



**Faculty of Engineering & Applied Science**

**SOFE 4640U**

**Project Proposal: E-Commerce Application**

**Group Number: 3**

**Course Instructor: Anwar Abdalbari**

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## **Introduction**

The project idea we have decided to work on is an e-commerce application which will allow users to browse, shop and pay for an item they desire. We intend to design our application to facilitate the purchase of (whatever product).

## **Framework/Tools**

This app will be developed using android studio. The user interface would be developed using layout XML while the functionality of the application would implemented using java. The backend of our app will use Firebase as it will provide our application with real time functionality.

## **Goal**

The following goals have been identified for this project:

- Provides a platform for a user to browse for items
- Allow the user to add items to cart and place an order
- Send a notification validating the purchase made

## **Overview of activities**

Our application will consist of the following activities:

- Home screen
- Product information
- Login page
- Create an account page
- Cart
- Checkout
- Order summary
- User profile

## **Login page**

The first page that the user will see when launching the application is the login page. From the login, the user should be able to use their credentials to login to the home page. This page should be quite simple in terms of design as it should include two textboxes, a login button, and a create an account button.

## **Create an account**

If the user has not created an account, they would be prompted to the register page. The register page should have text boxes for the user to input their first name, last name, email, phone number, and password. The user information will then be stored onto the user database in JSON format. Error prevention will be implemented to ensure that the user enters the correct input.

## **Home screen**

If the user has logged in successfully, they will be prompted to the home screen. The home screen will display products and listings the user can decide to put into their shopping cart. Each product should be organized into a card. Each card should include the following:

- An image of the product
- Name
- Brand
- Price

All information about each product should be stored in the product database in JSON format. The home screen should also include buttons that would redirect them to their profile as well the cart.

## **Product information**

When the user clicks on a product, an activity should be generated to show more detailed information about the product. This mostly includes a description as well as additional images of the product. The user should also be able to adjust the desired quantity and add the product to their cart.

## **Cart**

The cart page should provide the user an overview of their order. Each item of the cart should include the following information:

- Quantity of product which the user should be able to adjust
- Name and brand of product
- Total cost of the product
- Remove product button

The user should be able to then proceed to the checkout page by pressing the checkout button.

## **Checkout**

The checkout activity allows the user to enter their shipping and billing information. The interface for this activity should most be composed of textboxes that will allow the user to input the required information to be able to place an order. The required information includes the following:

- Shipping Address

- Full name
  - Country
  - Address
  - City
  - Province/State
  - Postal code
- Billing Address
  - Full name
  - Country
  - Address
  - City
  - Province/State
  - Postal code
- Credit card information
  - First name
  - Last name
  - Card number
  - Expiration date
  - Postal code

After inputting all the required data, the user can then place their order. The order information will be stored onto the user order database in JSON format. Error prevention will be implemented to validate the data.

### **Order confirmation**

The order confirmation page appears after the user has placed an order. This activity will thank the user for placing an order as well as provide a summary of the order. A button should be implemented to take the user back to the home activity.

### **Profile**

The profile screen shows the user's information. It also displays the user's order history.