Software Engineering Report



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Perform Design and Development of Database Structure for your chosen project.

4. DEVELOPMENT

4.1 Database Structure

1. Librarian table:

Field	Data Type	Size	Constraints	Description
id	int	11	Primary key	It gives the id
				to the librarian
Full Name	varchar	100	Default Null	It takes the
				name of the
				librarian
Librarian	varchar	100	Default Null	It takes the
Email				Email address
				of the librarian
Username	varchar	100	Not Null	It takes the
				UserName of
				the librarian
Password	varchar	100	Not Null	It takes the
				Password of
				the librarian
Updation	timestamp	-	Not Null	It takes the
date			Default	Updationdate
				of the
				books/status of
				student/faculty

Authors table:

Field	Data Type	Size	Constraints	Description
id	int	11	Primary key	It takes the id
				of the author
				that was given
				to the respect
				author
Author Name	varchar	150	Default Null	It takes the
				name of the
				author
Creation Date	timestamp	-	Null Default	It takes the
				date of the
				author on

				which date it
				was added to
				the books list
UpdationDate	timestamp	-	Null Default	It takes the
				date of the
				author on
				which date it
				was updated
				the last in
				books list

Books table:

Field	Data Type	Size	Constraints	Description
id	Int	11	Primary key	It takes the id
				of the book
BookName	Varchar	200	Default Null	It takes the
				name of the
				book
CatId	Int	11	Default Null	It takes the
				category id of
				in the available
				categories
Authorid	Int	11	Default Null	It takes the
				Author id of in
				the available
				Authors list
ISBNumber	Int	11	Default Null	It takes the ibs
				number of the
				book
BookPrice	Int	11	Default Null	It the details of
				the price of the
				book
RegDate	timestamp	-	Null Default	It takes the
				date on which
				the book has
				been registered
UpdationDate	timestamp	-	Null Default	It takes the
				date on which
				the book has
				been
				returned/issued

Category table:

Field	Data Type	Size	Constraints	Description

id	Int	11	Primary key	It takes the id of the categories
Category Name	Varchar	150	Default Null	It takes the category name
Creation Date	timestamp	-	Null default	It takes the date on which the category is added
UpdationDate	timestamp	-	Null default	It takes the updationdate of the category
Status	int	11	Default Null	It takes the status of category

Issued book details table:

Field	Data Type	Size	Constraints	Description
id	Int	11	Primary key	It stores the id
				of the number
				of books
				issued
Bookid	Int	11	Default Null	It takes the id
				of the book
				issued
Studentid	Varchar	159	Default Null	It takes the id
				of the student
IssueDate	timestamp	-	Null Default	It takes the
				date on which
				the book is
				issued
Return Date	timestamp	-	Null Default	It takes the
				date on which
				the book is
				returned
Return Status	Int	1	Default Null	It stores the
				return status
				of the book
fine	int	11	Default Null	It takes the
				fine need to
				be paid if it
				was returned
				late

Student/Faculty table:

Field	Data Type	Size	Constraints	Description
Id	Int	11	Not Null	It stores the
				id's of both
				students and
				faculty by
				giving
				individual id
				to them.
Studentid/faculty	Varchar	111	Default Null	It takes the
id				studentid and
				faculty id
Fullname	Varchar	111	Default Null	It takes the
				full name of
				student as
				well as faculty
Emailid	Varchar	111	Default Null	It takes the
				Emailid of
				student as
				well as faculty
Mobile number	Char	111	Default Null	It takes the
				mobile
				number of
				student as
				well as faculty
Password	Varchar	111	Default Null	It takes the
				password of
				student as
				well as faculty
Status	Int	1	Default Null	It takes the
				status of the
				students
RegDate	timestamp	-	Null Default	It takes the
				date on which
				the students
				issued the
				book
UpdationDate	timestamp	-	Null Default	It takes the
				date on which
				the students
				returned the
				book and
				upadate

4.2 Coding and Implementation:

4.2.1 Sample Codes:

SQL file:

```
-- Database: `library`
-- Table structure for table `librarian`
-- CREATE TABLE `librarian` (
    id` int(11) NOT NULL,
    `FullName` varchar(100) DEFAULT NULL,
    `VaserName` varchar(100) NOT NULL,
    `UserName` varchar(100) NOT NULL,
    `updationDate timestamp NOT NULL DEFAULT '0000-00-00 00:00:00' ON UPDATE current_timestamp()
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
-- Dumping data for table `librarian`
-- Table structure for table `librarian`
-- Table structure for table `librarian`
-- Numping varchar(100) NOT NULL,
    `varchar(100) NOT
```

```
-- Table structure for table `authors`

CREATE TABLE `authors` (
    id` int(11) NOT NULL,
    `AuthorName` varchar(159) DEFAULT NULL,
    `creationDate` timestamp NULL DEFAULT current_timestamp(),
    `UpdationDate` timestamp NULL DEFAULT NULL ON UPDATE current_timestamp()
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `authors`
--

INSERT INTO `authors` (`id`, `AuthorName`, `creationDate`, `UpdationDate`) VALUES
(1, 'Kumar Pandule', '2017-07-08 12:49:09', '2021-06-28 16:03:28'),
(2, 'Kumar', '2017-07-08 14:30:23', '2021-06-28 16:03:43'),
(3, 'Rahul', '2017-07-08 14:35:21', NULL),
(5, 'R.D. Sharma ', '2017-07-08 15:22:03', NULL),
(9, 'fwdfrwer', '2017-07-08 15:22:03', NULL);
```

```
-- Table structure for table `books`
CREATE TABLE `books` (
                int(11) NOT NULL
    id` int(11) NOT NULL,
BookName` varchar(255) DEFAULT NULL,
CatId` int(11) DEFAULT NULL,
AuthorId` int(11) DEFAULT NULL,
ISBNNumber` int(11) DEFAULT NULL,
BookPrice` int(11) DEFAULT NULL,
RegDate` timestamp NULL DEFAULT current_timestamp(),
UpdationDate` timestamp NULL DEFAULT NULL ON UPDATE current_timestamp()
 ) ENGINE=InnoDB DEFAULT CHARSET=latin1;
 -- Dumping data for table `books`
INSERT INTO `books` ('id', `BookName`, `CatId', `AuthorId', `ISBNNumber`, `BookPrice`, `RegDate`, `UpdationDate`) VALUES
(1, 'PHP And MySql programming', 5, 1, 222333, 20, '2017-07-08 20:04:55', '2017-07-15 05:54:41'),
(3, 'physics', 6, 4, 1111, 15, '2017-07-08 20:17:31', '2017-07-15 06:13:17');
  -- Table structure for table `category`
CREATE TABLE `category` (
        `id` int(11) NOT NULL,
      `CategoryName` varchar(150) DEFAULT NULL,
`Status` int(1) DEFAULT NULL,
      `CreationDate` timestamp NULL DEFAULT current_timestamp(),
`UpdationDate` timestamp NULL DEFAULT '0000-00-00 00:00:00' ON UPDATE current_timestamp()
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
 -- Dumping data for table `category`
INSERT INTO `category` (`id`, `CategoryName`, `Status`, `CreationDate`, `UpdationDate`) VALUES (4, 'Romantic', 1, '2017-07-04 18:35:25', '2017-07-06 16:00:42'), (5, 'Technology', 1, '2017-07-04 18:35:39', '2017-07-08 17:13:03'), (6, 'Science', 1, '2017-07-04 18:35:55', '0000-00-00 00:00:00'), (7, 'Management', 0, '2017-07-04 18:36:16', '0000-00-00 00:00:00');
 -- Table structure for table `issuedbookdetails`
 CREATE TABLE `issuedbookdetails` (
  `id` int(11) NOT NULL,
  `BookId` int(11) DEFAULT NULL,
 BOOKIG int(II) DEFAULT NULL,

`StudentID` varchar(150) DEFAULT NULL,

`IssuesDate` timestamp NULL DEFAULT current_timestamp(),

ReturnDate` timestamp NULL DEFAULT NULL ON UPDATE current_timestamp(),

RetrunStatus` int(1) DEFAULT NULL,

`fine` int(I1) DEFAULT NULL

) ENGINE=InnoDB DEFAULT CHARSET=latin1;
 -- Dumping data for table `issuedbookdetails`
INSERT INTO `issuedbookdetails` (`id`, `BookId`, `StudentID`, `IssuesDate`, `ReturnDate`, `RetrunStatus`, `fine`) VALUES (1, 1, 'SID002', '2017-07-15 06:09:47', '2017-07-15 11:15:20', 1, 0), (2, 1, 'SID002', '2017-07-15 06:12:27', '2017-07-15 11:15:23', 1, 5), (3, 3, 'SID002', '2017-07-15 06:13:40', NULL, 0, NULL), (4, 3, 'SID002', '2017-07-15 06:23:23', '2017-07-15 11:22:29', 1, 2), (5, 1, 'SID009', '2017-07-15 10:59:26', NULL, 0, NULL), (6, 3, 'SID011', '2017-07-15 18:02:55', NULL, 0, NULL);
```

```
CREATE TABLE 'students/Faculty' (
    'id' int(11) NOT NULL,
    'StudentId' varchar(100) DEFAULT NULL,
    'FacultyId' varchar(120) DEFAULT NULL,
    FullName' varchar(120) DEFAULT NULL,
    FullName' varchar(120) DEFAULT NULL,
    'MobileNumber' carchar(120) DEFAULT NULL,
    'Password' varchar(120) DEFAULT NULL,
    'Password' varchar(120) DEFAULT NULL,
    'Status' int(1) DEFAULT NULL,
    'Status' int(1) DEFAULT NULL,
    'Status' int(1) DEFAULT NULL,
    'Status' int(1) DEFAULT CHARSET=latin1;
    '--
    Dumping data for table 'students/Faculty'
    '--
    Dumping data for table 'students/Faculty'
    '--
    Dumping data for table 'students/Faculty'
    '--
    NSERT INTO 'students/Faculty' ('id', 'StudentId', 'FullName', 'EmailId', 'MobileNumber', 'Password', 'Status', 'RegDate', 'UpdationDate') VALUES
    (1, 'SID002', 'Anuj kumar', 'anuj.lpul@gmail.com', '9865472555', '4925916e2754e5ee3f75dd58a5733251', 1, '2017-07-11 15:31:76', '2017-07-15 18:26:21'
    (4, 'SID009', 'test', 'testi@gmail.com', '3859710025', '9225916e2754e5ee3f75dd58a5733251', 1, '2017-07-15 13:42:44'),
    (9, 'SID010', 'Amit', 'amit@gmail.com', '3859856224', 'f925916e2754e5e03f75dd58a5733251', 1, '2017-07-15 13:40:9', NULL);
    '--
    Indexes for dumped tables
```

```
-- Indexes for dumped tables
-- Indexes for table `librarian`
ALTER TABLE `librarian`
  ADD PRIMARY KEY (`id`);
-- Indexes for table `authors`
ALTER TABLE `authors`
 ADD PRIMARY KEY (`id`);
-- Indexes for table `books`
ALTER TABLE `books`
 ADD PRIMARY KEY (`id`);
-- Indexes for table `category`
ALTER TABLE `category`
 ADD PRIMARY KEY (`id`);
-- Indexes for table `issuedbookdetails`
ALTER TABLE `issuedbookdetails`
  ADD PRIMARY KEY (`id`);
```

Librarian login page:

```
<?php
session_start();
error_reporting(0);
include('includes/config.php');
if($_SESSION['alogin']!=
$_SESSION['alogin']='';
if(isset($_POST['login']))
//code for captach verification
if ($_POST["vercode"] != $_SESSION["vercode"] OR $_SESSION["vercode"]=='') {
          echo "<script>alert('Incorrect verification code');</script>" ;
          else {
$username=$_POST['username'];
$password=md5($_POST['password']);
$sq1 ="SELECT UserName,Password FROM librarian WHERE UserName=:username and Password=:password";
$query= $dbh -> prepare($sq1);
$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 ='librarian/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">Librarian 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" >
```

```
    <script src="assets/js/bootstrap.js"></script>
        <!-- CUSTOM SCRIPTS -->
        <script src="assets/js/custom.js"></script>
        </script>
        </body>
        </html>
```

Index page:

```
} else {
echo "<script>alert('Your Account Has been blocked .Please contact librarian');</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>
    <!---->
```

```
ch4 class="header-line">USER LOGIN FORM</hd>
</div>
</div>
</div>
</div>

cl--LOGIN PANEL START-->
</div class="row">
<idiv class="col-md-6 col-xs-12 col-md-offset-3" >
</div class="genel panel-info">
</div class="panel heading">
</div class="panel heading">
</div class="panel-body">
</div class="form=group">
</divs="form group">
</dips="form group">
</dips="form group">
</dips="form group">
</dips="form-group">
</dips="form-group">
</dips="form-group">
</dip=loss="form-group">
</dip=loss="form-group">
</dip=loss="form-ontrol" type="text" name="emailid" required autocomplete="off" />
</div class="form-group">
</dip=loss="form-ontrol" type=password name="password" required autocomplete="off" />
</div class="form-ontrol" type=password name="password" required autocomplete="off" />
</div class="form-group">
</div=loss="form-ontrol" type=password name=password required autocomplete="off" />
</div>
</div class="form-group">
</div=loss="form-ontrol" type=password name=password required autocomplete="off" />
</div>
</div=loss="form-group">
</div=loss="form-group">
</div=loss="form-group">
</div=loss="form-group">
</div=loss="form-group">
</div=loss="form-group">
</div=loss="form-group">
</div=loss="form-group">
</div=loss="form-group">
</div=loss="form-control" name="vercode" maxlength="5" autocomplete="off" required style="height:25px;" />&nbsp;<img src="captcha.php">
</div>
</div>
</div>
</div>
</div>
```

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

User signup Page:

```
</head>
</head>

<pre
```

```
div class="form-group">
clabel>Mobile Number :</label>
cinput class="form-control" type="text" name="mobileno" maxlength="10" autocomplete="off" required />
c/div>
cdiv class="form-group">
clabel>Enter Emailc/label>
cinput class="form-control" type="email" name="email" id="emailid" onBlur="checkAvailability()" autocomplete="off" required />
c/span id="user-availability-status" style="font-size:12px;">/span>
c/div>
cdiv class="form-group">
clabel>Enter Password</label>
cinput class="form-control" type="password" name="password" autocomplete="off" required />
c/div>
cdiv class="form-control" type="password" name="confirmpassword" autocomplete="off" required />
c/div>
clabel>Confirm Password </label>
cinput class="form-group">
clabel>Confirm Password </label>
cinput class="form-group">
clabel>Confirm-group">
clabe
```

User Dashboard:

```
<?php
session_start();
error_reporting(0);
include('includes/config.php');
if(strlen($_SESSION['login'])==0)
header('location:index.php');
else{?>
<!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 | User Dash Board</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">
```

```
<?php
$rpr

frsts=0;
$sq12 ="SELECT id from tblissuedbookdetails where StudentID=:sid and RetrunStatus=:rsts";
$query2 = $dbh -> prepare($sq12);
$query2->bindParam(':sid',$sid,PDO::PARAM_STR);
$query2->bindParam(':rsts',$rsts,PDO::PARAM_STR);
$query2->execute();
$results2=$query2->fetchAll(PDO::FETCH_OBJ);
$returnedbooks=$query2->rowCount();
?>
                                    <h3><?php echo htmlentities($returnedbooks);?></h3>
Books Not Returned Yet
                                  </div>
                            </div>
           </div>
      </div>
      </div>
       <!-- CONTENT-WRAPPER SECTION END-->
<?php include('includes/footer.php');?>
    <!-- FOOTER SECTION END-->
    <!-- JAVASCRIPT FILES PLACED AT THE BOTTOM TO REDUCE THE LOADING TIME -->
     <!-- CORE JQUERY -->
<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>
```