**Landing, Login, and Enrollment Pages Development**

Cindy Cruz Gonzalez

The University of Arizona Global Campus

CST499 Capstone for Computer Software Technology

Instructor Rangitsch

May 5, 2025

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In this paper, I will outline the steps I took to develop key parts of the Online Course Enrollment website. I’ll begin by explaining how to run PHP files using XAMPP, which provides the foundation for local web development. From there, I’ll describe how I created the landing page, login page, and registration page for new users. I’ll also cover how I set up the MySQL database and tables and explain the functions I used along with the process of creating a custom database connection class. Additionally, I’ll walk through the design and source code for the registration page, and how user information is securely saved to the database. To support each step, I will include screenshots of the developed pages, database structure, layout, and code.

**Running a PHP File in XAMPP**

To run a PHP file using XAMPP, I would begin by ensuring XAMPP is properly installed on your system. You’ll know it’s installed correctly when the XAMPP control panel appears and both Apache and MySQL servers can be started. Apache must be running to host your PHP files locally.

Next, I would go to the htdocs directory inside the XAMPP installation folder. This is where all your local website or app files should be stored. I created a new folder here—online\_course\_enrollment—to organize the project.

Using Visual Studio Code, I opened the newly created folder and added a new file. I wrote a simple PHP script, such as a "Hello, world" message, and saved it.

Finally, you should be able to open your web browser and navigate to http://localhost/online\_course\_enrollment/landingpage.php to view and run your PHP file.

**MySQL Database Functions and Custom Connection Class**

To manage MySQL database operations more efficiently in my project, I created a custom PHP class called Database. This class centralizes all the database connection and query functionality, making it easier to maintain and reuse across multiple pages.

The Database class contains three key parts. First, it includes properties for the database host, name, username, and password. These are used to create a connection using PHP’s PDO (PHP Data Objects) extension, which is more secure and flexible.

The main method, getConnection(), establishes the connection and handles any errors using a try-catch block. I also used exec("set names utf8") to ensure proper character encoding for the database.

For running queries, I added two methods: executeSelectQuery() for SELECT statements and executeQuery() for INSERT, UPDATE, or DELETE. Both use prepared statements, which help protect against SQL injection. These functions return results or boolean values depending on the operation, which simplifies error handling and output control in the rest of the project. By separating database logic into a class, I was able to keep my code organized and scalable while following good development practices.

**Registration Page and Saving to the Database**

To create the registration page, I started by designing a simple HTML form inside registration.php that allows users to enter their personal details, including first name, last name, user ID, phone number, email, and password. The form uses the POST method to securely send data to a separate file called register.php when submitted. I also added some styling using Bootstrap and included the master.php file to keep a consistent layout across the site.

On the backend, register.php processes the form data. First, I used the htmlspecialchars() function to sanitize the input and password\_hash() to securely encrypt the user’s password using BCRYPT. I then connected to the MySQL database using the custom Database class I created earlier.

Next, I constructed an INSERT SQL query that adds the submitted data to a table named studentdb. The executeQuery() method in the Database class prepares and runs this SQL query. If the query runs successfully, the user sees a confirmation message; if not, an error message is displayed. This setup allows user data to be safely and efficiently saved in the database when someone registers through the site.

**Screenshots of the Online Course Enrollment Website**

**Landing Page**

**A screen shot of a computer

AI-generated content may be incorrect.**

**Login Page**

A screen shot of a computer

AI-generated content may be incorrect.

**Registration Page**

A screen shot of a computer

AI-generated content may be incorrect.

**Online\_course\_enrollment Database in PHPmyAdmin**

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a box

AI-generated content may be incorrect.

**Master.php Source Code**

**A screen shot of a computer program

AI-generated content may be incorrect.**

**A screen shot of a computer code

AI-generated content may be incorrect.**

**Landingpage.php Source Code**

**A screen shot of a computer program

AI-generated content may be incorrect.**

**Database.php Source Code**

**A screen shot of a computer program

AI-generated content may be incorrect.**

**Login.php Source Code**

**A screen shot of a computer program

AI-generated content may be incorrect.**

**A screen shot of a computer program

AI-generated content may be incorrect.**

**Register.php Source Code**

**A computer screen shot of a program code

AI-generated content may be incorrect.**

**Registration.php**

**A screen shot of a computer program

AI-generated content may be incorrect.**

**Profile.php Source Code**

**A computer screen shot of a program code

AI-generated content may be incorrect.**

**A screen shot of a computer program

AI-generated content may be incorrect.**

**References**

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