

E-Library – A Web Application with PHP and MySQL

G.Gunasekaran , S.Shankarganesh , E.Charlynishanth , **Dr.K.Sumathi

*UG Students, ** Assistant Professor

Department of CS & IT, Kalasalingam University, Virudhu Nagar Dt. Tamilnadu

ABSTRACT

The e-library is gaining more importance as the number of its user is increasing rapidly. Whenever a user wants to read a book, he goes to the public library or buys book in the bookstore. Buying some books in bookstores will be very expensive and accessing books from public libraries is not easy in all the times and we might not get our required book in public libraries because of unavailability of the books at required time. E-Library fills this gap and stores a thousand of top-quality books within easy and affordable reach online. In this paper, a web application for e-library system for a private institution has been developed. Using this system, users of the private institution can access books, research articles and research related information. This Web application has been developed using PHP and MySQL so that user can access this system from anywhere.

Keywords

e-library, Web Application for e-library, Web Application with PHP and MySQL.

1. INTRODUCTION

Nowadays parents want their children to learn and thrive. E-Library is a portal which aims to support students by providing facilities to download a wide range of quality books, journals and other research related materials. Most of the e- library portal allows the readers to join as a member after receiving membership fee and provide different levels of access.

Through this proposed system, we offer a large variety of books, research related materials in the form of audio and text books. We also include the complete general library of a private institution. This enables users of this institution to access thousands of classic book titles through this e-Library.

This system allows the users to browse this site online, read books online, access course materials via various types of technology, post comments/ reviews and track standard recommendations. Online security is considered as important factor and e-Library system can be accessed only by authenticated users. When a user enters into this system, login time, logout time will be stored.

Buying some books in bookstores will be very expensive and accessing books from public libraries is not easy all the times and we might not get our required book in public libraries because of unavailability of the book at required time. E-Library fills this gap and stores a thousand of top-quality books within easy and affordable reach online. Users can enjoy the following facilities:

1. Download/Read thousands of ebooks.
2. Access research related Articles
3. Access research related Information
4. Access audio/text books

Users are allowed to get great learning opportunities by subscribing to e-Library. e-Library is a safe online environment where users can access study material/ books , publish

book reviews and access recommendation reports. This e-library is implemented as a web application using PHP and MySQL Server.

2. RELATED WORKS

A Web-based E-Library System for Tertiary Institutions was developed by Moshood Alabi Alarape and Samuel Ndifreke Edet in 2017[2]. They provided support for three level of user such as Admin, students and staff. To access the e-library, students and staff have to register and logged in as users. This system provided necessary interface for administrator to upload e-materials such as e-books, audio tutorial, video tutorial, images, journals etc.

Tochukwu, C., Nwachukwu-nwokeafor, K. C. and Udeani, H. presented a framework of a web-based digital library management system for institutions and colleges [5]. This work focused on digital library and the framework was very same as the proposed one in which e-library concept was used.

Jiawei, J. Presented Web-Based Library Management System using PHP and MySQL [6]. The author presented a web-based system which provides necessary interfaces for book searching, borrowing books and mainly used for the common browsers, making the system migration and usage easier.

3. SYSTEM IMPLEMENTATION

This system was developed using PHP and MySQL. The software components used for the development of application are given below in table 1.

S.NO	NAME OF COMPONENT	SPECIFICATION
1.	Operating system	Windows 7

2.	Language	PHP,CSS
3.	Database	MYSQL
4.	Browser	Any of Mozilla,UC browser,Chrome etc.
5.	Web server	Xamp

Table 1: Software Components

PHP

PHP is a recursive acronym for PHP: Hypertext Preprocessor which is a widely-used open source general-purpose scripting language that is especially suited for web development and can be embedded into HTML.

MySQL

MySQL is a database system used on the web and it runs on a server. MySQL is ideal for both small and large applications. MySQL is very fast, reliable, and easy to use. MySQL uses standard SQL and compiles on a number of platforms. MySQL is free to download and use.

This e-library system provides necessary interfaces for registration/login module, user module and administrator module. The task executed by each module is described below.

Administrator

Using administrator interface, an admin can do the following tasks. He can view user reports such as name, department, mail-id, login and logout time, upload books in the library, view books which are currently available in the library and books which are accessed frequently by the users, view book requests sent by the users, view comments posted by users, change his password, logout the E-Library system. The administrator task and relevant data is displayed in table 2.

Administrator Task	Required data	session_start(); include "database.php"; >
View_students	Id,name,E-mail id,department.	<!DOCTYPE HTML>
Upload_books	Book title,keywords,choose file.	<html> <head>
View_books	Id,book name,keywords,view.	<title>E_Library</title> <link rel="stylesheet" type="text/css"
View_request	Id,name,message,logs.	href="css/style.css"> </head>
View_comments	Id,book name,student name,comment,logs.	<body> <div id="container"> <div id="header">
Change password	Old password,new password.	<h1>E_Library Web Application</h1>
Logout	logout button.	</div> <div id="wrapper"> <h3 id="heading">Admin Login Here.</h3> <div id="center"> <?php

Table 2: Task by an Administrator and related data

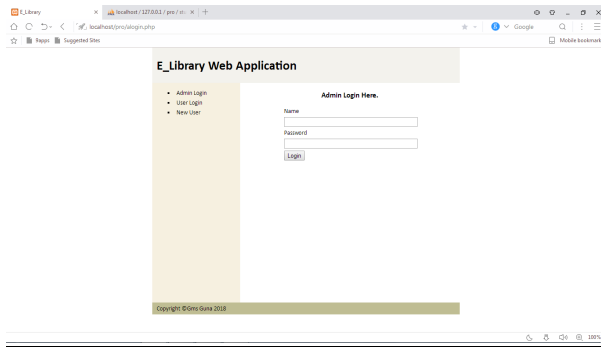


Figure 1: Administrator's Login

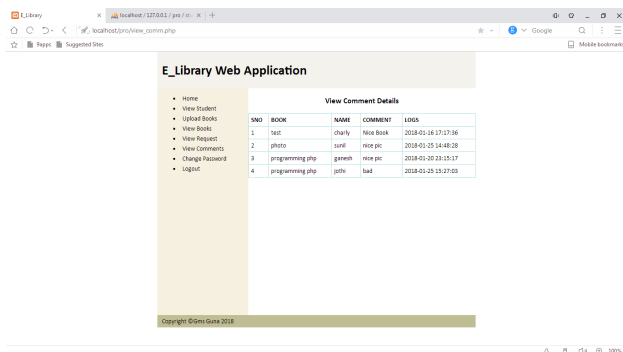


Figure 2: Administrator's Module Sample Source code for Admin Login

```

<?php
if(isset($_POST["submit"]))
{
    $sql="SELECT * FROM admin where
    ANAME='{$_POST["aname"]}' and
    APASS='{$_POST["apass"]}";
    $res=$db->query($sql);
    if($res->num_rows>0)
    {
        $row=$res->fetch_assoc();
        $_SESSION["AID"]=$row["AID"];
        $_SESSION["ANAME"]=$row["ANAME"];
        header("location:ahome.php");
    }
    else
    {
        echo"<p class='error'>Invalid User
        Details</p>";
    }
}
?>
<form action="alogin.php" method="post">
<label>Name</label>
<input type="text" name="aname" required>
<label>Password</label>

```

```
<input type="password" name="apass"
required>
<button type="submit"
name="submit">Login</button>
</form>
</div>
</div>
<div id="navi">
<?php
include "sidebar.php";
?>
</div>
<div id="footer">
<p>Copyright &copy;Gms Guna 2018</p>
</div>
</body>
</html>
```

USER

Using this module, a user belongs to the private institution can search books, read/download book contents, view recommendations of the books given by other users, read/download journal, read research related information, post their own comments regarding the quality and contents of the book, post request for purchasing new books, change password and logout the e-library system.

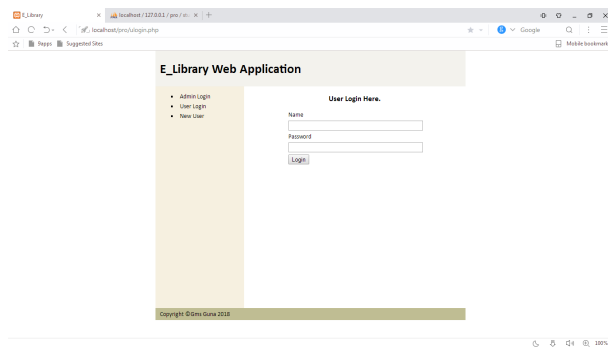


Figure 3: User's Login

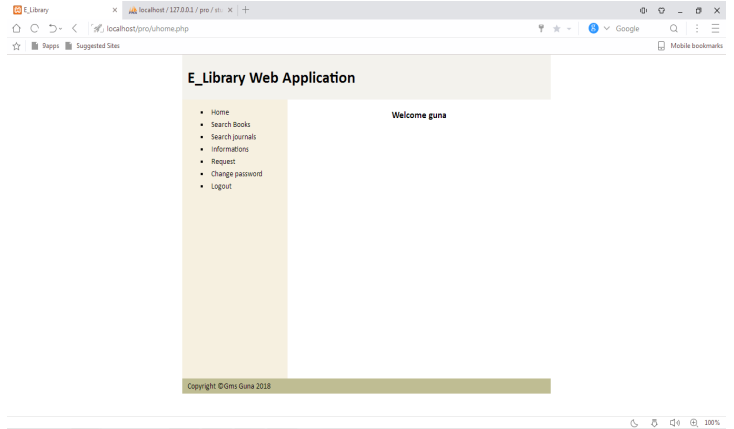


Figure 4: User's Module

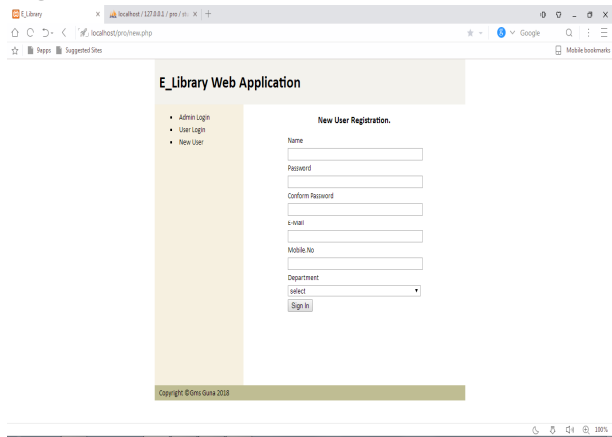


Figure 5: User's Registration

REGISTRATION / LOGIN

This system can be accessed only by authenticated users. Registration is necessary for new users. Using this module, a new users can register himself by giving his name, password, conform password, mobile number, department and mail-id. Once the registration is done successfully, he can login to the system by giving correct username and password.

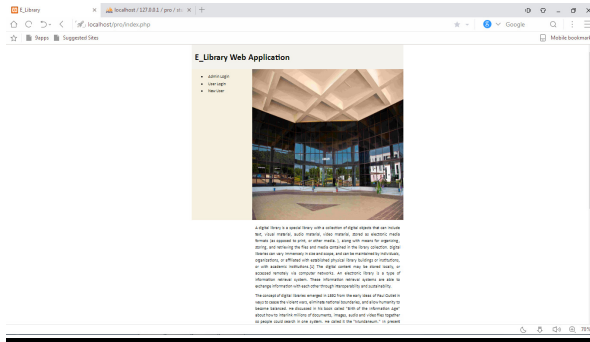


Figure 6: Homepage

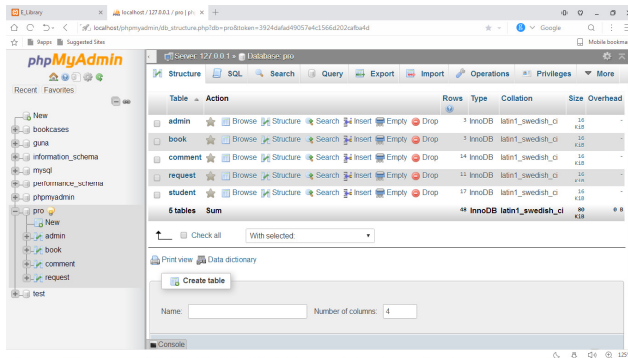


Figure 7: PHP MyAdmin view

4. CONCLUSION:

In this paper a Web Application using PHP with MySQL for e-library was developed. This e-library system includes necessary interfaces for login/registration, user module and administrator module. This is an application developed for the benefit of users belongs to a private institution. Using this system the users can save their time by quickly download/read the book, research articles and research related information.

Future Work

A Mobile application may be generated to automate the e-library system in future. The

proposed system that we developed will be used as the Chief interaction system within the institution/university which interacts with the staff and students.

5. REFERENCE

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