PLANT NURSERY

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Ingegneria del Software e Progettazione Web

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1. Software Requirement Specification

1.1 Introduction

1.1.1 Aim of the document

The main point of the following document is present objectively the fundamental requirements and specific ones of the system *Plant Nursery*. So, we will be doing a review of all the important internal and external aspects of the system with the help of some diagrams.

1.1.2 Overview

Plant Nursery is an application designed to facilitate the purchase of plants from various nurseries in Rome, offering both online and on-site payment options. Users can explore plant sets based on the most suitable planting month, allowing them to select species that flourish in the selected season.
Sellers can list different categories of plants, such as vegetables and fruit trees. Additionally, they can create curated collections of plants grouped by optimal planting periods, helping customers select the best plants for their gardens at the right time of year.

1.1.3 HW and SW requirements

The basic hardware requirements of the system are a computer that can run JAR files, as well as some space in the disc to save the files with the personal information if the offline version is on.
In the case of the basic software requirements of the system are the oracle JDK SE 23 correctly installed on it to be able to run properly the JAR file, as well as a server or a local server that can holds the DBMS so in the online version of the system the information can be obtained by queries in SQL to the server or local server correctly.

1.1.4 Related systems

- **Le Georgiche**:
    - **Pros**: Offers additional features such as vegetable garden design, costumer support, promoting interaction and networking among buyers.
    - **Cons**: May not be the most suitable option for small orders or urgent needs, as it operates exclusively omnline and has long shipping times.
- **Expoplant**:
    - **Pros**: Feautures an intuitive and user-friendly interface, making it easy to create and manage orders. Additionally, it has a large user base and a strong online presence, allowing sellers to reach a wider market.
    - **Cons**: Charges fees on each plant sale, which can be substantial for large orders.

1.2 User Stories

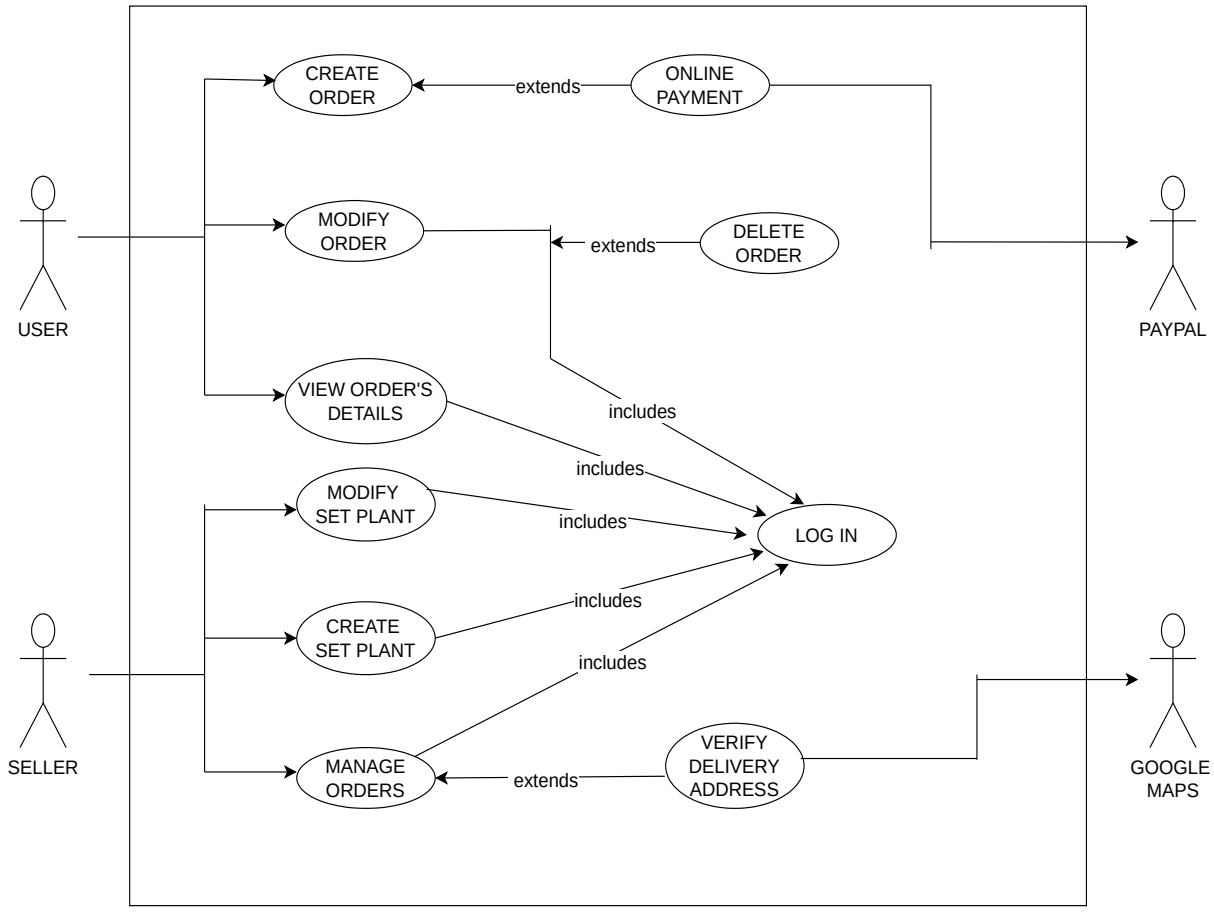
- As a customer, I want to purchase plants suitable for planting in October, so that they can flourish and grow healthily throughout the season.
- As a plant lover, I want to buy a diverse variety of seasonal plants, so that I can choose the right plants for my flowerplots and create a colorful garden on my balcony.
- As a seller, I want to be able to view buyer’s phone number and emails, so that I can communicate with them individually.

1.3 Functional Requirements

- The system shall provide an online payment option for orders via PayPal.
- The system shall prevent orders for a plant set when the stock limit has been reached.
- The system shall send a notification to the seller when the customer modifies his order.

2. Use Case

2.1 Overview Diagram



2.2 Internal Steps

Name: Create Order

1. The customer wants to create an order of fruit trees.
2. The system loads costumer request and shows the related products.
3. The customer selects the set of plants that wants to purchase.
4. The system prepares a blank registration form and presents the avaible payment options.
5. The customer fills the registration form with personal information and selects a preferred payment method, then submits the form to confirm the order**.**
6. The system verifies data's user, saves the order details and notifies the seller, displaying a unique order code to the custumer.

Extensions:

3a. PLANTS ARE NOT AVAIBLE

System disables orders for that set of plants and notifies the customer.

5a. DATA USER NOT VALID

The system notifies the costumer and terminates the use case.

5b. ONLINE PAYMENT

The system allows online payment via the UC Online Payment.

Name: Online Payment

1. The user requests online payment.
2. The system redirects to the external payment system PayPal.
3. The system verifies that payment has been made.
4. The system saves the order and notifies the seller, showing the reservation code.

Extensions:

2a. EXTERNAL SYSTEM DOES NOT RESPOND

The system notifies the customer and terminates the use case.

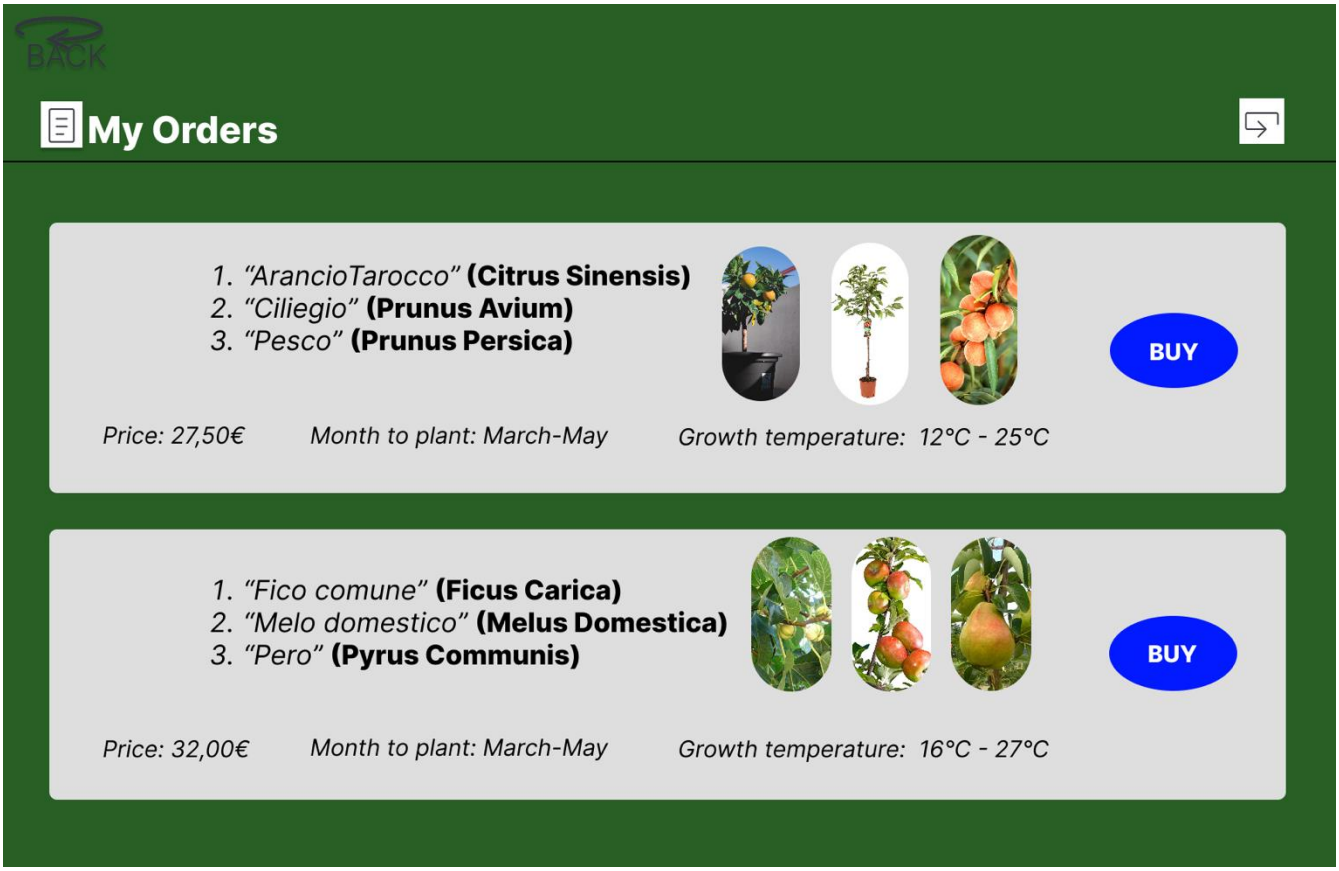
3a. PAYMENT FAILED

The system notifies the customer and terminates the use case.

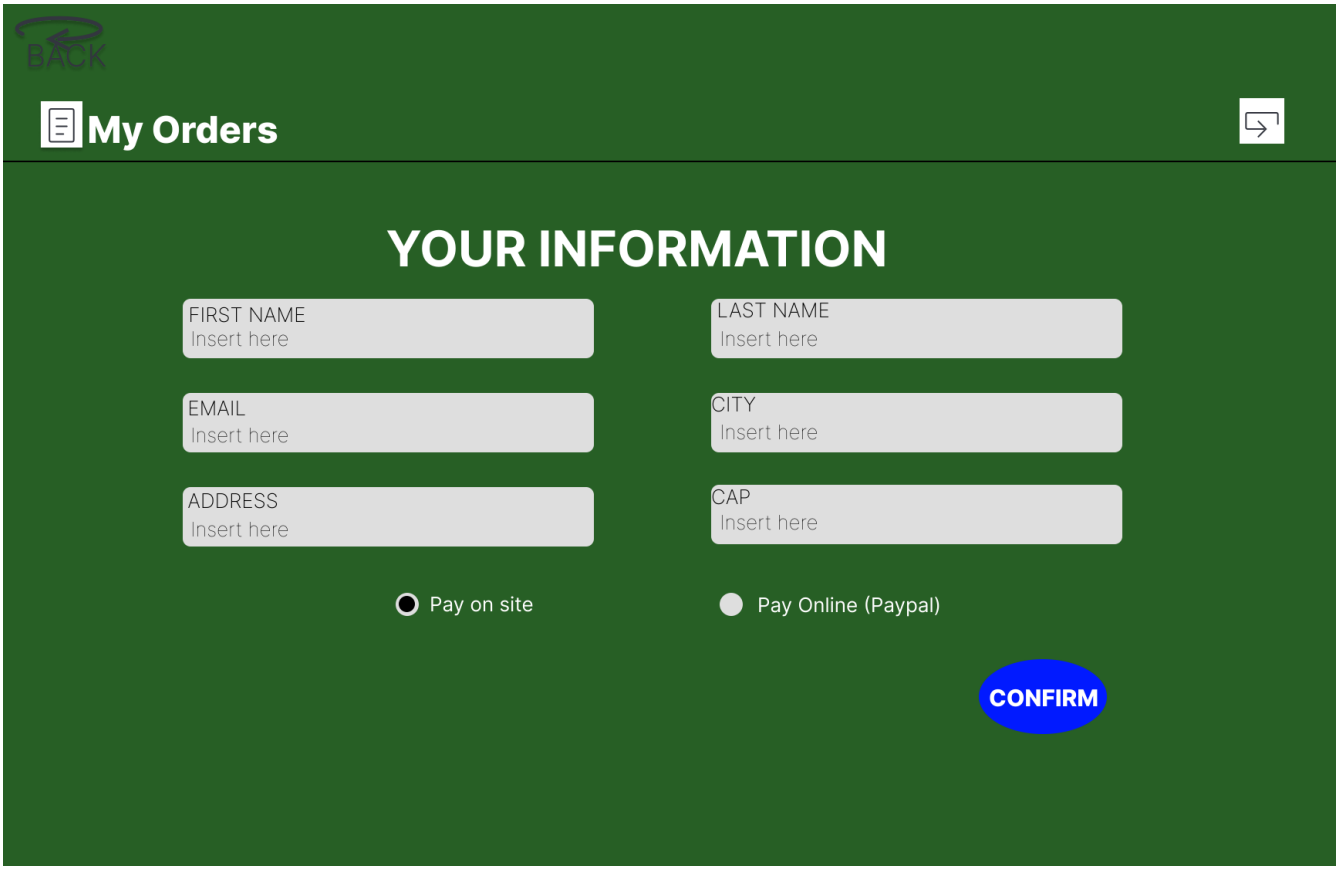
3. Storyboards

Home Page: The page that allows the user to search for a class of products.

Set Plant List Page: The page that shows the set of plants recommedend



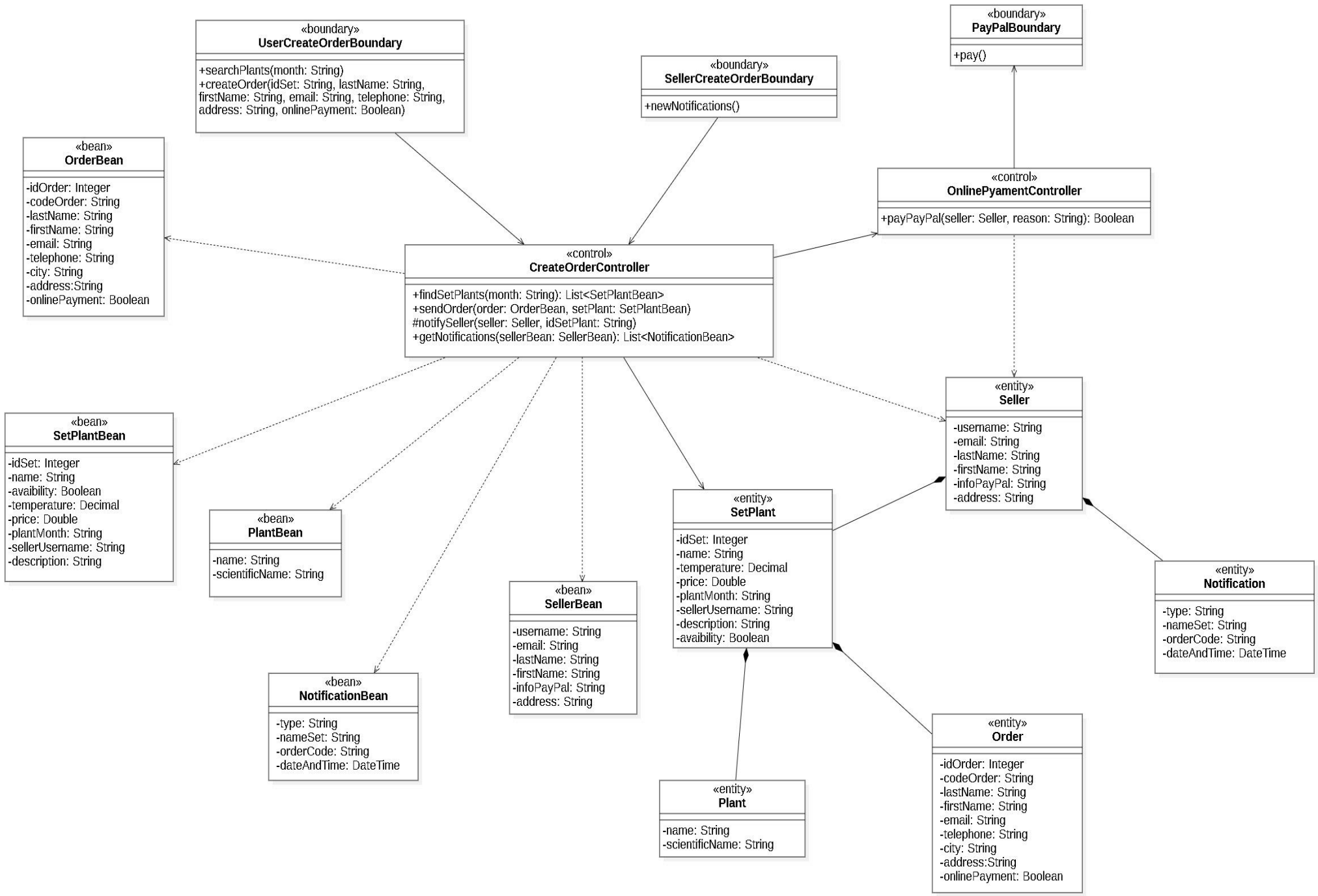
Final Page: The page that allows the costumer to buy the products and confirm the order



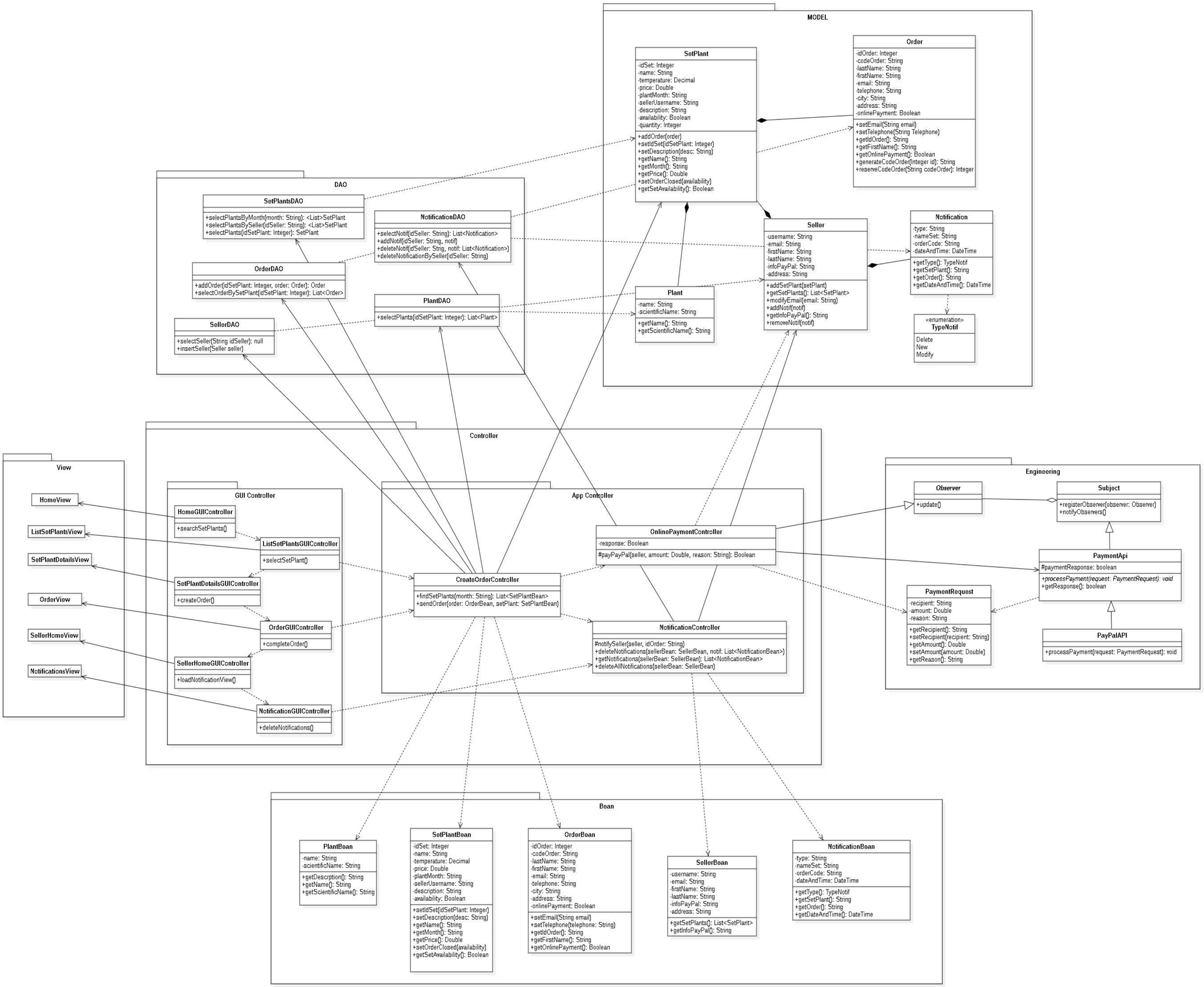
4. Design

4.1 Class Diagram

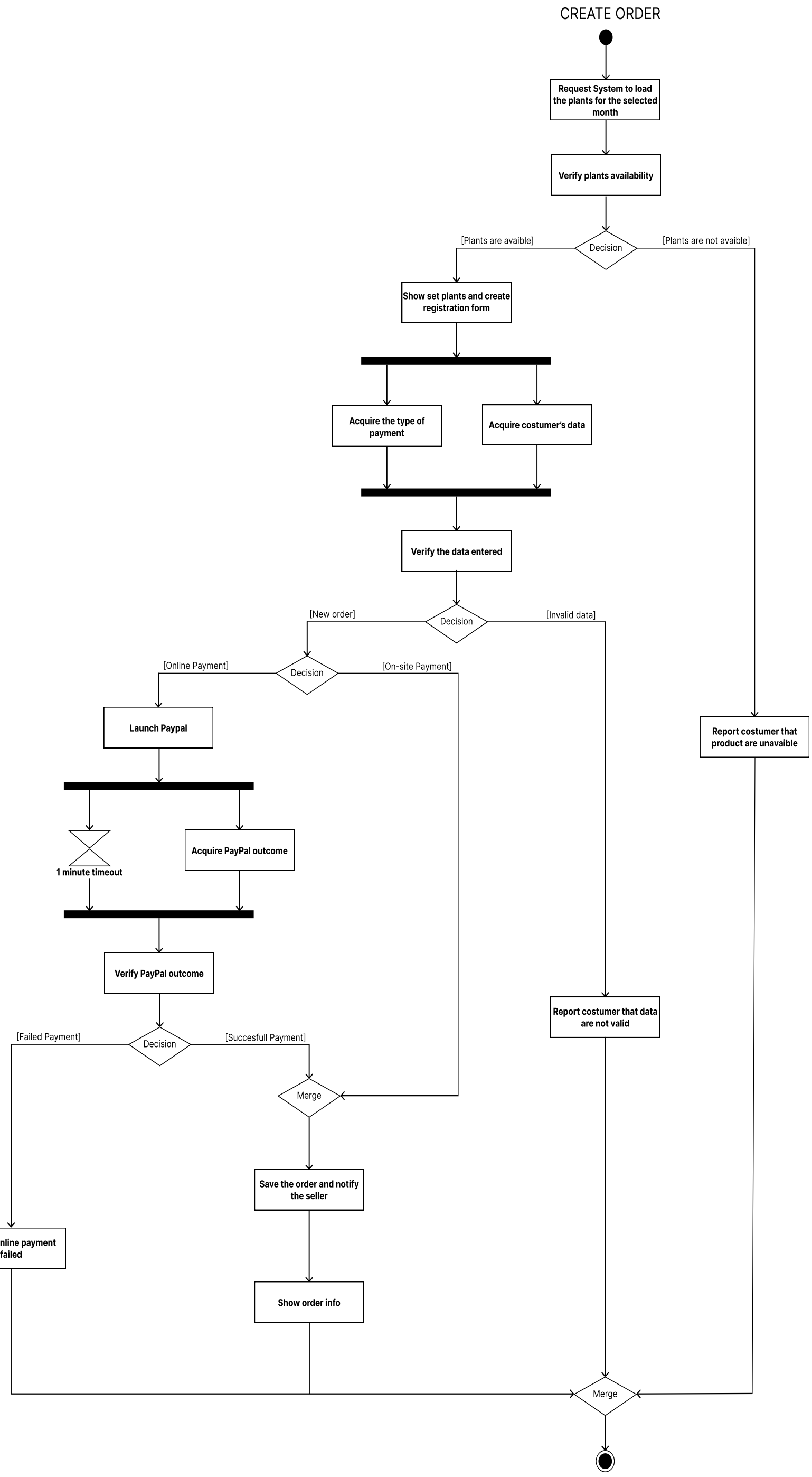
4.1.1 VOPC



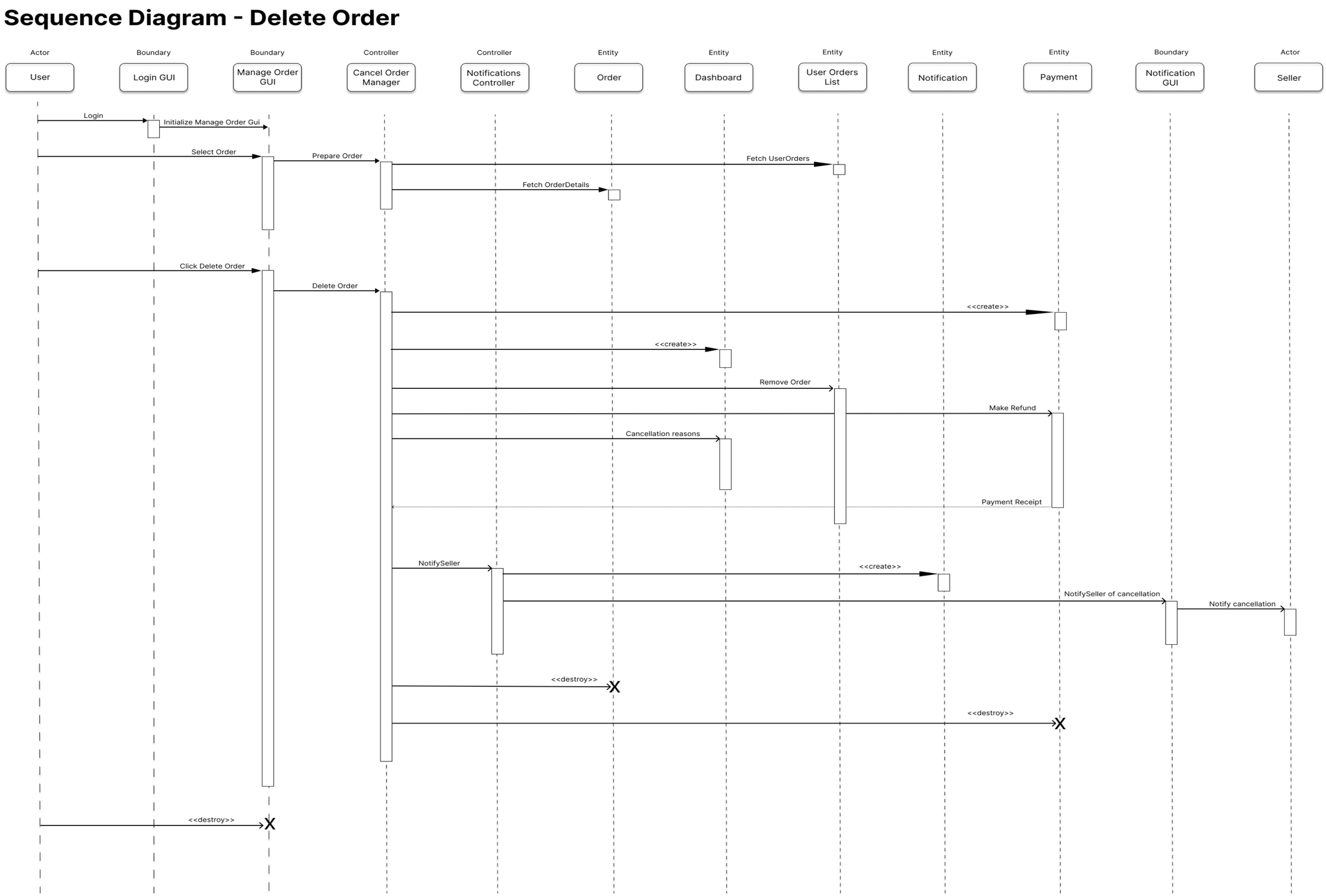
4.1.2 Design Level Diagram

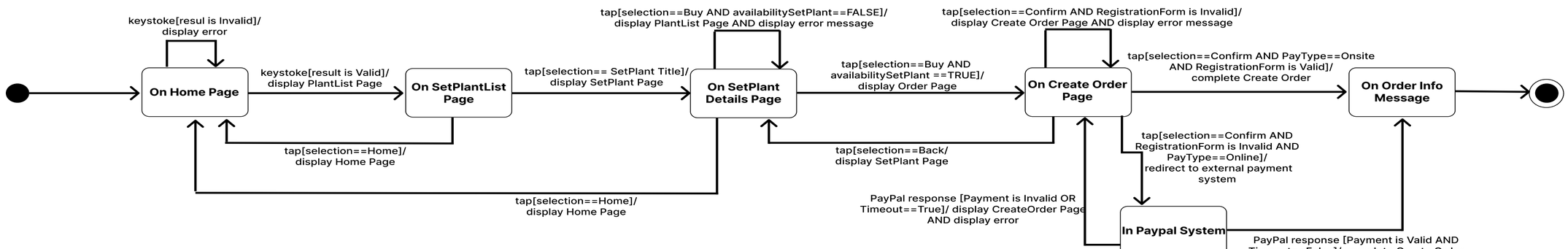


4.2 Activity Diagram



4.3 Sequence Diagram



4.4 State Diagram

State Diagram: Create Order (State of the Costumer)