Chengdu University of Technology Oxford Brookes College

Project Module (CHC 6096)

Weekly Report Sheet - 2023/2024 Academic Year

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WEEK NUMBER	9
DATE:	2023/12/2

Action plan for the current week:

1. Implement the login function and jump to the main page:

- Redirect After Successful Registration:

- Upon successful registration, set up a redirect to the login page to enhance user experience.
- Implement server-side logic to ensure registration information is successfully stored in the database.

- Client-Side Validation Using JavaScript:

- Write JavaScript code to perform preliminary validation of user-entered data, ensuring mandatory fields are not empty.
- Validate password length, username format, etc., to enhance data input accuracy.

- Server-Side Validation:

- Create server-side validation logic to ensure login information is validated before being sent to the server.
- Check if the username and password match records in the database.

- Error Handling:

- Implement error-handling mechanisms to provide clear information to users about login failures, such as invalid username or password.

2. User Password Encryption:

- Select Encryption Algorithm:

- Choose a secure encryption algorithm such as bcrypt or Argon2 for encrypting user passwords.
- Implement server-side logic to hash user passwords, increasing password security.

- Password Encryption Process:

- During user registration, encrypt the password using the selected encryption algorithm.
- During user login, encrypt the entered password using the same algorithm and compare it with the hashed value stored in the database.

- Use of Salt:

- Use randomly generated salt values for password hashing to increase password complexity.
- Store the salt value along with the hashed password in the database.

- Password Security Policies:

- Implement password security policies, such as minimum password length, password complexity requirements, etc.

- Provide a password reset feature to securely allow users to reset their passwords if forgotten.

- Encrypted Transmission:

- Use the HTTPS protocol during user login to ensure password encryption during transmission, preventing man-in-the-middle attacks.

3. Design and implement index page:
   - Design the page of index page.
   - Implement the search bar, menu part and personal information of index page.
   - Design the customer index page.
   - Design the merchant index page.

Challenges and issues encountered in the week:

1. Balancing Security and User Convenience:
   - Implementing strong password policies may conflict with user convenience, So websites need to strike a balance between performance and security.

2. Security of Redirect Mechanism:
   - Implementing a secure redirection mechanism after successful registration requires careful handling to prevent unauthorized access or misuse.

Action plan for the next week:

- Redirect After log in:
- Determine the type of account the user is logged in with
- If the user login type is a customer, the web page redirects to the index page with customer.
- If the user login type is a merchant, the web page redirects to the index page with merchant.

- Implement the index page with customer:
- Implement the html and css style of search bar.
- Implement the html and css style of menu.
- Implement the html and css style of shopping cart.
- Implement the html and css style of favorites.
- Implement the html and css style of personal information.

- Implement the index page with merchant:
- Implement the html and css style of mystore.
- Implement the html and css style of myorders.
- Implement the html and css style of personal information.

Supervisor Feedback: