validation->set_rules('remark','Remark','xss_clean');
$this->form_validation->set_rules('status','Status','xss_clean');

if(isset($_POST) && !empty($_POST)){
$data = array(
'title' => $this->input->post('title'),
'author' => $this->input->post('author'),
'call_number' => $this->input->post('call_number'),
'accession_number' => $material_id,
'date_received' => $this->input->post('date_received'),
'class' => $this->input->post('class'),
'edition' => $this->input->post('edition'),
'volume' => $this->input->post('volume'),
'pages' => $this->input->post('pages'),
'source' => $this->input->post('source'),
'publisher' => $this->input->post('publisher'),
'year_published' => $this->input->post('year_published'),
'type' => $this->input->post('type'),
'major_group' => $this->input->post('major_group'),
'remark' => $this->input->post('remark')
);
}

if($this->form_validation->run() == TRUE){
$this->materials_model->update($material_id,$data);
$data['message'] = $this->session->set_flashdata('message',"<p> Reading material successfully edited.</p>");
$data['material'] = $data;
$this->load->view('edit_material_success',$data);
} else{
$data['message'] = (validation_errors() ? validation_errors(): $this->session->flashdata('message'));
$data['material'] = $data;

$this->load->view('edit_material',$data);
}
// $this->load->view('templates/footer',$data);
}
else{
redirect(base_url().'home');
}

}

public function view_user_cart(){

$data['title'] = 'Online Library System';

if($this->_is_logged_in()){
$i=0;
$username = $this->session->get_userdata('username');
$data['username'] = $username['username'];
}

```

```

$user = $this->users_model->get_user_by_name($data['username']);
$user_id = $user['user_id'];
$user_status = $user['status'];

$data['materials'] = $this->borrowers_model->get_user_cart($user_id);
$data['count'] = $this->borrowers_model->count_user_cart($user_id);
$count = $data['count'];

switch($user['status']) {
    case "1":
        $this->load->view('templates/header_user',$data);
        $this->load->view('view_cart',$data);
        break;
    case "2":
        $this->load->view('templates/header_librarian',$data);
        $this->load->view('view_cart',$data);
        break;
    case "3":
        $this->load->view('templates/header_principal',$data);
        $this->load->view('view_cart',$data);
        break;
    case "4":
        $this->load->view('templates/header_admin',$data);
        $this->load->view('view_cart',$data);
        break;
    default:
        $this->load->view('templates/header',$data);
        $this->load->view('view_cart',$data);
        break;
}

}

else{
    redirect(base_url().'home');
}
}

/* Delete reading material
 *
 * @param: accession number
 */
function delete($material_id){
//if($this->_is_logged_in()){
$this->materials_model->delete($material_id);
$this->session->set_flashdata('message','<p>Reading material successfully deleted!</p>');
redirect(base_url().'material');
//redirect('material'); not sure with this since the view and the routes are not yet settled
/*
else{
    redirect(base_url().'admin');
}*/
}

function add_to_cart($material_id){
$data['title'] = 'Online Library System';
if($this->_is_logged_in()){

```

```

$username = $this->session->userdata('username');
$data['username'] = $username;

$status= 'reserved';
$this->materials_model->update_status($material_id,$status);

$userdata = $this->users_model->get_user_by_name($username);

$borrower_data = array(
    'borrower_id' => $userdata['user_id'],
    'first_name' => $userdata['first_name'],
    'middle_name' => $userdata['middle_name'],
    'last_name' => $userdata['last_name']
);

// $this->borrowers_model->add_borrower($borrower_data);

$hold = array(
    'borrower_id' => $userdata['user_id'],
    'material_id' => $material_id,
    'date_borrowed' => '0000-00-00 00:00:00',
    'date_returned' => '0000-00-00 00:00:00',
    'due_date' => '0000-00-00 00:00:00',
    'fine' =>NULL
);

$this->borrowers_model->record_borrowed($hold);
$data['message'] = $this->session->flashdata('message','<p>Reading material successfully added to cart</p>');
redirect(base_url().'material/cart');
}

else{
    redirect(base_url().'home');
}
}

/** 
 * Searching the library using various fields(title,author,publisher,call number
 * accession number, subject,any field)
 */
 

function search(){
    $data['title'] = 'Online Library System';
    $this->load->helper(array('form','url'));
    $this->load->library('form_validation');

    $username = $this->session->userdata('username');
    $data['username'] = $username;
    $user = $this->users_model->get_user_by_name($username);

    $this->form_validation->set_rules('keywords','Keyword','required|xss_clean');
    $this->form_validation->set_rules('keywordCriterion','Field','required');

    if(isset($_POST) && !empty($_POST)){
        $search_query = array(
            'keywords' => set_value('keywords')
        );
    }
}

```

```

$criterion = $this->input->post('keywords');
$field= $this->input->post('keywordCriterion');

$data['materials'] = $this->materials_model->basic_search($criterion,$field);

if($this->_is_logged_in()){
switch($user['status']){
case "1":
$this->load->view('templates/header_user',$data);
$this->load->view('search_result',$data);
break;
case "2":
$this->load->view('templates/header_librarian',$data);
$this->load->view('search_result',$data);
break;
case "3":
$this->load->view('templates/header_principal',$data);
$this->load->view('search_result',$data);
break;
case "4":
$this->load->view('templates/header_admin',$data);
$this->load->view('search_result',$data);
break;
default:
$this->load->view('templates/header',$data);
$this->load->view('search_result',$data);
break;
}
}

else{
$this->load->view('templates/headermain',$data);
$this->load->view('search_result',$data);
}

}

public function advanced_search(){

$data['title'] = 'Online Library System';
$this->load->helper(array('form','url'));
$this->load->library('form_validation');

$username = $this->session->userdata('username');
$data['username'] = $username;
$user = $this->users_model->get_user_by_name($username);

/*$this->form_validation->set_rules('keyword1','Keyword','xss_clean');
$this->form_validation->set_rules('keywordCriterion1','Field');
$this->form_validation->set_rules('keyword2','Keyword','xss_clean');
$this->form_validation->set_rules('keywordCriterion2','Field','required');
$this->form_validation->set_rules('keyword3','Keyword','xss_clean');
$this->form_validation->set_rules('keywordCriterion3','Field');

if(isset($_POST) && !empty($_POST)){
$keywords = array(
'keyword1' => $this->input->post('keyword1'),
'keyword2' => $this->input->post('keyword2'),
'keyword3' => $this->input->post('keyword3'),

```

```

    );

$fields = array(
    'keywordCriterion1' => $this->input->post('keywordCriterion1'),
    'keywordCriterion2' => $this->input->post('keywordCriterion2'),
    'keywordCriterion3' => $this->input->post('keywordCriterion3')
);

$op = array(
    'op1' => $this->input->post('op1'),
    'op2' => $this->input->post('op2')
);

$add_fields = array (
    'type' => $this->input->post('type'),
    'year_from' => $this->input->post('year_from'),
    'year_to' => $this->input->post('year_to'),
    'year_op' => $this->input->post('year_op')
);

}

$data['materials'] = $this->materials_model->advanced_search($keywords,$fields,$op,$add_fields);/*

if($this->_is_logged_in()){
switch($user['status']) {
    case "1":
        $this->load->view('templates/header_user',$data);
        $this->load->view('advanced_search',$data);
        break;
    case "2":
        $this->load->view('templates/header_librarian',$data);
        $this->load->view('advanced_search',$data);
        break;
    case "3":
        $this->load->view('templates/header_principal',$data);
        $this->load->view('advanced_search',$data);
        break;
    case "4":
        $this->load->view('templates/header_admin',$data);
        $this->load->view('advanced_search',$data);
        break;
    default:
        $this->load->view('templates/header',$data);
        $this->load->view('advanced_search',$data);
        break;
}
}
else{
    $this->load->view('templates/headermain',$data);
    $this->load->view('advanced_search',$data);
}
}

public function get_advanced_search(){

$data['title'] = 'Online Library System';

```

```

$this->load->helper(array('form','url'));
$this->load->library('form_validation');

$username = $this->session->userdata('username');
$data['username'] = $username;
$user = $this->users_model->get_user_by_name($username);

$this->form_validation->set_rules('keyword1','Keyword','xss_clean');
$this->form_validation->set_rules('keywordCriterion1','Field');
$this->form_validation->set_rules('keyword2','Keyword','xss_clean');
$this->form_validation->set_rules('keywordCriterion2','Field','required');
$this->form_validation->set_rules('keyword3','Keyword','xss_clean');
$this->form_validation->set_rules('keywordCriterion3','Field');

if(isset($_POST) && !empty($_POST)){
    $keywords = array(
        'keyword1' => $this->input->post('keyword1'),
        'keyword2' => $this->input->post('keyword2'),
        'keyword3' => $this->input->post('keyword3'),
    );

    $fields = array(
        'keywordCriterion1' => $this->input->post('keywordCriterion1'),
        'keywordCriterion2' => $this->input->post('keywordCriterion2'),
        'keywordCriterion3' => $this->input->post('keywordCriterion3')
    );

    $op = array(
        'op1' => $this->input->post('op1'),
        'op2' => $this->input->post('op2')
    );

    $add_fields = array (
        'type' => $this->input->post('type'),
        'year_from' => $this->input->post('year_from'),
        'year_to' => $this->input->post('year_to'),
        'year_op' => $this->input->post('year_op')
    );
}

}else{
    $keywords = array(
        'keyword1' => NULL,
        'keyword2' => NULL,
        'keyword3' => NULL,
    );

    $fields = array(
        'keywordCriterion1' => NULL,
        'keywordCriterion2' => NULL,
        'keywordCriterion3' => NULL
    );

    $op = array(
        'op1' => NULL,
        'op2' => NULL
    );
}

```

```

$add_fields = array (
    'type' => NULL,
    'year_from' => NULL,
    'year_to' => NULL,
    'year_op' => NULL
);
}

$data['materials'] = $this->materials_model->advanced_search($keywords,$fields,$op,$add_fields);

if($this->_is_logged_in()){
    switch($user['status']){
        case "1":
            $this->load->view('templates/header_user',$data);
            $this->load->view('search_result',$data);
            break;
        case "2":
            $this->load->view('templates/header_librarian',$data);
            $this->load->view('search_result',$data);
            break;
        case "3":
            $this->load->view('templates/header_principal',$data);
            $this->load->view('search_result',$data);
            break;
        case "4":
            $this->load->view('templates/header_admin',$data);
            $this->load->view('search_result',$data);
            break;
        default:
            $this->load->view('templates/header',$data);
            $this->load->view('search_result',$data);
            break;
    }
}
}

else{
    $this->load->view('templates/headermain',$data);
    $this->load->view('search_result',$data);
}

public function show_acquisition_form(){
    $data['title'] = 'Online Library System';
    $this->load->helper(array('form'));

    if($this->_is_logged_in()){
        $data['username'] = $this->session->userdata('username');
        $user = $this->users_model->get_user_by_name($data['username']);

        switch($user['status']){
            case "1":
                $this->load->view('templates/header_user',$data);
                $this->load->view('acquisition_form',$data);
                break;
            case "2":
                $this->load->view('templates/header_librarian',$data);
                $this->load->view('acquisition_form',$data);
                break;
        }
    }
}

```

```

        case "3":
            $this->load->view('templates/header_principal',$data);
            $this->load->view('acquisition_form',$data);
            break;
        case "4":
            $this->load->view('templates/header_admin',$data);
            $this->load->view('acquisition_form',$data);
            break;
        default:
            $this->load->view('templates/header',$data);
            $this->load->view('acquisition_form',$data);
            break;
    }

}

else{
    redirect(base_url().'home');
}

}

public function acquisition_list(){

$data['title'] = 'Online Library System';
if($this->_is_logged_in()){
    $data['username'] = $this->session->userdata('username');
    $this->load->helper(array('form'));

    $userdata = $this->users_model->get_user_by_name($data['username']);
    $status = $userdata['status'];

    $data['acquisition_list'] = $this->materials_model->get_acquisition_list();

    if($status=='2'){
        $this->load->view('templates/header_librarian',$data);
        $this->load->view('acquisition_list',$data);
        // $this->load->view('templates/footer',$data);
    }elseif($status=='3'){
        $this->load->view('templates/header_principal',$data);
        $this->load->view('acquisition_list',$data);
    }else{
        redirect(base_url().'home');
    }
}else{
    redirect(base_url().'home');
}
}

/*
 *
 *
 */
public function add_acquisition(){

$data['title'] = 'Online Library System';

if($this->_is_logged_in()){
    $data['username'] = $this->session->userdata('username');
    $user = $this->users_model->get_user_by_name($data['username']);
}

```

```

switch($user['status']) {
    case "1":
        $this->load->view('templates/header_user',$data);
        break;
    case "2":
        $this->load->view('templates/header_librarian',$data);
        break;
    case "3":
        $this->load->view('templates/header_principal',$data);
        break;
    case "4":
        $this->load->view('templates/header_admin',$data);
        break;
    default:
        $this->load->view('templates/header',$data);
        break;
}

$this->load->helper(array('form','url','security'));
$this->load->library(array('form_validation','session'));

$this->form_validation->set_rules('title','Title','required|xss_clean');
$this->form_validation->set_rules('author','Author','required|xss_clean');
$this->form_validation->set_rules('publisher','Publisher','xss_clean');
$this->form_validation->set_rules('year_published','Year Published','xss_clean|min_length[4]');
$this->form_validation->set_rules('edition','Edition','xss_clean');
$this->form_validation->set_rules('volume','Volume','xss_clean');
$this->form_validation->set_rules('cost','Cost','xss_clean');
$this->form_validation->set_rules('store','Store','xss_clean');

if($this->form_validation->run() == FALSE){
    $data['errors'] = (validation_errors() ? validation_errors() : $this->session->flashdata('message'));
    $this->load->view('acquisition_form',$data);
}
else{
    $hold =array(
        'title' => set_value('title'),
        'author'=>set_value('author'),
        'publisher' => set_value('publisher'),
        'year_published' => set_value('year_published'),
        'edition' => set_value('edition'),
        'volume' => set_value('volume'),
        'cost' => set_value('cost'),
        'store' => set_value('store'),
        //'status' => 'pending'
    );
}

$this->materials_model->add_acquisition($hold);
$data['message']="Reading material added successfully!";
$data['data'] = $hold;
$this->load->view('acquisition_form',$data);
//redirect(base_url().'material/suggest');
}
}

else{

```

```

        redirect(base_url().'home');
    }
}

public function update_acquisition($acquisition_id){
    $data['title'] = 'Online Library System';

    if($this->_is_logged_in()){
        $username = $this->session->userdata('username');
        $data['username'] = $username;

        $userdata = $this->users_model->get_user_by_name($username);
        $status = $userdata['status'];

        if($status=='3'){

            $this->materials_model->update_acquisition_entry($acquisition_id,'approved');

            $data['message']= "Entry is approved for acquisition.";

            redirect(base_url().'material/acquisition');

        }else if($status=='2'){

            $this->materials_model->update_acquisition_entry($acquisition_id,'pending');

            $data['message']= "Entry is added for acquisition.";

            redirect(base_url().'material/acquisition');

        }else{
            redirect(base_url().'home');
        }

    }else{
        redirect(base_url().'home');
    }
}

/*
 *
 */
public function delete_entry($acquisition_id){

    if($this->_is_logged_in()){
        $data['username'] = $this->session->userdata('username');

        $user = $this->users_model->get_user_by_name($data['username']);
        $status= $user['status'];

        //if($status=='3'){

            $this->materials_model->delete_acquisition_entry($acquisition_id);
            $data['message']= "Entry is successfully deleted";
            redirect(base_url().'material/acquisition');
        //}

    }else{

```

```

        redirect(base_url().'home');
    }
}

/*
*
* Fetch the total title and volume of reading materials per year
* cluster in class(main classes in DDC) ,type(general reference,fiction,
* rizaliana,textbooks,reserved books,revivals,juvenile literature) and group(filipiniana,foreign)
* where each belong
*/
public function generate_statistics(){
$data['title'] = 'Online Library System Inventory';

if($this->_is_logged_in()){
$username = $this->session->userdata('username');
$data['username'] = $username;
$userdata = $this->users_model->get_user_by_name($username);

if($userdata['status'] == '2'){
$list = array(
'0' => 'general_works',
'1' => 'philosophy',
'2' => 'religion',
'3' => 'social_science',
'4' => 'languages',
'5' => 'science',
'6' => 'technology',
'7' => 'arts_recreation',
'8' => 'literature',
'9' => 'history_geography',
'R' => 'general_reference',
'Fic' => 'fiction',
'Text' => 'textbooks',
'RS' => 'reserved_books',
'Riv' => 'revivals',
//key are just assigned by me
'J' => 'juvenile',
'Riz' => 'rizaliana'
);
}

$result_fil_title = $this->materials_model->count_by_title('filipiniana');
$result_for_title = $this->materials_model->count_by_title('foreign');

$result_fil_volume = $this->materials_model->count_by_volume('filipiniana');
$result_for_volume = $this->materials_model->count_by_volume('foreign');

$data['fil_title']= $result_fil_title;
$data['fil_volume'] = $result_fil_volume;
$data['for_title'] = $result_for_title;
$data['for_volume'] = $result_for_volume;

$data['tot_title'] = $this->materials_model->get_total_title();
$data['tot_volume'] = $this->materials_model->get_total_volume();
}

```

```

$this->load->view('templates/header_librarian',$data);
$this->load->view('statistics',$data);
}elseif($userdata['status'] == '3'){
    $list = array(
        '0' => 'general_works',
        '1' => 'philosophy',
        '2' => 'religion',
        '3' => 'social_science',
        '4' => 'languages',
        '5' => 'science',
        '6' => 'technology',
        '7' => 'arts_recreation',
        '8' => 'literature',
        '9' => 'history_geography',
        'R' => 'general_reference',
        'Fic' => 'fiction',
        'Text' => 'textbooks',
        'RS' => 'reserved_books',
        'Riv' => 'revivals',
        //key are just assigned by me
        'J' => 'juvenile',
        'Riz' => 'rizaliana'
    );
}

$result_fil_title = $this->materials_model->count_by_title('filipiniana');
$result_for_title = $this->materials_model->count_by_title('foreign');

$result_fil_volume = $this->materials_model->count_by_volume('filipiniana');
$result_for_volume = $this->materials_model->count_by_volume('foreign');

$data['fil_title'] = $result_fil_title;
$data['fil_volume'] = $result_fil_volume;
$data['for_title'] = $result_for_title;
$data['for_volume'] = $result_for_volume;

$data['tot_title'] = $this->materials_model->get_total_title();
$data['tot_volume'] = $this->materials_model->get_total_volume();

$this->load->view('templates/header_principal',$data);
$this->load->view('statistics',$data);
} else{
    redirect(base_url().'home');
}

}

}

public function generate_summary(){
    $data['title'] = 'Online Library System Inventory';

    if($this->_is_logged_in()){
        $username = $this->session->userdata('username');
    }
}

```

```

        $data['username'] = $username;
        $userdata = $this->users_model->get_user_by_name($username);

        //check whether a Librarian or a Principal
        if($userdata['status']==2){
            $data['materials'] = $this->materials_model->get_summary();
            $this->load->view('templates/header_librarian',$data);
            $this->load->view('summary',$data);
        }elseif($userdata['status']==3){
            $data['materials'] = $this->materials_model->get_summary();
            $this->load->view('templates/header_principal',$data);
            $this->load->view('summary',$data);
        }else{
            redirect(base_url().'home');
        }

    }else{
        redirect(base_url().'home');
    }

}

//end of class
?>

<?php if(!defined('BASEPATH')) exit ('No direct script access allowed');

class Borrower extends CI_Controller{

    public function __construct(){
        parent::__construct();
        $this->load->model('materials_model');
        $this->load->model('users_model');
        $this->load->model('borrowers_model');
        $this->load->library('pagination');

        $this->load->library('session');

        $this->load->helper(array('form','url','security'));
    }

    function index(){

    }

    function _is_logged_in(){

        $logged = $this->session->userdata('logged_in');
        if ($logged)
        {
            return TRUE;
        }
        else
        {
            return FALSE;
        }
    }

    public function show_library_user_list(){

}

```

```

$data['title'] ='Online Library System';

if($this->_is_logged_in()){
    $username = $this->session->get_userdata('username');
    $data['username'] = $username['username'];
    $user = $this->users_model->get_user_status($data['username']);
    $status = $user['status'];

    if($status=='2'){
        $data['library_users'] = $this->users_model->get_library_users();
        $this->load->view('templates/header_librarian',$data);
        $this->load->view('library_user_list',$data);
    }else{
        redirect(base_url().'home');
    }
}else{
    redirect(base_url().'home');
}

/*
 */
public function borrow_read_material($record_id){

    $data['record_id']= $record_id;

    $record_data = $this->borrowers_model->get_each_record($record_id);

    $accession_id = $record_data['material_id'];
    $status = 'checked out';

    $this->materials_model->update_status($accession_id,$status);

    date_default_timezone_set('Asia/Manila');
    $curr_date = date('Y-m-d g:i:s');

    $data['date_borrowed']= $curr_date;

    /*For setting duration allowable for each reading material
    */
    $type = array("general_reference" =>"0","rizaliana"=>"24","reserved"=>"24","fiction"=>"168","revivals"=>"72");
    //aside from these , others are in general circulation can be borrowed for three days
    $next_week = time() + (7 * 24 * 60 * 60);
        // 7 days; 24 hours; 60 mins; 60 secs
    $after_three_days = time() + (3 * 24 * 60 * 60);
    $overnight = time() + (1 * 24 * 60 * 60);

    $date_next_week = date('Y-m-d g:i:s',$next_week);
    $date_three_after = date('Y-m-d g:i:s',$after_three_days);
    $date_overnight = date('Y-m-d g:i:s',$overnight);

    foreach($type as $key=>$each_type){
        switch($key){

```

```

        case "general_reference":
            // $data['date_borrowed'] = date('g:i:s');
            break;
        case "rizaliana":
        case "reserved":
            $data['due_date'] = $date_overnight;
            break;
        case "revivals":
            $data['due_date'] = $date_three_after;
            break;
        case "fiction":
            $data['due_date'] = $date_next_week;
            break;
        default:
            // $data['date_borrowed'] = date('g:i:s');
            $data['due_date'] = $date_three_after;
            break;
    }
}

$this->borrowers_model->update_record($record_id,$data);
$data['message'] = $this->session->set_flashdata('message','<p>Reading material successfully borrowed!</p>');
redirect(base_url().'material/cart');

}

/*
 * $material_id in the borrower record table
 */
public function return_read_material($record_id){
    $data['record_id']= $record_id;

    $record_data = $this->borrowers_model->get_each_record($record_id);

    $accession_id = $record_data['material_id'];
    $status = 'on shelf';

    $this->materials_model->update_status($accession_id,$status);

    date_default_timezone_set('Asia/Manila');
    $curr_date = date('Y-m-d g:i:s');

    $data['date_returned'] = $curr_date;

    $this->borrowers_model->update_record($record_id,$data);

    /*$due_date = $record_data['due_date'];

    if(strcmp($curr_date, $due_date)){
        */
    }

    else{
        */
    }

    $data['message'] = $this->session->set_flashdata('message','<p>Reading material is successfully returned!</p>');
    redirect(base_url().'material/cart');
}

```

```

public function show_borrowing_request(){

    $data['title'] = 'Online Library System';

    if($this->_is_logged_in()){

        $username = $this->session->userdata('username');
        $data['username'] = $username;

        $userdata = $this->users_model->get_user_by_name($username);
        $user_status = $userdata['status'];

        if($user_status == '2'){
            $materials = $this->borrowers_model->get_library_cart();
            $data['materials'] = $materials;
            $this->load->view('templates/header_librarian',$data);
            $this->load->view('material_request_list',$data);
        }
        else{
            redirect(base_url().'home');
        }
    }

    else{
        redirect(base_url().'home');
    }
}

public function show_transaction(){

    $data['title'] = 'Online Library System';

    if($this->_is_logged_in()){
        $data['username'] = $this->session->userdata('username');
        $userdata = $this->users_model->get_user_by_name($data['username']);
        $user_id = $userdata['user_id'];

        if(isset($_POST['type'])){
            $type = $this->input->post('type');
            $data['type'] = $type;
            $data['transactions']= $this->borrowers_model->get_transaction($type,$user_id);

        }else{
            $data['type'] = 'all';
            $data['transactions']= $this->borrowers_model->get_transaction('all',$user_id);
        }

        $transactions = $data['transactions'];

        switch($userdata['status']) {
            case "1":
                $this->load->view('templates/header_user',$data);
                $this->load->view('user_transaction',$data);
                break;
            case "2":
                $this->load->view('templates/header_librarian',$data);
        }
    }
}

```

```

        $this->load->view('user_transaction',$data);
        break;
    case "3":
        $this->load->view('templates/header_principal',$data);
        $this->load->view('user_transaction',$data);
    case "4":
        $this->load->view('templates/header_admin',$data);
        $this->load->view('user_transaction',$data);
        break;
    default:
        $this->load->view('templates/header',$data);
        $this->load->view('user_transaction',$data);
        break;
    }

}

} else{
    redirect(base_url().'home');
}
}

public function show_available(){
    $data['title'] = 'Online Library System';

    date_default_timezone_set('Asia/Manila');
    $data['curr_date'] = date("F j, Y, g:i a");

    $this->load->helper('form');

    if($this->_is_logged_in()){
        $data['username'] = $this->session->userdata('username');
        $user = $this->users_model->get_user_by_name($data['username']);
        $user_id = $user['user_id'];

        if(isset($_POST)&& !empty($_POST)){
            $type = $this->input->post('type');
            $size = sizeof($this->materials_model->get_by_status('','',$type));

            /*$config = array();
            $config['base_url'] = base_url().'material/available';
            $config['total_rows'] = $size;
            $config['per_page'] = 5;
            $config['uri_segment'] = 3;

            $this->pagination->initialize($config);
            $page = ($this->uri->segment(3)) ? $this->uri->segment(3) : 0;
            $data['materials'] = $this->materials_model->get_by_status($config['per_page'], $page,$type);

            $data['links'] = $this->pagination->create_links();*/
            $data['materials'] = $this->materials_model->get_by_status('','',$type);
            $data['type'] = $type;
        }else{
            $type = 'all';
            $size = sizeof($this->materials_model->get_by_status('','',$type));

            $config = array();
            $config['base_url'] = base_url().'material/available';
        }
    }
}

```

```

$config['total_rows'] = $size;
$config['per_page'] = 5;
$config['uri_segment'] = 3;

$this->pagination->initialize($config);
$page = ($this->uri->segment(3)) ? $this->uri->segment(3) : 0;
$data['materials'] = $this->materials_model->get_by_status($config['per_page'], $page,$type);

$data['links'] = $this->pagination->create_links();

$data['type'] = $type;
//$data['materials']= $this->materials_model->get_by_status($type);

}

if($user['status'] == '2'){
$this->load->view('templates/header_librarian',$data);
$this->load->view('view_availability',$data);
}else{
redirect(base_url().'home');
}

}

public function track_usage(){
$data['title'] = 'Online Library System';

date_default_timezone_set('Asia/Manila');
$curren_date = date('Y-m-d');

if($this->is_logged_in()){
$data['username'] = $this->session->userdata('username');
$user = $this->users_model->get_user_by_name($data['username']);
$user_id = $user['user_id'];

if(!empty($_POST['date'])){
$date = $this->input->post('date');

$date = strtotime($date);
$newdate = date('Y-m-d',$date);
$data['date'] = $newdate;
$data['materials'] = $this->borrowers_model->get_usage($newdate);

}else{
$data['date'] = $curr_date;
$data['materials'] = $this->borrowers_model->get_usage($curr_date);
}

if($user['status'] == '2'){
$this->load->view('templates/header_librarian',$data);
$this->load->view('view_usage',$data);
}else{
}
}
}

```

```

        redirect(base_url().'home');
    }

} else{
    redirect(base_url().'home');
}
}

public function get_overdue(){
$data['title'] = 'Online Library System';

date_default_timezone_set('Asia/Manila');

if($this->_is_logged_in()){
$data['username'] = $this->session->userdata('username');
$user = $this->users_model->get_user_by_name($data['username']);
$user_id = $user['user_id'];

if(isset($_POST['date'])){
$date = $this->input->post('date');
$date = strtotime($date);
$newdate = date('Y-m-d',$date);
$data['date'] = $newdate;
$data['materials'] = $this->borrowers_model->get_overdue($newdate);

} else{
$curren_date = date('Y-m-d g:i:s');
$data['date'] = $curren_date;
$data['materials'] = $this->borrowers_model->get_overdue($curr_date);
}

if($user['status'] == '2'){
$this->load->view('templates/header_librarian',$data);
$this->load->view('view_overdue',$data);
} else{
redirect(base_url().'home');
}

} else{
redirect(base_url().'home');
}

}

public function get_due(){
$data['title'] = 'Online Library System';

date_default_timezone_set('Asia/Manila');

if($this->_is_logged_in()){
$data['username'] = $this->session->userdata('username');
$user = $this->users_model->get_user_by_name($data['username']);
$user_id = $user['user_id'];

if(isset($_POST['date'])){
$date = $this->input->post('date');
$date = strtotime($date);

```

```

$newdate = date('Y-m-d',$date);

$data['date'] = date("F j, Y",$date);
$data['materials'] = $this->borrowers_model->get_due($newdate);

}else{
$curren_date = date('Y-m-d g:i:s');
$data['materials'] = $this->borrowers_model->get_due($curren_date);
$data['date'] = date("F j, Y, g:i a");
}

if($user['status'] == '2'){
$this->load->view('templates/header_librarian',$data);
$this->load->view('view_due',$data);
}else{
redirect(base_url().'home');
}

}

public function get_monthly_data(){
$data['title'] = 'Online Library System';

date_default_timezone_set('Asia/Manila');
$curren_date = date('Y-m');

if($this->_is_logged_in()){
$data['username'] = $this->session->userdata('username');
$user = $this->users_model->get_user_by_name($data['username']);
$user_id = $user['user_id'];

if(!empty($_POST['date'])){
$date = $this->input->post('date');

$date = strtotime($date);
$newdate = date('Y-m',$date);
$data['date'] = $newdate;

$data['seven_students'] = $this->borrowers_model->get_borrowers_data('7',$newdate);
$data['eight_students'] = $this->borrowers_model->get_borrowers_data('8',$newdate);
$data['nine_students'] = $this->borrowers_model->get_borrowers_data('9',$newdate);
$data['ten_students'] = $this->borrowers_model->get_borrowers_data('10',$newdate);
$data['teachers_data'] = $this->borrowers_model->get_borrowers_data(NULL,$newdate);

$data['seven_books'] = $this->borrowers_model->get_books_data('7',$newdate);
$data['eight_books'] = $this->borrowers_model->get_books_data('8',$newdate);
$data['nine_books'] = $this->borrowers_model->get_books_data('9',$newdate);
$data['ten_books'] = $this->borrowers_model->get_books_data('10',$newdate);
$data['teachers_books'] = $this->borrowers_model->get_books_data(NULL,$newdate);

$data['seven_overnight'] = $this->borrowers_model->get_overnight_data('7',$newdate);
$data['eight_overnight'] = $this->borrowers_model->get_overnight_data('8',$newdate);
$data['nine_overnight'] = $this->borrowers_model->get_overnight_data('9',$newdate);
$data['ten_overnight'] = $this->borrowers_model->get_overnight_data('10',$newdate);
}
}

```

```

$data['teachers_overnight'] = $this->borrowers_model->get_overnight_data(NULL,$newdate);

}else{
    $data['date'] = $curr_date;

    $data['seven_students'] = $this->borrowers_model->get_borrowers_data('7',$curr_date);
    $data['eight_students'] = $this->borrowers_model->get_borrowers_data('8',$curr_date);
    $data['nine_students'] = $this->borrowers_model->get_borrowers_data('9',$curr_date);
    $data['ten_students'] = $this->borrowers_model->get_borrowers_data('10',$curr_date);
    $data['teachers_data'] = $this->borrowers_model->get_borrowers_data(NULL,$curr_date);

    $data['seven_books'] = $this->borrowers_model->get_books_data('7',$curr_date);
    $data['eight_books'] = $this->borrowers_model->get_books_data('8',$curr_date);
    $data['nine_books'] = $this->borrowers_model->get_books_data('9',$curr_date);
    $data['ten_books'] = $this->borrowers_model->get_books_data('10',$curr_date);
    $data['teachers_books'] = $this->borrowers_model->get_books_data(NULL,$curr_date);

    $data['seven_overnight'] = $this->borrowers_model->get_overnight_data('7',$curr_date);
    $data['eight_overnight'] = $this->borrowers_model->get_overnight_data('8',$curr_date);
    $data['nine_overnight'] = $this->borrowers_model->get_overnight_data('9',$curr_date);
    $data['ten_overnight'] = $this->borrowers_model->get_overnight_data('10',$curr_date);
    $data['teachers_overnight'] = $this->borrowers_model->get_overnight_data(NULL,$curr_date);
}

if($user['status'] == '2'){
    $this->load->view('templates/header_librarian',$data);
    $this->load->view('view_monthly_data',$data);
}elseif($user['status'] == '3'){
    $this->load->view('templates/header_principal',$data);
    $this->load->view('view_monthly_data',$data);
}else{
    redirect(base_url().'home');
}

/*
 * iniisip ko pa kung kailangan ko talaga ito
 */
public function compute_fines(){

}

public function add_to_borrower_list($library_user_id){

$library_user = $this->users_model->get_user($library_user_id);

$hold = array(
    'first_name' => $library_user['first_name'],
    'middle_name' => $library_user['middle_name'],
    'last_name' => $library_user['last_name'],
    'year_level' => $library_user['year_level'],
    'type' => $library_user['user_type']
);

$this->borrowers_model->add_borrower($hold);

```

```

}

public function delete_record($record_id){
    $this->borrowers_model->delete_record($record_id);
    $this->session->set_flashdata('message', "<p>Reading material successfully removed from the record!</p>");
    redirect(base_url().'material/grant');

}

?>

```

3. Models

```

<?php if(!defined('BASEPATH')) exit ('No direct access script allowed');

class Users_model extends CI_Model{

    public function __construct(){

    }
    /*
     *
     */
    public function login($username,$password)
    {
        $this->db->select('username,password,status');
        $this->db->where('username',$username);
        $this->db->where('password',$password);

        /*$status = array('2','1');
        $this->db->where_in('status',$status);*/

        $this->db->from('user');
        $this->db->limit(1);

        $query = $this->db->get();

        if($query->num_rows() == 1){
            return $query->result();
        }else
        {
            return FALSE;
        }

    }
    /*
     *
     */
    public function check_if_valid_user($data){

        $this->db->select('username,password,status');
        $this->db->from('user');

```

```

$this->db->where('username',$data);
$this->db->where('status','4');
$this->db->or_where('status','3');
$this->db->or_where('status','2');
$this->db->or_where('status','1');

$this->db->limit(1);

$query = $this->db->get();

if($query->num_rows() == 1){
    return TRUE;
} else {
    return FALSE;
}

/*
 *
 */
function record_count(){
    return $this->db->count_all('user');
}

public function fetch_users($limit, $start) {
    $this->db->limit($limit, $start);
    $query = $this->db->get('user');

    if ($query->num_rows() > 0) {
        foreach ($query->result() as $row) {
            $data[] = $row;
        }
        return $data;
    }
    return false;
}

public function get_user_status($username){
    $this->db->select('status');
    $this->db->from('user');
    $this->db->where('username',$username);
    $this->db->limit(1);

    $query = $this->db->get();

    if($query->num_rows() == 1){
        return $query->row_array();
    } else{
        return FALSE;
    }
}

/*
 *
 */
public function save_user($info) {

```

```

$this->db->insert('user', $info);

$id = $this->db->insert_id();

return (isset($id)) ? $id : FALSE;

}

/*
*
*/
public function get_users(){

$this->db->select('*');

$this->db->where('status', '0');

$this->db->or_where('status', '1');

$this->db->from('user');

$query = $this->db->get();

return $query->result_array();
}

/*
*
*/
public function get_user($user_id) {

$this->db->select('*');

$this->db->where('user_id', $user_id);

$query = $this->db->get('user');

return $query->row_array();
}

/*
*
*/
public function get_user_by_name($username){

$this->db->select('*');

$this->db->where('username', $username);

$query = $this->db->get('user');

if($query->num_rows() == 1){

return $query->row_array();
}

else{

return FALSE;
}
}

public function get_user_by_type($type){

$this->db->select('*');

$this->db->from('user');

if($type == 'all'){

$query = $this->db->get();

}else{

$this->db->where('user_type', $type);

$query = $this->db->get();
}
}

```

```

}

if($query->num_rows() > 0){
    return $query->result_array();
}
else{
    return FALSE;
}
}

public function get_library_users(){
    $this->db->select('*');
    $this->db->where('status', '1');
    $this->db->from('user');

    $query = $this->db->get();

    return $query->result_array();
}

public function count_username($username){
    $this->db->select('*');
    $this->db->where('username', $username);
    $query = $this->db->get('user');

    return $query->num_rows();
}

/*
 *
 */
public function view_user($user_id){
    $query = $this->db->get_where('user', array('user_id' => $user_id));
    return $query->row_array();
}

/*
 *
 */
public function delete_user($user_id){

    $this->db->where('user_id', $user_id);
    $this->db->delete('user');
}

/*
 *
 */
public function update_user($user_id, $data){

    $this->db->where('user_id', $user_id);
    $this->db->update('user', $data);

}

?>
<?php if(!defined('BASEPATH')) exit('No direct script access allowed');

/**

```

```

*
*/
class Materials_model extends CI_Model {

    function __construct() {
        // $this->load->database();
    }

    /**
     * Getting all reading materials
     *
     * return: reading materials in the library
     */
    public function get_all(){
        $this->db->select('accession_number,title,author,call_number,date_received,class,edition,
            volume,pages,source,publisher,year_published,type,
            remark,status');
        $this->db->order_by('title','asc');
        $query = $this->db->get('material');

        return $query->result_array();
    }

    public function record_count(){
        return $this->db->count_all('material');
    }

    public function fetch_materials($limit, $start) {
        $this->db->limit($limit, $start);
        $this->db->order_by('title','asc');
        $query = $this->db->get('material');

        if ($query->num_rows() > 0) {
            return $query->result_array();
        }
        return false;
    }

    /**
     * Getting a particular reading material
     *
     * return: reading material
     */
    public function get_each($material_id){
        $this->db->select('title,author,call_number,accession_number,date_received,class,edition,
            volume,pages,source,publisher,year_published,type,
            remark,status');
        $this->db->where('accession_number', $material_id);
        $query = $this->db->get('material');

        return $query->row_array();
    }

    /**
     * Getting a particular reading material by status
     *
     * return: reading material
     */

```

```

*/
public function get_each_by_status($material_id,$status){
    $this->db->select('title,author,call_number,accession_number,date_received,class,edition,
volume,pages,source,publisher,year_published,type,
remark,status');
    $this->db->where('accession_number', $material_id);
    $this->db->where('status', $status);
    $query = $this->db->get('material');

    return $query->row_array();
}

public function get_by_status($limit, $start,$status){
$this->db->select('*');

if($status == 'all'){
    $this->db->limit($limit, $start);
    $this->db->order_by('title','asc');
    $query = $this->db->get('material');
}else{
    $this->db->where('status',$status);
    $this->db->limit($limit, $start);
    $this->db->order_by('title','asc');
    $query = $this->db->get('material');
}

if($query->num_rows() > 0){
    return $query->result_array();
}else{
    return FALSE;
}
}

public function get_by_title($title){
$this->db->select('accession_number');
$this->db->from('material');
$this->db->where('title', $title);
$query = $this->db->get();

return $query->row_array();
}

/**
 * Input reading material
 *
 * isset () function is used to check whether a variable is set or not.
 * If a variable is already unset with unset() function, it will no longer be set.
 * The isset() function return false if testing variable contains a NULL value.
 */

public function add($new_data){
    $this->db->insert('material', $new_data);

$id = $this->db->insert_id();

```

```

        return (isset($id)) ? $id : FALSE;
    }

    /**
     * Update existing reading material
     */
    public function update($material_id,$data){
        $this->db->where('accession_number',$material_id);
        $this->db->update('material',$data);
    }

    /**
     * Delete reading material
     */
    public function delete($material_id){
        $this->db->where('accession_number',$material_id);
        $this->db->delete('material');
    }

    public function get_acquisition_list(){
        $this->db->select('*');
        // $this->db->where('status','pending,approved');
        $query = $this->db->get('acquisition');

        if($query->num_rows() > 0){
            return $query->result_array();
        }
        else{
            return FALSE;
        }
    }

    public function add_acquisition($new_data){
        $this->db->insert('acquisition', $new_data);

        $id = $this->db->insert_id();

        return (isset($id)) ? $id : FALSE;
    }

    /*
     * Update status of suggested reading material
     */
    public function update_acquisition_entry($acquisition_id,$status){
        $this->db->where('acquisition_id',$acquisition_id);
        $this->db->set('status',$status);
        $this->db->update('acquisition');
    }

    /*
     * Delete suggested reading material on acquisition list
     */
    public function delete_acquisition_entry($acquisition_id){
        $this->db->where('acquisition_id',$acquisition_id);
        $this->db->delete('acquisition');
    }

```

```

/**
 * Searching the library using various fields(title,author,publisher,call number
 * accession number, subject,any field)
 */
public function basic_search($criterion,$field){
    $this->db->select('title,author,publisher,call_number,accession_number,remark');
    $search_fields = array('title','author','publisher','call_number','accession_number','remark');

    /*foreach($search_fields as $each_query){
        $this->db->or_like($each_query,$criterion);
    }*/
    if($field == 'subject'){
        $this->db->or_like('remark',$criterion);
    }elseif($field=='any_field'){
        foreach ($search_fields as $each_field) {
            $this->db->or_like($each_field,$criterion);
        }
    }else{
        $this->db->or_like($field,$criterion);
    }
    $this->db->order_by('accession_number','asc');
    $query = $this->db->get('material');

    if($query->num_rows() > 0){
        return $query->result_array();
    }
    else{
        return NULL;
    }
}

/**
 * Advanced search
 * adapted from ilib.upm.du.ph
 * title and author only having some conditions like 'and', 'or'
 * not including subject
 * Additonal selection list: any location and any type
 * Date: conditions 'to','or'
 */
public function advanced_search($keywords,$fields,$op,$add_fields){
    $this->db->select('title,author,publisher,call_number,accession_number,remark');

    $search_fields = array('title','author','publisher','call_number','accession_number','remark');

    if($fields['keywordCriterion1'] == 'subject'){
        $this->db->or_like('remark',$keywords['keyword1']);

        } elseif($fields['keywordCriterion1']=='any_field'){
            foreach ($search_fields as $each_field) {
                $this->db->or_like($each_field,$keywords['keyword1']);
            }
        }else{

            $this->db->or_like($fields['keywordCriterion1'],$keywords['keyword1']);
        }
}

```

```

switch($op['op1']){
    case 'and':
        if($fields['keywordCriterion2'] == 'subject'){
            $this->db->where_in('remark',$keywords['keyword2']);

        } elseif($fields['keywordCriterion2']=='any_field'){
            foreach ($search_fields as $each_field) {
                $this->db->or_where_in($each_field,$keywords['keyword2']);
            }
        }

        }else{
            $this->db->where($fields['keywordCriterion2'],$keywords['keyword2']);
        }
        break;

    case 'or':
        if($fields['keywordCriterion2'] == 'subject'){
            $this->db->or_like('remark',$keywords['keyword2']);

        } elseif($fields['keywordCriterion2']=='any_field'){
            foreach ($search_fields as $each_field) {
                $this->db->or_like($each_field,$fields['keywordCriterion2']);
            }
        }

        }else{
            $this->db->or_like($fields['keywordCriterion2'],$keywords['keyword2']);
        }
        break;
    }

switch($op['op2']){
    case 'and':
        if($fields['keywordCriterion3'] == 'subject'){
            $this->db->where_in('remark',$keywords['keyword3']);

        } elseif($fields['keywordCriterion3']=='any_field'){
            foreach ($search_fields as $each_field) {
                $this->db->or_where_in($each_field,$keywords['keyword3']);
            }
        }

        }else{
            $this->db->where($fields['keywordCriterion3'],$keywords['keyword3']);
        }
        break;

    case 'or':
        if($fields['keywordCriterion3'] == 'subject'){
            $this->db->or_like('remark',$keywords['keyword3']);

        } elseif($fields['keywordCriterion3']=='any_field'){
            foreach ($search_fields as $each_field) {
                $this->db->or_like($each_field,$fields['keywordCriterion3']);
            }
        }
}

```

```

        }else{
            $this->db->or_like($fields['keywordCriterion3'],$keywords['keyword3']);
        }
        break;
    }

$this->db->or_where('type',$add_fields['type']);

if($add_fields['year_op'] == 'to'){
    $this->db->or_where('date_received >=', $add_fields['year_from']);
    $this->db->or_where('date_received <=', $add_fields['year_to']);
}else{
    $this->db->or_like('date_received', $add_fields['year_from']);
    $this->db->or_like('date_received', $add_fields['year_to']);
}

$this->db->order_by('title','asc');

$query = $this->db->get('material');

if($query->num_rows() > 0){
    return $query->result_array();
}
else{
    return NULL;
}
}

/** 
 * Update reading material status (checked out, on shelf, reserved)
 */
public function update_status($material_id,$status){
    $this->db->where('accession_number',$material_id);
    $this->db->set('status',$status);
    $this->db->update('material');
}

/*
 */
public function get_transaction_data($material_id){
    $this->db->select('*');
    $this->db->where('material_id',$material_id);
    $this->db->from('borrower_record');

$query = $this->db->get();

if($query->num_rows() > 0){
    return $query->result_array();
}
else{
    return NULL;
}
}

public function record_transaction($transaction_data){
    $this->db->insert('borrower_record', $transaction_data);
}

```

```

$id = $this->db->insert_id();

return (isset($id)) ? $id : FALSE;
}

public function update_transaction($material_id,$date_returned){
$this->db->where('material_id',$material_id);
$this->db->set('date_returned',$date_returned);
$this->db->update('borrower record');
}

public function set_fine($material_id,$fine){
$this->db->where('material_id',$material_id);
$this->db->set('fine',$fine);
$this->db->update('borrower record');
}

public function count_borrowed_materials(){
$this->db->select('accession_number');
$this->db->from('borower_record');
$this->db->join('material','borrower record.material_id=material.accession_number','inner');
$this->db->join('borrower','borrower.borrower_id=borrower record.borrower_id','inner');
$this->db->where('material.status','checked out');

$query=$this->db->get();

return $count= $query->num_rows();
}

/** 
 * Generate Yearly Inventory Listings - to know the different
 * collections filed and shelved as an official collection
 * of the library for supply office copy and school copy
 */
public function create_inventory($year){
$this->db->select('*');
$this->db->from('material');
$this->db->where('year',$year);
$query = $this->db->get();

return $query->result_array();
}

public function count_by_title($group){
$this->db->select('title');
// $this->db->from('material');
$class_list = array(
'0' => 'general_works',
'1' => 'philosophy',
'2' => 'religion',
'3' => 'social_science',
'4' => 'languages',
'5' => 'science',
'6' => 'technology',
'7' => 'arts_recreation',
'8' => 'literature',
)
}

```

```

'9' => 'history_geography'
);
$type_list = array(
'R' => 'general_reference',
'Pic' => 'fiction',
'Text' => 'textbooks',
'RS' => 'reserved_books',
'Riv' => 'revivals',
//key are just assigned by me
'J' => 'juvenile',
'Riz' => 'rizaliana'
);

if($group == 'filipiniana'){
$count = array();
foreach($class_list as $key => $value){
$this->db->where('major_group','filipiniana');
$this->db->where('class',$class_list[$key]);
$query = $this->db->get('material');
$count = array_merge_recursive($count,array(
$key => $query->num_rows(),
));
}
foreach($type_list as $key => $value){
$this->db->where('type',$type_list[$key]);
$this->db->where('major_group','filipiniana');
$query = $this->db->get('material');
$count = array_merge_recursive($count,array(
$key => $query->num_rows(),
));
}
return $count;
}

}else{
$count = array();
foreach($class_list as $key => $value){
$this->db->where('major_group','foreign');
$this->db->where('class',$class_list[$key]);
$query = $this->db->get('material');
$count = array_merge_recursive($count,array(
$key => $query->num_rows(),
));
}
foreach($type_list as $key => $value){
$this->db->where('type',$type_list[$key]);
$this->db->where('major_group','foreign');
$query = $this->db->get('material');
$count = array_merge_recursive($count,array(
$key => $query->num_rows(),
));
}
return $count;
}

```

```

}

public function count_by_volume($group){

$class_list = array(
'0' => 'general_works',
'1' => 'philosophy',
'2' => 'religion',
'3' => 'social_science',
'4' => 'languages',
'5' => 'science',
'6' => 'technology',
'7' => 'arts_recreation',
'8' => 'literature',
'9' => 'history_geography'
);

$type_list = array(
'R' => 'general_reference',
'Fic' => 'fiction',
'Text' => 'textbooks',
'RS' => 'reserved_books',
'Riv' => 'revivals',
//key are just assigned by me
'J' => 'juvenile',
'Riz' => 'rizaliana'
);
}

```

```

/*if($group == 'filipiniana'){

$count = array();
foreach($list as $key => $value){
$this->db->select_sum('volume');
//this->db->from('material');
$this->db->where('major_group','filipiniana');
$this->db->where('class',$list[$key]);
$this->db->or_where('type',$list[$key]);
$query = $this->db->get('material');

$count = array_merge($count,array(
$key => $query->result_array(),
));
}
return $count;

}else{
$count = array();
foreach($list as $key => $value){
$this->db->select_sum('volume');
//this->db->from('material');
$this->db->where('major_group','foreign');
$this->db->where('class',$list[$key]);
$this->db->or_where('type',$list[$key]);

$query = $this->db->get('material');

$count = array_merge($count,array(

```

```

        $key => $query->result_array(),
    ));

}

return $count;
}*/



if($group == 'filipiniana'){
$count = array();
foreach($class_list as $key => $value){
$this->db->select_sum('volume');
$this->db->where('major_group','filipiniana');
$this->db->where('class',$class_list[$key]);
$query = $this->db->get('material');
$count = array_merge($count,array(
$key => $query->result_array(),
));
}
foreach($type_list as $key => $value){
$this->db->select_sum('volume');
$this->db->where('type',$type_list[$key]);
$this->db->where('major_group','filipiniana');
$query = $this->db->get('material');

$count = array_merge($count,array(
$key => $query->result_array(),
));
}
}

return $count;
}

else{
$count = array();
foreach($class_list as $key => $value){
$this->db->select_sum('volume');
$this->db->where('major_group','foreign');
$this->db->where('class',$class_list[$key]);
$query = $this->db->get('material');
$count = array_merge($count,array(
$key => $query->result_array(),
));
}
foreach($type_list as $key => $value){
$this->db->select_sum('volume');
$this->db->where('type',$type_list[$key]);
$this->db->where('major_group','foreign');
$query = $this->db->get('material');
$count = array_merge($count,array(
$key => $query->result_array(),
));
}
}

return $count;
}
}

```

```

public function get_total_title(){
    $this->db->select('title');
    $this->db->from('material');
    $count = $this->db->count_all_results();

    return $count;
}

public function get_total_volume(){
    $this->db->select_sum('volume');
    $count = $this->db->get('material');

    return $count->result_array();
}

public function get_summary(){

    $major_group = array(
        'Fil'=> 'filipiniana',
        'For'=> 'foreign'
    );

    $type_list = array(
        'R' => 'general_reference',
        'Fic' => 'fiction',
        'Text' => 'textbooks',
        'RS' => 'reserved_books',
        'Rev' => 'revivals',
        //key are just assigned by me
        'J' => 'juvenile',
        'Riz' => 'rizaliana'
    );

    $results = array();

    foreach($major_group as $key => $value){
        $this->db->select('*');
        $this->db->from('material');
        $this->db->where('major_group',$major_group[$key]);

        $query = $this->db->get();

        $results = array_merge($results,array(
            $key => $query->result_array(),
        ));
    }

    foreach($type_list as $key => $value){
        $this->db->select('*');
        $this->db->from('material');
        $this->db->where('type',$type_list[$key]);

        $query = $this->db->get();

        $results = array_merge($results,array(
            $key => $query->result_array(),
        ));
    }
}

```

```

    });

}

return $results;
}

}

?>

<?php if(!defined('BASEPATH')) exit ('No direct script access allowed');

class Borrowers_Model extends CI_Model{

function __construct(){
}

public function get_user_cart($user_id){

/*$this->db->select('accession_number,title,author,class,type,status,record_id,material_id,borrower_id');
$this->db->from('material');
$this->db->join('borrower_record','material.accession_number = borrower_record.material_id','inner');
$this->db->where('status','reserved');
$this->db->where('borrower_id',$user_id);*/



//



$this->db->select('material.accession_number,material.title,material.author,material.class,material.type,material.status,borrower_record.record_id,borrower_r
$this->db->from('material,borrower_record');
$this->db->where('material.accession_number = borrower_record.material_id');
$this->db->where('material.status','reserved');
$this->db->where('borrower_record.borrower_id',$user_id);
$this->db->where('borrower_record.date_borrowed','0000-00-00 00:00:00');

//mysql='SELECT material.accession_number,material.title,material.author,material.class,material.type,material.status,borrower_record.record_id FROM materia

//query = $this->db->query($mysql);
$query = $this->db->get();

if($query->num_rows() != 0){
    return $query->result_array();
}
else{
    return FALSE;
}

}

public function get_library_cart(){

$this->db->select('material.accession_number,material.title,material.author,material.class,material.type,material.status,borrower_record.record_id,borrower_r
$this->db->from('material');
$this->db->join('borrower_record','material.accession_number = borrower_record.material_id','INNER');
$status = array('reserved','checked out');
//this->db->where('material.status','reserved');
//this->db->or_where('material.status','checked out');
$this->db->where_in('material.status',$status);
//this->db->where('material.accession_number = borrower_record.material_id');
$this->db->where('borrower_record.date_returned','0000-00-00 00:00:00');

$query = $this->db->get();


```

```

    if($query->num_rows() != 0){
        return $query->result_array();
    }
    else{
        return FALSE;
    }
}

public function count_user_cart($user_id){
    $this->db->select('*');
    $this->db->where('borrower_id',$user_id);
    $this->db->where('date_borrowed',NULL);
    $query = $this->db->get('borrower_record');

    return $query->num_rows();
}

public function get_record($material_id){
    $this->db->select('*');
    $this->db->from('material');
    $this->db->join('borrower_record', 'material.accession_number=borrower_record.material_id', 'INNER');
    $this->db->where('accession_number',$material_id);
    $query = $this->db->get();

    return $query->result_array();
}

public function get_each_record($record_id){
    $this->db->select('*');
    $this->db->where('record_id', $record_id);
    $query = $this->db->get('borrower_record');

    return $query->row_array();
}

public function get_borrowers_record(){
    $this->db->select('*');

    $query = $this->db->get('borrower_record');

    return $query->result_array();
}

public function get_transaction($type,$user_id){
    $this->db->select('borrower_record.borrower_id,borrower_record.date_borrowed,borrower_record.date_returned,borrower_record.due_date,borrower_record.fine,
    material.accession_number, material.title');
    $this->db->from('material');
    $this->db->join('borrower_record','material.accession_number = borrower_record.material_id','INNER');
    // $this->db->from('material,borrower_record');
    // $this->db->where('material.accession_number = borrower_record.material_id');
    $this->db->where('borrower_record.borrower_id',$user_id);
    // $this->db->where('borrower_record.date_borrowed !=','0000-00-00 00:00:00');
    if($type=='all'){
        $this->db->order_by('borrower_record.date_borrowed','asc');
        $query = $this->db->get();
    }else if($type=='borrowed'){
        $this->db->where('borrower_record.date_borrowed !=','0000-00-00 00:00:00');
        $this->db->order_by('borrower_record.date_borrowed','asc');
    }
}

```

```

$query = $this->db->get();
}else if($type=='returned'){
$this->db->where('borrower_record.date_returned !=','0000-00-00 00:00:00');
$this->db->order_by('borrower_record.date_returned','asc');
$query = $this->db->get();
}else{
$this->db->where('borrower_record.date_returned !=','borrower_record.due_date');
$this->db->order_by('borrower_record.date_returned','asc');
$query = $this->db->get();
/*$this->db->where('fine !=',NULL);
$query = $this->db->get();*/
}

if($query->num_rows() != 0){
return $query->result_array();
}
else{
return FALSE;
}
}

public function get_usage($date){
$this->db->select('material.accession_number,material.call_number,material.title,material.author,borrower_record.material_id,borrower_record.borrower_id,borrower_record.date_borrowed');
$this->db->from('material,borrower_record');
$this->db->where('material.accession_number = borrower_record.material_id');
$this->db->where('DATE(borrower_record.date_borrowed)',$date);
//this->db->group_by('borrower_record.material_id');
$this->db->order_by('borrower_record.material_id','desc');

$query = $this->db->get();

if($query->num_rows() != 0){
return $query->result_array();
}
else{
return FALSE;
}
}

public function get_overdue($date){
date_default_timezone_set('Asia/Manila');

$this->db->select('user.first_name,user.last_name,user.middle_name,material.accession_number,material.title,
borrower_record.material_id,borrower_record.borrower_id,borrower_record.date_borrowed,borrower_record.due_date');
$this->db->from('material,borrower_record,user');
$this->db->where('material.accession_number = borrower_record.material_id');
$this->db->where('user.user_id=borrower_record.borrower_id');

if($date==date('Y-m-d g:i:s')){
$this->db->where('borrower_record.due_date <',$date);
$this->db->where('borrower_record.date_returned','0000-00-00 00:00:00');
}else{
$this->db->where('DATE(borrower_record.due_date) <',$date);
$this->db->where('borrower_record.date_returned','0000-00-00 00:00:00');
}
}

```

```

}

$this->db->order_by('user.last_name','asc');

$query = $this->db->get();

if($query->num_rows() > 0){
    return $query->result_array();
} else{
    return FALSE;
}

public function get_due($date){

date_default_timezone_set('Asia/Manila');

$this->db->select('user.first_name,user.last_name,user.middle_name,material.accession_number,material.title,
borrower_record.material_id,borrower_record.borrower_id,borrower_record.date_borrowed,borrower_record.due_date');
$this->db->from('material,borrower_record,user');
$this->db->where('material.accession_number = borrower_record.material_id');
$this->db->where('user.user_id=borrower_record.borrower_id');

if($date==date('Y-m-d g:i:s')){
    $this->db->where('borrower_record.due_date','=',$date);
    $this->db->where('borrower_record.date_returned','0000-00-00 00:00:00');
} else{
    $this->db->where('DATE(borrower_record.due_date) =' ,$date);
    $this->db->where('borrower_record.date_returned','0000-00-00 00:00:00');
}
$this->db->order_by('user.last_name','asc');

$query = $this->db->get();

if($query->num_rows() > 0){
    return $query->result_array();
} else{
    return FALSE;
}

public function fetch_record($limit, $start) {

$this->db->limit($limit, $start);
$query = $this->db->get('borrower_record');

if ($query->num_rows() > 0) {
    return $query->result_array();
}
return false;
}

public function add_borrower($borrower_data){

$this->db->insert('borrower',$borrower_data);

$id = $this->db->insert_id();

return (isset($id)) ? $id : FALSE;
}

```

```

public function record_borrowed($data){
    $this->db->set('borrower_id',$data['borrower_id']);
    $this->db->set('material_id',$data['material_id']);
    $this->db->insert('borrower_record',$data);

    $id = $this->db->insert_id();

    return (isset($id)) ? $id : FALSE;
}

public function update_record($record_id,$data){
    $this->db->where('record_id',$record_id);
    $this->db->update('borrower_record',$data);
}

public function delete_record($record_id){
    $this->db->where('record_id',$record_id);
    $this->db->delete('borrower_record');
}

/*public function get_borrowers_data($type){
    $this->db->from('borrower');
    $this->db->join('borrower_record','borrower.borrower_id=borrower_record.borrower.id','inner');
    $this->db->order_by('date_borrowed','asc');

    $year_level = array(
        '7' => '7',
        '8' => '8',
        '9' => '9',
        '10' => '10'
    );

    date_default_timezone_set('Asia/Manila');
    $curr_date = date('Y-m-d g:i:s');

    $results = array();

    if($type == 'student'){
        foreach($year_level as $key => $value){
            $this->db->select('borrower_record.borrower_id');
            $this->db->where('borrower.type',$year_level[$key]);
            $students = $this->db->count_all_results();

            $this->db->not_like('borrower_record.date_borrowed',NULL);
            $this->db->where('borrower.type',$year_level[$key]);
            $books = $this->db->count_all_results();

            $this->db->not_like('borrower_record.date_borrowed','borrower_record.date_returned');
            $this->db->where('borrower.type',$year_level[$key]);
            $overnight = $this->db->count_all_results();

            $results = array(
                $key => array(
                    'students' => $students,
                    'books' => $books,
                    'overnight' => $overnight
                ),
            );
        }
    }
}

```

```

    );
}

return $results;
}else{
    $this->db->select('borrower_record.borrower_id');

    $this->db->where('borrower.type','teacher');

    $teacher = $this->db->count_all_results();

    $this->db->not_like('borrower_record.date_borrowed',NULL);
    $this->db->where('borrower.type','teacher');

    $books = $this->db->count_all_results();

    $results = array(
        'teacher' => array(
            'teacher' => $teacher,
            'books' => $books
        ),
    );
}

return $results;
}*/
}

public function fetch_date_borrowed(){
    $this->db->select('date_borrowed');
    $this->db->from('borrower_record');
    $this->db->not_like('date_borrowed',NULL);
    $this->db->order_by('date_borrowed','asc');

    $query = $this->db->get();

    return $query->result_array();
}

public function get_borrowers_data($year_level,$date){

    if($year_level == NULL){
        $count_arr = array();

        $dates = array();
        $date= date_parse($date);

        $year = $date['year'];
        $mon = $date['month'];

        for($i = 1; $i <= date('t'); $i++){
            // add the date to the dates array
            if(strlen($mon)>1){
                $dates[] = $year . "-" . $mon . "-" . str_pad($i, 2, '0', STR_PAD_LEFT);
            }else{
                $dates[] = $year . "-" . "0" . $mon . "-" . str_pad($i, 2, '0', STR_PAD_LEFT);
            }
        }
    }
}

```

```

for($i=0; $i<sizeof($dates);$i++){

//$mysql="SELECT borrower_record.borrower_id, DATE(borrower_record.date_borrowed),borrower_record.date_returned,user.user_id,user.user_type,user.year_level
// AND DATE(borrower_record.date_borrowed)=$dates[$i]","."AND user.user_type='teacher' GROUP BY DATE(borrower_record.date_borrowed) ORDER BY DATE(borrower_record.date_borrowed);
$mysql= "SELECT DISTINCT borrower_record.borrower_id, COUNT(*) FROM user,borrower_record WHERE user.user_id = borrower_record.borrower_id AND
DATE(borrower_record.date_borrowed)=$dates[$i]","."AND
user.user_type='teacher' GROUP BY borrower_record.borrower_id ORDER BY DATE(borrower_record.date_borrowed) ASC";
$query= $this->db->query($mysql);

$row = $query->row_array();
$count_arr = array_merge_recursive($count_arr,array(
//$i => $row['count'],
$i => $query->num_rows(),
));
//}
}

return $count_arr;
}else{
//this is for student
$count_arr = array();

$dates = array();
$date= date_parse($date);

$year = $date['year'];
$mon = $date['month'];

for($i = 1; $i <= date('t'); $i++){
// add the date to the dates array
if(strlen($mon)>1){
$dates[] = $year. "-" . $mon . "-" . str_pad($i, 2, '0', STR_PAD_LEFT);
}else{
$dates[] = $year. "-" ."0".$mon . "-" . str_pad($i, 2, '0', STR_PAD_LEFT);
}
}

for($i=0; $i<sizeof($dates);$i++){

//$mysql="SELECT borrower_record.borrower_id, DATE(borrower_record.date_borrowed),borrower_record.date_returned,user.user_id,user.user_type,user.year_level
// AND DATE(borrower_record.date_borrowed)=$dates[$i]","."AND user.year_level='$year_level','."GROUP BY DATE(borrower_record.date_borrowed) ORDER BY DATE(borrower_record.date_borrowed);
$mysql= "SELECT DISTINCT borrower_record.borrower_id, COUNT(*) FROM user,borrower_record WHERE user.user_id = borrower_record.borrower_id AND
DATE(borrower_record.date_borrowed)=$dates[$i]","."AND
user.year_level='$year_level','."GROUP BY borrower_record.borrower_id ORDER BY DATE(borrower_record.date_borrowed) ASC";
$query= $this->db->query($mysql);

$row = $query->row_array();
$count_arr = array_merge_recursive($count_arr,array(
//$i => $row['count'],
$i => $query->num_rows(),
));
}

return $count_arr;
}

}

public function get_books_data($year_level,$date){

if($year_level == NULL){

```

```

$count_arr = array();

$dates = array();
$date= date_parse($date);

$year = $date['year'];
$mon = $date['month'];

for($i = 1; $i <= date('t'); $i++){
    // add the date to the dates array
    if(strlen($mon)>1){
        $dates[] = $year . "-" . $mon . "-" . str_pad($i, 2, '0', STR_PAD_LEFT);
    }else{
        $dates[] = $year . "-" . "0" . $mon . "-" . str_pad($i, 2, '0', STR_PAD_LEFT);
    }
}

for($i=0; $i<sizeof($dates);$i++){
    $mysql="SELECT borrower_record.borrower_id, DATE(borrower_record.date_borrowed),borrower_record.date_returned,user.user_id,user.user_type,user.year_level,
    AND DATE(borrower_record.date_borrowed)='".$dates[$i']."' ."AND user.user_type='teacher' GROUP BY DATE(borrower_record.date_borrowed) ORDER BY DATE(borrower_record.date_borrowed) DESC";
    $query= $this->db->query($mysql);
    $row = $query->row_array();
    $count_arr = array_merge_recursive($count_arr,array(
        $i => $row['count'],
    )));
}
return $count_arr;
}else{
    //this is for student
    $count_arr = array();

    $dates = array();
    $date= date_parse($date);

    $year = $date['year'];
    $mon = $date['month'];

    for($i = 1; $i <= date('t'); $i++){
        // add the date to the dates array
        if(strlen($mon)>1){
            $dates[] = $year . "-" . $mon . "-" . str_pad($i, 2, '0', STR_PAD_LEFT);
        }else{
            $dates[] = $year . "-" . "0" . $mon . "-" . str_pad($i, 2, '0', STR_PAD_LEFT);
        }
    }

    for($i=0; $i<sizeof($dates);$i++){
        $mysql="SELECT borrower_record.borrower_id, DATE(borrower_record.date_borrowed),borrower_record.date_returned,user.user_id,user.user_type,user.year_level,
        AND DATE(borrower_record.date_borrowed)='".$dates[$i']."' ."AND user.year_level='".$year_level."' ."GROUP BY DATE(borrower_record.date_borrowed) ORDER BY DATE(borrower_record.date_borrowed) DESC";
        $query= $this->db->query($mysql);

        $row = $query->row_array();
        $count_arr = array_merge_recursive($count_arr,array(
            $i => $row['count'],
        )));
    }
}

```

```

}

return $count_arr;
}
}

public function get_overnight_data($year_level,$date){

if($year_level == NULL){
$count_arr = array();

$dates = array();
$date= date_parse($date);

$year = $date['year'];
$mon = $date['month'];

for($i = 1; $i <= date('t'); $i++){
    // add the date to the dates array
    if(strlen($mon)>1){
$dates[] = $year. "-" . $mon . "-" . str_pad($i, 2, '0', STR_PAD_LEFT);
    }else{
$dates[] = $year. "-" ."0".$mon . "-" . str_pad($i, 2, '0', STR_PAD_LEFT);
    }
}

for($i=0; $i<sizeof($dates);$i++){
$query="SELECT borrower_record.borrower_id, DATE(borrower_record.date_borrowed),borrower_record.date_returned,user.user_id,user.user_type,user.year_level,
COUNT(borrower_record.material_id) as count FROM user,borrower_record WHERE user.user_id = borrower_record.borrower_id
AND DATE(borrower_record.date_borrowed)='".$dates[$i']."' . ." AND DATE(borrower_record.date_returned)!='".$dates[$i]' . .
." AND user.user_type='teacher' GROUP BY DATE(borrower_record.date_borrowed) ORDER BY DATE(borrower_record.date_borrowed) ASC ";
$query= $this->db->query($mysql);
$row = $query->row_array();
$count_arr = array_merge_recursive($count_arr,array(
    $i => $row['count'],
));
//}
}

return $count_arr;
}else{
//this is for student
$count_arr = array();

$dates = array();
$date= date_parse($date);

$year = $date['year'];
$mon = $date['month'];

for($i = 1; $i <= date('t'); $i++){
    // add the date to the dates array
    if(strlen($mon)>1){
$dates[] = $year. "-" . $mon . "-" . str_pad($i, 2, '0', STR_PAD_LEFT);
    }else{
$dates[] = $year. "-" ."0".$mon . "-" . str_pad($i, 2, '0', STR_PAD_LEFT);
    }
}
}

```

```

for($i=0; $i<sizeof($dates);$i++){
    $mysql="SELECT borrower_record.borrower_id, DATE(borrower_record.date_borrowed),borrower_record.date_returned,user.user_id,user.user_type,user.year_level,
    COUNT(borrower_record.material_id) as count FROM user,borrower_record WHERE user.user_id = borrower_record.borrower_id
    AND DATE(borrower_record.date_borrowed)='".$dates[$i]."' ? ."AND DATE(borrower_record.date_returned)!='".$dates[$i]."' ? .
    "AND user.year_level='".$year_level."' ? ."GROUP BY DATE(borrower_record.date_borrowed) ORDER BY DATE(borrower_record.date_borrowed) ASC ";
    $query= $this->db->query($mysql);

    $row = $query->row_array();
    $count_arr = array_merge_recursive($count_arr,array(
        $i => $row['count'],
    ));
}

return $count_arr;
}

}

?>

```

4. Layouts

```

@charset "utf-8";
/*
Template Name: Educational
Author: <a href="http://www.os-templates.com/">OS Templates</a>
Author URI: http://www.os-templates.com/
Licence: Free to use under our free template licence terms
Licence URL: http://www.os-templates.com/template-terms
File: Layout CSS
*/

```

```

@import url("navi.css");
@import url("featured_slide.css");
@import url("header.css");

.justify{text-align:justify;}
.bold{font-weight:bold;}
.center{text-align:center;}
.right{text-align:right;}
.nostart{margin:0; padding:0; list-style-type:none; }

.clear{clear:both;}
br.clear{clear:both; margin-top:-15px;}
```

```

a{outline:none; text-decoration:none;}
```

```

.fl_left, .imgl{float:left;}
.fl_right, .imgr{float:right;}
```

```

img{display:block; margin:0; padding:0; border:none;}
.imgl, .imgr{border:1px solid #999999; padding:5px; }
.imgl{margin:0 8px 8px 0; clear:left; }
.imgr{margin:0 0 8px 8px; clear:right; }
```

```

/* -----Wrapper----- */

div.wrapper{display:block; width:100%; margin:0; padding:0; text-align:left;}
div.wrapper h1, div.wrapper h2, div.wrapper h3, div.wrapper h4, div.wrapper h5, div.wrapper h6{margin:0; padding:0; font-size:20px; font-weight:normal; line-height:1.2; color:#313131; background-color:#F8F7DF; border-top:5px solid #313131;}
.col0{color:#313131; background-color:#F8F7DF; border-top:5px solid #313131;}
.col1, .col1 a{color:#8B785F; background-color:#F8F7DF;}
.col2{color:#333333; background:url("images/topnav_header.gif") bottom left repeat-x #E5E2C9;}
.col3{color:#313131; background-color:#F8F7DF;}
.col4{color:#666666; background-color:#F8F7DF;}
.col4 a{color:#746550; background-color:#F8F7DF;}
.col5{color:#CCCCCC; background-color:#48282F;}
.col5 a{color:#E5E2C9; background-color:#48282F;}
.col6, .col6 a{color:#767772; background-color:#FFFFFF;}

#left-menu{
display:block;
position:absolute;
top: 25%;
margin-right: 75%;
width: 30%;
}
/* Left Menu */

#left-content {
list-style: none;
width: 150px;
height: 50%;
background-color: #FAFAFA;
border: 4px solid #D3CFC5;
}

#left-content ul li {
list-style: none;
font: 12px "Lucida Sans Unicode", Arial, Helvetica, sans-serif;
font-weight: bold;
}

a{
list-style:none;
display: block;
font: 11px "Century Gothic" ;
text-decoration: none;
color: #48282F;
border-bottom: 1px solid #D3CFC5;
margin-left: 7px;
}

.pagination a{
display:inline;
margin: 20px;
}
a:link { color : #000; }
a:visited { color : #609; }
:link:hover, :visited:hover { /*color : #f66;*/ background-color: #E9E7E2;
color: #4D5066;
border-left: 1px solid #D3CFC5;
}

```

```

border-right: 1px solid #D3CFC5; }

a:active { color : blue; }

.style-3 input[type="text"] {
  padding: 10px;
  border: solid 5px #c9c9c9;
  box-shadow: inset 0 0 0 1px #707070;
  transition: box-shadow 0.3s, border 0.3s;
}

.style-3 input[type="text"]:focus,
.style-3 input[type="text"].focus {
  border: solid 5px #969696;
}

/********************************************/

.submit {
  background: #25A6E1;
  background: -moz-linear-gradient(top,#25A6E1 0%,#188BC0 100%);
  background: -webkit-gradient(linear,left top, left bottom,color-stop(0%,#25A6E1),color-stop(100%,#188BC0));
  background: -webkit-linear-gradient(top,#25A6E1 0%,#188BC0 100%);
  background: -o-linear-gradient(top,#25A6E1 0%,#188BC0 100%);
  background: -ms-linear-gradient(top,#25A6E1 0%,#188BC0 100%);
  background: linear-gradient(top,#25A6E1 0%,#188BC0 100%);
  filter: progid: DXImageTransform.Microsoft.gradient( startColorstr="#25A6E1",endColorstr="#188BC0",GradientType=0);
  padding:8px 13px;
  color:#fff;
  font-family:'Helvetica Neue',sans-serif;
  font-size:14px;
  border-radius:4px;
  -moz-border-radius:4px;
  -webkit-border-radius:4px;
  border:1px solid #1A87B9
}

.reset {
  background: #FF5DB1;
  background: -moz-linear-gradient(top,#FF5DB1 0%,#E94A86 100%);
  background: -webkit-gradient(linear,left top, left bottom,color-stop(0%,#FF5DB1),color-stop(100%,#E94A86));
  background: -webkit-linear-gradient(top,#FF5DB1 0%,#E94A86 100%);
  background: -o-linear-gradient(top,#FF5DB1 0%,#E94A86 100%);
  background: -ms-linear-gradient(top,#FF5DB1 0%,#E94A86 100%);
  background: linear-gradient(top,#FF5DB1 0%,#E94A86 100%);
  filter: progid: DXImageTransform.Microsoft.gradient( startColorstr="#FF5DB1", endColorstr="#E94A86",GradientType=0);
  padding:8px 13px;
  color:#fff;
  font-family:'Helvetica Neue',sans-serif;
  font-size:14px;
  border-radius:4px;
  -moz-border-radius:4px;
  -webkit-border-radius:4px;
  border:1px solid #E8124F
}

.okay{
  background:#5CCD00;
  background:-moz-linear-gradient(top,#5CCD00 0%,#4AA400 100%);
  background:-webkit-gradient(linear,left top, left bottom,color-stop(0%,#5CCD00),color-stop(100%,#4AA400));
  background:-webkit-linear-gradient(top,#5CCD00 0%,#4AA400 100%);
```

```

background:-o-linear-gradient(top,#5CCD00 0%,#4AA400 100%);
background:-ms-linear-gradient(top,#5CCD00 0%,#4AA400 100%);
background:linear-gradient(to bottom, #5CCD00 0%, #4AA400 100%);
filter: progid: DXImageTransform.Microsoft.gradient( startColorstr='#5CCD00', endColorstr='#4AA400',GradientType=0);
padding:8px 13px;
color:#fff;
font-family:'Helvetica Neue',sans-serif;
font-size:14px;
border-radius:4px;
-moz-border-radius:4px;
-webkit-border-radius:4px;
border:1px solid #459A00
}

/* -----Generalise----- */

#header,#topbar,#topnav, #breadcrumb, #container, #footer, #copyright{display:block; position:relative; width:960px; margin:0 auto;}

/* -----Header----- */

#header{padding:0 0 20px 0;}
#header #logo{display:block; float:left; width:300px; overflow:hidden;}
#header #logo h1, #header p, #header ul{margin:0; padding:0; list-style:none; line-height:normal;}
#header #logo h1{font-size:30px;}
#header h1 a{color:#333333; background-color:#F8F7DF;}
#header .fl_right{display:block; float:right; width:330px; margin:17px 0 0 0; padding:0; text-align:right;}
#header .fl_right ul{margin-bottom:10px;}
#header li{display:inline; margin:0 0 8px; padding:0 0 10px; border-left:1px solid #8B785F;}
#header li.last{margin-right:0; padding-right:0; border:none;}

/* -----BreadCrumb----- */

#breadcrumb{padding:20px 0; border-bottom:1px dotted #CCCCCC;}
#breadcrumb a{color:#746550; background-color:#F8F7DF;}
#breadcrumb ul{margin:0; padding:0; list-style:none;}
#breadcrumb ul li{display:inline;}
#breadcrumb ul li.current a{text-decoration:underline; }

/* -----Container----- */

#container{padding:20px 0;}
#container h1, #container h2, #container h3, #container h4, #container h5, #container h6{font-size:18px; margin:0 0 10px 0; color:#333333; background-color:#F8F7DF; text-align:center; border-bottom:1px solid #8B785F; padding-bottom:5px; }

/* -----Homepage Services----- */

#hpage{display:block; width:100%; margin:10px 0;}
#hpage ul{margin:0; padding:0; border:none; list-style:none; line-height:normal;}
#hpage li{display:block; float:left; width:210px; margin:0 40px 0 0; padding:0;}
#hpage li.last{margin-right:0;}
#hpage li div.imgholder{display:block; margin:0 0 10px 0; padding:4px; color:#666666; background-color:#EDECE4; border:1px solid #BEBB9E;}
#hpage p{margin:0 0 10px 0; padding:0; line-height:1.8em;}
#hpage p.readmore{display:block; margin:0; line-height:normal; font-weight:bold; }

/* -----Content----- */

#content{display:block; float:left; width:600px; }

```

```

/* Comments */

#comments{margin-bottom:40px;}
#comments .commentlist{margin:0; padding:0;}
#comments .commentlist ul{margin:0; padding:0; list-style:none;}
#comments .commentlist li.comment_odd, #comments .commentlist li.comment_even{margin:0 0 10px 0; padding:15px; list-style:none;}
#comments .commentlist li.comment_odd{color:#666666; background-color:#FDFFE1;}
#comments .commentlist li.comment_odd a{color:#746550; background-color:#FDFFE1;}
#comments .commentlist li.comment_even{color:#666666; background-color:#FBFFBF;}
#comments .commentlist li.comment_even a{color:#746550; background-color:#FBFFBF;}
#comments .commentlist .author .name{font-weight:bold;}
#comments .commentlist .submitdate{font-size:smaller;}
#comments .commentlist p{margin:10px 5px 10px 0; padding:0; font-weight:normal; text-transform:none;}
#comments .commentlist li .avatar{float:right; border:1px solid #EEEEEE; margin:0 0 0 10px;}

/* -----Right Block----- */

#columnn{display:block; float:right; width:300px;}
#column .holder, #column #featured{display:block; width:300px; margin-bottom:40px;}
#column .holder p{line-height:1.6em;}
#column .holder h2.title{display:block; width:100%; height:65px; margin:0; padding:15px 0 8px 0; font-size:20px; border-bottom:1px dotted #CCCCCC;}
#column .holder h2.title img{float:left; margin:-15px 8px 0 0; padding:5px; border:1px solid #CCCCCC;}
#column .holder p.readmore{display:block; width:100%; font-weight:bold; text-align:right; line-height:normal;}
#column div.imgholder{display:block; width:290px; margin:0 0 10px 0; padding:4px; border:1px solid #CCCCCC; }

/* Featured Block */

#column #featured a{color:#746550; background-color:#FFFFFF;}
#column #featured ul, #column #featured h2, #column #featured p{margin:0; padding:0; list-style:none;}
#column #featured li{display:block; width:250px; margin:0; padding:20px 25px; color:#2E271D; background-color:#FFFFFF;}
#column #featured li p{line-height:1.6em;}
#column #featured li p.imgholder{display:block; width:240px; height:90px; margin:20px 0 15px 0; padding:4px; border:1px solid #CCCCCC;}
#column #featured li h2{font-size:20px; color:#333333; background-color:#FFFFFF;}
#column #featured p.readmore{display:block; width:100%; margin-top:15px; font-weight:bold; text-align:right; line-height:normal; }

/* -----Footer----- */

#footer{padding:20px 0;}
#footer h2{margin-bottom:15px; padding-bottom:8px; border-bottom:1px dotted #999999;}
#footer p, #footer ul, #footer a{margin:0; padding:0; font-weight:normal; list-style:none; line-height:normal;}
#footer .footbox{display:block; float:right; width:190px; margin:0 0 0 30px; padding:0;}
#footer li{margin-bottom:3px;}
#footer .last{margin:0;}
#newsletter{display:block; float:left; width:300px; }

/* -----Copyright----- */

#copyright{padding:15px 0;}
#copyright p{margin:0; padding:0;}
@charset "utf-8";
/*
Template Name: Educational
Author: <a href="http://www.os-templates.com/">OS Templates</a>
Author URI: http://www.os-templates.com/
Licence: Free to use under our free template licence terms
Licence URI: http://www.os-templates.com/template-terms
File: Navigation CSS

```

```

*/
#drop-nav{margin-left:180px;}
#drop-nav ul{display:block; width:100%; height:30px; margin:0; padding:0; list-style:none; }

#topnav ul li ul{display:none;}
#topnav ul li.active ul{display:block; position:absolute; top:30px; left:0; width:100%; height:40px;}
#topnav li{display:block; float:left;}
#topnav li.last{margin-right:0;}
#topnav ul li a:link, #topnav ul li a:visited, #topnav ul li a:hover{display:block; float:left; height:25px; padding:10px 15px 0 15px; color:#333333; background:#FFFFFF; border-right:1px solid #FFFFFF;}
#topnav ul ul li a:link, #topnav ul ul li a:visited, #topnav ul ul li a:hover{float:left; height:auto; margin:13px 15px 0 0; padding:0 16px 0 0; color:#FFFFFF; border-right:1px solid #FFFFFF;}
#topnav ul ul li.last a{margin-right:0; padding:0; border-right:none;}
#topnav ul li.active a, #topnav ul li a:hover{color:#FFFFFF; background-color:#2E271D;}

#drop-nav ul {list-style: none;padding: 0px;margin: 0px;}
#drop-nav ul li {display: block;position: relative;float: left; border:1px }
#drop-nav li ul {display: none;}
#drop-nav ul li a {display: block; background-color:#E0FFFF; padding: 5px 10px 5px 10px;text-decoration: none;
white-space: nowrap; color:#333333; }
#drop-nav ul li a:hover {background-color:#2E271D; }
#drop-nav li:hover ul {display: block; position: absolute;}
#drop-nav li:hover li {float: none;}
#drop-nav li:hover a {background-color:#2E271D; color: #FFFFFF; }
#drop-nav li:hover li a:hover {background: #000; }
#drop-nav li ul li {border-top: 0px; }

/* -----Column Navigation----- */
#column .subnav{display:block; width:250px; padding:25px; background-color:#FFFFFF; margin-bottom:30px; }
#column .subnav h2{margin:0 0 20px 0; padding:0 0 14px 0; font-size:20px; font-weight:normal; font-family:Georgia, "Times New Roman", Times, serif; color:#666666; line-height:normal; border-bottom:1px dotted #666666; }
#column .subnav ul{margin:0; padding:0; list-style:none; }
#column .subnav li{margin:0 0 3px 0; padding:0; }
#column .subnav ul ul, #column .subnav ul ul ul, #column .subnav ul ul ul ul, #column .subnav ul ul ul ul ul{border-top:none; padding-top:0; }
#column .subnav a{display:block; margin:0; padding:5px 10px 5px 20px; color:#777777; background:url("images/purple_file.gif") no-repeat 10px center #FFFFFF; border-bottom:1px dotted #666666; }
#column .subnav a:hover{color:#591434; background-color:#FFFFFF; }
#column .subnav ul a, #column .subnav ul ul a, #column .subnav ul ul ul a, #column .subnav ul ul ul ul a{background:url("images/black_file.gif") no-repeat 10px center #FFFFFF; }
#column .subnav ul a{padding-left:40px; background-position:30px center; }
#column .subnav ul ul a{padding-left:50px; background-position:40px center; }
#column .subnav ul ul ul a{padding-left:60px; background-position:50px center; }
#column .subnav ul ul ul ul a{padding-left:70px; background-position:60px center; }
@charset "utf-8";
/*
Template Name: Educational
Author: <a href="http://www.os-templates.com/">OS Templates</a>
Author URI: http://www.os-templates.com/
Licence: Free to use under our free template licence terms
Licence URI: http://www.os-templates.com/template-terms
File: Featured Slider CSS
*/
#featured_slide{position:relative; width:960px; margin:0 auto; padding:20px 0 0 0; }
#featured_slide #featured_wrap{position:relative; width:940px; height:290px; padding:10px; overflow:hidden; color:#333333; background-color:#FFFFFF; }
#featured_slide a{color:#CCCCCC; background-color:transparent; }
#featured_slide a, #featured_slide ul, #featured_slide img{margin:0; padding:0; border:none; outline:none; list-style:none; text-decoration:none; }
```

```

    #featured_slide h1, #featured_slide h2, #featured_slide h3, #featured_slide h4, #featured_slide h5, #featured_slide h6{margin:0 0 15px 0; padding:0; line-height:1.2em}

    /* -----Generalise----- */

    /*#featured_content, .featured_box, .featured_box img{display:block; width:700px; height:290px;}*/
    #featured_content, .featured_box, .featured_box img{display:block; width:600px; height:290px; }
    #featured_content{overflow:hidden;}
    .featured_box{position:absolute; left:275px; right:50px;} /*removed top:30px;*/

    /*-----List Reading material-----*/
    #featured_slide_list{position:relative; width:1000px; margin:0 auto; padding:50px 0 0 50px;}
    #featured_slide_list #featured_wrap_list{position:relative; width:980px; padding:10px; color:#333333; background-color:#F8F7DF; }

    /*#featured_content_list img{display:block; width:900px; height: 750px; background-color:#eae8e8;}*/

    #featured_content_list, .featured_box_list img{display:block; width:980px; height:100%;}
    /*#featured_content{overflow:hidden;}*/
    .featured_box_list{position:absolute; top:30px; left:60px; right:50px; }

    /* -----Forms----- */
    #featured_slide_form{position:relative; width:900px; margin:0 auto; padding:20px 0 0 0;}
    #featured_slide_form #featured_wrap_form{position:relative; width:900px; height:850px; padding:10px; color:#333333; }

    #featured_content_form img{display:block; width:800px; height: 1000px; background-color:#eae8e8;}
    /*#featured_content_form{overflow:hidden;}*/

    .featured_box_formGroup1, .featured_box_formGroup2,.featured_box_formGroup3 img{display:block; width:800px; height:200px; background-color:#eae8e8;}
    .featured_box_formGroup1,.featured_box_formGroup2 ,.featured_box_formGroup3{position:relative; padding: 0 20px 0 20px; }

    .featured_box_result img{display:block; width:800px; height:relative; background-color:#eae8e8;}
    .featured_box_result {position:relative; padding: 0 20px 0 20px; }

    /* -----Basic Search----- */
    .featured_box_formSearch img{display:block; width:800px; height:200px; background-color:#eae8e8;}
    .featured_box_formSearch{position:relative; padding: 20px 20px 0 50px; }

    /* -----Content----- */

    .featured_box .floater{display:block; position:absolute; bottom:0; right:0; margin:0; padding:5px 10px; background-image:url("images/trans.png");}
    #featured_slide .floater a{font-weight:bold; text-transform:uppercase; color:#D6D1A9; background-color:transparent; }

    /* -----Tabbed Navigation----- */

    #featured_slide .ui-tabs-hide{display:none; }

    #featured_slide ul#featured_tabs{display:block; position:absolute; top:10px; left:10px; width:200px; height:250px; padding:10px; overflow:hidden; font-size:12px; border:1px solid #D6D1A9; border-radius:10px; background-color:#F8F7DF; }
    #featured_slide ul#featured_tabs li{display:block; width:200px; height:20px; margin:0; padding:5px 0 0 0; border-bottom:2px dotted #79117b; }
    #featured_slide ul#featured_tabs li.last{border-bottom:none; }

    #featured_slide ul#featured_tabs li a{display:block; width:200px; height:20px; margin:0; padding:0 10px; font-size:14px; font-weight:normal; font-family:Georgia, serif; }
    #featured_slide ul#featured_tabs li a span{display:block; margin:10px 0 0 0; padding:0; font-size:16px; font-weight:normal; font-family:Verdana, Arial, Helvetica, sans-serif; }
    #featured_slide ul#featured_tabs li a:hover, #featured_slide ul#featured_tabs li.ui-tabs-active a{color:#D6D1A9; background-color:transparent; }


```