



# Week 5 Final Project

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The University of Arizona Global Campus

CST 499: Capstone for Computer Software Technology

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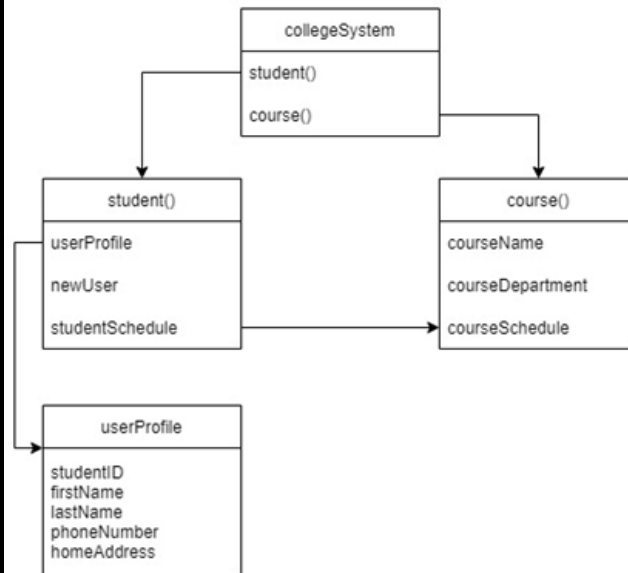
July 18, 2022

# SRS Document Summary

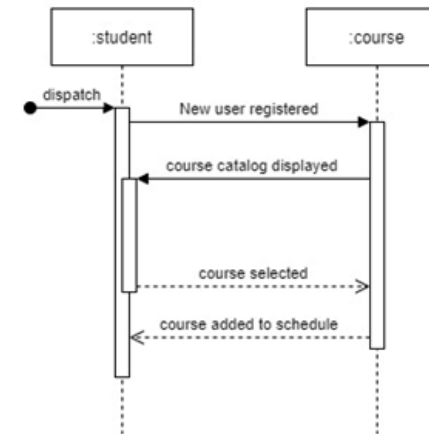
- Product Scope
  - Student registration
  - Student scheduling
- Product Functionality
  - User system
  - Profile display
  - Course selection
- Design and Implementation
  - PHP
  - XAMPP
  - PHPMyAdmin

# UML Design

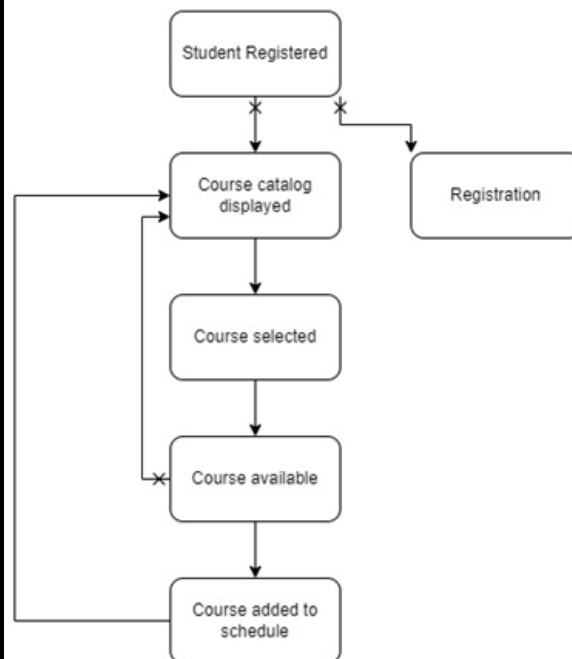
Class Diagram



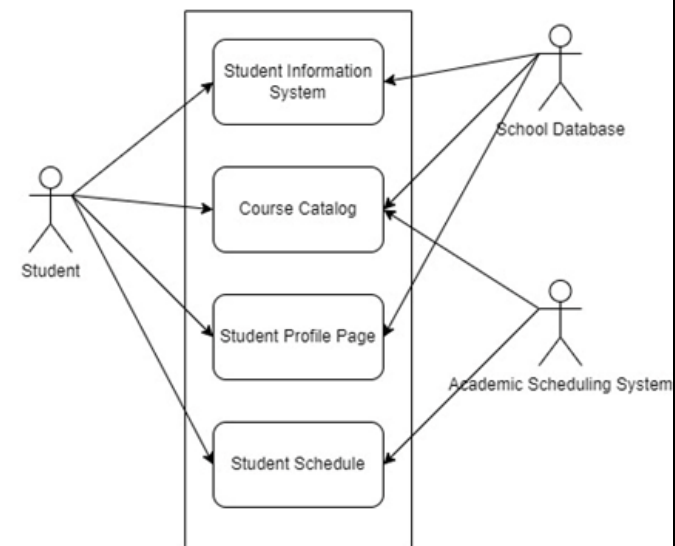
Sequence Diagram



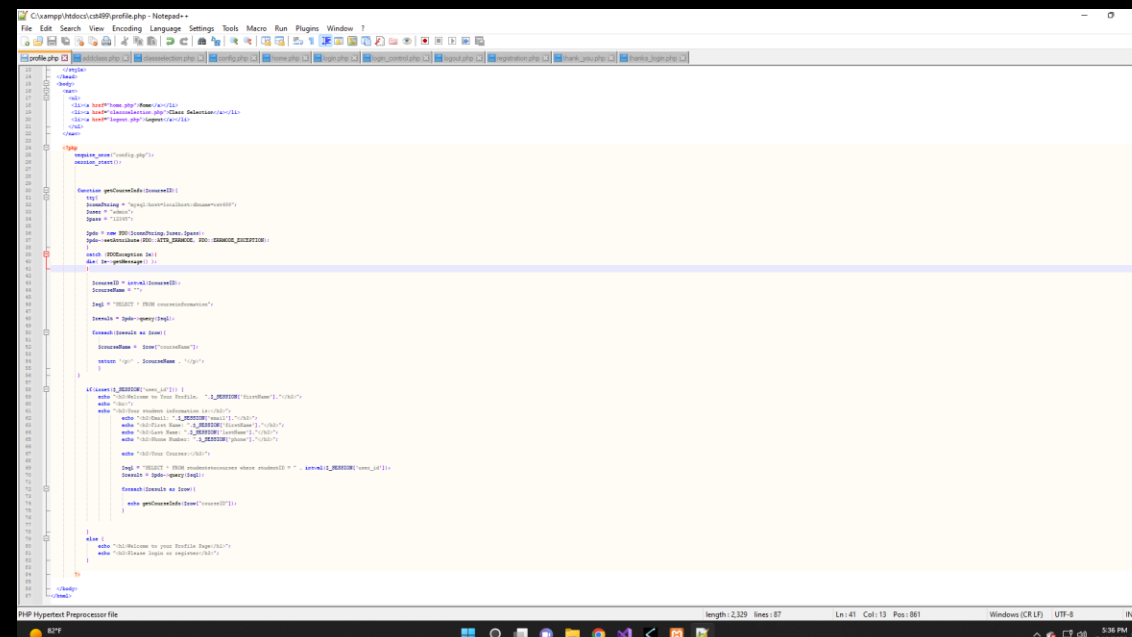
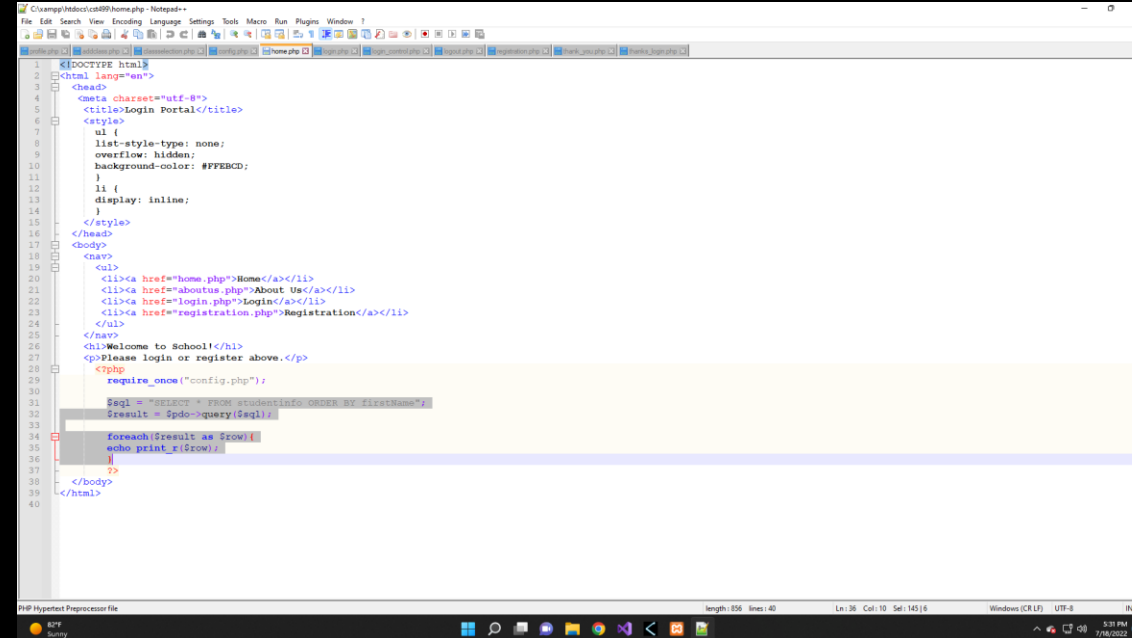
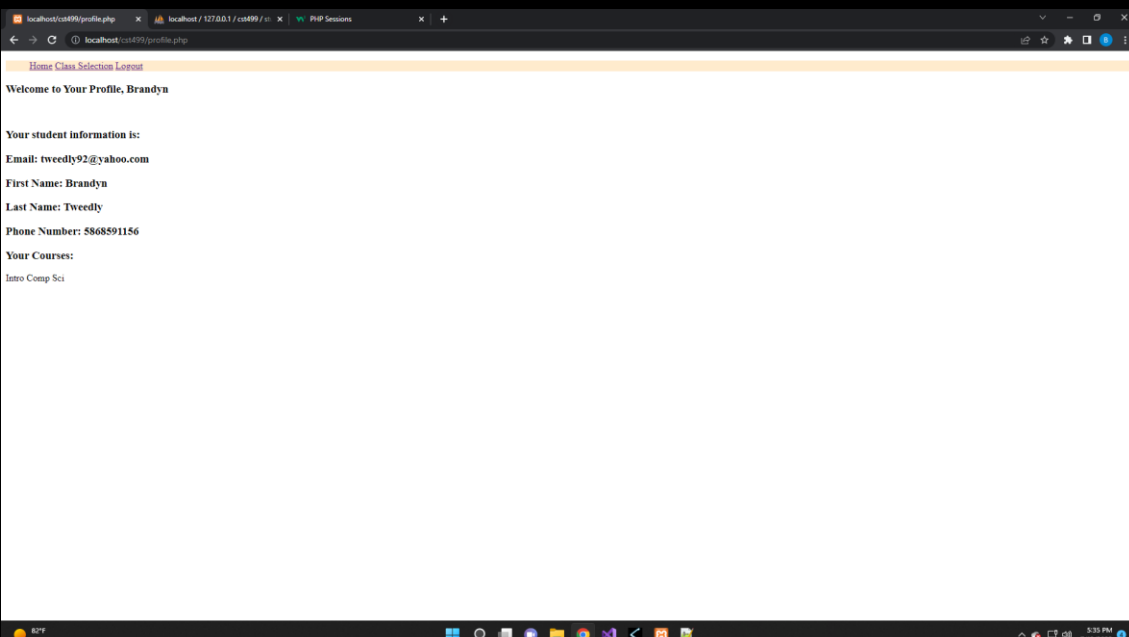
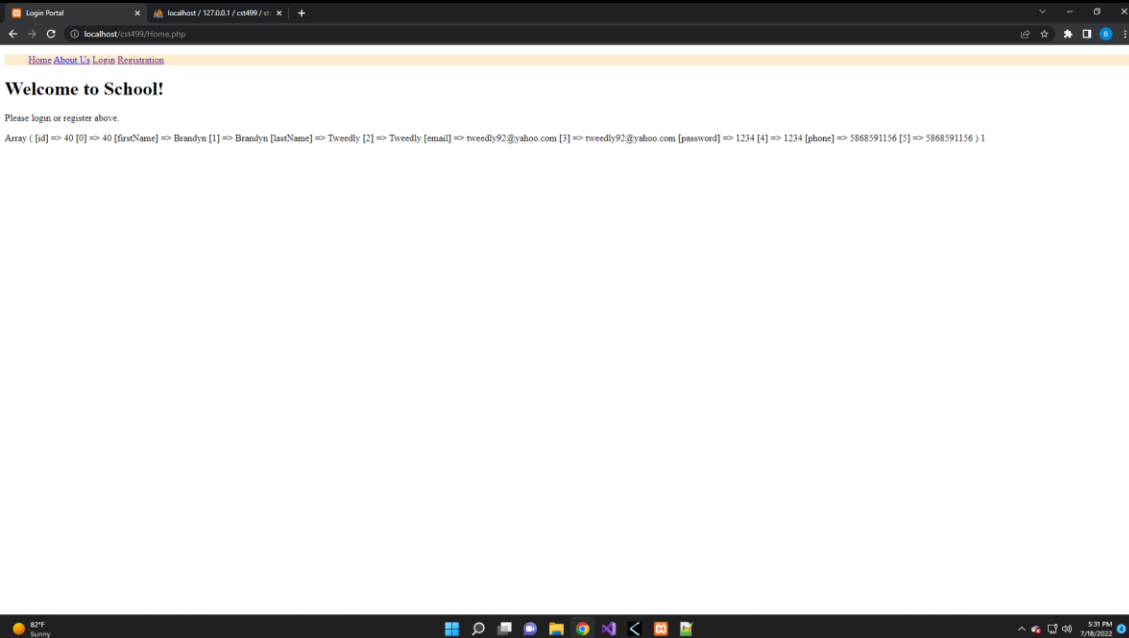
State Diagram



Use Case Diagram



# Landing Page & Profile Page



# Login Page

Login

localhost/127.0.0.1 / cst499 / sh

Home About Us Login Registration

Please login here:

Email:

Password:

[Login](#) [Register](#)

```
C:\xampp\htdocs\cst499\login.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
[address.php] [classselection.php] [config.php] [home.php] [login.php] [login_control.php] [logout.php] [registration.php] [thank_you.php] [thanks_login.php]

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="utf-8">
5 <title>Login</title>
6 <style>
7 <ul {
8     list-style-type: none;
9     overflow: hidden;
10    background-color: #FFEB3D;
11  }
12  li {
13    display: inline;
14  }
15 </style>
16 </head>
17 <body>
18 <nav>
19 <ul>
20 <li><a href="Home.php">Home</a></li>
21 <li><a href="aboutus.php">About Us</a></li>
22 <li><a href="login.php">Login</a></li>
23 <li><a href="registration.php">Registration</a></li>
24 </ul>
25 </nav>
26 <h1>Please login here:</h1>
27 <form action="login_control.php" method="post">
28 <div>
29 <label for="email">Email:</label>
30 <input type="text" name="email" id="email">
31 </div>
32 <div>
33 <label for="password">Password:</label>
34 <input type="password" name="password" id="password">
35 </div>
36
37 <button type="submit">Login</button>
38
39 <a href="registration.php">Register</a>
40 </form>
41
42 </body>
43 </html>
```

PHP Hypertext Preprocessor file length: 1,065 lines: 43 Ln: 1 Col: 1 Pos: 1 Windows (CR LF) UTF-8 INS 5:33 PM 7/18/2022

# Enrollment Page (Registration)

The image displays a web browser window on the left and a Notepad++ editor on the right, both showing the registration page.

**Web Browser View (Left):**

- Address bar: localhost/127.0.0.1/cs499/registration.php
- Navigation links: Home, About Us, Login, Registration
- Form title: Please register here:
- Form fields: First Name, Last Name, Email, Password, Phone Number
- Submit button

**Notepad++ View (Right):**

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="utf-8">
5 <title>Registration</title>
6 <style>
7 {
8     list-style-type: none;
9     overflow: hidden;
10    background-color: #FFB6C1;
11 }
12 {
13     display: inline;
14 }
15 </style>
16 </head>
17 <body>
18 <nav>
19 <ul>
20 <li><a href="home.php">Home</li>
21 <li><a href="aboutus.php">About Us</li>
22 <li><a href="login.php">Login</li>
23 <li><a href="registration.php">Registration</li>
24 </ul>
25 </nav>
26
27 <php
28     require_once("config.php");
29     session_start();
30     if (isset($_SESSION['username']) && isset($_SESSION['userid']))
31         header("Location: ../login.php");
32 </php>
33
34 <h1>Please register here:</h1>
35
36 <form action="index_you.php" method="POST">
37 <input type="text" name="firstName" id="firstName">
38 <input type="text" name="lastName" id="lastName">
39 <input type="text" name="email" id="email">
40 <input type="text" name="password" id="password">
41 <input type="text" name="phone" id="phone">
42 <input type="submit" value="Submit">
43 </form>
44 </body>
45 </html>
```

# MySQL Database

This screenshot shows the phpMyAdmin interface with the 'courseinformation' table selected. The table contains 5 rows of data. The SQL query shown is `SELECT * FROM 'courseinformation'`.

courseID	courseName	courseSchedule	courseInstructor	courseBuilding	courseOnline	studentCount	studentMax
100001	Intro Comp Sci	51/01 - 06/01	Prof. Smith	Comp Sci	0	0	9
100002	Intermed. Comp Sci	06/01 - 12/01	Prof. Brown	Comp Sci	0	0	9
100003	Adv Comp Sci	01/01 - 06/01	Prof. Green	Comp Sci	0	0	9
100004	Intro Pol Sci	01/01 - 06/01	Prof. Blue	Lib Arts	1	0	9
100005	Intermed. Pol Sci	06/01 - 12/01	Prof. Smith	Lib Arts	1	0	9
100006	Adv Pol Sci	01/01 - 06/01	Prof. Brown	Lib Arts	0	0	9

This block contains two side-by-side screenshots of the phpMyAdmin interface. The left screenshot shows the 'studentInfo' table, and the right screenshot shows the 'studentstocourses' table.

**Left Screenshot: 'studentInfo' table**

The SQL query shown is `SELECT * FROM 'studentInfo'`. The table contains 1 row of data.

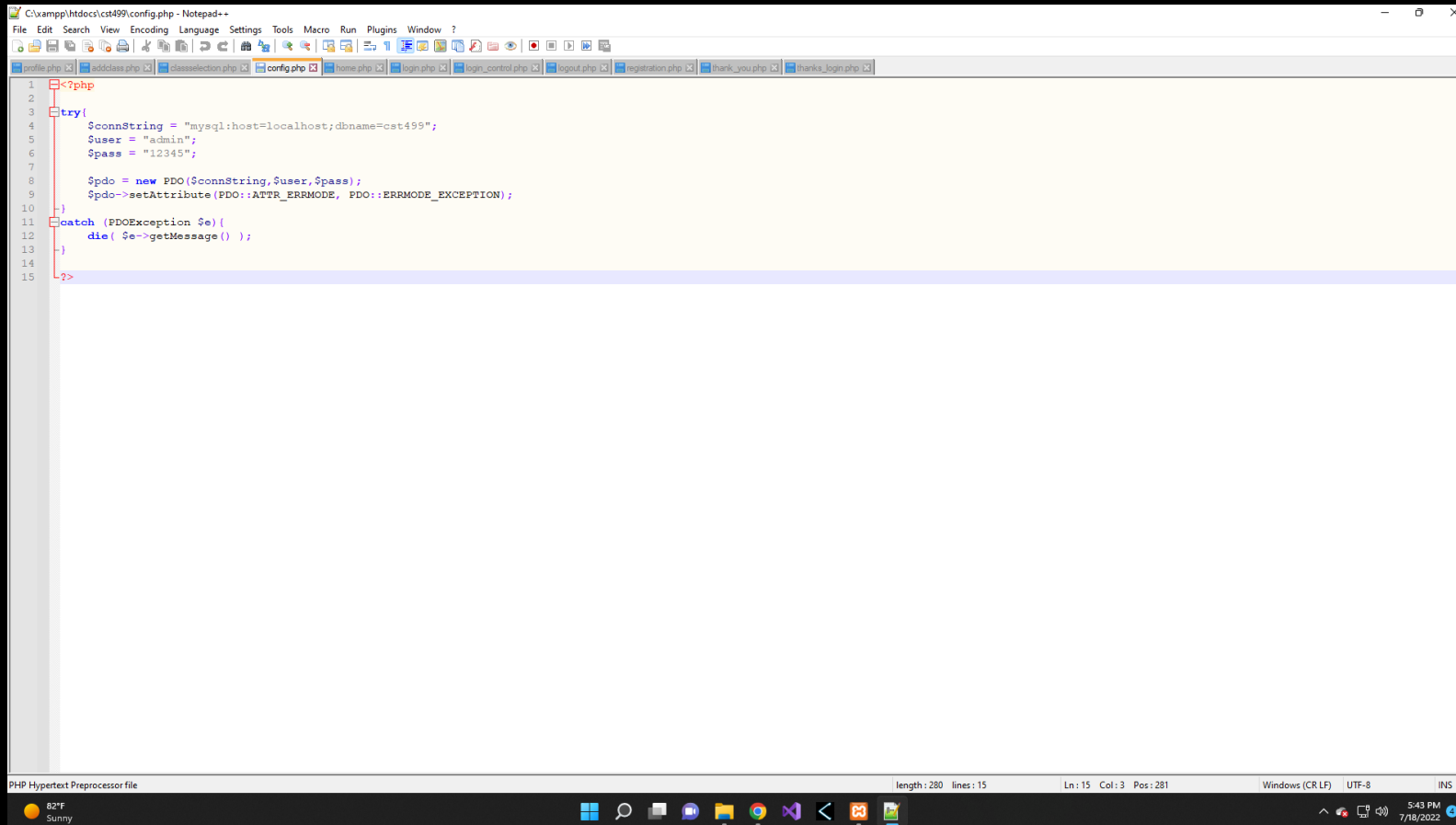
id	firstName	lastName	email	password	phone
40	Brandyn	Tweedy	tweedy52@yahoo.com	1234	568591156

**Right Screenshot: 'studentstocourses' table**

The SQL query shown is `SELECT * FROM 'studentstocourses'`. The table contains 1 row of data.

id	studentID	courseID
58	40	100008

# Other PHP Code Used (Configuration)



The screenshot shows a Notepad++ window with the file path `C:\xampp\htdocs\cst499\config.php`. The code is a PHP script that establishes a database connection using PDO. The code is as follows:

```
1 <?php
2
3 try{
4     $connString = "mysql:host=localhost;dbname=cst499";
5     $user = "admin";
6     $pass = "12345";
7
8     $pdo = new PDO($connString,$user,$pass);
9     $pdo->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION);
10 }
11 catch (PDOException $e){
12     die( $e->getMessage() );
13 }
14
15 >
```

The status bar at the bottom indicates the file is a "PHP Hypertext Preprocessor file", has a length of 280 and 15 lines, and is currently at line 15, column 3, position 281. The system tray shows a temperature of 62°F, sunny weather, and the date/time as 5:43 PM on 7/18/2022.



# Other PHP Code Used (Handlers)

```
1 <?php
2 require_once("config.php");
3 session_start();
4 $email = $_POST['email'];
5 $password = $_POST['password'];
6 echo $email;
7 echo $password;
8 echo gettype($email);
9
10 try {
11     if($_POST['email'] != "" || $_POST['password'] != ""){
12         $email = $_POST['email'];
13         $password = $_POST['password'];
14         $sql = "SELECT * FROM studentinfo where email = '". $email ."' and password = '". $password . "'";
15         echo $sql;
16         $query = $pdo->prepare($sql);
17         $query->execute(array($email,$password));
18
19         // $query->execute($pdo);
20         $row = $query->rowCount();
21         $fetch = $query->fetch();
22         //print_r($fetch[0]);
23         if($row > 0) {
24             //session_start();
25             $_SESSION['user_id'] = $fetch[0];
26             $_SESSION['email'] = $fetch[3];
27             $_SESSION['firstName'] = $fetch[1];
28             $_SESSION['lastName'] = $fetch[2];
29             $_SESSION['phone'] = $fetch[5];
30             echo $_SESSION['user_id'];
31             echo "<center><h5 class='text-success'>Login successfully</h5></center>";
32             header('Refresh: 1; URL = thanks_login.php');
33         } else{
34             echo "<center><h5 class='text-danger'>Invalid email or password</h5></center>";
35         }
36     }
37 } catch (Exception $e) {
38     echo 'Caught exception: ', $e->getMessage(), "\n";
39 }
40
41
42
43
44
45
46
```

```
1 <?php
2 require_once("config.php");
3 session_start();
4 $courseID = $_POST['courseID'];
5 echo "courseID= " . $courseID;
6 echo "session user id= " . $_SESSION['user_id'];
7
8 try {
9
10     $sql = "INSERT INTO studentstocourses (studentID, courseID) VALUES ( " . $_SESSION['user_id'] . ", " . $courseID . " )";
11     $result = $pdo->query($sql);
12
13 } catch (Exception $ex) {
14     var_dump($ex);
15 }
16
17 echo "<center><h3 class='text-success'>Your class has been successfully added to your schedule! You are being returned to your profile page</h3></center>";
18 header('Refresh: 3; URL = profile.php');
19
20
21
22
23 <ul>
24     <li><a href="home.php">Home</a></li>
25     <li><a href="profile.php">Profile</a></li>
26     <li><a href="classselection.php">Class Selection</a></li>
27     <li><a href="logout.php">Logout</a></li>
28 </ul>
29
30
31
32 </nav>
```

# References

- Bures, M., Klima, M., Rechtberger, V., Bellekens, X., Tachtatzis, C., Atkinson, R., & Ahmed, B. S. (2020). Interoperability and Integration Testing Methods for IoT Systems: a Systematic Mapping Study.
- Mikoluk, K. (2013, September 18). XAMPP Tutorial: How to Use XAMPP to Run Your Own Web Server. Udemy Blog. <https://blog.udemy.com/xampp-tutorial/>
- phpMyAdmin Create And Populate Tables Tutorial - SiteGround Tutorials. (2019). SiteGround Knowledge Resources. <https://www.siteground.com/tutorials/phpmyadmin/create-populate-tables/>
- Spillner, A., Linz, T., & Schaefer, H. (2014). Software testing foundations: A study guide for the certified tester exam (4th ed.). Rocky Nook.
- Tsui, F., Karam, O., & Bernal, B. (2018). Essentials of software engineering (4th ed.). Jones & Bartlett Learning.