INTE 31273: System Integration Technologies – 1

Evaluation Criteria

The individual contribution will be the primary evaluation criterion. Other than that, the marks will be given by evaluating the following points.

- The completeness of the functionalities.
- Code quality, maintainability and extensibility.

Task

The task is to implement an E-commerce system using REST APIs. The system should consist of a database, REST API, a single-page application (front-end) and a mobile app. You should not use any readily available e-commerce frameworks to build this (ex: woocommerce)

The minimum set of features to implement (Not all functionalities are expected to have in the mobile app):
- The users should be able to register and log in to the system.

- The email verification(by sending a verification link to the given email) should be done upon user registration.
- The users(including the non-signed-in users) should be able to search for products. Products should be added to product categories.
- The users can place an order after selecting(adding to cart) a few products. If the user is not logged in when placing the order, the system should ask the user to login before placing the order. API should be secured.
- Upon placing an order, an order confirmation email should be sent to the user's email address.
- The address of the user should be collected/confirmed upon checkout. Only the cash on-delivery feature is available in this version of the application.
- Other than the above-mentioned features, you are encouraged to define and implement any other functionalities as time permits and availability of the group members(Ex: Push notifications for the mobile app).

Technologies to use:

- Use any language or framework to develop the backend REST API. (Java/Springboot preferred)
- Use any database technology as you wish. (Try to use JPA to access the database)
- Use any framework to develop the single-page application as you wish. Ex: React, Vue, Angular
- Use any framework to develop the mobile app.
- In order to send emails, use Mailgun/Sendgrid type of API. No need to configure the email servers manually.
- Authentication should be handled by using JWT tokens. You can use the Spring Security library for this.