**Landing, Login, and Enrollment Pages Development  
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CST499: Capstone for Computer Software Technology  
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* **Explain how to run a PHP file in XAMPP.**
  + Install XAMPP: Download and install XAMPP from the official website.
  + Start Apache and MySQL: Open the XAMPP Control Panel and start the Apache and MySQL services.
  + Create a PHP file: Open your preferred text editor (e.g., Notepad++, VS Code) and create a PHP file. Save it with a .php extension, for example, index.php.
  + Move the PHP file to the XAMPP directory: Place your PHP file in the htdocs folder inside the XAMPP installation directory. By default, this is C:\xampp\htdocs.
  + Run the PHP file:
    - Open your web browser.
    - Type http://localhost/yourfile.php in the address bar, replacing yourfile.php with the name of your PHP file (e.g., test.php).
    - View the output: Your PHP file should now execute, and you should see the output in your web browser.
* **Discuss the MySQL database functions that you used and the steps you took to create the database connection custom class.**
  + The mysqli\_connect function is used to establish a connection to the MySQL database. The parameters are:
    - localhost: the hostname or IP address of the MySQL server
    - root: the username to use for the connection
    - "": the password to use for the connection (empty string, which is insecure in a production environment but more straightforward to use in this capacity)
  + student\_portal: the name of the database to use
  + The connection is stored in the global variable $conn.
* **Explain the steps taken to create the registration page and save the user information in the database.**
  + Starting the Session: I started the session using session\_start().
  + Setting Session Variables: I set the page title and header as session variables using $\_SESSION["pageTitle"] and $\_SESSION["pageHeader"].
  + Including Necessary Files: My code includes the db.php, master.php, and functions.php files.
  + Checking Database Connection: I check the database connection using $conn->connect\_error. If there is an error, it displays the error message and stops further execution.
  + Handling Form Submission: The code checks if the request method is POST using $\_SERVER["REQUEST\_METHOD"] == "POST". If it is, the code proceeds to process the form data.
  + Sanitizing and Validating User Input: I used htmlspecialchars in a function called sanitizedInput to sanitize the user input for username, first\_name, last\_name, address, city, state, zip\_code, phone, and ssn.
  + Hashing the password: I used password\_hash to hash the user's password using the PASSWORD\_DEFAULT algorithm; it's not the most secure option and could be changed to a different algorithm.
  + Defining the SQL Query: I defined the SQL query to insert the user's information into the users table. The query includes the sanitized and hashed user input.
  + Executing the SQL Query: I created a function registerUser, passing the user's information and the database connection as arguments. If the function returns true, it displays a success message. Otherwise, it displays an error message and redirects to the login.php page.
* **Provide screenshots of all developed pages, database, tables, layout, and source code.**

A screenshot of a computer

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A computer screen shot of a registration form

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A screenshot of a computer

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A computer screen shot of a program code

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