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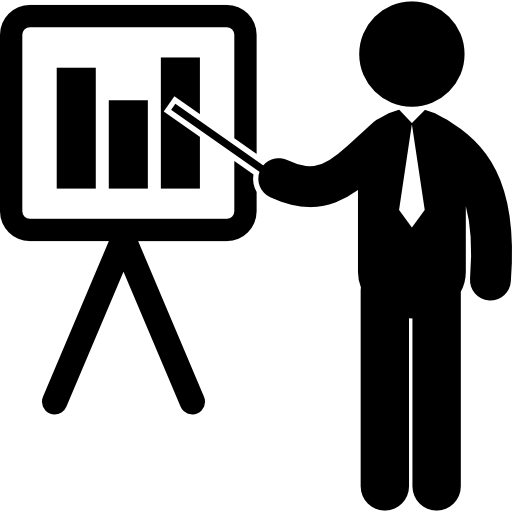
**ABSTRACT**

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**ABSTRACT**

* The Online Library Management System is a web-based platform developed to automate and streamline the day-to-day operations of libraries. It provides a centralized interface where users can search, reserve, and borrow books, while librarians can manage inventory, track issued and returned books, and maintain member records efficiently. By digitizing these processes, the system minimizes paperwork, reduces human error, and enhances the accessibility of library services for users at any time and from any location
* This system is designed with scalability, security, and user-friendliness in mind, making it suitable for academic institutions, public libraries, and private collections. Features such as automated notifications, detailed reporting, and a robust search engine improve the overall library experience for both users and administrators. The Online Library Management System thus serves as a comprehensive solution to modernize traditional library services and meet the evolving needs of digital-era users.

**INTRODUCTION**

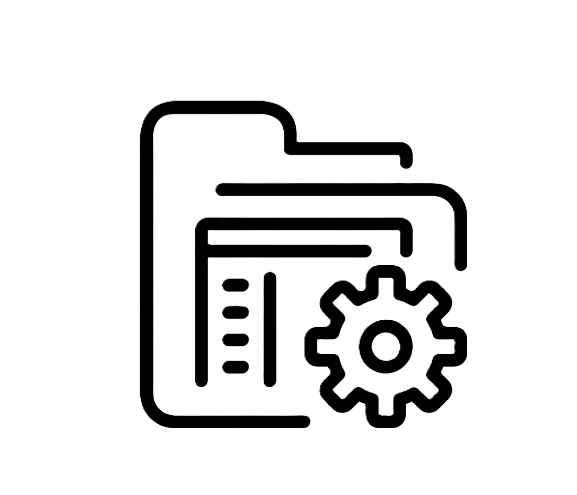
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**INRODUCTION**

* Libraries have always been essential centers of learning, information, and cultural preservation. Traditionally, libraries managed their operations manually, including cataloging books, recording borrowings, tracking returns, and maintaining user records. However, with the growing number of users and resources, manual processes have become inefficient, error-prone, and difficult to maintain. This has created a pressing need for a more systematic and accessible method of library management.
* An Online Library Management System addresses these challenges by providing a digital platform where both administrators and users can interact with the library's services remotely. Librarians can easily update the database, manage inventory, issue and return books, and maintain accurate records. Meanwhile, users can search the catalog, reserve books, renew borrowals, and check their account status from the comfort of their homes. Automation not only reduces administrative workload but also minimizes errors, speeds up services, and improves the user experience significantly.
* Furthermore, the Online Library Management System supports scalability and can be customized to fit the needs of different types of libraries, including academic, public, and private collections. Features such as automated reminders, detailed reporting, advanced search options, and secure user authentication enhance the functionality of the system. As society becomes increasingly digital, implementing an online management system is no longer optional but essential for libraries aiming to stay relevant and meet the evolving needs of their patrons.

**SYSTEM SPECIFICATION**

(HTML, CSS, JavaScript, PHP, MySQL)

****

**1. Hardware Requirements**

* **Processor** Intel(R) Core(TM) i5-8250U CPU @ 1.60GHz 1.80 GHz
* **RAM** 12.0 GB (10.1 GB usable)
* **Storage**: 250 GB HDD or 128 GB SSD
* **System type** 64-bit operating system, x64-based processor

2. **Software Requirements**

* **Operating System**: Windows 10/11
* **Web Browser**: Google Chrome (recommended), Mozilla Firefox

**Code Editor**:

* Visual Studio Code (recommended)
* Sublime Text / Notepad++ (optional)

 **Server Environment**:

* XAMPP / WAMP / LAMP stack (Apache, PHP, MySQL)

 **Database Management**:

* phpMyAdmin (comes with XAMPP for MySQL database handling)

**3. Frontend Technologies**

* **HTML5**: For the structure and styling of web pages
* **CSS3**: For page styling and responsive design
* **JavaScript**: For client-side interactivity

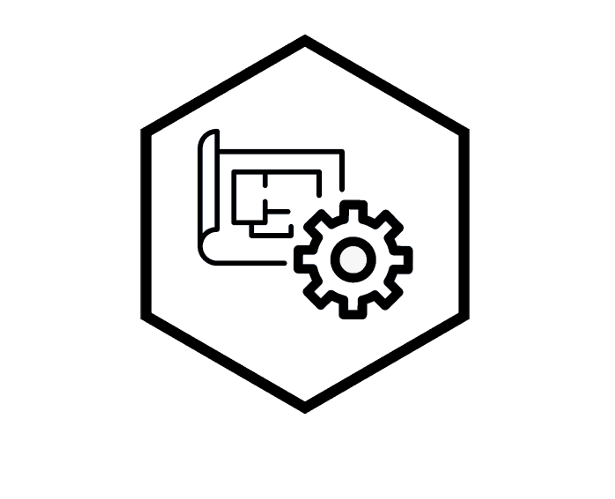
**4. Backend Technologies**

* **PHP**:
  + Used for handling business logic, processing forms, validating user inputs, and interacting with the MySQL database.
* **MySQL**:
* Relational database for storing student biodata, attendance data, and admin login.

**5. Functional Requirements**

* Admin Registration and Login
* Dashboard
  + Manage Category
  + Manage Author
  + Logout
* Manage Book
  + View Book
  + Issued Book
    - return
    - issued
* Manage Reg Student
  + View User
    - Edit
    - Delete

**SYSTEM ANALYSIS**

****

**SYSTEM ANALYSIS**

**1. Introduction**

System analysis plays a crucial role in the development of an Online Library Management System. It involves studying and understanding the existing manual processes, identifying the needs and challenges faced by both administrators and users, and proposing a more efficient and automated system.

Through careful analysis, developers can ensure that the new system addresses the specific problems of traditional library management, such as time-consuming manual record-keeping, tracking inaccuracies, and limited accessibility for users.

A well-conducted system analysis ensures that the final Online Library Management System meets its objectives efficiently and serves the needs of both users and library staff.

**2. Existing System (Manual Process)**

* Issuedbook is taken on paper.
* User data is stored in physical files or simple spreadsheets.
* Reports must be created manually.
* Updating user
* information is slow and prone to errors.

**3. Proposed System**

* Automate all library activities.
* Provide online book access.
* Track borrow and return instantly.
* Send automatic due reminders.
* Ensure secure user login.

**4. Feasibility Study**

 **Technical Feasibility:**  
The system can be easily developed using available technologies like web development tools (HTML, CSS, JavaScript, PHP) and databases (MySQL). No advanced hardware is required, and users only need internet access.

 **Economic Feasibility:**  
The cost of developing and maintaining the system is low compared to the benefits it provides. It saves money by reducing the need for manual labor, paper records, and physical storage.

 **Operational Feasibility:**  
Librarians and users can quickly learn how to use the system. The system simplifies everyday tasks like searching, borrowing, and managing books, making operations smoother and faster.

 **Schedule Feasibility:**  
The system can be developed and deployed within a short period (few months) with proper planning, as it involves standard web development practices and known design methods.

**5. System Requirements Summary**

* **Frontend**: HTML, CSS, JavaScript
* **Backend**: PHP
* **Database**: MySQL
* **Server**: Apache (via XAMPP or WAMP)
* **Users**:
  + Admin: Manage Book, Manage User.

**6. Modules in the System**

* **Admin Module**:
  + Admin Login and Sign Up and Logout.
  + Manage Book(Add, Issued,Return, Delete).
  + Manage Author(Edit, Delete).
* **User Management Module**:
  + User registration (inputting name, phone number, email\_id, password, etc.).
  + Viewing return and Borrowed book.
  + Viewing book by User.

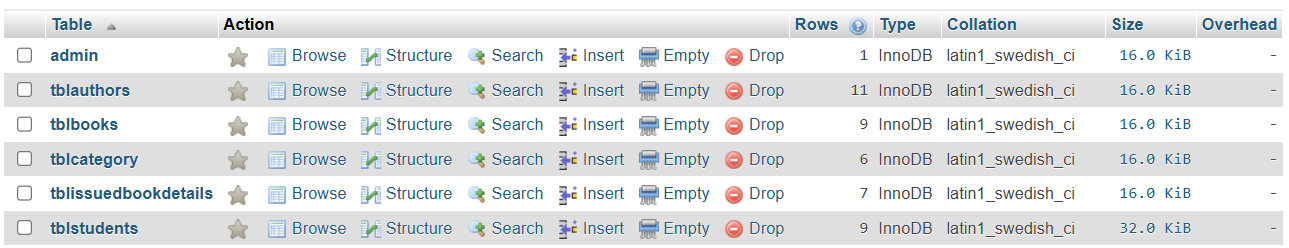
**7. Benefits of the System**

* **Time-Saving:**  
  Automation of tasks like searching, issuing, and returning books saves time for both users and librarians.
* **Easy Access:**  
  Users can access library services anytime and from anywhere using the internet.

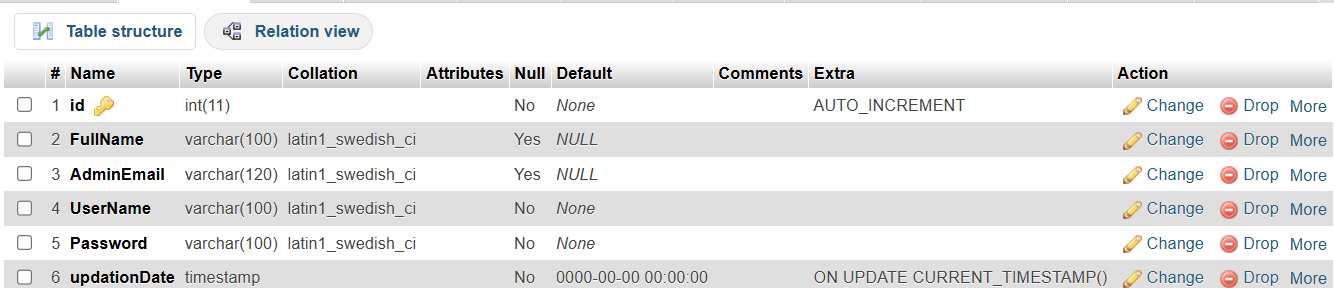
**DATABASE**

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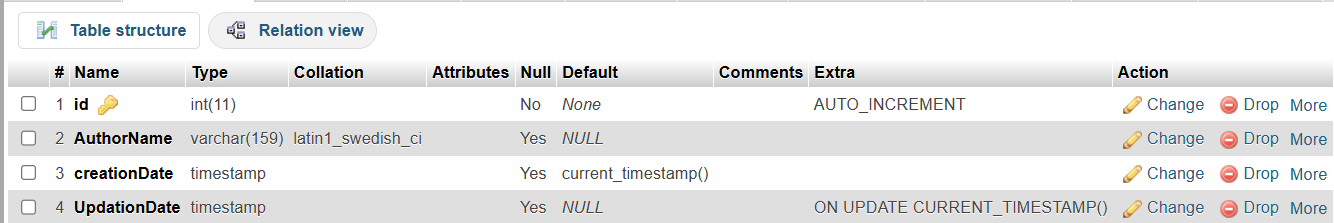
**Library\_Management --- Database**

****

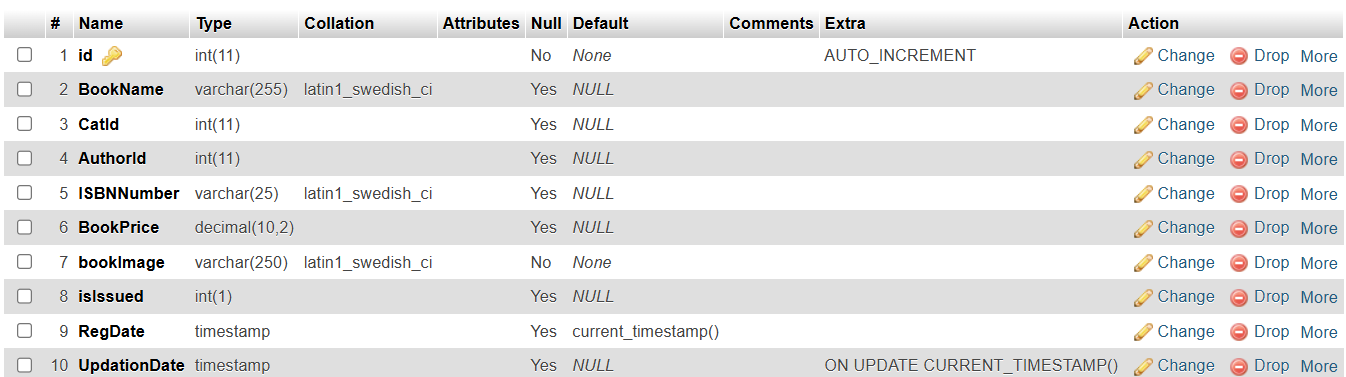
**admins --- Table**

****

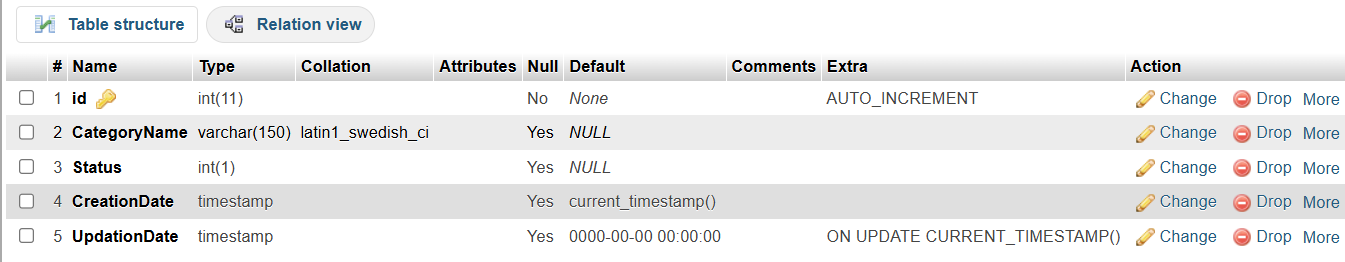
**author --- Table**

****

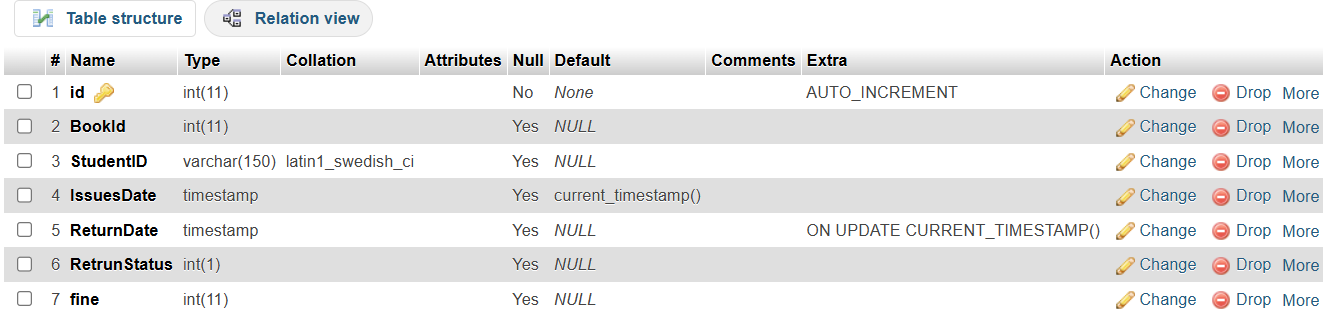
**book --- Table**

****

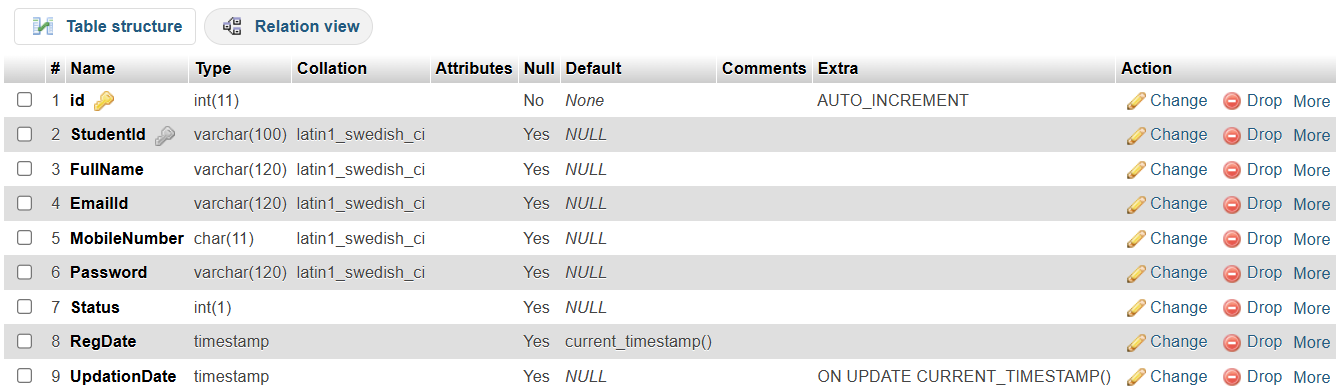
**Category---Table**

****

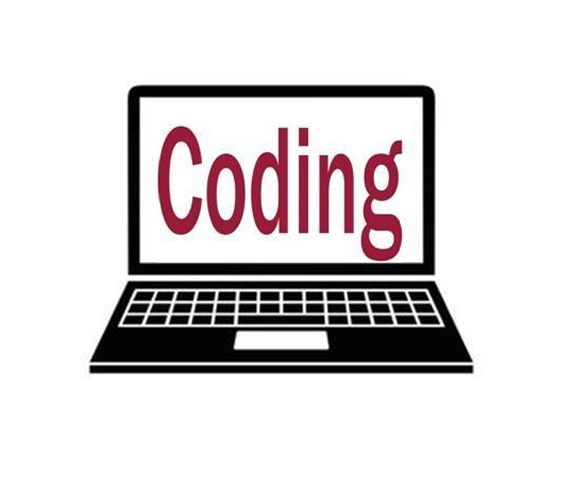
**Issuedbookdetails---Table**

****

**Students---Table**

****

**SAMPLE CODING**

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**login.php**

<?php

session\_start();

error\_reporting(0);

include('includes/config.php');

if($\_SESSION['login']!=''){

$\_SESSION['login']='';

}

if(isset($\_POST['login']))

{

$email=$\_POST['emailid'];

$password=md5($\_POST['password']);

$sql ="SELECT EmailId,Password,StudentId,Status FROM tblstudents WHERE EmailId=:email and Password=:password";

$query= $dbh -> prepare($sql);

$query-> bindParam(':email', $email, PDO::PARAM\_STR);

$query-> bindParam(':password', $password, PDO::PARAM\_STR);

$query-> execute();

$results=$query->fetchAll(PDO::FETCH\_OBJ);

if($query->rowCount() > 0)

{

foreach ($results as $result) {

$\_SESSION['stdid']=$result->StudentId;

if($result->Status==1)

{

$\_SESSION['login']=$\_POST['emailid'];

echo "<script type='text/javascript'> document.location ='dashboard.php'; </script>";

} else {

echo "<script>alert('Your Account Has been blocked .Please contact admin');</script>";

}

}

} else{

echo "<script>alert('Invalid Details');</script>";

}

}

?>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head>

<meta charset="utf-8" />

<meta name="viewport" content="width=device-width, initial-scale=1, maximum-scale=1" />

<meta name="description" content="" />

<meta name="author" content="" />

<title>Online Library Management System | </title>

<!-- BOOTSTRAP CORE STYLE -->

<link href="assets/css/bootstrap.css" rel="stylesheet" />

<!-- FONT AWESOME STYLE -->

<link href="assets/css/font-awesome.css" rel="stylesheet" />

<!-- CUSTOM STYLE -->

<link href="assets/css/style.css" rel="stylesheet" />

<!-- GOOGLE FONT -->

<link href='http://fonts.googleapis.com/css?family=Open+Sans' rel='stylesheet' type='text/css' />

</head>

<body>

<!------MENU SECTION START-->

<?php include('includes/header.php');?>

<!-- MENU SECTION END-->

<div class="content-wrapper">

<div class="container">

<!--Slider---->

<div class="row">

<div class="col-md-10 col-sm-8 col-xs-12 col-md-offset-1">

<div id="carousel-example" class="carousel slide slide-bdr" data-ride="carousel" >

<div class="carousel-inner">

<div class="item active">

<img src="assets/img/1.jpg" alt="" />

</div>

<div class="item">

<img src="assets/img/2.jpg" alt="" />

</div>

<div class="item">

<img src="assets/img/3.jpg" alt="" />

</div>

</div>

<!--INDICATORS-->

<ol class="carousel-indicators">

<li data-target="#carousel-example" data-slide-to="0" class="active"></li>

<li data-target="#carousel-example" data-slide-to="1"></li>

<li data-target="#carousel-example" data-slide-to="2"></li>

</ol>

<!--PREVIUS-NEXT BUTTONS-->

<a class="left carousel-control" href="#carousel-example" data-slide="prev">

<span class="glyphicon glyphicon-chevron-left"></span>

</a>

<a class="right carousel-control" href="#carousel-example" data-slide="next">

<span class="glyphicon glyphicon-chevron-right"></span>

</a>

</div>

</div>

</div>

<hr />

<div class="row pad-botm">

<div class="col-md-12">

<h4 class="header-line">USER LOGIN FORM</h4>

</div>

</div>

<a name="ulogin"></a>

<!--LOGIN PANEL START-->

<div class="row">

<div class="col-md-6 col-sm-6 col-xs-12 col-md-offset-3" >

<div class="panel panel-info">

<div class="panel-heading">

LOGIN FORM

</div>

<div class="panel-body">

<form role="form" method="post">

<div class="form-group">

<label>Enter Email id</label>

<input class="form-control" type="text" name="emailid" required autocomplete="off" />

</div>

<div class="form-group">

<label>Password</label>

<input class="form-control" type="password" name="password" required autocomplete="off" />

<p class="help-block"><a href="user-forgot-password.php">Forgot Password</a></p>

</div>

<button type="submit" name="login" class="btn btn-info">LOGIN </button> | <a href="signup.php">Not Register Yet</a>

</form>

</div>

</div>

</div>

</div>

<!---LOGIN PABNEL END-->

</div>

</div>

<!-- CONTENT-WRAPPER SECTION END-->

<?php include('includes/footer.php');?>

<!-- FOOTER SECTION END-->

<script src="assets/js/jquery-1.10.2.js"></script>

<!-- BOOTSTRAP SCRIPTS -->

<script src="assets/js/bootstrap.js"></script>

<!-- CUSTOM SCRIPTS -->

<script src="assets/js/custom.js"></script>

</body>

</html>

**Singup.php**

<?php

// DB credentials.

define('DB\_HOST','localhost');

define('DB\_USER','root');

define('DB\_PASS','');

define('DB\_NAME','library');

// Establish database connection.

try

{

$dbh = new PDO("mysql:host=".DB\_HOST.";dbname=".DB\_NAME,DB\_USER, DB\_PASS,array(PDO::MYSQL\_ATTR\_INIT\_COMMAND => "SET NAMES 'utf8'"));

}

catch (PDOException $e)

{

exit("Error: " . $e->getMessage());

}

?>

**Index.php**

<?php

session\_start();

error\_reporting(0);

include('includes/config.php');

if($\_SESSION['alogin']!=''){

$\_SESSION['alogin']='';

}

if(isset($\_POST['login']))

{

$username=$\_POST['username'];

$password=md5($\_POST['password']);

$sql ="SELECT UserName,Password FROM admin WHERE UserName=:username and Password=:password";

$query= $dbh -> prepare($sql);

$query-> bindParam(':username', $username, PDO::PARAM\_STR);

$query-> bindParam(':password', $password, PDO::PARAM\_STR);

$query-> execute();

$results=$query->fetchAll(PDO::FETCH\_OBJ);

if($query->rowCount() > 0)

{

$\_SESSION['alogin']=$\_POST['username'];

echo "<script type='text/javascript'> document.location ='admin/dashboard.php'; </script>";

} else{

echo "<script>alert('Invalid Details');</script>";

}

}

?>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head>

<meta charset="utf-8" />

<meta name="viewport" content="width=device-width, initial-scale=1, maximum-scale=1" />

<meta name="description" content="" />

<meta name="author" content="" />

<title>Online Library Management System</title>

<!-- BOOTSTRAP CORE STYLE -->

<link href="assets/css/bootstrap.css" rel="stylesheet" />

<!-- FONT AWESOME STYLE -->

<link href="assets/css/font-awesome.css" rel="stylesheet" />

<!-- CUSTOM STYLE -->

<link href="assets/css/style.css" rel="stylesheet" />

<!-- GOOGLE FONT -->

<link href='http://fonts.googleapis.com/css?family=Open+Sans' rel='stylesheet' type='text/css' />

</head>

<body>

<!------MENU SECTION START-->

<?php include('includes/header.php');?>

<!-- MENU SECTION END-->

<div class="content-wrapper">

<div class="container">

<div class="row pad-botm">

<div class="col-md-12">

<h4 class="header-line">ADMIN LOGIN FORM</h4>

</div>

</div>

<!--LOGIN PANEL START-->

<div class="row">

<div class="col-md-6 col-sm-6 col-xs-12 col-md-offset-3" >

<div class="panel panel-info">

<div class="panel-heading">

LOGIN FORM

</div>

<div class="panel-body">

<form role="form" method="post">

<div class="form-group">

<label>Enter Username</label>

<input class="form-control" type="text" name="username" autocomplete="off" required />

</div>

<div class="form-group">

<label>Password</label>

<input class="form-control" type="password" name="password" autocomplete="off" required />

</div>

<button type="submit" name="login" class="btn btn-info">LOGIN </button>

</form>

</div>

</div>

</div>

</div>

<!---LOGIN PABNEL END-->

</div>

</div>

<!-- CONTENT-WRAPPER SECTION END-->

<?php include('includes/footer.php');?>

<!-- FOOTER SECTION END-->

<script src="assets/js/jquery-1.10.2.js"></script>

<!-- BOOTSTRAP SCRIPTS -->

<script src="assets/js/bootstrap.js"></script>

<!-- CUSTOM SCRIPTS -->

<script src="assets/js/custom.js"></script>

</script>

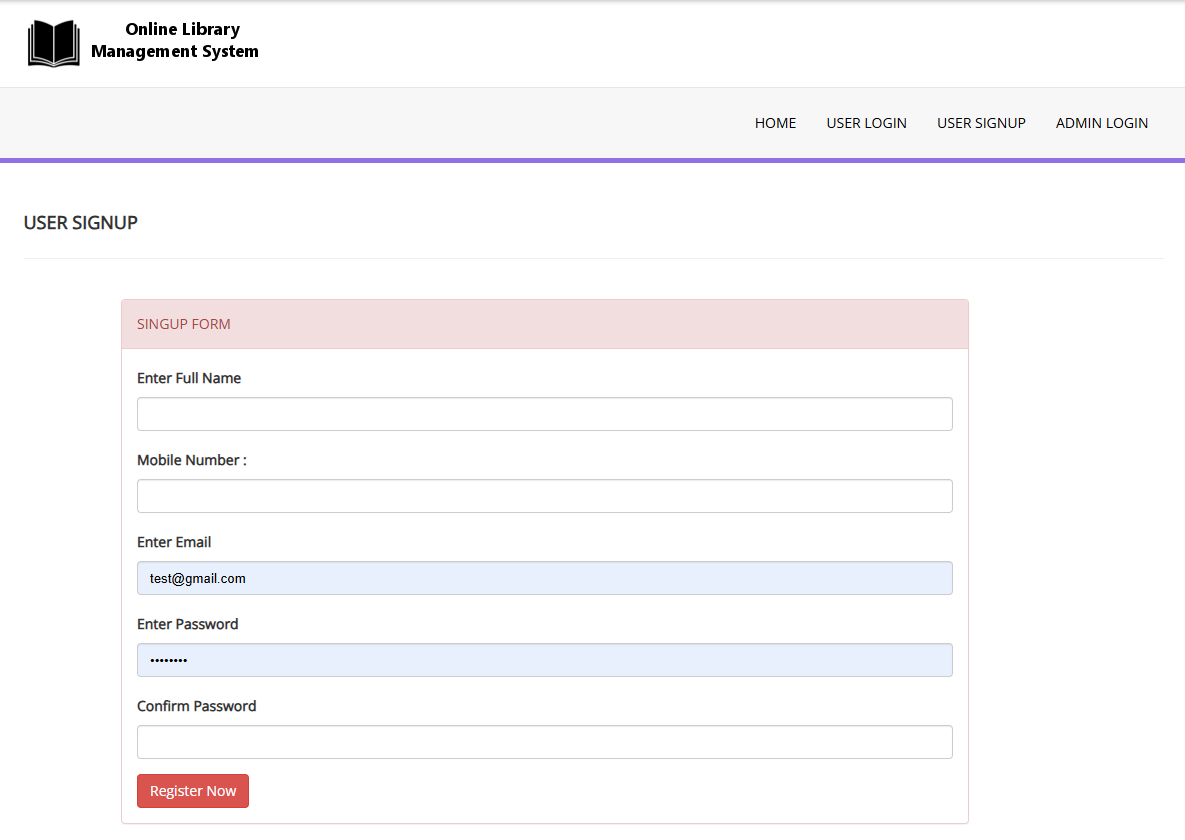
</body>

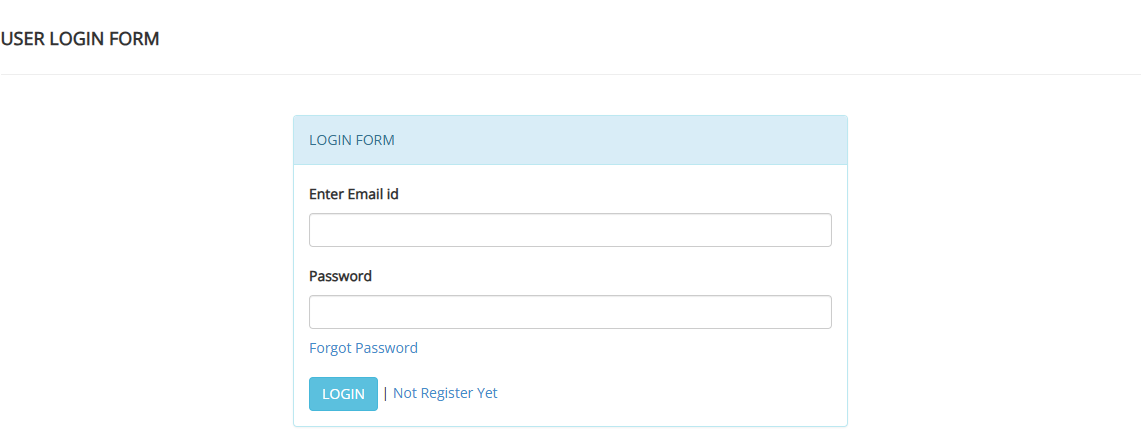
</html>

**SNAPSHOT**

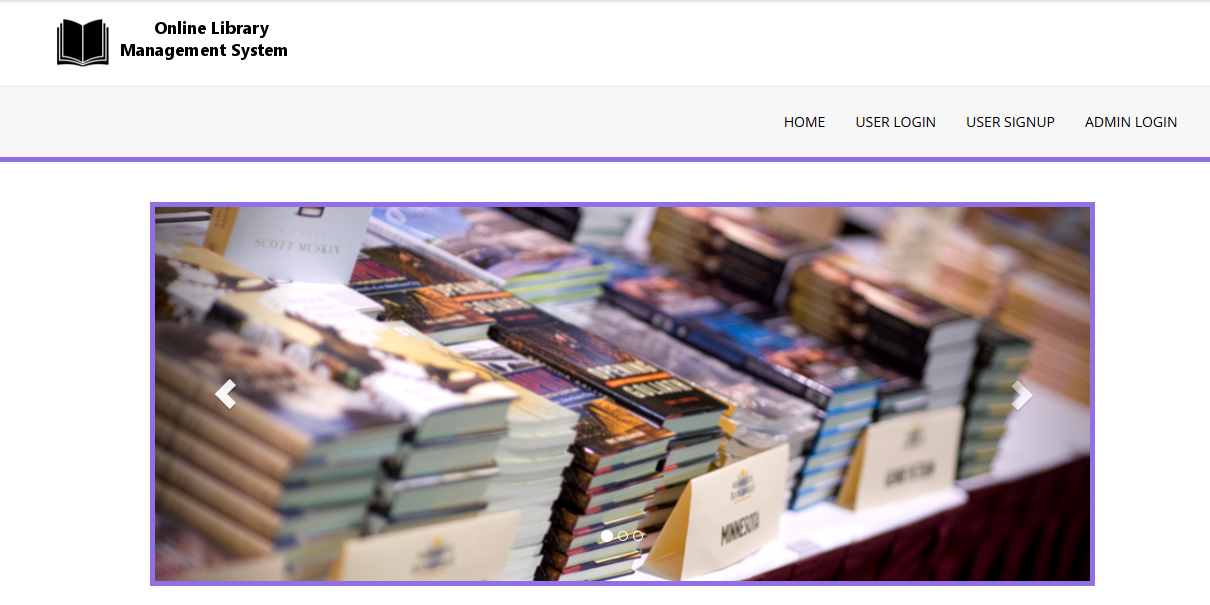


**User Signup Page:**

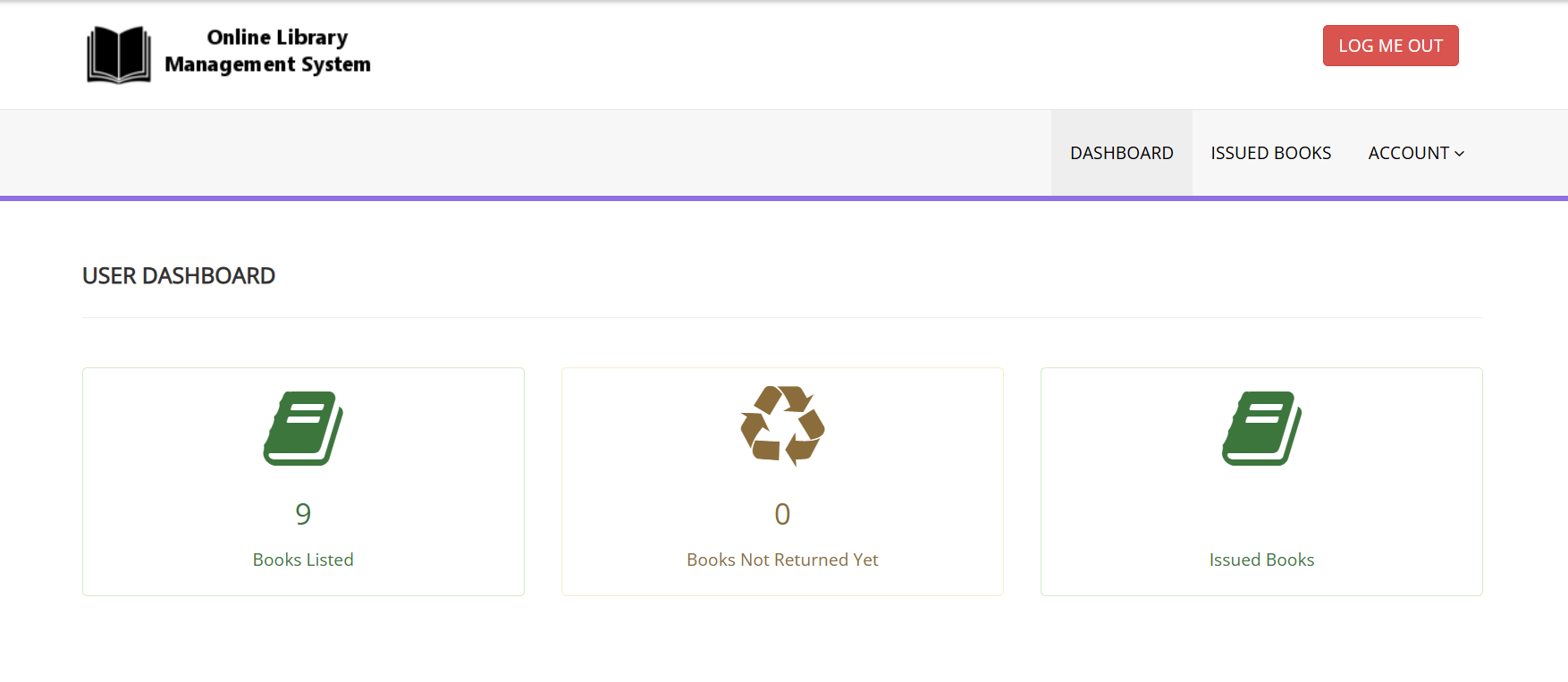
****

**User Login page:**

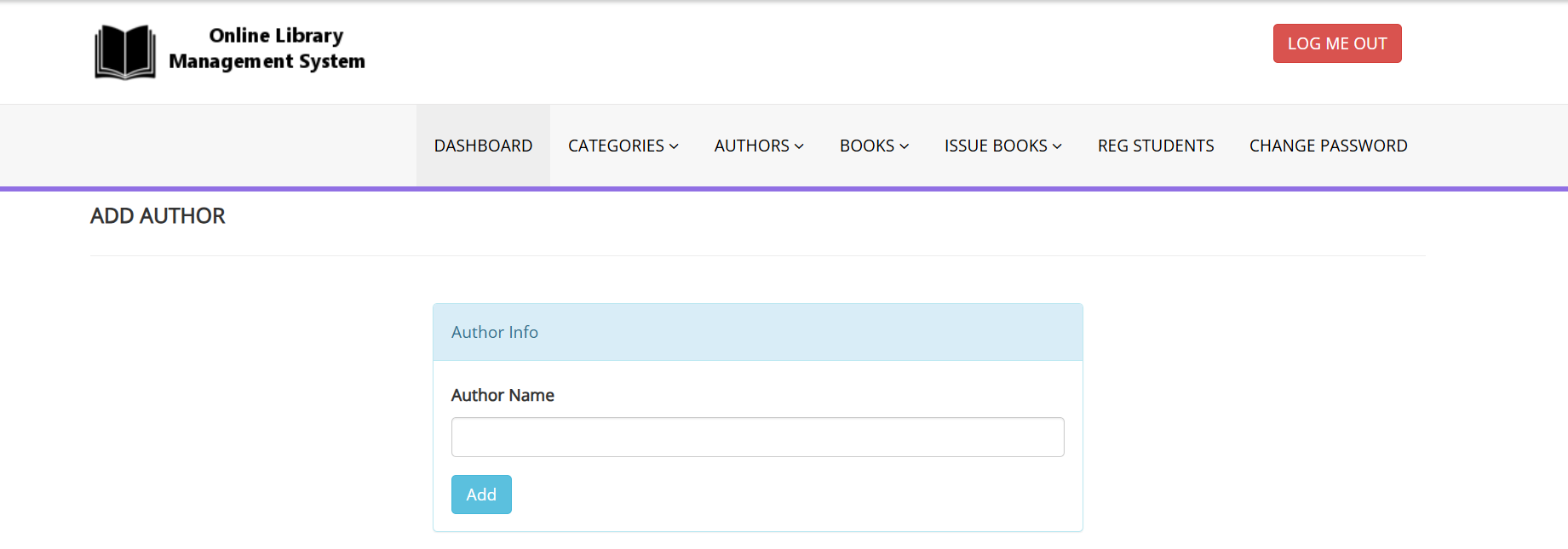
**Index page**

****

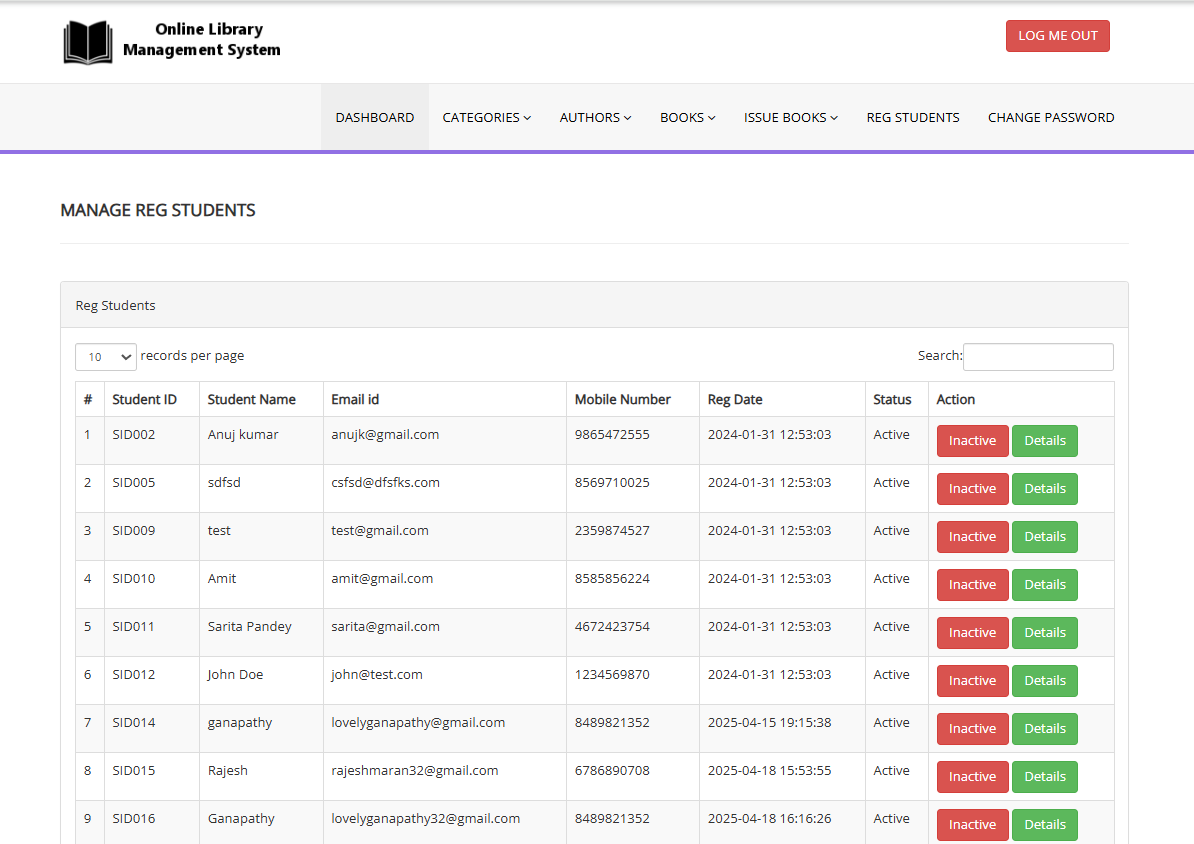
**User DashBoard:**

****

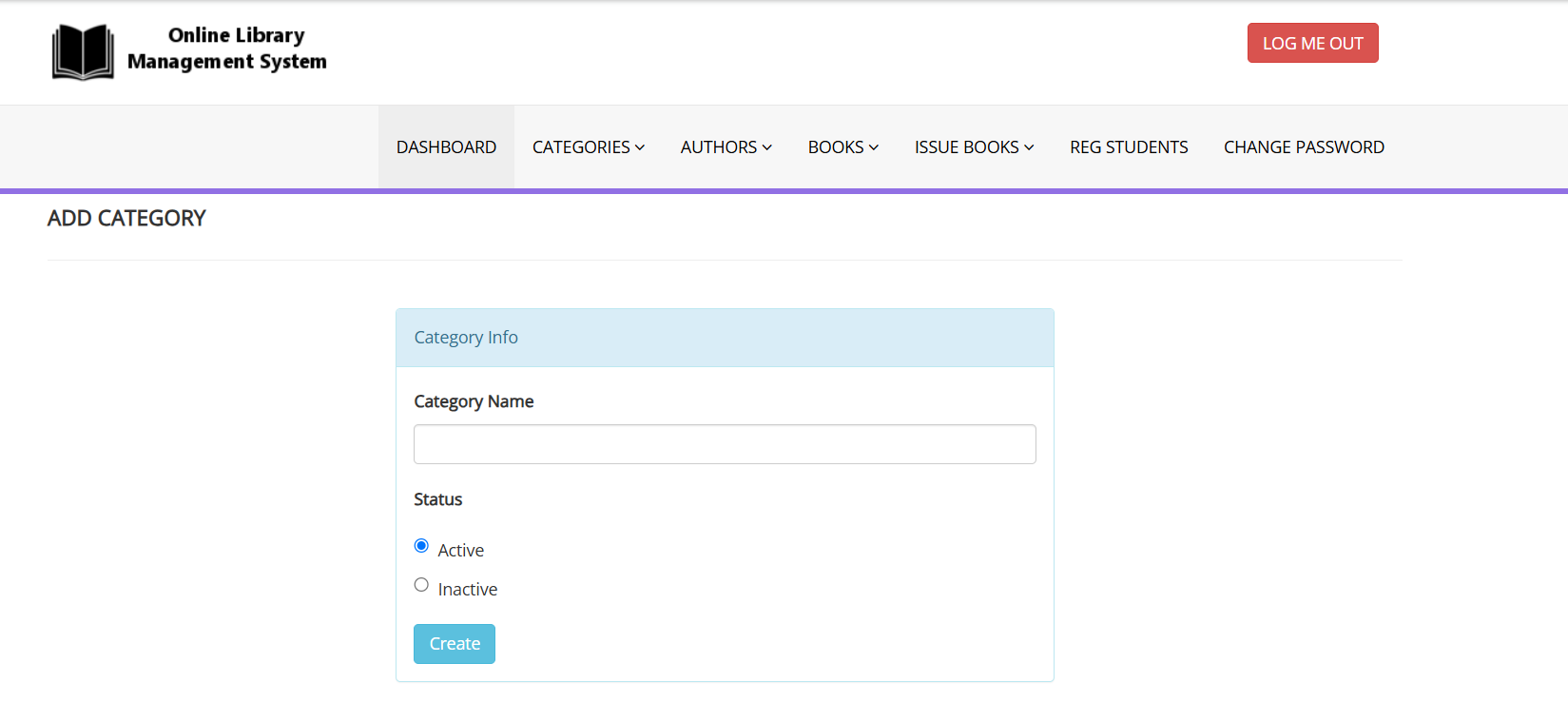
**Add AuthorPage:**

****

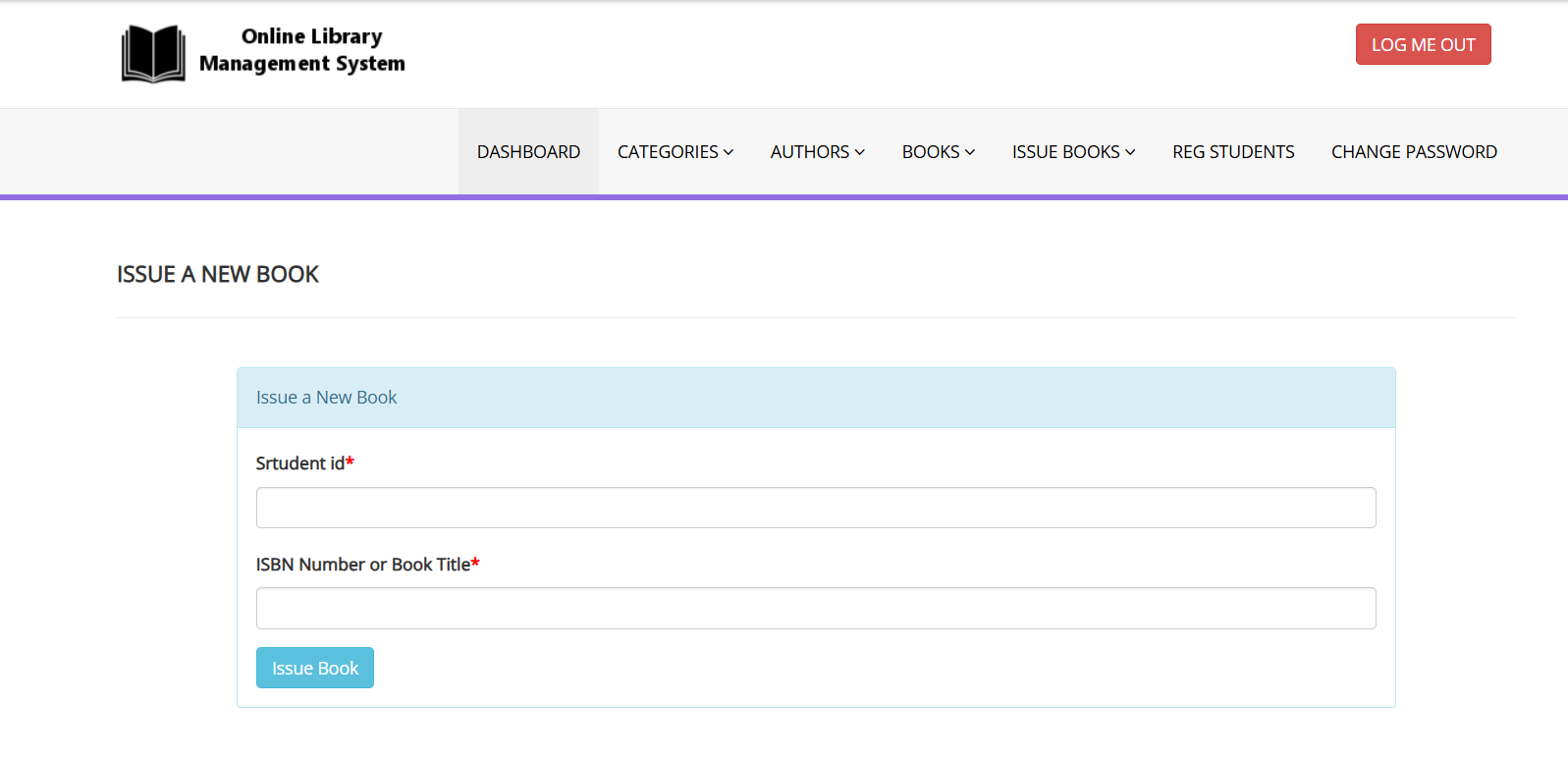
**View User page:**

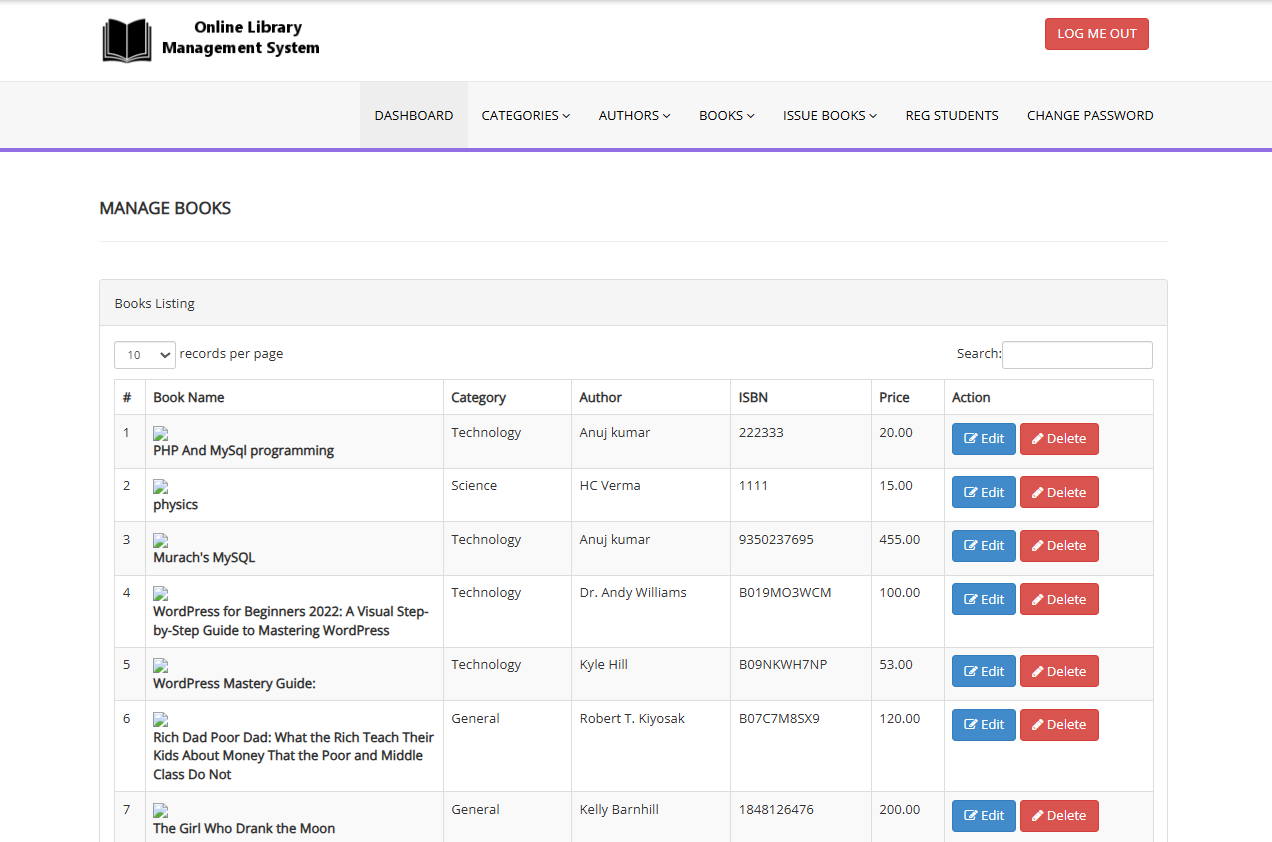
****

**Add Category:**

****

**Issue Book page:**

****

**Edit & Delete Book:**

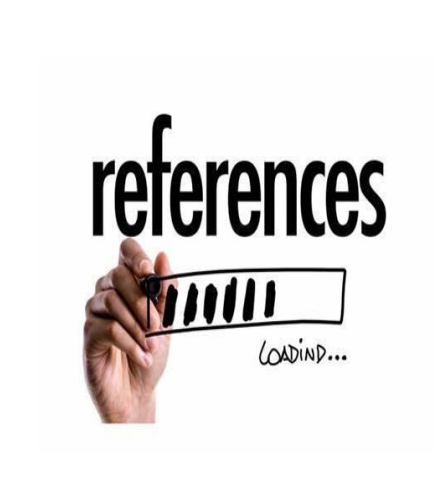
**CONCLUSION**



**conclusion**

* The Online Library Management System significantly improves the efficiency of library operations. By automating processes such as cataloging, book issuance, return tracking, and user account management, the system reduces manual effort and minimizes human errors. This automation allows librarians to focus more on enhancing user services rather than handling repetitive administrative tasks.
* User convenience is another major benefit of the system. With online access, users can easily search for available books, reserve them, renew their loans, and check their borrowing history from anywhere at any time. This flexibility greatly enhances user satisfaction and encourages more frequent engagement with library resources, making the library more accessible to a wider audience.
* The system is highly scalable and customizable, making it suitable for a variety of libraries, including academic, public, and private institutions. As library collections grow and user demands evolve, the system can be updated with new features or expanded to accommodate larger databases and more users, ensuring long-term usability and relevance.
* Finally, the adoption of an Online Library Management System supports the broader goal of digital transformation. It promotes digital literacy among users, streamlines resource management, and prepares libraries to meet the technological expectations of modern society. Overall, the system lays a strong foundation for the future of efficient, accessible, and sustainable library management.

**REFERENCES**



**REFERENCES**

1. **W3Schools Online Web Tutorials**

* Source for PHP, MySQL, HTML, CSS, and JavaScript learning materials.
* <https://www.w3schools.com>

1. **GeeksforGeeks – Web Development Tutorials**

* Helped with concepts of user authentication, database management, and system security.
* <https://www.geeksforgeeks.org>

1. **PHP Official Documentation**

* Used for PHP programming guidelines and best practices.
* <https://www.php.net/docs.php>

1. **MySQL Official Documentation**

* Reference for database design, queries, and relational data management.
* <https://dev.mysql.com/doc/>

1. **Bootstrap Documentation (Optional if you use it for frontend design)**

* Used for responsive design and UI styling.
* https://getbootstrap.com/docs/

1. **MDN Web Docs (Mozilla Developer Network)**

* For JavaScript and HTML5/CSS3 standards and best practices.
* <https://developer.mozilla.org>

**THANK YOU!!!**