SE3040 -Application Frameworks

Group Project

Software Engineering - Year - 3 **Semester 1, 2020**

Online Shopping Cart System for a Fashion Store

As part of your SE3040 – Application Framework Group Project, you will develop a Web application for Online Shopping Cart System for a Fashion Store. System functionality will be as follows.

1. There are three roles as admin, store manager, and user.
2. Anyone can view products as a guest (without login).
3. Only users who logged in to the system can place orders.
4. Once the admin creates a login for the store manager, it should be notified to the store manager via email.
5. Admin can create categories for the products.
6. The store manager can,
   - Add products with details to the relevant category
   - Add discounts to selected products.
7. User can add products to the shopping cart.
8. Users can purchase the selected products in the shopping cart by selecting the payment method (card/cash on delivery, etc.).
9. Users can create a wish list from their preferred products and later they can add those products to the shopping cart.
10. Users can rate the products and add comments and average ratings, comments should be displayed for products.
11. The system should be secured and cannot be accessed without a proper authentication.
12. Authorization should be maintained, and users cannot order products without going through payment methods. (No need of integrating to a payment gateway, but until the step of payment the system should be implemented).

You need to use the following mandatory technology stack as part of your solution. Marks will be allocated for the appropriate use of each of the technologies.

1. HTML/JavaScript front end
2. ReactJS
3. NodeJS
4. ExpressJS
5. Spring Boot Framework
6. JSON base Web Services
7. NoSQL Database (MongoDB)
8. JEST

Your backend should be an API running JSON based web services. The frontend application that you are developing, should communicate with the back end only using these web services.

Plagiarism and use of existing code

You can use any additional Javascript framework (AngularJS, VueJS) which is not listed above, but the above-mentioned mandatory technology stack should be satisfied.

You cannot use any other codebase which is either public or private.

The codebase which is presented as part of your project should be written only by members of your group.

Requirements of Project Implementation

1. You need to split your project among your team vertically. Each student is responsible for end to end implementation (full-stack implementation) of a particular feature. This is somewhat similar to what you would have done in your 2nd year project.

2. Your database should be MongoDB.

3. You are required to maintain a GitHub code repository/GitLab for your project. You should properly commit code at an individual level right throughout the project life cycle.

4. You should show evidence of testing your application by including test cases.

5. A user guide (only a soft copy) should be provided.

6. A technical report describing your project (only a soft copy) should be provided.

7. Your individual blog can be used to describe your experience doing the project and a critical reflection on what you have done. At least one unique entry related should be there for each student.

8. Deploy the project to the Cloud before the final presentation. Your final demo should be run from the Cloud. (The Cloud Provider can be GCP, Firebase etc.)

Submission Deadlines

Final Commit to the GIT repository and course web including reports – 17th May 2020

Project Viva – 13th and 14th June 2020 (Schedule will be notified after the final exam)