Criterion A: Planning

Client's Problem

My client is a farmer and owns farmland in another city. His name is Mr. Aguslisti. Mr. A, along with some people from the city owns a medium sized farm. According to Mr. A, his farm has been stale for the past few years. The issue that he faced was there is often an oversupply issue due to the lack of sales. Mr. A is having problems finding more customers that are willing to purchase goods from their farms. Majority of customers are buying goods from traditional markets instead of directly to farmers. Farmers are required to sell their produce to the traditional markets at bulk price. We discussed the possible solution to this issue and came up with a marketplace application.

I decided to develop a marketplace application for farmers to sell their goods. The site aims to advertise farming produce that a group of farmers produce. Each farm owner is able to open a store based on their farms. Then each of them would list out the products they sell to customers. People who visit the site are able to purchase the goods directly from the farmers. This application will provide a more direct and streamlined path between customer and the farmers. Farmers such as Mr. A are benefited from this application as they have another source of revenue from directly selling to customers.

Rationale

Developing this marketplace app, I will be using Android Studio for its frontend. Android Studio is a software development app mainly focusing on the development of android applications. Android Studio uses Java as its programming language with android functionalities. Most of the coding for application functionalities will be using Java. Along with it, Extensible Markup Language (XML) will be used for the graphical user interface (GUI) development in Android Studio. GUI is important for the application users for its ease of use. I am planning to design a simple and effective user interface that would help users navigate the app. The GUI elements will correspond with the pages of the application.

As for the backend, I am planning to use Structured Query Language (SQL) for the database of the application language. PhpMyAdmin web app will be used to help design the database of the app. SQL will be used to read, add, remove, edit the data of the database. The SQL commands will be structured and executed by the app to the server through a web server. A web server is created to allow access to the server. This web server will be developed using Apache Web Server and PHP which will allow online access to the database. As a result, this would allow data to be accessible by the app from the internet. Therefore, the app does not need to be updated when a farmer opens a new store. The app would be able to receive information from the server and update itself to show the latest store and item database.

Success Criteria

Front End (Application):
Android Studio (Java, XML)

Success Criteria:

1. Accounts

   Account Details: Name, Email, Phone, Password

   a. Account Registration
      i. Put account information to registration field
      ii. Submit registration input information to the application
   b. Account Login
      i. Enter information in the text field (Email, Password)
      ii. Submit input information to the application (to Back End Success Criteria …)

   c. Account Management
      i. Edit and update account name
      ii. Edit and update account email
      iii. Edit and update account phone
      iv. Edit and update account password
      v. Update each detail above (to Back End Success Criteria …)

2. Navigation using Bottom Menu Bar

   a. Navigate to Home Page
   b. Navigate to Store Page
   c. Navigate to Order Page
   d. Navigate to Profile Page

3. Seller Management

   a. Store Management
      Store Details: Name, Email, Phone, Province, City, Postcode, Address, Image
      i. Able to create store and enter store details
      ii. Able to edit store details
   b. Product Management
      Product Details: Name, Description, Type, Quantity, Unit, Price, Image
      i. Able to create a product listing with details inside their stores
      ii. Able to edit and update product details
   c. Delivery Management
      Delivery Details: Delivery Courier, Delivery Options, Delivery Cost
      i. Able to add new delivery service with delivery details
      ii. Able to edit delivery service details

4. Category
   a. Visit category page to view product in respective category
   b. View product listing when a product of category list is selected

5. View Product Listing

a. Able to see the picture of product
b. Able to see name of product
c. Able to see the category of product
d. Able to see the description of product
e. Able to see the price of product
f. Able to add product to shopping cart with specified amounts

6. View Store

a. Able to visit farmer's store
b. Able to see the product(s) sold by farmers in their store

7. View Order List (as seller/customer)

a. Able to see current active orders in the pending order section
b. Able to see the past order in order history section
c. Able to view order details of both past order and pending orders
d. Able to view individual order details

8. View Shopping Cart

a. Able to view cart
b. Able to show different products in cart
c. Able to show quantity of each product in cart
d. Able to show price of each product both per quantity and total quantity in cart
e. Able to show the total price and quantity of all products in cart

9. View Shopping Cart

a. Able to join community
b. Able to register community
c. Able to view community

10. Checkout

a. Show the buyers total amount to be paid including shipping
b. Show transaction process (Credit/Debit Payment)

11. Delivery

a. Show product is being delivered
b. Show delivery details (Driver, Number Plate, Vehicle)
c. Once product is arrived, buyers able to click done

12. Order Completion

a. Show the user a completed order page
b. Order is recorded in a history for both farmers and buyers