

## TASK - 1)

### Apache server for Windows:

Follow the URL: <https://httpd.apache.org/docs/2.4/platform/windows.html>

Open [Apache Lounge](#) option and download **Apache 2.4.51 Win64** zip file for Windows 64 Bit version.

Unzip the downloaded zip file and copy it in the C: Drive and add Path Variable.

### PHP for Windows:

Follow the URL: <https://www.php.net/>

Go to Downloads and select 'windows downloads'

Download the zip file from **VS16 x64 Thread Safe** version for Apache.

Unzip the downloaded zip file and copy it in the C: Drive and add Path Variable.

### Configuring the Apache and PHP:

Open the Apache folder and go to 'conf' folder and open 'httpd.conf' file.

```
LoadModule php_module "C:\php-8.0.12\php8apache2_4.dll"  
AddType application/x-httpd-php .php  
PHPIniDir "C:\php-8.0.12"  
LoadFile "C:\php-8.0.12\php8ts.dll"  
ServerName localhost
```

Add the following lines in the 'httpd.conf' file and save it.

Now we are all set to run php files in Apache server.

## Versions installed in my computer:

```
C:\Windows\system32>HTTPD -v
Server version: Apache/2.4.51 (Win64)
Apache Lounge VS16 Server built: Oct 7 2021 16:27:02

C:\Windows\system32>PHP -v
PHP 8.0.12 (cli) (built: Oct 19 2021 11:21:05) ( ZTS Visual C++ 2019 x64 )
Copyright (c) The PHP Group
Zend Engine v4.0.12, Copyright (c) Zend Technologies

C:\Windows\system32>MySQL -V
MySQL Ver 8.0.26 for Win64 on x86_64 (MySQL Community Server - GPL)

C:\Windows\system32>
```

## TASK – 2)

### MySQL Steps:

Login to the MySQL as 'root' user.

```
C:\Users\Acer>mysql -u root -p
Enter password: *****
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 1604
Server version: 8.0.26 MySQL Community Server - GPL
```

Creating an 'employee' database.

Grant all privileges to the user 'scot'.

Creating the table 'emp' in 'employee' database with the given attributes.

Inserting some relevant values into the 'emp' table.

Select Command Prompt - mysql -u root -p

```
mysql> CREATE DATABASE employee;
Query OK, 1 row affected (0.14 sec)

mysql> USE employee;
Database changed
mysql> GRANT ALL PRIVILEGES ON employee.* TO 'scot'@'localhost';
Query OK, 0 rows affected (0.20 sec)

mysql> CREATE TABLE emp(
  -> empID varchar(10) primary key,
  -> passwd varchar(255),
  -> empName varchar(20),
  -> DoJ date,
  -> salary int,
  -> department varchar(20),
  -> mobileNo bigint,
  -> email varchar(30));
Query OK, 0 rows affected (0.58 sec)

mysql> INSERT INTO emp VALUES
  -> ('2014CS28','123456','Raghav','2014-06-13',125000,'CS',9027378124,'Raghav@gmail.com'),
  -> ('2016ME01','password','Mahesh','2016-01-18',200000,'ME',8998281325,'Mahesh@iitp.ac.in'),
  -> ('2015PH12','secret','Rajesh','2015-03-24',170000,'PH',8381371843,'Rajesh@gmail.com'),
  -> ('2020EE36','LetMeIn','Prakash','2020-08-01',150000,'EE',9189298203,'Prakash@iitp.ac.in'),
  -> ('2019CE02','vikram@30','Vikram','2019-05-28',250000,'CE',9313013825,'Vikram@yahoo.com');
Query OK, 5 rows affected (0.24 sec)
Records: 5 Duplicates: 0 Warnings: 0

mysql> SELECT * FROM emp;
+-----+-----+-----+-----+-----+-----+-----+-----+
| empID | passwd | empName | DoJ      | salary | department | mobileNo | email                |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 2014CS28 | 123456 | Raghav  | 2014-06-13 | 125000 | CS         | 9027378124 | Raghav@gmail.com    |
| 2015PH12 | secret | Rajesh  | 2015-03-24 | 170000 | PH         | 8381371843 | Rajesh@gmail.com    |
| 2016ME01 | password | Mahesh  | 2016-01-18 | 200000 | ME         | 8998281325 | Mahesh@iitp.ac.in  |
| 2019CE02 | vikram@30 | Vikram  | 2019-05-28 | 250000 | CE         | 9313013825 | Vikram@yahoo.com    |
| 2020EE36 | LetMeIn | Prakash | 2020-08-01 | 150000 | EE         | 9189298203 | Prakash@iitp.ac.in |
+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> _
```

Starting the **Apache server** using the below command.

```
C:\Windows\system32>HTTPD -k START

C:\Windows\system32>
```

Connecting the employee Database to Apache server:

```
<?php
    define('DB_SERVER', 'localhost');
    define('DB_USERNAME', 'scot');
    define('DB_PASSWORD', 'tiger');
    define('DB_DATABASE', 'employee');

    $db = mysqli_connect(DB_SERVER, DB_USERNAME, DB_PASSWORD, DB_DATABASE) or die(mysqli_connect_error());
?>
```

## Registration Page:

**Description:** Allows the user to create a new account.

**Working:** User fills the data in the respective cells in register form and clicks the 'Sign Up' button.

**Design Details:** The input cells here describe the content to be filled in each cell. These input fields are of several types such as 'text', 'date', 'tel', 'email' and 'password'. The data in this form is requested through "POST" method. I used HTML code and Bootstrap classes to design this 'Register' page. The input data is sanitized before running the SQL Query to prevent SQL Injection in the PHP code.

SQL query to check if user already exists:

```
SELECT * FROM emp WHERE empID = '$employeeID'
```

SQL query to insert the data:

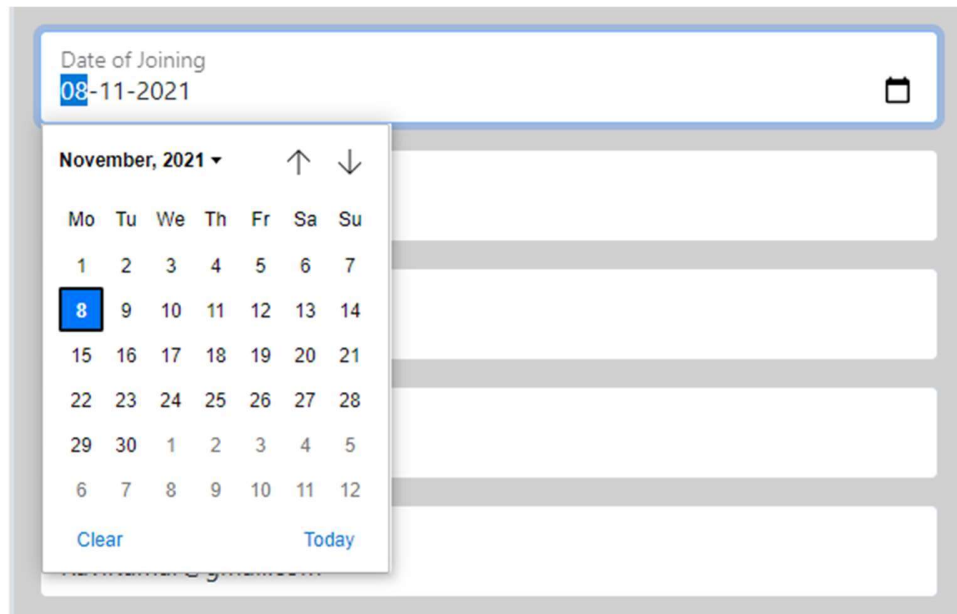
```
INSERT INTO emp VALUES('$employeeID','$password','$name','$DOJ','$salary','$department','$phone','$email')
```

The screenshot shows a web browser window with the title 'Register Page'. The address bar displays 'localhost/CS355/register.php'. The main content area contains a 'Register' form with the following fields: Employee ID, Name, Date of Joining (with a calendar icon and 'dd-mm-yyyy' format), Salary, Department, Mobile No, Email, and Password. A blue 'Sign Up' button is positioned below the Password field. At the bottom of the form, there is a link that says 'Already have an account? [Login here](#)'. The Windows taskbar is visible at the bottom of the screen, showing the search bar, task view button, and several application icons.

These input cells are of floating type, meaning that the description of the cell gets minimized and floats on top of the cell while the user fills the data in the cell as shown below.

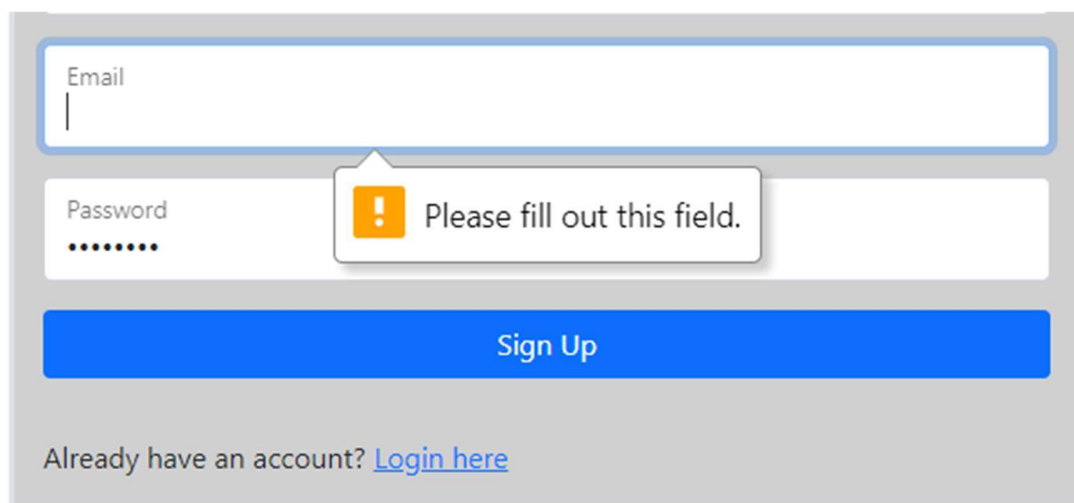
This image is a close-up of the 'Employee ID' input field from the register form. It demonstrates the 'floating label' design pattern. The label 'Employee ID' is positioned above the input box and is partially obscured by the text '7382EE27' which has been entered into the field. The input field has a light blue border and a subtle shadow.

Date section has a calendar included, so the user can choose the date instead of manual filling.



The image shows a web form with a 'Date of Joining' input field. The field contains the text '08-11-2021'. A calendar dropdown is open, showing the month of November 2021. The calendar has a grid with days of the week (Mo, Tu, We, Th, Fr, Sa, Su) and dates (1 through 30). The date '8' is highlighted in blue. Below the calendar grid are two buttons: 'Clear' and 'Today'.

All the input cells in Register form are set to “required”, meaning, the user cannot Sign Up without filling all the sections. A notification pops up asking the user to fill the empty cell.



The image shows a registration form with two input fields: 'Email' and 'Password'. The 'Email' field is empty, and the 'Password' field contains a series of dots. A red error message box is displayed over the 'Password' field, stating 'Please fill out this field.' Below the input fields is a blue 'Sign Up' button. At the bottom of the form, there is a link: 'Already have an account? [Login here](#)'.

User has filled all the fields and clicked “Sign Up” button.

The screenshot shows a web browser window with the address bar displaying 'localhost/CS355/register.php'. The page title is 'Register Page'. The main content is a registration form titled 'Register' with the following fields filled: Employee ID (2618CS10), Name (Ravi Kumar), Date of Joining (07-01-2016), Salary (150000), Department (CS), Mobile No (9373218131), Email (RaviKumar@gmail.com), and Password (\*\*\*\*\*). A blue 'Sign Up' button is at the bottom of the form. Below the button, it says 'Already have an account? [Login here](#)'. The Windows taskbar at the bottom shows the search bar, taskbar icons, and system tray with weather (27°C Partly sunny) and time (11:49, 08-11-2021).

Upon successful registration, user gets a notification showing “Registration is Successful” as shown in the image below.

The screenshot shows the same registration form after successful registration. A green notification bar at the top of the form area displays a green checkmark icon and the text 'Registration is Successful'. The form fields are now empty, with the 'Date of Joining' field showing a date picker icon. The 'Sign Up' button remains at the bottom, and the 'Login here' link is still present. The Windows taskbar at the bottom shows the same system tray information, but the time is now 11:50.

We can see that the user data gets stored in the Database on successful registration.

```
mysql> SELECT * FROM emp;
```

empID	passwd	empName	DoJ	salary	department	mobileNo	email
2014CS28	123456	Raghav	2014-06-13	125000	CS	9027378124	Raghav@gmail.com
2015PH12	secret	Rajesh	2015-03-24	170000	PH	8381371843	Rajesh@gmail.com
2016ME01	password	Mahesh	2016-01-18	200000	ME	8998281325	Mahesh@iitp.ac.in
2019CE02	vikram@30	Vikram	2019-05-28	250000	CE	9313013825	Vikram@yahoo.com
2020EE36	LetMeIn	Prakash	2020-08-01	150000	EE	9189298203	Prakash@iitp.ac.in
2618CS10	ravi@123	Ravi Kumar	2016-01-07	150000	CS	9373218131	RaviKumar@gmail.com

```
6 rows in set (0.05 sec)
```

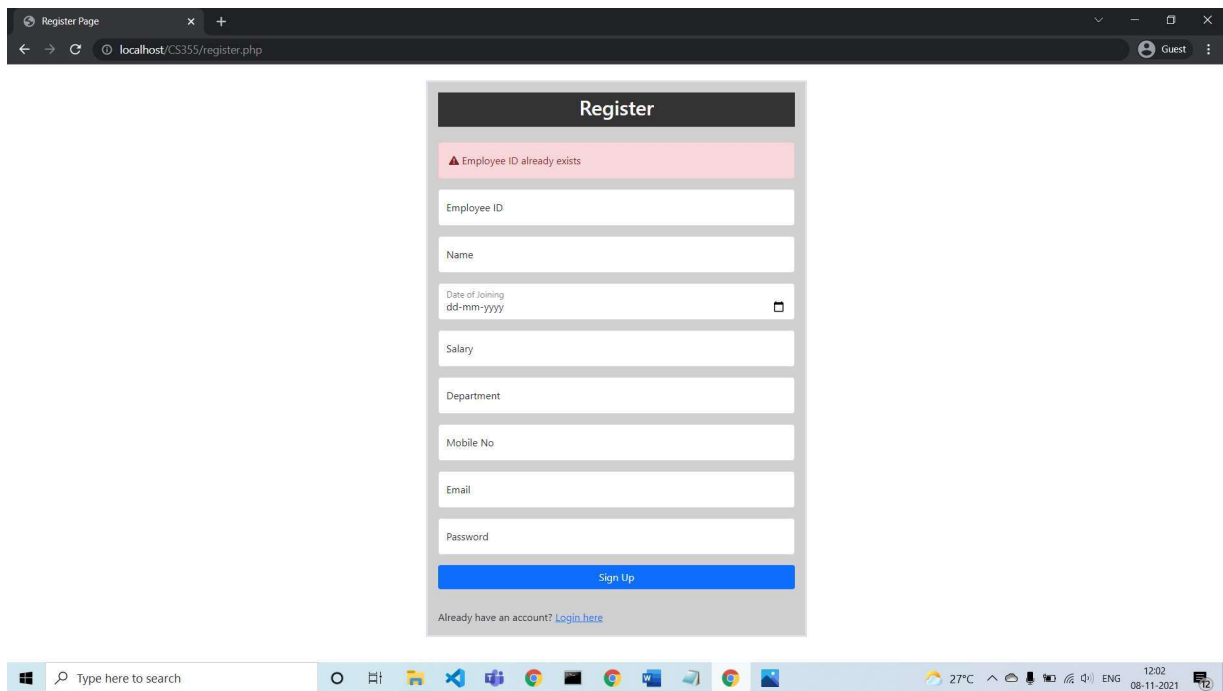
Now if the same user tried to register again one more time....

The screenshot shows a web browser window with the address bar displaying 'localhost/CS355/register.php'. The page title is 'Register Page'. The main content is a registration form titled 'Register'. The form has the following fields:

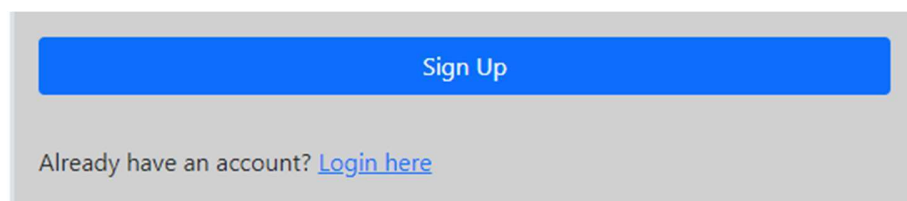
- Employee ID: 2618CS10
- Name: Ravi Kumar
- Date of Joining: 08-11-2021
- Salary: 150000
- Department: CS
- Mobile No: 9373218131
- Email: RaviKumar@gmail.com
- Password: (masked with dots)

Below the form is a blue 'Sign Up' button. At the bottom, there is a link: 'Already have an account? [Login here](#)'.

We check if the Employee ID exists in our database. If the given Employee ID is present in our database table, the registration form displays a notification showing that the 'Employee ID' already exists, as shown in below image, meaning that the user is already having an account in our database. So that we don't let that user register again.



Under the registration form we have an option to “Login” if the user already have registered. If the user clicks on the ‘Login here’, they will be redirected to the Login Page.





## Login Page:

**Description:** Allows the user to login into an account taking 'Employee ID' and 'Password' credentials.

**Working:** User provides the login credentials and clicks the 'Sign In' button.

**Design Details:** The input cells here describe the content to be filled in each cell. The data in this form is requested through "POST" method. I used HTML code and Bootstrap classes to design this 'Login' page. The user input data is sanitized in the PHP code before running the SQL command to prevent SQL Injection. A session is started when a user login.

We check if given 'Employee ID and Password' combination exists in our database through SQL Query.

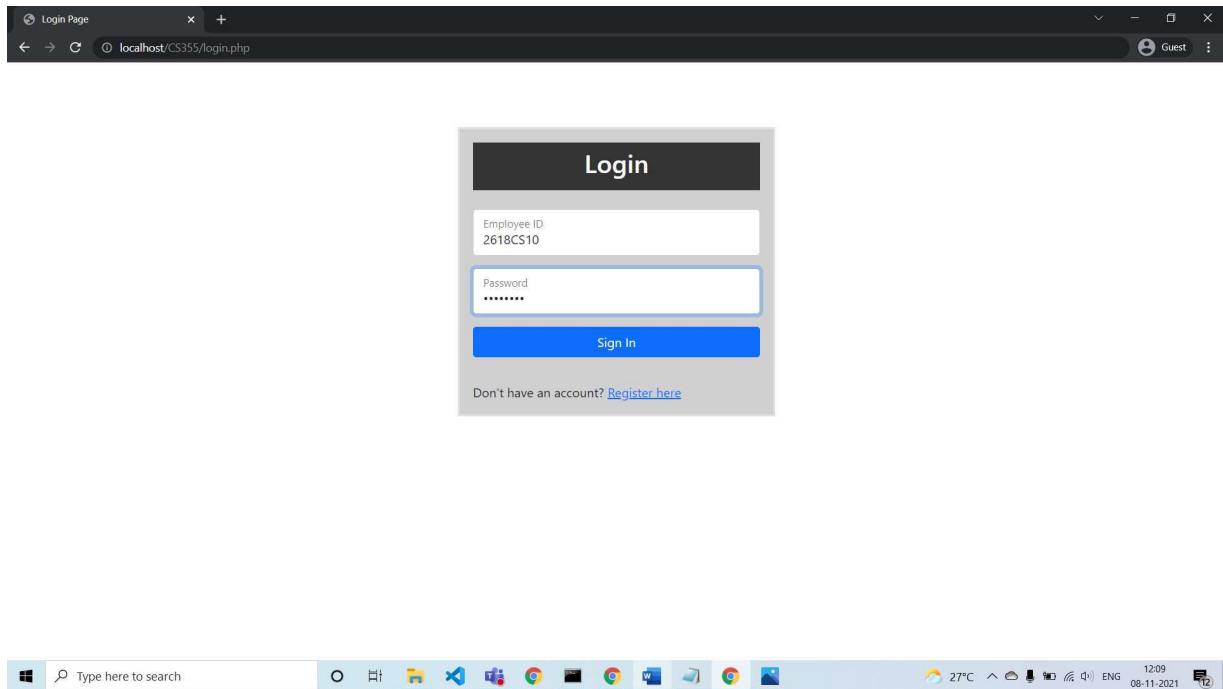
```
$sql = "SELECT * FROM emp WHERE empID = '$employeeID' and passwd = '$password'";
```

A login form with a dark header "Login". Below the header are two input fields: "Employee ID" and "Password". Below the input fields is a blue button labeled "Sign In". At the bottom of the form, there is a link: "Don't have an account? Register here".

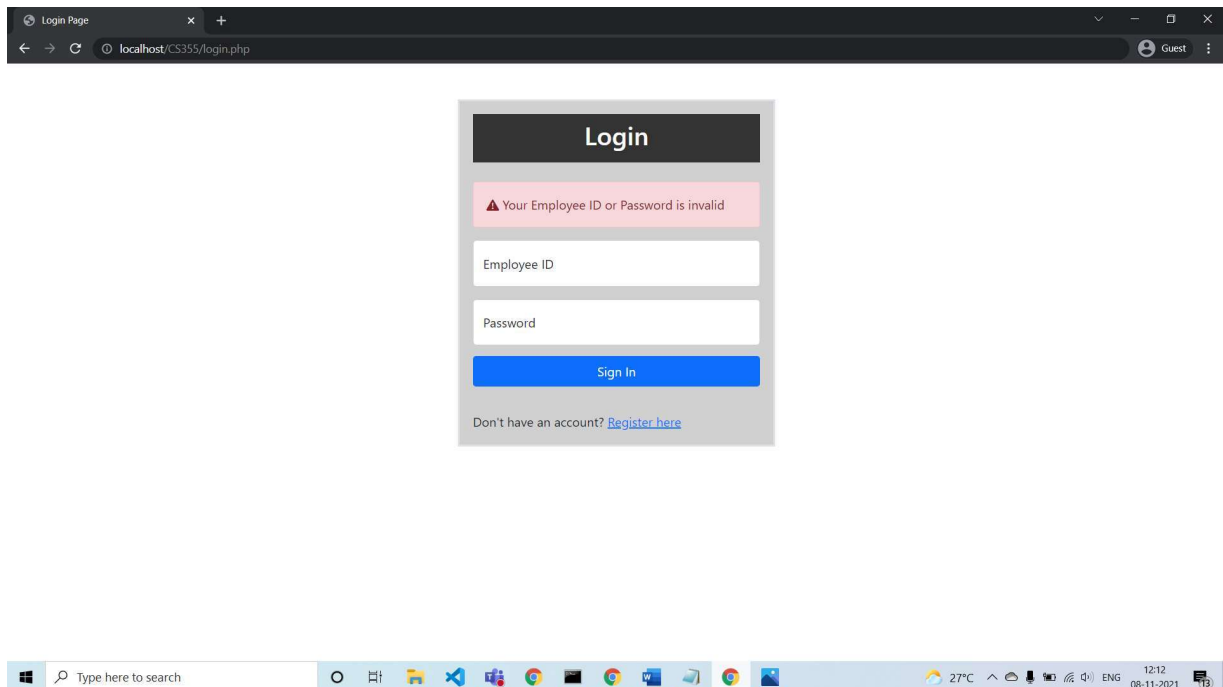
In case the user does not have an account to login, he can click on the 'Register here' link as shown below, so that he will be redirected to the Registration Page.

A close-up of the bottom part of the login form. It features a large blue button labeled "Sign In". Below the button, there is a link: "Don't have an account? Register here".

Now the user filled the login details and clicked the 'Sign In' button.



If the user provided the wrong credentials, a notification message is displayed using 'alert class' in Bootstrap as shown below.



If the user provided the correct details in the login page, they will be redirected to their Profile page.

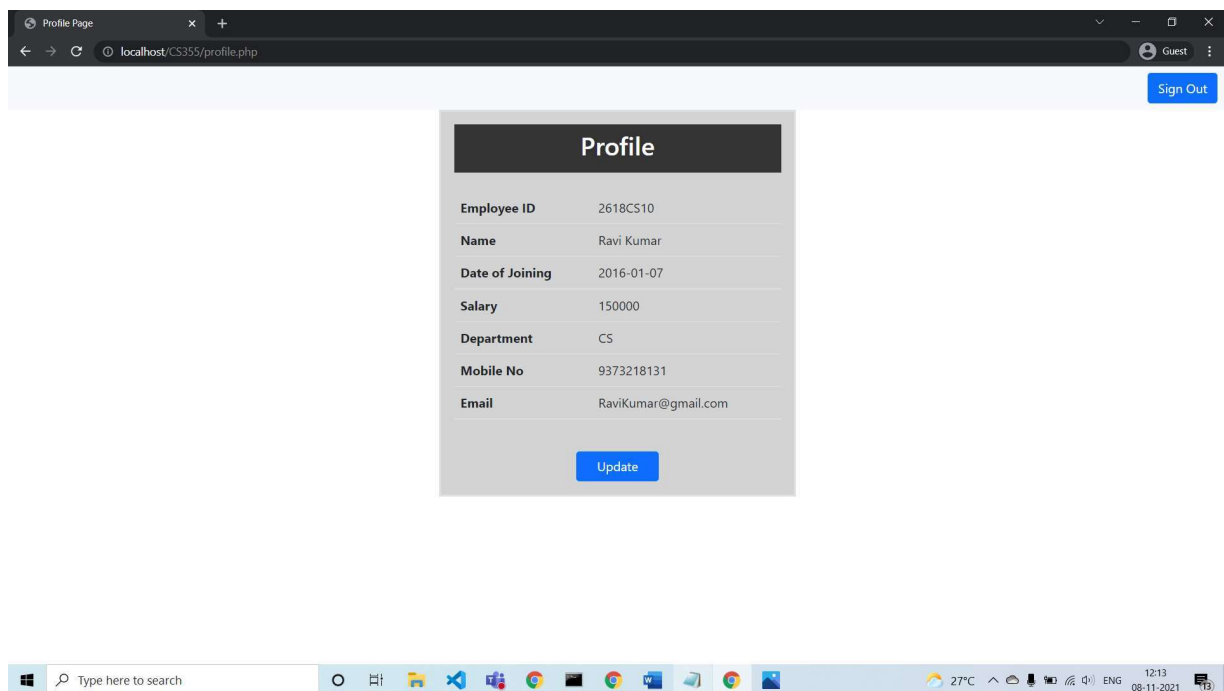
## Profile Page:

**Description:** Shows the respective user details saved in the database.

**Working:** If the user wants to update his details, they can click on the 'Update' button. If the user wants to logout, they can click on the 'Sign Out' button.

**Design Details:** The Profile displays the details of the user, provided at the time of Registration. I used HTML code and Bootstrap classes to display the Employee details as a table. A button is created below the Profile table with the hyperlink referring to Update Page and another button to Sign Out page. The Sign Out button is displayed on top using the 'nav class' in Bootstrap. We extract the inform of the user from database using SQL query.

```
$sql = "SELECT * FROM emp WHERE empID = '$employeeID'";
```



If the user clicks on the 'Update' button, they will be redirected to the 'Update Page'.

## Update Page:

**Description:** Allows the user to update the phone number and Email.

**Working:** User has to provide the correct 'Employee ID' and 'Password' in order to update the contact details.

**Design Details:** The input cells describe the content needs to be filled in the Update form. It has a 'Back to Profile' button in the navigation bar.

To check if the user credentials are correct, we run a SQL query.

```
$sql = "SELECT * FROM emp WHERE empID = '$employeeID' and passwd = '$password'";
```

To update the new Mobile No and Email in the database, we use the update SQL query.

```
$sql = "UPDATE emp SET mobileNo = '$phone', email = '$email' WHERE empID = '$employeeID'";
```

The screenshot displays a web browser window with the title 'Update Page'. The address bar shows 'localhost/CS355/update.php'. The page features a navigation bar with a 'Back to Profile' button. The main content area contains a form titled 'Update' with the following fields:

- Employee ID
- Password
- New Mobile No
- New Email

A blue 'Submit' button is located at the bottom of the form. The Windows taskbar at the bottom shows the search bar, task view, and several open applications, including File Explorer, Visual Studio Code, and Google Chrome. The system tray indicates a temperature of 27°C and the date 08-11-2021.

Now the user has filled his credentials and gave his new phone number and Email.

Update Page

localhost/CS355/update.php

Guest

Back to Profile

### Update

Employee ID  
2618CS10

Password  
\*\*\*\*\*

New Mobile No  
8923812138

New Email  
RaviKumar123@gmail.com

Submit

Type here to search

27°C

12:31  
08-11-2021

If the 'Employee ID' or 'Password' provided by the user are incorrect, the new Phone number and Email will not getting updated in the database and a notification message displays on the Update page as shown below.

Update Page

localhost/CS355/update.php

Guest

Back to Profile

### Update

⚠ Your Employee ID or Password is invalid

Employee ID

Password

New Mobile No

New Email

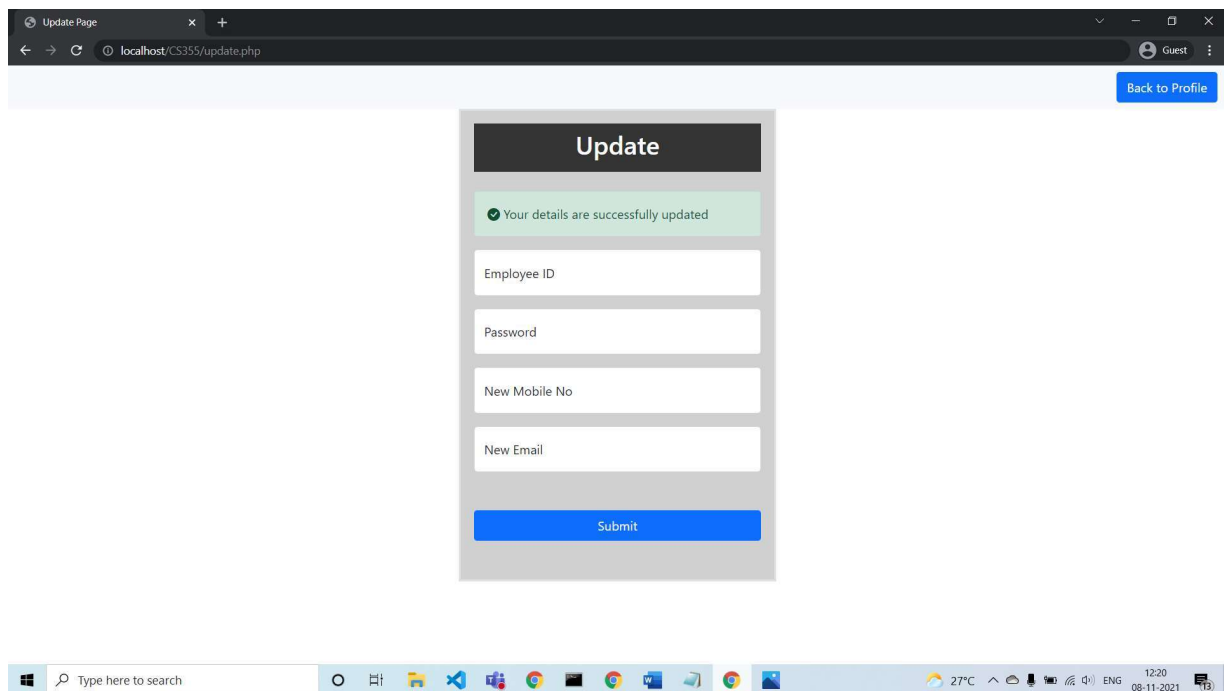
Submit

Type here to search

27°C

12:19  
08-11-2021

In case the user provided the correct credentials to update, they will get a notification showing that the details are updated as shown below. This is done using 'alert-class' in Bootstrap.



On top of the Update Page we have a button, which will redirect the user back to his Profile. The user after updating their details can go back to his profile by clicking on the 'Back to Profile' button.



See that the user's details on his Profile page got updated.

Profile Page

localhost/CS355/profile.php

Guest

Sign Out

### Profile

Employee ID	2618CS10
Name	Ravi Kumar
Date of Joining	2016-01-07
Salary	150000
Department	CS
Mobile No	8923812138
Email	RaviKumar123@gmail.com

Update

Windows taskbar: Type here to search, 27°C, 12:30, 08-11-2021

Even in the database, these changes are reflected.

```
mysql> SELECT * FROM emp;
```

empID	passwd	empName	DoJ	salary	department	mobileNo	email
2014CS28	123456	Raghav	2014-06-13	125000	CS	9027378124	Raghav@gmail.com
2015PH12	secret	Rajesh	2015-03-24	170000	PH	8381371843	Rajesh@gmail.com
2016ME01	password	Mahesh	2016-01-18	200000	ME	8998281325	Mahesh@iitp.ac.in
2019CE02	vikram@30	Vikram	2019-05-28	250000	CE	9313013825	Vikram@yahoo.com
2020EE36	LetMeIn	Prakash	2020-08-01	150000	EE	9189298203	Prakash@iitp.ac.in
2618CS10	ravi@123	Ravi Kumar	2016-01-07	150000	CS	8923812138	RaviKumar123@gmail.com

6 rows in set (0.00 sec)

The user can logout from his profile page by clicking the 'Sign Out' button provided on top right of the 'Profile Page'

Profile Page

localhost/CS355/profile.php

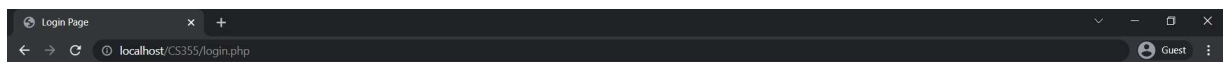
Guest

Sign Out

When the user logout from the profile page, the session gets destroyed and the user will be redirected to the 'Login Page'.

```
<?php
    session_start();

    if(session_destroy()) {
        header("Location: login.php");
    }
?>
```



### Login

  
  
  
Don't have an account? [Register here](#)



*The End*