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Online Library Management System

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Abstract:
The objective is to develop a online library management system based on HTML and PHP, MySQL in order to reduce the cost of management and make it convenient for the user. The web-based library management system includes the most popular components a common library management system has, administration, book seeker, leasing and e-mail. Besides it has more humanistic functions such as library dues tracking. The website will be tested on some of the functions such as library dues tracking. The website will be tested on some of the most popular browsers. The basic functions of Internet Information Services 7.5 and detail features of HTML and PHP were selected for the purpose of this project.

Keywords: humanistic, Beneficial, Central, Administrative, Track.

I. INTRODUCTION:

While seeking for a book in the university's library, students must check what category the book belongs to and check the books within this category one by one Students might keep the book for a long period; sometimes, remembering to renew the book before a specific date is not very easy; this loan period might exceed the time limit so that the students must pay for a fine and the fine could even be worth as much as to purchasing a second-hand book. Some university libraries have been trying to deal with those problems, Åbo Akademi library, for instance, allows students to search the book from the website and shows the bookshelf location but not the specific row and column and it will remind the student via E-mail, but it doesn't have its own E-mail system.

-This thesis was produced by initiating some theoretical ideas from a project in the same field called Koha. Koha provided the method to reduce the cost of maintenance. [1]

The goal of this thesis was to design a website with PHP and MySQL that support

the additional functions listed below in addition to the basic functions which are to:

− Display specific location of books in search result
− Support second hand book shop
− Integrate E-mail service and Subscriptions

Modules:

1) Admin
2) Student

1) Admin:

Admin part will be developed into web based technologies like HTML,CS, PHP and will consist of following modules:

a) Security: in this module login facility will be provided to the admin. Only authorized person can access this admin panel.

b) Student management: in this module facility will be provided to check the number of registered Student to manage them.

c) Books Management: this will be useful to add new Books and to manage them.

d) Notification: this module will be useful for sending the messages to the all Students to get their own status.

e) Category Reports: in this module facility will be provided to create category of books.

2) Student:

The second part of project will be useful for the people who are having the authority of spending the amount allocated in budget plan of an event.

- Security: in this module facility is provided for login to the authorized user.
- Registration: in this module facility is provided to perform registration activity for Student .
- Dashboard: in this module facility is Student can view issued book and book return date-time.
- Notification: in this module facility is provided to check notifications send by admin.

II. WORKING:

1.Login Form:

Figure.1. a):login form

2. Registration Form:

Figure.2. b):registration form

A) IDENTIFICATION OF NEED:

This is the most indispensable phase of the system which is to be developed, In this firstly we have mentioned our need which we want to develop. Here, the need and specification phase of system analysis is done to exactly find out the need and the requirements by the Students in library , and hence all the requirements is collected by the Students.

B) PRELIMINARY INVESTIGATION:

To evaluate and to define the problem in hand quickly, the preliminary investigation is carried out, to see if it is worthy of the following study and also it suggests some courses of actions if possible. Following steps are involved in the preliminary investigation:

- The Problem Understanding
- Determining the project boundaries and constraints
- Feasibility study
- Estimation of the time and cost.
- Documentation of Preliminary Report.

III. DATA FLOW DIAGRAM:

In an Information system, the flow of the data around the system is graphically represented by the data flow diagram. A graphical tool used to describe and analyze the moment of data through a system manual or automated including the process, stores of the data and delays in the system. Data flow diagram the central tool and the basis from which other components are developed. DFDs are the model of the proposed system. They clearly show the requirements on which the new system should be built. Later during the design activity this is taken as the basis for drawing the system's Structure charts. The various components of DFDs are:

Dataflow:

Data movement form the source to destination is shown by the arrows.

Process:

The various activities and the actions performed on the data is represented through circle..

Entities:

External sources or information of the data is represented by rectangle.

Figure.3. Entity

1. Zero Level Data Flow Diagram:

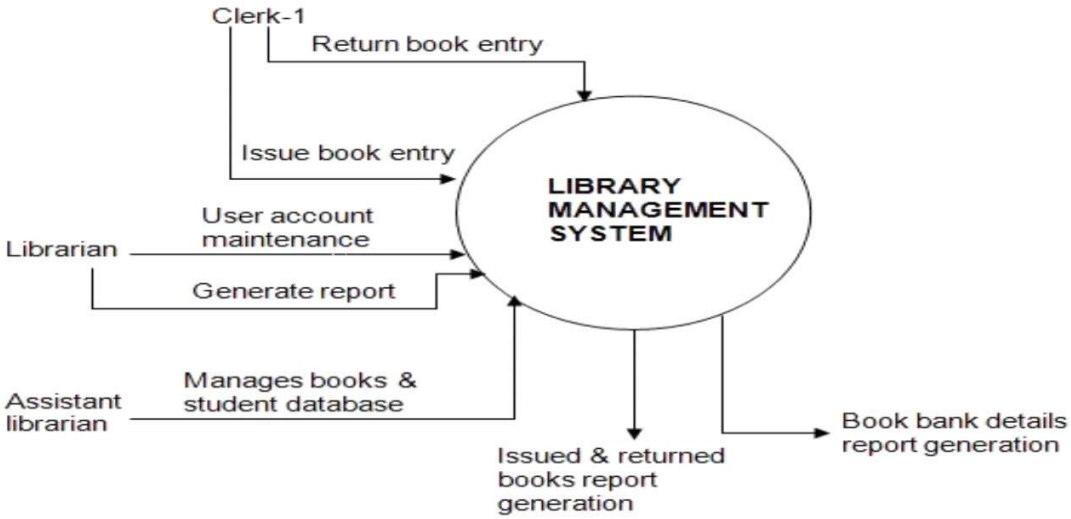

Figure.4. a):0 level data flow diagram

2. First Level Data Flow Diagram:

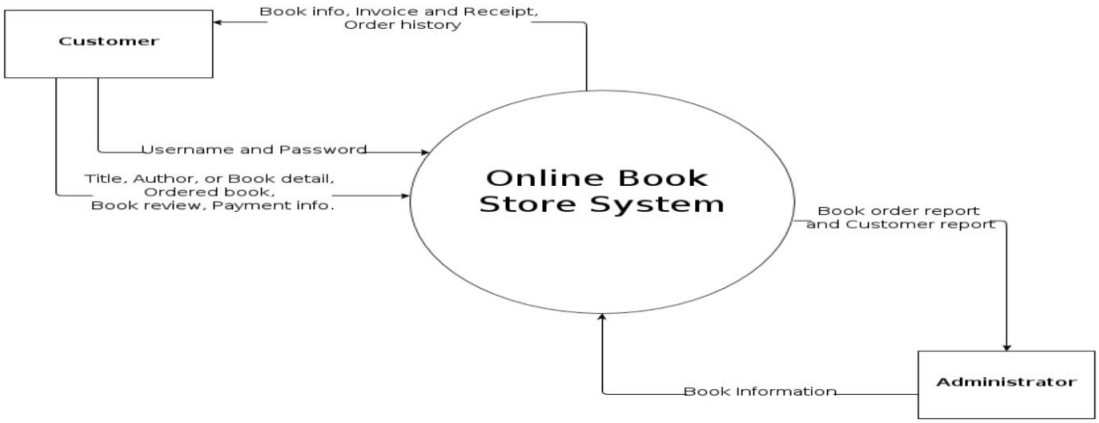

Figure.5. b): 1 level data flow diagram

E-R DIAGRAM:

An E-R model is an abstract way to describe a database. Describing a database usually starts with a relational database, which stores data in tables. Some of the data in these tables point to data in other tables - for instance, your entry in the database could point to several entries for each of the phone numbers that are yours. The ER model would say that you are an entity, and each phone number is an entity, and the relationship between you and the phone numbers is 'has a phone number'. Diagrams created to design these entities and relationships are called entity–relationship diagrams or ER diagrams. Entity Relationships are three kinds:

1. One-One
2. One-Many
3. Many-Many

1.One-One :

One instance of an entity
(A) is associated with one other instance of another entity
(B) For example, in a database of Student each Student name
(A) is associated with only one social security number

2. One-Many:

One instance of an entity
(A) is associated with zero, one or many instances of another entity
(B), but for one instance of entity B there is only one instance of entity A. For example, for a college with all students purchasing in one library , the Library name
(A) is associated with many different Students

3. Many-Many:

One instance of an entity
(A) is associated with one, zero or many instances of another entity
(B), and one instance of entity B is associated with one, zero or many instances of entity A. For example, in library which all of students can purchase many books , each instance of an student
(A) has multiple students
(B) associated with it.

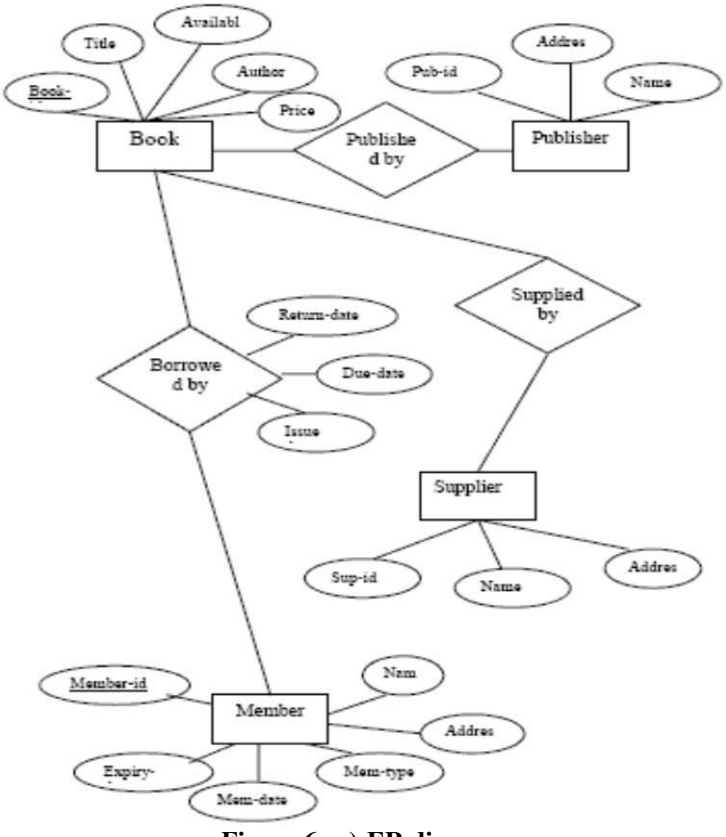

Figure.6. c):ER diagram

USE CASE DIAGRAM: To model a system the most important aspect is to capture the dynamic behavior. To clarify a bit in details, dynamic behavior means the behavior of the system when it is running operating. So only static behavior is not sufficient to model a system rather dynamic behavior is more important than static behavior. In UML there are five diagrams available to model dynamic nature and use case diagram is one of them. Now as we have to discuss that the use case diagram is dynamic in nature there should be some internal or external factors for making the interaction. These internal and external agents are known as actors. So use case diagrams are consists of actors, use cases and their relationships. The diagram is used to model the system/subsystem of an application. A single use case diagram captures a particular functionality of a system. So to model the entire system numbers of use case diagrams are used.

The purpose of use case diagram is to capture the dynamic aspect of a system. But this definition is too generic to describe the purpose. Because other four diagrams activity, sequence. So we will look into some specific purpose which will distinguish it from other four diagrams.

The purposes of use case diagrams can be as follows:

- Used to gather requirements of a system.
- Used to get an outside view of a system.
- Identify external and internal factors influencing the system.
- Show the interacting among the requirements are actors.

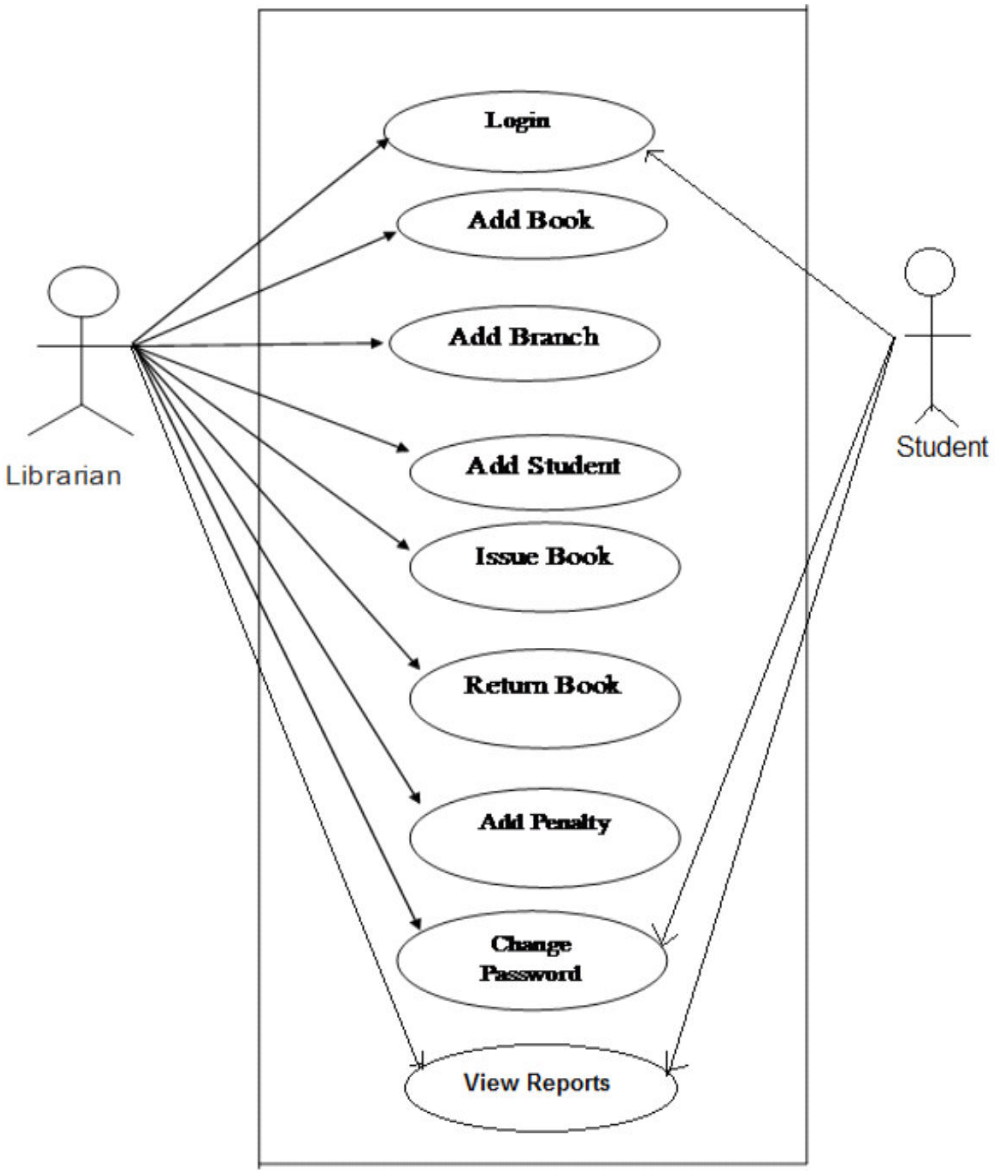

Figure.7. d): use case Diagram

IV. SCOPE:

The scope of Online Library Management System includes:

- Create distinct product users based on their roles and permissions.
- Authenticate users at their login.
-Provide the list of books the users can borrow.
- Facility to reserve books that are available.
- A status page for all users to view books reserved by them.
-Facility to cancel the reservation for a book made earlier.
- An interface to view and edit the own profile.
-Provide method for adjusting account settings such as passwords.
- Mechanism to reset the password in case user forgets it and also Providing interface to add or delete books to staffs.

V. CONCLUSION:

We Are from a online library management can manage and provide the Books for student easily and in a minimum time and also can send notifications to the students. Book Status can be tracked. and different reports will be prepared.

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