Rajarata University of Sri Lanka

Faculty of Applied Sciences

ICT2204/COM2303 Web Design and Technologies

Assignment 04 - Individual Assignment

Deadline : 12th August 2023 - 10.30 PM
Submission : You can commit the new file additions and changes to the same GitHb repository you created at the 2nd Assignment submission

Building a portfolio webpage

Now that you have built the foundation of your portfolio webpage using HTML, CSS, and JavaScript, it's time to add server-side functionality using PHP. Your task is to further enhance your webpage by incorporating the following PHP features:

1. Form Validation and Input Sanitization:
   - Implement PHP code to validate and sanitize the following fields in your contact form:
     - Name: Ensure it contains only letters and spaces.
     - Email: Validate the email format.
     - Message: Avoid any potential malicious code or HTML tags.
   - Display appropriate error messages if any field fails validation.
2. Database Integration:
   - Create a MySQL database to store project details. Design a table with the following columns:
     - ID: A unique identifier for each project.
     - Title: The title of the project.
     - Description: A brief description of the project.
     - Image: Store the image path or URL for each project.
   - Implement PHP functions to:
     - Establish a database connection.
     - Insert new project details into the database.
     - Retrieve project data from the database.
     - Update project information.
     - Delete projects if necessary.
3. User Authentication:
   - Create a table in the database to store user account details. Include columns such as:
     - ID: A unique identifier for each user.

- - Username: The username chosen by the user.
    - Password: The hashed password for secure storage.
  - Implement PHP functions to handle user registration and login:
    - Register: Validate and insert new user details into the database.
    - Login: Verify the entered username and password against the stored values.
    - Use PHP sessions to keep track of authenticated users.

4. PHP Functions:
   - Create a PHP file named functions.php to contain your custom functions.
   - Write functions such as:
     - validateForm(): Perform form validation and return an array of error messages.
     - connectDatabase(): Establish a database connection and return the connection object.
     - insertProject(): Insert project details into the database.
     - getProjects(): Retrieve project data from the database.
     - updateProject(): Update project information in the database.
     - deleteProject(): Delete projects from the database.
     - Customize additional functions based on your specific requirements.

Remember to incorporate these PHP features in a way that aligns with the overall design and interactivity of your portfolio webpage. Implement error handling and provide clear feedback to users in case of any issues. Test your PHP features thoroughly to ensure they function as intended and follow best practices for security and data handling.

Note: The specific tables, columns, and functions mentioned above are just examples. You can modify them based on your project's requirements and desired functionality.