PLANT MART

ONLINE PLANT SHOPPING MOBILE APPLICATION

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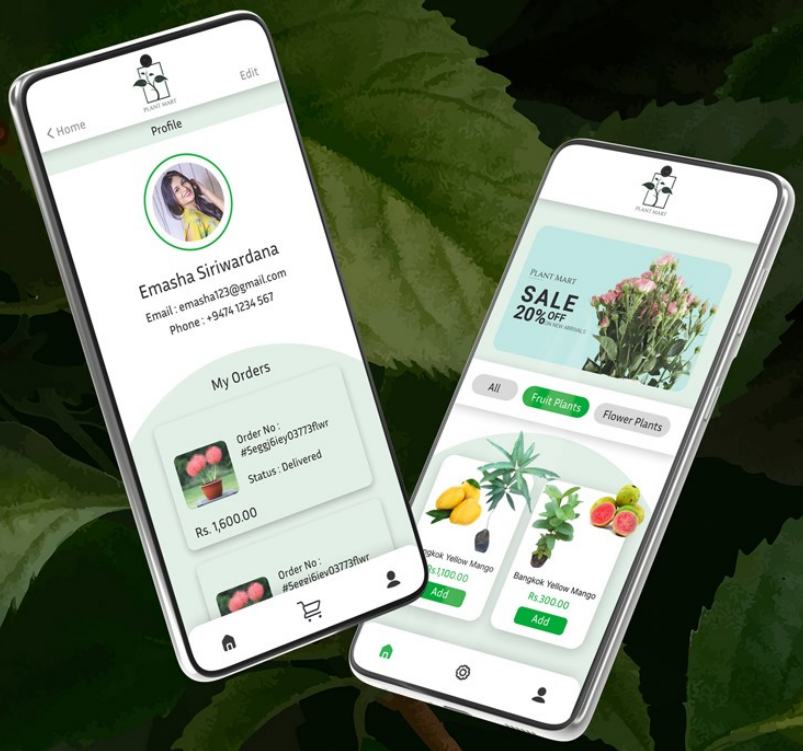

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GROUP - 03

Plant Mart
Online Plant Shopping Mobile Application

Project Report
22/07/2022
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1. Introduction

Sri Lanka is a country which is enriched with a diversity of forest density and natural beauty. Most of the citizens in our country love to do gardening. Government organizations and private companies are there to distribute plants. Customers visit each company and buy the plants. Due to the Covid 19 pandemic and the prevailing crisis in Sri Lanka, customers do not visit those places, and the selling process of plants has become stands still.

Due to this situation, we have developed a hybrid mobile application built for plant selling authorities. The system is capable of showcasing the different available plants with their selling prices. Any interested customer can buy them by creating their account in the application. The delivery system of the company will securely deliver the plants to the customers.

This mobile application will make the tedious tasks done manually by the employees of the companies effective and convenient way. This hybrid mobile application system makes it beneficial for their customers and the business itself. The smooth relationship between the company and the customers may expand the customer base by giving them a variety of options and unparalleled convenience.

2. Objectives

- Development of an hybrid mobile mobile application system for plant selling and delivery of any organization.
- Development of an application that manages all the details of item categories, shopping cart and delivering information.
- Development of a system which is accessible from any Android or iPhone mobile device anywhere, when there is an internet connection.
- Development of an application where company managers can access and manage the business anywhere and anytime.
- Development of a user friendly mobile application inorder to interact with the system.

3. Functionalities of the system

3.1 Company

- The company can showcase its available plants.
- The company can insert new plants into the system
- The company can update the plants' selling prices, descriptions, images, etc.
- The company can delete the sold-out plants from the system.
- The company can manage plant details.
- The company can view deliveries made by customers.

3.2 Customer

- A customer can register on the system and create user accounts.
- A customer can log in to the system.
- A customer can view and search plants.
- A customer can place orders for delivery plants.
- A customer can add the shipping details.
- A customer can choose the payment method.

4. System Requirements

There are two types of users interacting with the system.

- Customer
- Company

4.1 Functional Requirements

4.1.1 Customer Requirements

- REQ-01: Customer shall be able to register on the system using his/her relevant details.
- REQ-02: Customer shall be able to log in to the system using his/her unique email and password.

- REQ-03: Customer shall be able to view the available plant details.
- REQ-04: Customer shall be able to order different plants.
- REQ-05: Customer shall be able to manage a shopping cart.
- REQ-06: Customer shall be able to view his/her order information.
- REQ-07: Customer shall be able to add shipping details
- REQ-08: Customer shall be able to select the payment method.

4.1.2 Company Requirements

- REQ-01: Company shall be able to showcase different available plants in the system.
- REQ-02: Company shall be able to insert new plants into the system.
- REQ-03: Company shall be able to update the details of the plants.
- REQ-04: Company shall be able to delete sold-out plants from the system.
- REQ-05: Company shall be able to manage delivery information.

4.2 Non - Functional Requirements

Portability

The application is a hybrid mobile application, the system is fully portable, and any Android and iOS devices should be able to use the features of the application.

Usability

The system's graphical User Interface provides a uniform look and feels between all the activities. The system provides helpful feedback to navigate. The system includes the use of icons and toolbars.

Performance

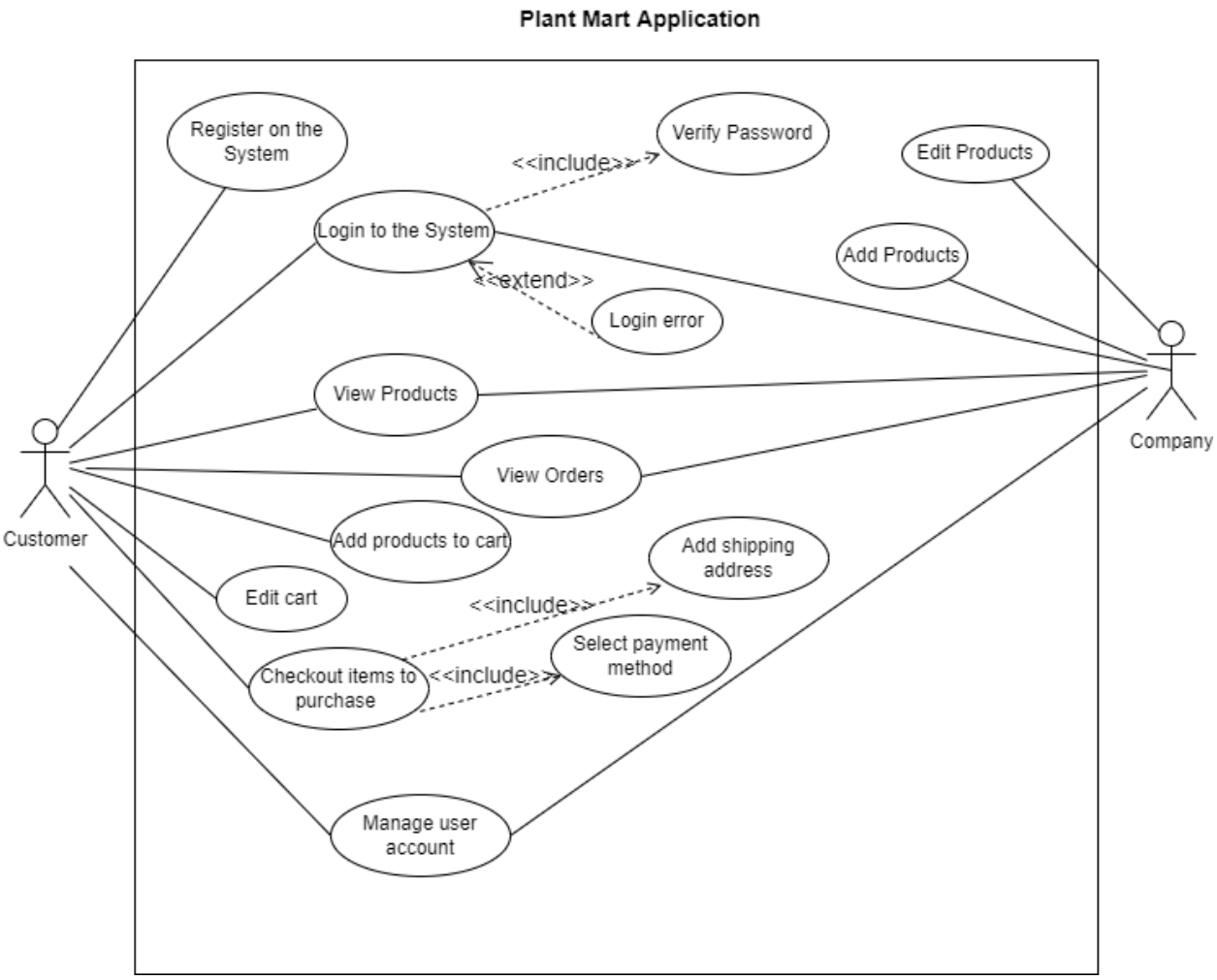
The product is a hybrid mobile application and runs on the user’s mobile. The product takes initial load time depending on the speed of internet connection. The performance shall rely upon the hardware components of the customer’s mobile phone.

Security

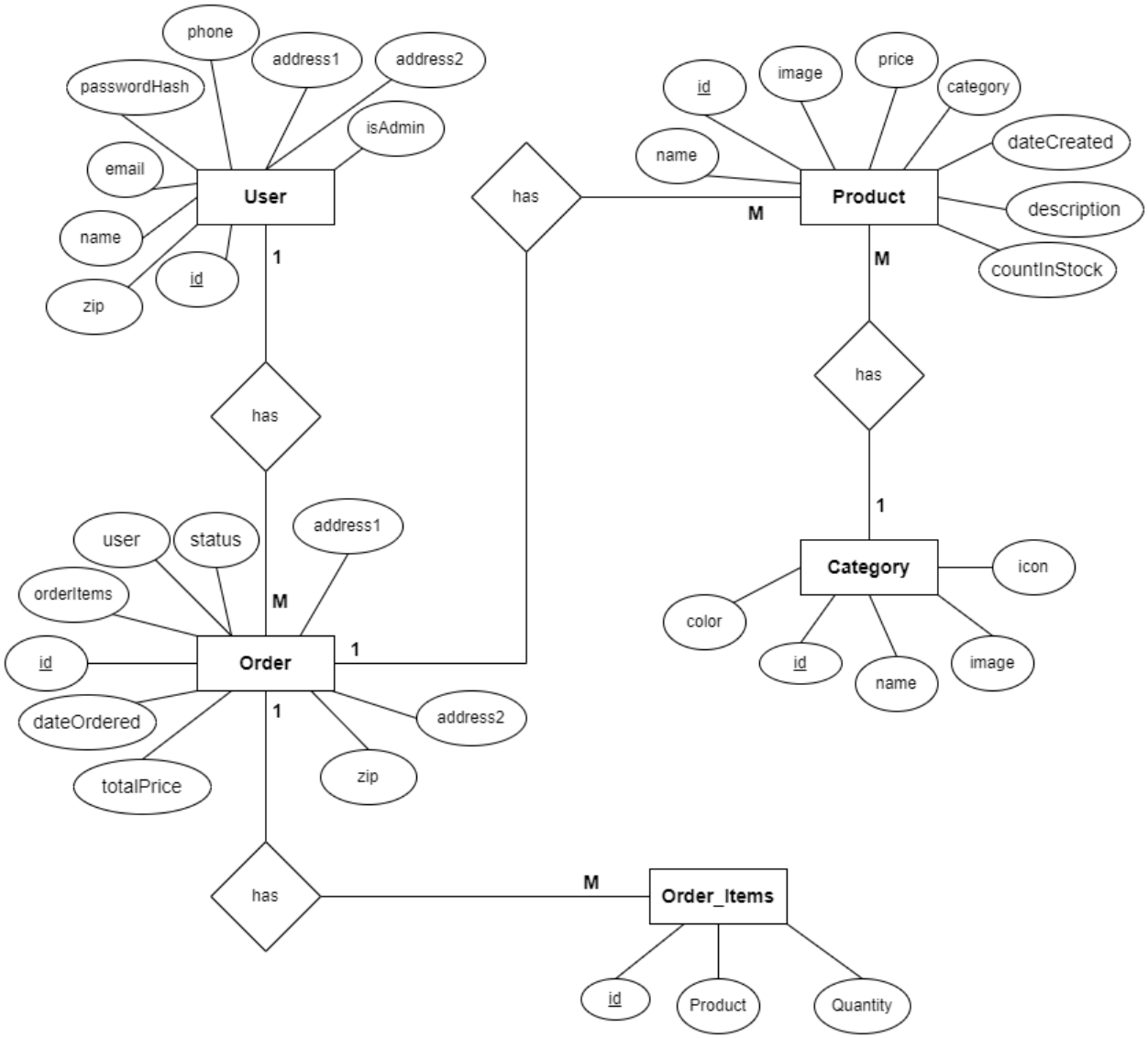
Passwords will be saved encrypted in the database to ensure the user's privacy. Security is achieved via a strong password hashing function.

5. System Design

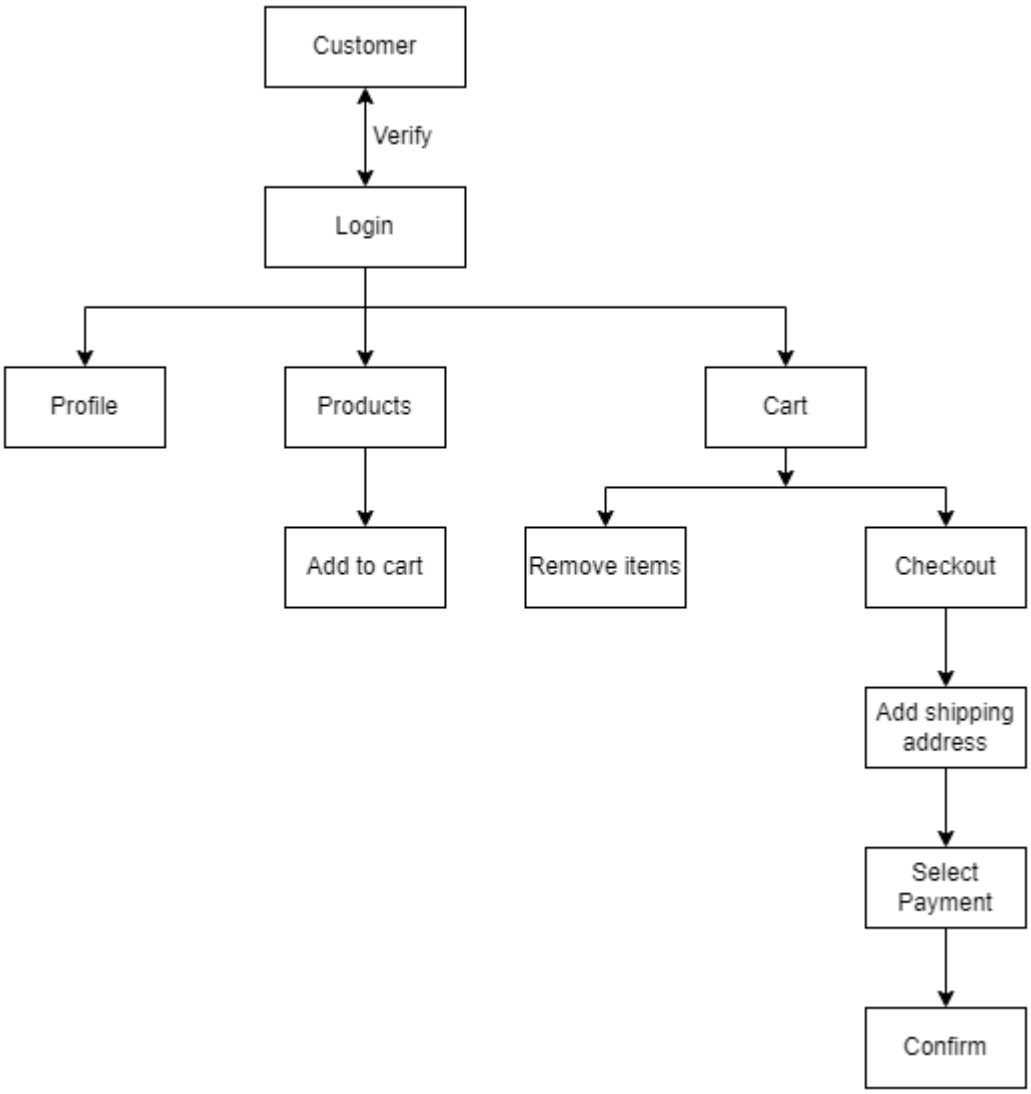
5.1 Use Case Diagram



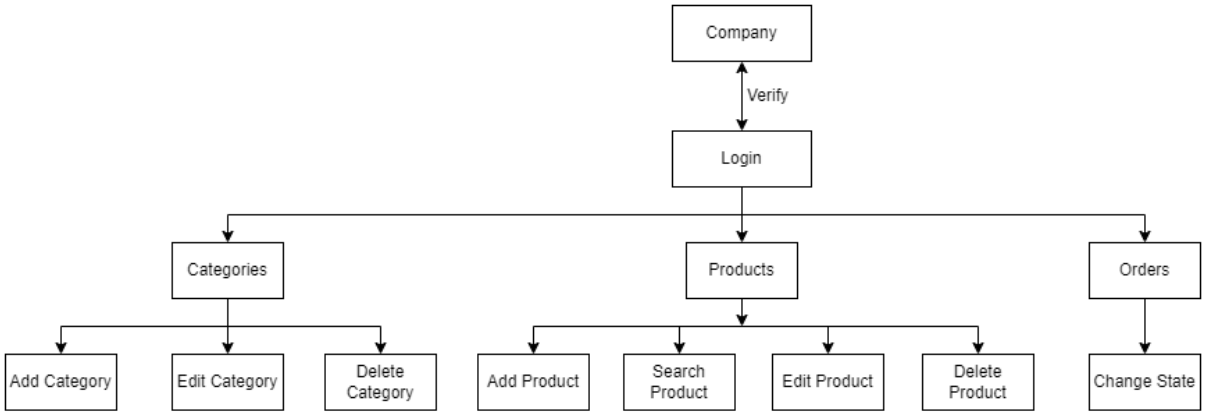
5.2 ER Diagram



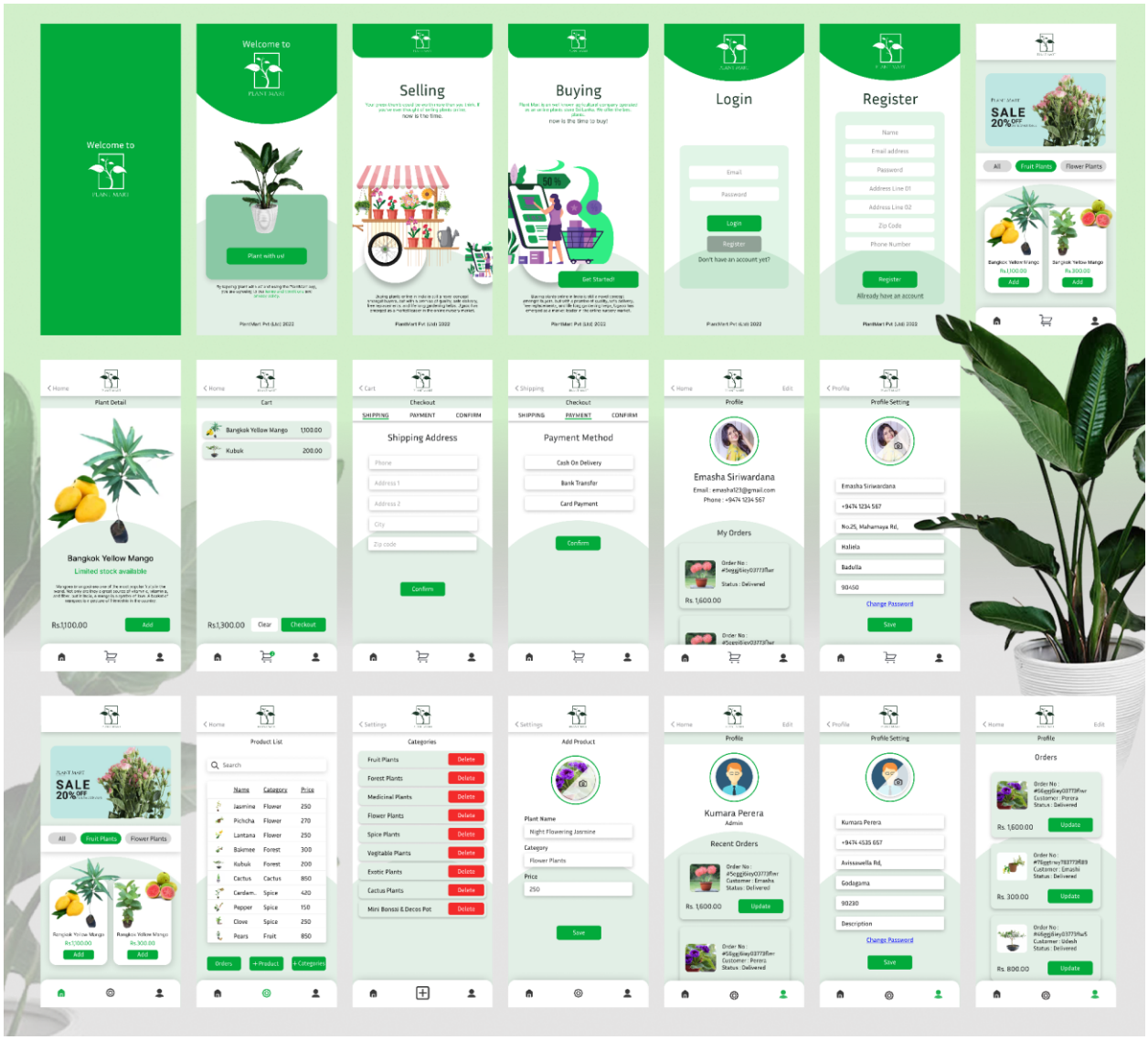
5.3 Flow Diagram - Customer



5.4 Flow Diagram - Company



5.5 UI Screens



6. Tools and Technologies

- React Native
- NodeJS
- Visual Studio Code
- Android Studio
- MongoDB Atlas
- Postman
- Expo
- Figma
- Adobe Photoshop

7. Discussion

Our group developed a hybrid mobile application for plant selling and delivery of any organization.

Firstly, a customer can create a user account and register with the system. Then the system will showcase different plants that customers can order.

For designing the user interfaces, we have used Figma and Adobe Photoshop. According to the design we have started the development of the application.

The development of the project included a backend with use of NodeJS and frontend with React Native. We have used MongoDB Atlas as the cloud database and all the data stored as document-oriented format. To run the application in a mobile interface we have used a virtual machine in Android Studio with the support of Expo. To test the backend API, we have used Postman as a tool.

We look forward to introducing this application to iOS-based devices. And turn it into an applicable product that the public can use.