

CS355: Database Lab

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1901CS63

Assignment 10

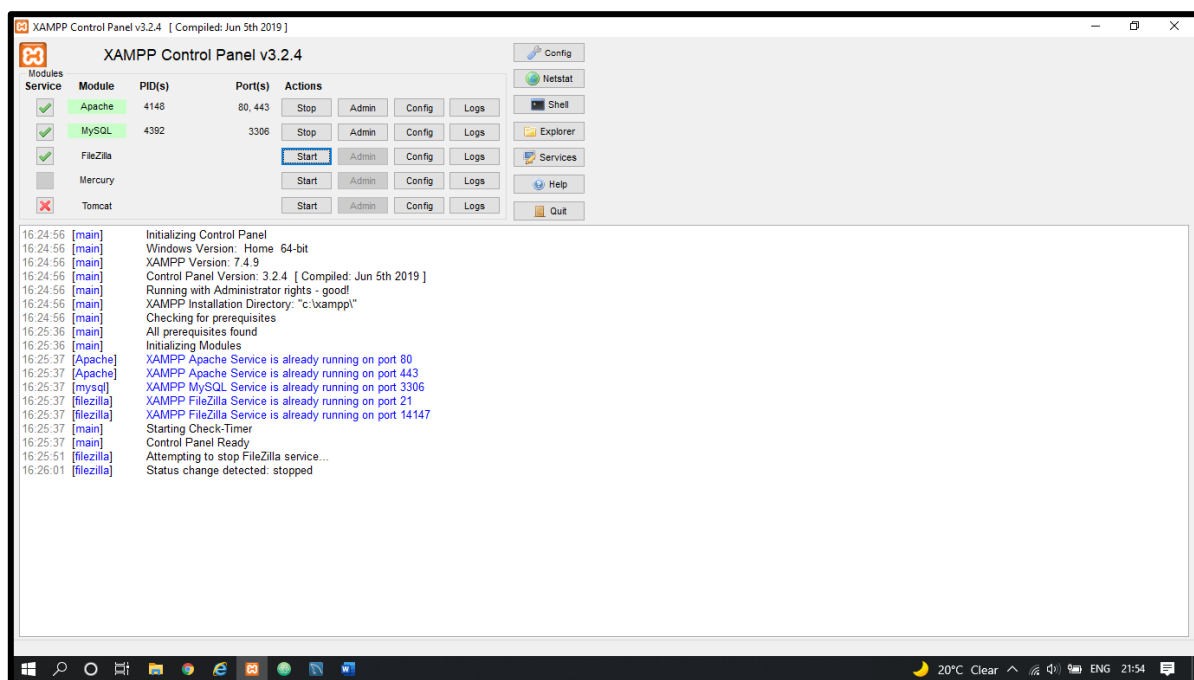
The basic objective of this assignment is to get familiar with PHP which is a server side scripting language and can be easily embedded into HTML. A web server is required to run any PHP code. Apache server is commonly used as web server.

XAMPP is a completely free and easy to install Apache distribution, open source package.

Task 1:

Firstly, download XAMPP <https://www.apachefriends.org/index.html> from this site. Follow the instructions mentioned on this site to install the package properly.

After installation, open the XAMPP control panel and start Apache and Mysql server. If there's any issue regarding 'port already in use', run XAMPP control panel as administrator and update the port via config settings.



xampp control panel

Mysql was already installed. It can be installed via <https://dev.mysql.com/downloads/windows/installer/8.0.html>

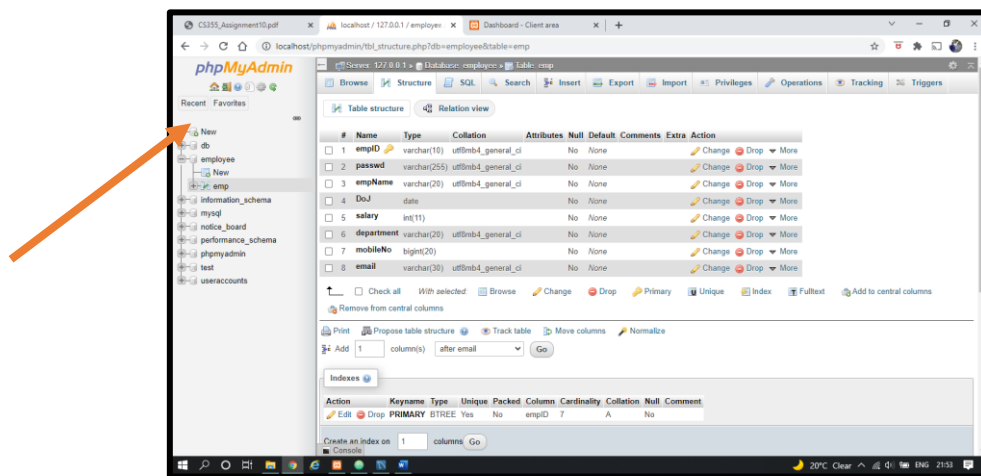
PHP was already installed. It can be installed via <https://www.php.net/manual/en/install.windows.php>

Task 2:

phpMyAdmin is a free software tool written in PHP, intended to handle the administration of MySQL over the Web. phpMyAdmin supports a wide range of operations on MySQL. Frequently used operations (managing databases, tables, columns, relations, indexes, users, permissions, etc) can be performed via the user interface, while you still have the ability to directly execute any SQL statement

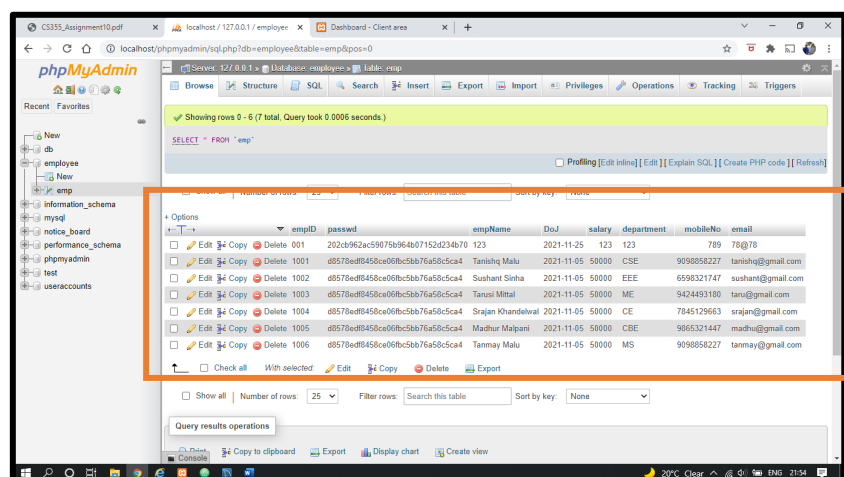
To access phpMyAdmin, firstly start servers in XAMPP control panel. Later open any browser and open localhost/phpMyAdmin.

Then Create an employee database by clicking on new in left column:-

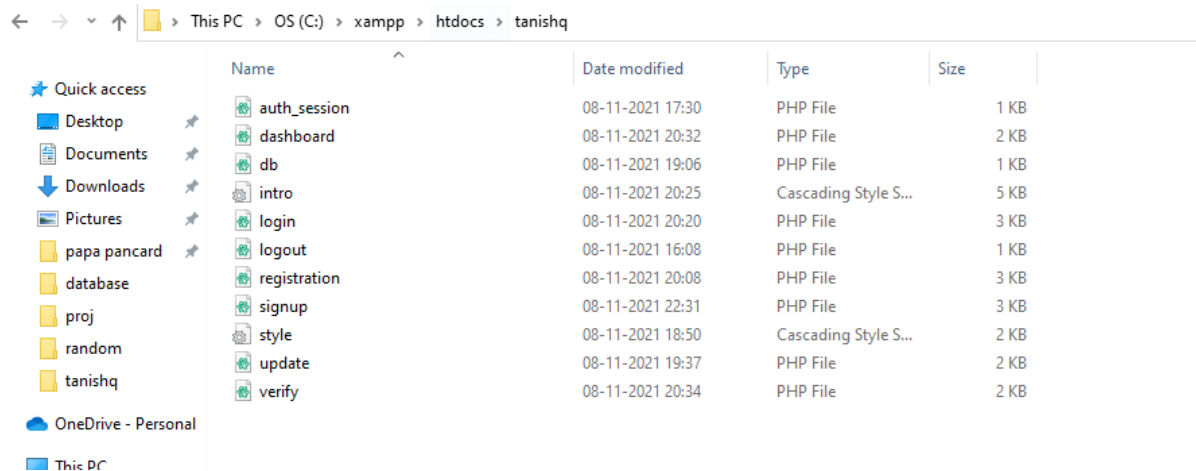


Create an emp table with following attributes: -

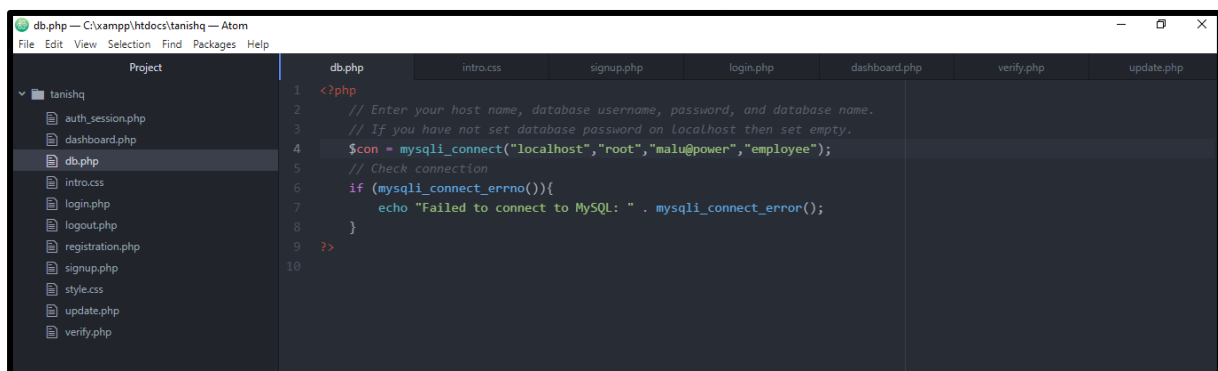
- empID: varchar2(10) primary key
- passwd: varchar2(255)
- empName: varchar2(20)
- DoJ: date
- salary: int
- department: varchar2(20)
- mobileNo: int
- email: varchar2(30)



In XAMPP, one has to store all the files in same folder inside 'htdocs' folder of xampp. Thus, I created 'tanishq' folder inside 'htdocs' folder and created all the files inside it.



The MySQLi Extension (MySQL Improved) is a relational database driver used in the PHP scripting language to provide an interface with MySQL databases. To establish a connection between server and database, I created db.php. This file will ensure that a proper connection is established and throws an error if any problem occurs.



REGISTER PAGE: -

The following facts needs to be kept in mind while making it:-

- The inputs of all the variables that we have in our emp table should not be null.
- Further validation of fields such as mobile number and email id needs to be done to make sure correct information is provided.
- The password must be encrypted before storing in our database. Md5 inbuilt encryption function has been used for this purpose.
- Once the user click register button: We have to make sure that above conditions are fulfilled and the new user is a unique user. Thus, error messages need to be displayed accordingly.

```

<div class="form-container sign-in-container">
  <form class="form" action="" method="post">
    <input type="text" class="login-input" name="empID" placeholder="EmpID" required />
    <input type="password" class="login-input" name="password" placeholder="Password" required>
    <input type="text" class="login-input" name="empName" placeholder="Name" required>
    <input type="date" class="login-input" name="DoJ">
    <input type="number" class="login-input" name="salary" placeholder="Rs ....." required>
    <input type="text" class="login-input" name="department" placeholder="Department" required>
    <input type="number" class="login-input" name="mobileNo" placeholder="MobileNo" required>
    <input type="email" class="login-input" name="email" placeholder="Email Address" required>
    <input type="submit" name="submit" value="Register" class="login-button" required>
  </form>
</div>

```

Once the information is filled and user enters register button, the following php code validates the entries and update the database accordingly.

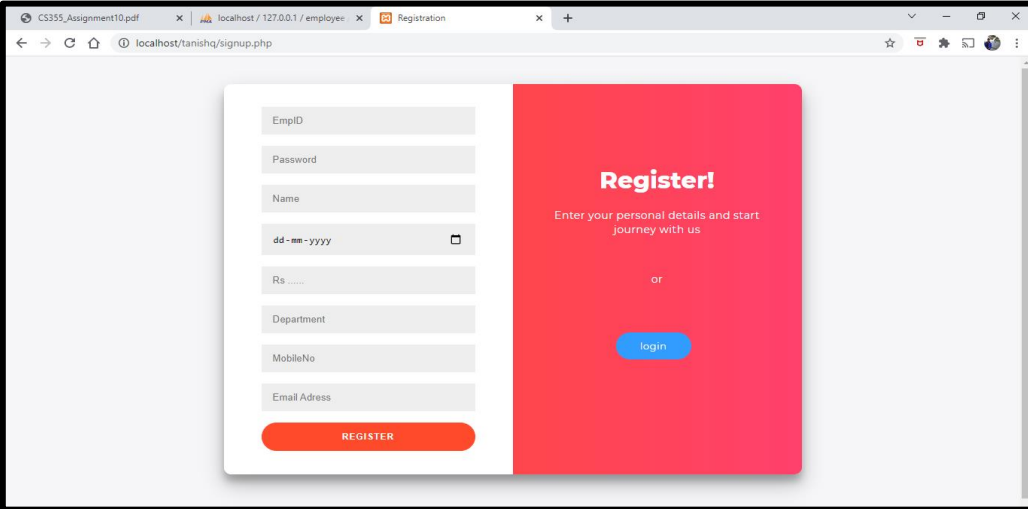
```

<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8"/>
  <title>Registration</title>
  <link rel="stylesheet" href="intro.css"/>
</head>
<body>
  <?php
    require('db.php');
    // When form submitted, insert values into the database.
    if (isset($_REQUEST['empID'])) {
      $empID = $_REQUEST['empID'];
      $password = $_REQUEST['password'];
      $empName = $_REQUEST['empName'];
      $DoJ = $_REQUEST['DoJ'];
      $salary = $_REQUEST['salary'];
      $department = $_REQUEST['department'];
      $mobileNo = $_REQUEST['mobileNo'];
      $email = $_REQUEST['email'];
      $query = "INSERT INTO `emp` (empID, passwd, empName, DoJ, salary, department, mobileNo, email)
        VALUES ('$empID',md5('$password'), '$empName', '$DoJ', '$salary', '$department', '$mobileNo', '$email')";

      $result = mysqli_query($con, $query);
      //echo $result;
      if ($result) {
        echo "<div class='form'>
          <h3>You are registered successfully.</h3><br/>
          <p class='link'>Click here to <a href='login.php'>Login</a></p>
        </div>";
      } else {
        echo "<div class='form'>
          <h3>Required fields are missing.</h3><br/>
          <p class='link'>Click here to <a href='signup.php'>Signup</a> again.</p>
        </div>";
      }
    } else {
  <div class="container" id="container">
    <div class="form-container sign-in-container">
      <form class="form" action="" method="post">
        <input type="text" class="login-input" name="empID" placeholder="EmpID" required />
        <input type="password" class="login-input" name="password" placeholder="Password" required>
        <input type="text" class="login-input" name="empName" placeholder="Name" required>
        <input type="date" class="login-input" name="DoJ">
        <input type="number" class="login-input" name="salary" placeholder="Rs ....." required>
        <input type="text" class="login-input" name="department" placeholder="Department" required>
        <input type="number" class="login-input" name="mobileNo" placeholder="MobileNo" required>
        <input type="email" class="login-input" name="email" placeholder="Email Address" required>
        <input type="submit" name="submit" value="Register" class="login-button" required>
      </form>
    </div>
  </div>

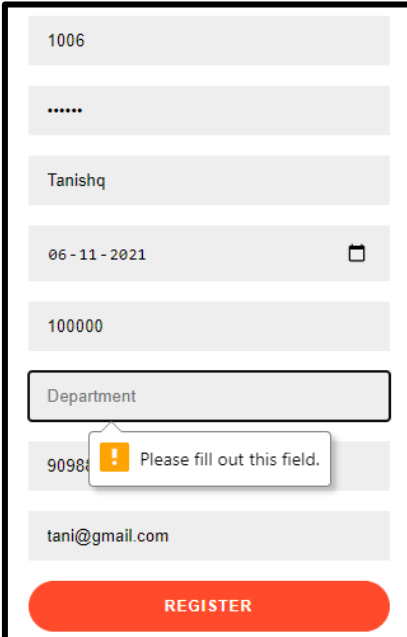
```

The following Register page has been created using some CSS styling up.



The screenshot shows a web browser window with the address bar displaying 'localhost/tanishq/signup.php'. The page features a registration form on the left and a red banner on the right. The form includes input fields for EmpID, Password, Name, a date field (dd-mm-yyyy), Role, Department, MobileNo, and Email Address, followed by a red 'REGISTER' button. The red banner contains the text 'Register!' and 'Enter your personal details and start journey with us', with a blue 'login' button below it.

Some error messages: -



The screenshot shows a registration form with the following fields and values: EmpID (1006), Password (masked with dots), Name (Tanishq), Date (06-11-2021), Role (100000), Department (empty), MobileNo (9098), and Email Address (tani@gmail.com). A red 'REGISTER' button is at the bottom. An error message box with an exclamation mark icon and the text 'Please fill out this field.' is displayed over the empty Department field.

User with given empID Already Exists

Click here to [Signup](#) again.

You are registered successfully.

Click here to [Login](#)

Showing rows 0 - 6 (7 total, Query took 0.0006 seconds.)

```
SELECT * FROM `emp`
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

	empID	passwd	empName	DoJ	salary	department	mobileNo	email
<input type="checkbox"/>	001	202cb962ac59075b964b07152d234b70	123	2021-11-25	123	123	789	78@78
<input type="checkbox"/>	1001	d8578edf8458ce06fbc5bb76a58c5ca4	Tanishq Malu	2021-11-05	50000	CSE	9098858227	tanishq@gmail.com
<input type="checkbox"/>	1002	d8578edf8458ce06fbc5bb76a58c5ca4	Sushant Sinha	2021-11-05	50000	EEE	6598321747	sushant@gmail.com
<input type="checkbox"/>	1003	d8578edf8458ce06fbc5bb76a58c5ca4	Tarusi Mittal	2021-11-05	50000	ME	9424493180	taru@gmail.com
<input type="checkbox"/>	1004	d8578edf8458ce06fbc5bb76a58c5ca4	Srajan Khandelwal	2021-11-05	50000	CE	7845129663	srajan@gmail.com
<input type="checkbox"/>	1005	d8578edf8458ce06fbc5bb76a58c5ca4	Madhur Malpani	2021-11-05	50000	CBE	9865321447	madhu@gmail.com
<input type="checkbox"/>	1006	d8578edf8458ce06fbc5bb76a58c5ca4	Tanmay Malu	2021-11-05	50000	MS	9098858227	tanmay@gmail.com

☐ Check all | With selected: ☐ Edit ☐ Copy ☐ Delete ☐ Export

Query results operations

Console ☐ Copy to clipboard ☐ Export ☐ Display chart ☐ Create view

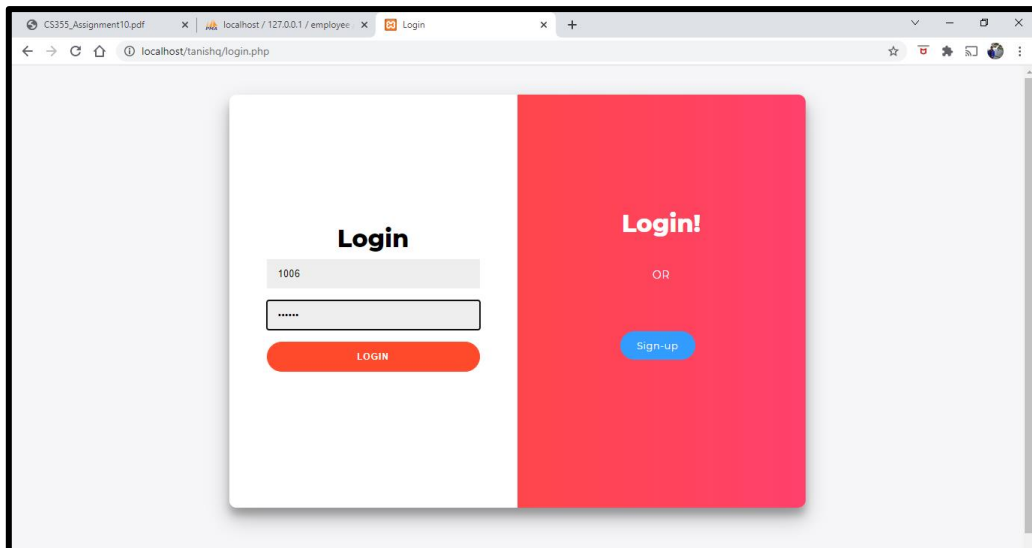
ENTRIES ADDED IN OUR DATABASES

LOGIN PAGE: -

While making the login page, we have to validate the password and the empID from our database. If the user inputs correct credentials, the user is directed to dashboard otherwise error message will be displayed.

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8"/>
  <title>Login</title>
  <link rel="stylesheet" href="intro.css"/>
</head>
<body>
<?php
require('db.php');
session_start();
// When form submitted, check and create user session.
if (isset($_REQUEST['empID'])) {
    $empID = stripslashes($_REQUEST['empID']); // removes backslashes
    $empID = mysqli_real_escape_string($con, $empID);
    $password = stripslashes($_REQUEST['password']);
    $password = mysqli_real_escape_string($con, $password);
    // Check user is exist in the database
    $query = "SELECT * FROM `emp` WHERE empID='$empID'";
    $result = mysqli_query($con, $query);
    $rows = mysqli_fetch_assoc($result);
    if (md5($password) === $rows['password']) {
        $_SESSION['empID'] = $empID;
        $_SESSION['mobileNo'] = $rows['mobileNo'];
        // Redirect to user dashboard page
        header("Location: dashboard.php");
        //echo "Login successfull";
    } else {
        echo "<div class='form'>
            <h3>Incorrect Username/password.</h3><br/>
            <p class='link'>Click here to <a href='login.php'>Login</a> again.</p>
        </div>";
    }
} else {
?>
<div class="container" id="container">
  <div class="form-container sign-in-container">
    <form class="form" method="post" name="login">
      <h1 class="login-title">Login</h1>
      <input type="text" class="login-input" name="empID" placeholder="empID" autofocus="true"/>
      <input type="password" class="login-input" name="password" placeholder="Password"/>
      <input type="submit" value="Login" name="submit" class="login-button"/>
    </form>
  </div>

```



DASHBOARD PAGE: -

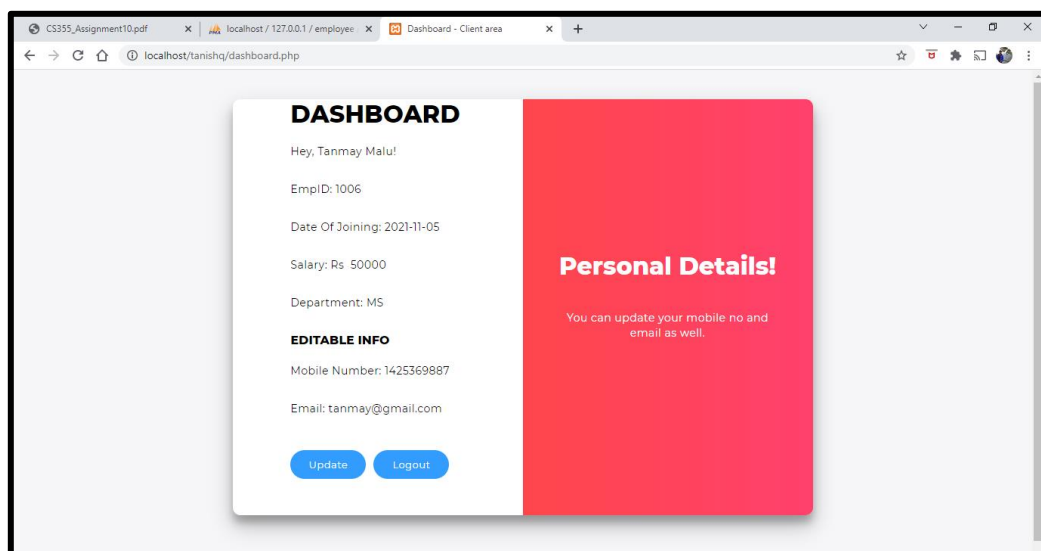
For creating DASHBOARD page first, I had to create the auth_session page. It basically starts a session and verify that the empId is set or not at this point which was taken from login page if the credentials were correct.

```
auth_session.php
1 <?php
2     session_start();
3     if(!isset($_SESSION["empID"])) {
4         header("Location: login.php");
5         exit();
6     }
7 
```

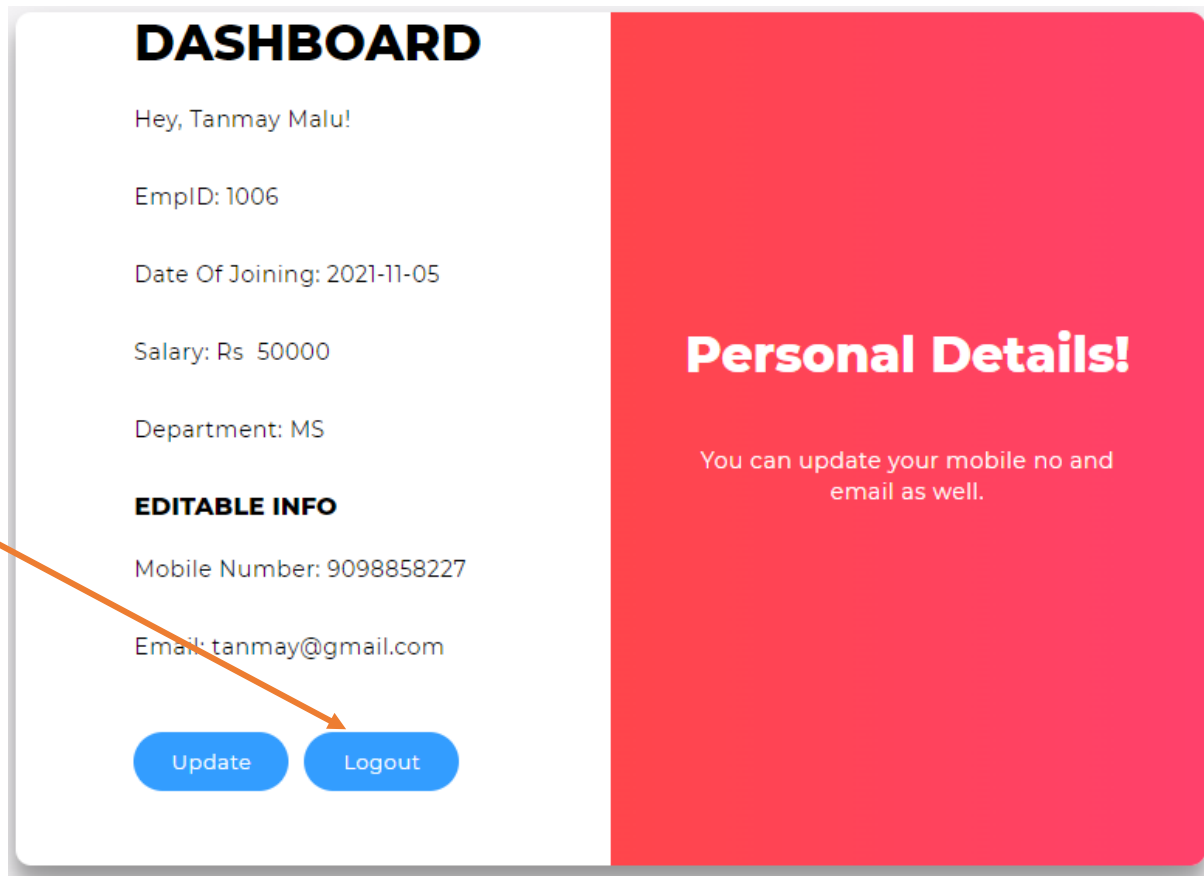

After this, using the given empID , other details of the user are fetched from our table.

```
<?php
//include auth_session.php file on all user panel pages
include("auth_session.php");
require('db.php');
$var1 = $_SESSION['empID'];
$sql = "SELECT * from `emp` where empID= '$var1' " ;
$query = mysqli_query($con, $sql);
$row = mysqli_fetch_assoc($query);
?>

<!DOCTYPE html>
<html>
<head>
    <meta charset="utf-8">
    <title>Dashboard - Client area</title>
    <link rel="stylesheet" href="intro.css" />
</head>
<body>
    <div class="container" id="container">
        <div class="form-container1 sign-in-container1">
            <h1> DASHBOARD </h1>
            <p>Hey, <?php echo $row['empName']; ?>!</p>
            <p>EmpID: <?php echo $row['empID']; ?></p>
            <p>Date Of Joining: <?php echo $row['DoJ']; ?></p>
            <p>Salary: Rs<?php echo $row['salary']; ?></p>
            <p>Department: <?php echo $row['department']; ?></p>
            <h4> EDITABLE INFO </h4>
            <p>Mobile Number: <?php echo $row['mobileNo']; ?></p>
            <p>Email: <?php echo $row['email']; ?></p>
            <p><a href="verify.php" class="login-but">Update</a><a href="logout.php" class="login-but">Logout</a></p>
        </div>
        <div class="overlay-container">
            <div class="overlay">
                <div class="overlay-panel overlay-right">
                    <h1>Personal Details!</h1><br>
                    <p>You can update your mobile no and email as well.</p>
                </div>
            </div>
        </div>
    </div>
</body>
</html>
```



LOGOUT BUTTON: -



```
logout.php
1  <?php
2      session_start();
3      // Destroy session
4      if(session_destroy()) {
5          // Redirecting To Home Page
6          header("Location: login.php");
7      }
8  ?>
9
```

UPDATE PAGE: -

After clicking on update button, the user first need to enter the creds on the verify page, If the details will be correct it will move the user to the update page otherwise it will throw an error.

```

<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8"/>
  <title>Verify</title>
  <link rel="stylesheet" href="intro.css"/>
</head>
<body>
<?php
  require('db.php');
  session_start();
  // When form submitted, check and create user session.
  if (isset($_REQUEST['empID'])) {
    $empID = stripslashes($_REQUEST['empID']); // removes backslashes
    $empID = mysqli_real_escape_string($con, $empID);
    $password = stripslashes($_REQUEST['password']);
    $password = mysqli_real_escape_string($con, $password);
    // Check user is exist in the database
    $query = "SELECT passwd FROM `emp` WHERE empID='$empID'";
    $result = mysqli_query($con, $query);
    $rows = mysqli_fetch_assoc($result);
    if (md5($password) === $rows['passwd']) {
      $_SESSION['empID'] = $empID;
      // Redirect to user update page
      header("Location: update.php");
      //echo "login successfull";
    } else {
      echo "<div class='form-container'>
        <h3>Incorrect Username/password.</h3><br/>
        <p class='link'>Click here to <a href='login.php'>Login</a> again.</p>
      </div>";
    }
  } else {
    // If form is not submitted, show the form
  }
?>
<div class="container" id="container">
  <div class="form-container sign-in-container">
    <form class="form" method="post" name="login">
      <input type="text" class="login-input" name="empID" placeholder="empID" autofocus="true"/>
      <input type="password" class="login-input" name="password" placeholder="Password"/>
      <input type="submit" value="Verify" name="submit" class="login-button"/>
    </form>
  </div>

```

The verify page looks like:

The image shows a web interface for verifying user details. It features a clean, modern design with a white background and a prominent red vertical bar on the right. The main content area is a white box that contains a form with two input fields: 'empID' and 'Password'. Below these fields is an orange button labeled 'VERIFY'. The text 'Verify Your details first' is displayed in white on the red background.

In the update page the empID will be taken from the global variable \$_session so that the user is able to update its information.

The screenshot shows a web browser window with the address bar displaying 'localhost/tanishq/update.php'. The page content is a white box centered on a dark background. Inside the box, the word 'UPDATE' is at the top. Below it are two text input fields. The first field contains the number '9098858227'. The second field contains the email address 'tanmay@gmail.com'. Below these fields is a blue button with the text 'UPDATE'. At the bottom of the box is a link labeled 'Back'.

The code for the update page is as below:

```
<!DOCTYPE html>
<html>
<head>
    <meta charset="utf-8"/>
    <title>Registration</title>
    <link rel="stylesheet" href="style.css"/>
</head>
<body>
<?php
    require('db.php');
    session_start();
    // When form submitted, insert values into the database.
    if (isset($_REQUEST['mobileNo'])) {

        $empID = $_SESSION['empID'];
        $mobileNo = $_REQUEST['mobileNo'];
        $email = $_REQUEST['email'];
        if($email==NULL){
            echo "<div class='form'>
                <h3>Required Fields Missing</h3><br/>
                <p class='link'>Go <a href='dashboard.php'>back</a></p>
            </div>";
        } else{
            $query = "UPDATE `emp` SET mobileNo = $mobileNo, email = '$email' where empID='$empID'";

            $result = mysqli_query($con, $query);
            echo $result;
            if ($result) {
                header("Location: dashboard.php");
            } else {
                echo "<div class='form'>
                    <h3>Required Fields Missing</h3><br/>
                    <p class='link'>Go <a href='dashboard.php'>back</a></p>
                </div>";
            }
        }
    } else {
?>
        <form class="form" action="" method="post">
            <h1 class="login-title">UPDATE</h1>
            <input type="number" class="login-input" name="mobileNo" placeholder="MobileNo">
            <input type="email" class="login-input" name="email" placeholder="Email Address">
            <input type="submit" name="submit" value="UPDATE" class="login-button">
            <p class="link"><a href="dashboard.php">Back</a></p>
        </form>

    <?php
    }
}
```

CSS: -

```
button:active {
  transform: scale(0.95);
}

button:focus {
  outline: none;
}

button.ghost {
  background-color: transparent;
  border-color: #FFFFFF;
}

form {
  background-color: #FFFFFF;
  display: flex;
  align-items: center;
  justify-content: center;
  flex-direction: column;
  padding: 0 50px;
  height: 100%;
  text-align: center;
}

.fom{
  background-color: #3e4144;
  display: flex;
  align-items: center;
  justify-content: center;
  flex-direction: column;
  padding: 0 50px;
  height: 60%;
  text-align: center;
}

input {
  background-color: #eee;
  border: none;
  padding: 12px 15px;
  margin: 8px 0;
  width: 100%;
}

.container {
  background-color: #fff;
  border-radius: 10px;
  box-shadow: 0 14px 28px rgba(0,0,0,0.25),
    0 10px 10px rgba(0,0,0,0.22);
}

@keyframes show {
  0%, 49.99% {
    opacity: 0;
    z-index: 1;
  }
  50%, 100% {
    opacity: 1;
    z-index: 5;
  }
}

.overlay-container {
  position: absolute;
  top: 0;
  left: 50%;
  width: 50%;
  height: 100%;
  overflow: hidden;
  transition: transform 0.6s ease-in-out;
  z-index: 100;
}

.container.right-panel-active .overlay-container{
  transform: translateX(-100%);
}

.overlay {
  background: #FF416C;
  background: -webkit-linear-gradient(to right, #FF4B2B, #FF416C);
  background: linear-gradient(to right, #FF4B2B, #FF416C);
  background-repeat: no-repeat;
  background-size: cover;
  background-position: 0 0;
  color: #FFFFFF;
  position: relative;
  left: -100%;
  height: 100%;
  width: 200%;
  transform: translateX(0);
  transition: transform 0.6s ease-in-out;
}

.container.right-panel-active .overlay {
  transform: translateX(50%);
}
```

My assignment includes:-

1. Registration and Login Page
2. Dashboard and Profile Update Page
3. CSS files
4. Other auxiliary file to maintain server database connection.

END
