# System Design

## Data Modelling

## High level ER

Low level

## 3.2 Dynamic Modelling

The dynamic modelling chapter of an online shopping mall project report should describe how the system behaves over time. In this section, we present the dynamic model for our mobile online shopping application. We use state diagrams, activity diagrams and sequence diagrams to show the different states that a user can be and how different activities are performed in the system and also show their interactions with actors (or users) and objects (or entities).

### **State Diagrams**

The state diagrams for our mobile online shopping mall shows the different states that a user can be in while using the system. In our project, there are total five state diagrams that represent different aspects of our project system. For example, we have the main state diagram to show all possible states of a customer, the account management state diagram to display how customers manage their own accounts, the state diagram to describe the process of customers who are not logged in, the state diagram to show the process of the logged-in customers, and the state diagram to illustrate the process of vendor.

Figure 3-2-1 below shows the main state diagram of our mobile application. In this diagram, customers first should be the Login state or Registration state. If the customers don’t have their accounts, they should go to Registration state to create new accounts. After registration, they can go to Product List Page

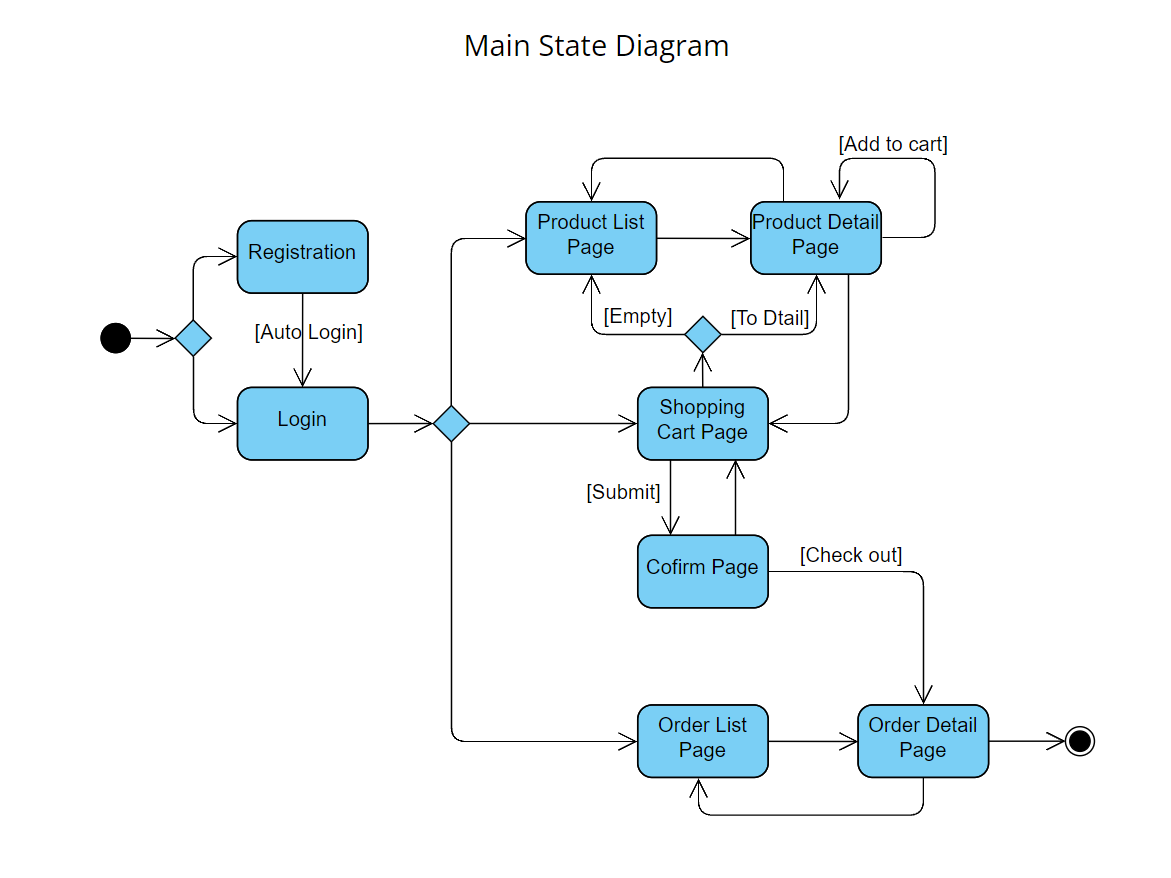


Figure 3-2-1: Main State Diagram

Figure 3-2-2 below shows the account management state diagram for customers.

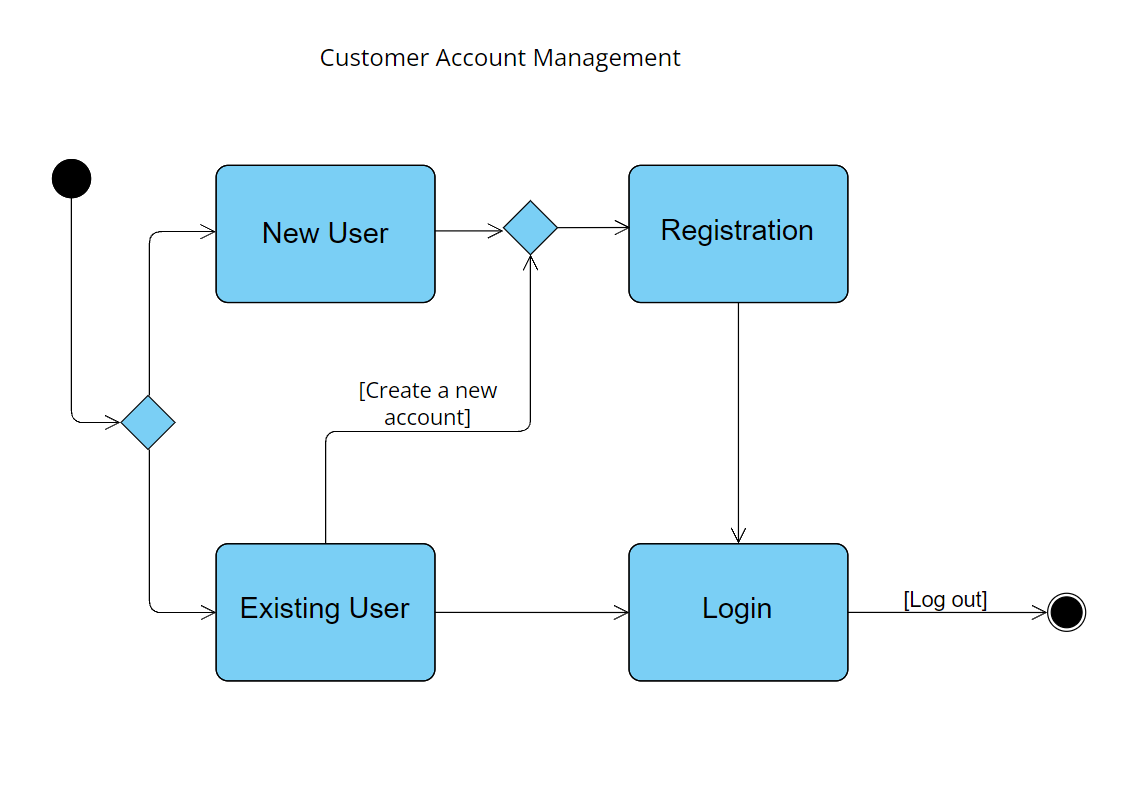


Figure 3-2-2: Account Management

Figure 3-2-3 below shows the state diagram to describe the process of customers who don’t have an account or don’t logged in.

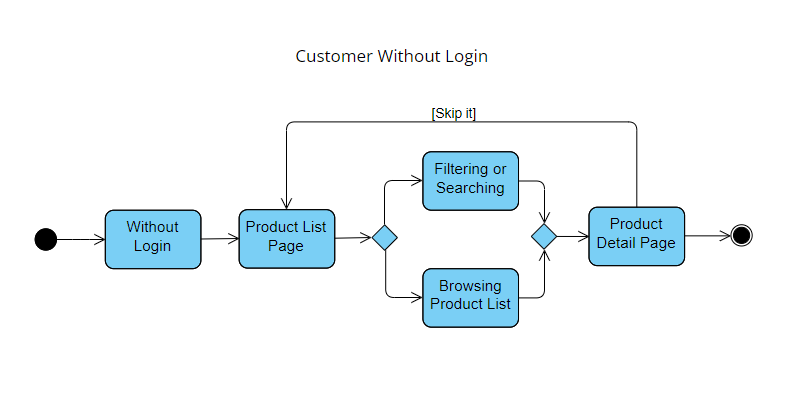


Figure 3-2-3: Not Logged In

Figure 3-2-4 below shows the state diagram to describe the process of logged-in customers.

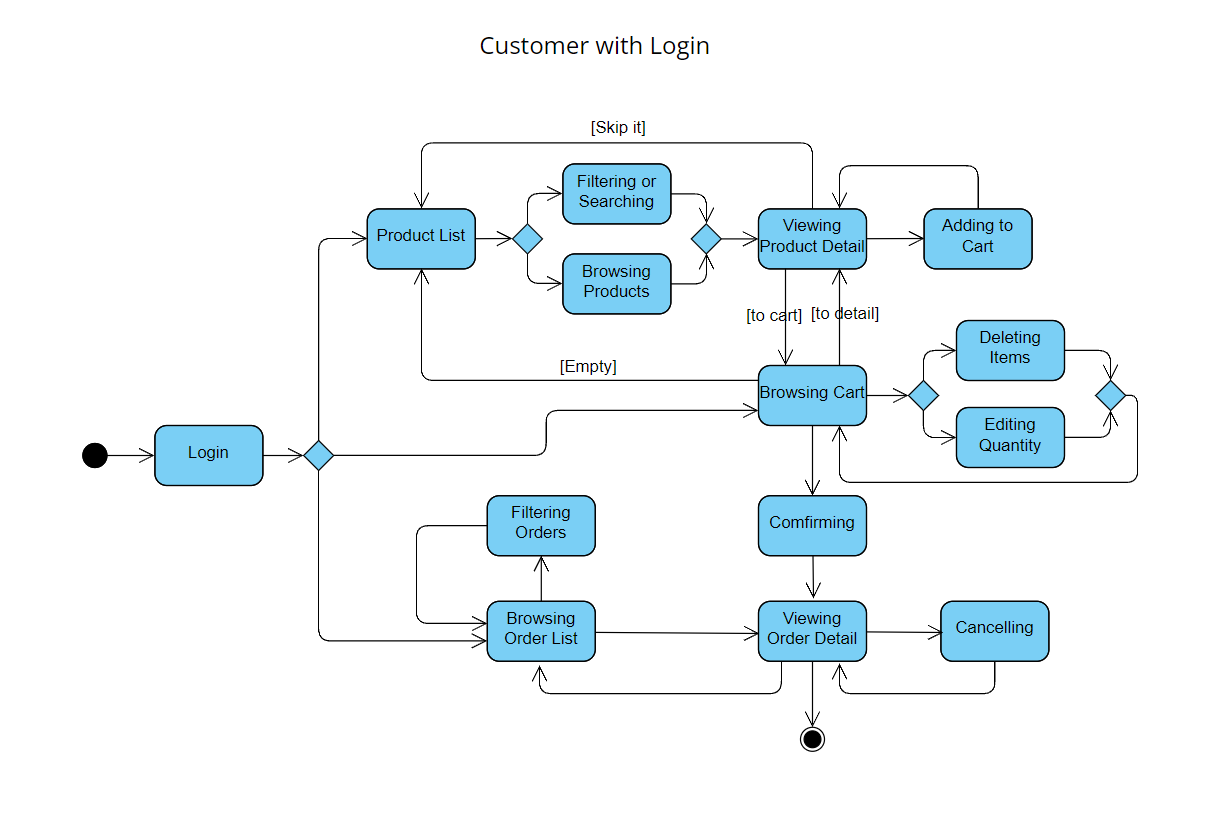


Figure 3-2-4: Logged-in Customers

Figure 3-2-5 below shows the state diagram to describe the process of logged-in customers.

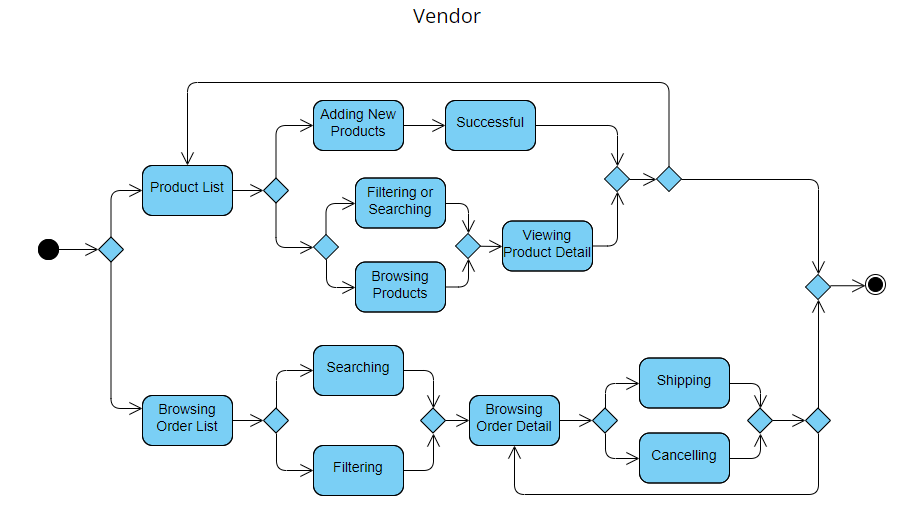


Figure 3-2-5: Vendor

### **Activity Diagrams**

Figure 3-2-6 below shows the activity diagram of customers.

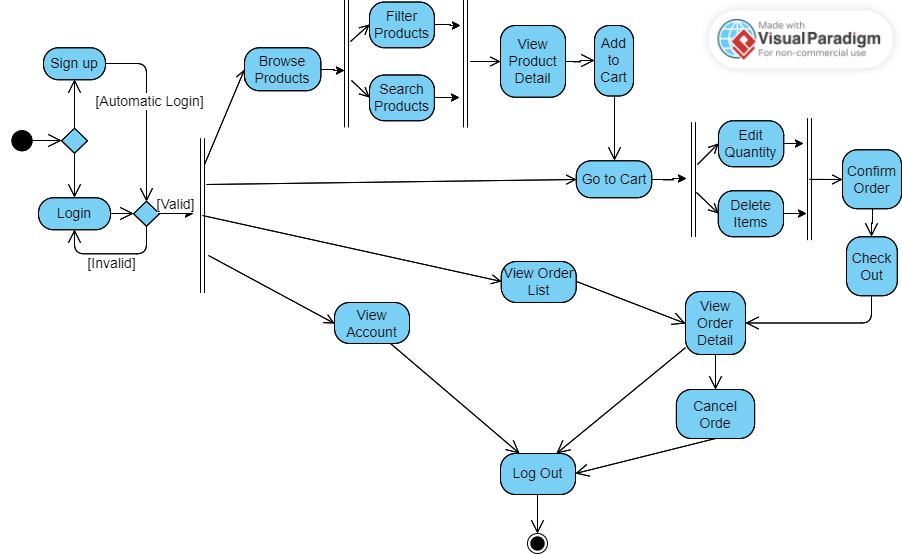


Figure 3-2-6: Activity Diagram of Customers

Figure 3-2-7 below shows the activity diagram of customers.

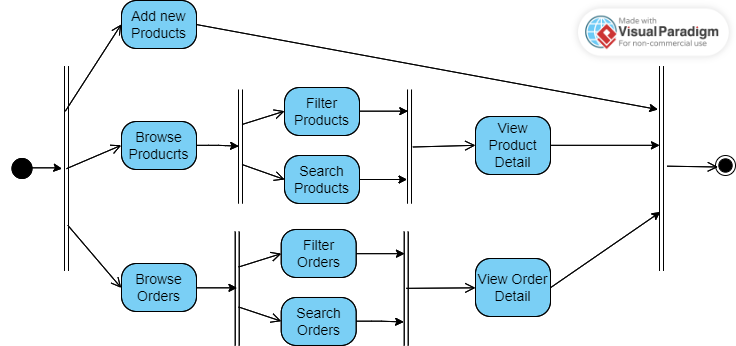


Figure 3-2-7: Activity Diagram of Vendor

