Deliverable #3

SE 3A04: Software Design II – Large System Design

Tutorial Number: T01
Group Number: G6
Group Members:

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- Nathan Luong
- Areez Visram
- Jennifer Ye

1 Introduction

The following document is dedicated to displaying various technical diagrams which fill in the various components of the system which were determined in Deliverable 2. The document shows heavily detailed state chart diagrams for every controller in the system, sequence diagrams for every use case for the system, and a detailed class diagram showing the interaction between all classes in the system.

1.1 Purpose

The purpose of this document is to communicate to the reader how the system will work in a visual way. The purpose of the various diagrams is to show enough detail that a reader can understand how the system will function and interact in different scenarios and in different states. The intended audience of this document are readers that come from a technical background. A reader with a technical software background would be equipped to adequately understand the various types of diagrams that are shown in this document.

1.2 System Description

This system is an Android application which empowers the ability to book taxi carpools via a user-friendly interface. The application securely stores customer personal information such as carpool request histories, and personal data inputted by the user. The product is not self-contained since its functionality depends on Google Maps for mapping integration. The product scope mainly covers a match making functionality to match potential carpoolers together. The feature will be implemented under a centralized dispatcher which communicate with the mobile app and user's database. Fare determination will be covered under the scope of the app, however payment processing is external to the system.

1.3 Overview

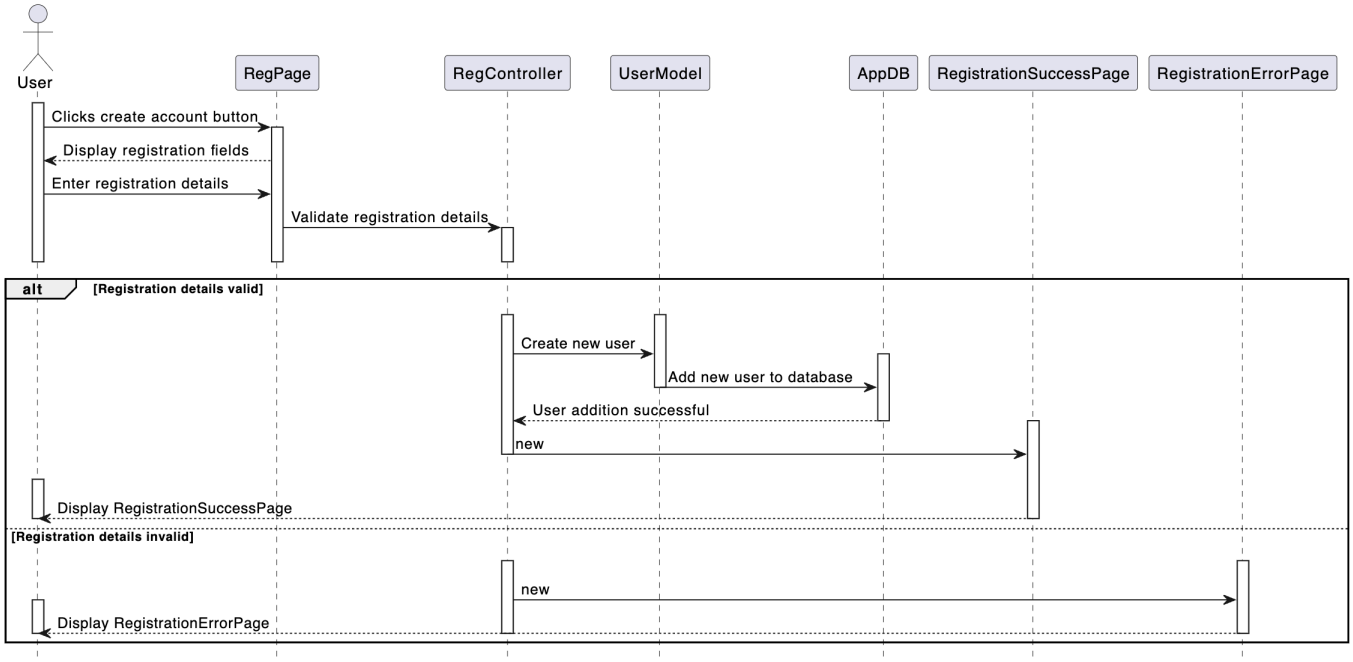
This document is organized into 4 distinct sections. The first section is an introduction to the document containing the purpose and description of the system. The second section displays state charts for the system. The state charts express what each of the controller classes do as the application runs. The third section displays sequence diagrams for each use case of the system. The sequence diagrams communicate the sequence and lifeline of various system objects as use cases occur. The fourth and final section contains a detailed class diagram which provides the internal details of all classes, as well as how they are connected with each other. This document also contains an appendix, which has a Division of Labour outlining the contributions of each team member to the document.

2 State Charts for Controller Classes

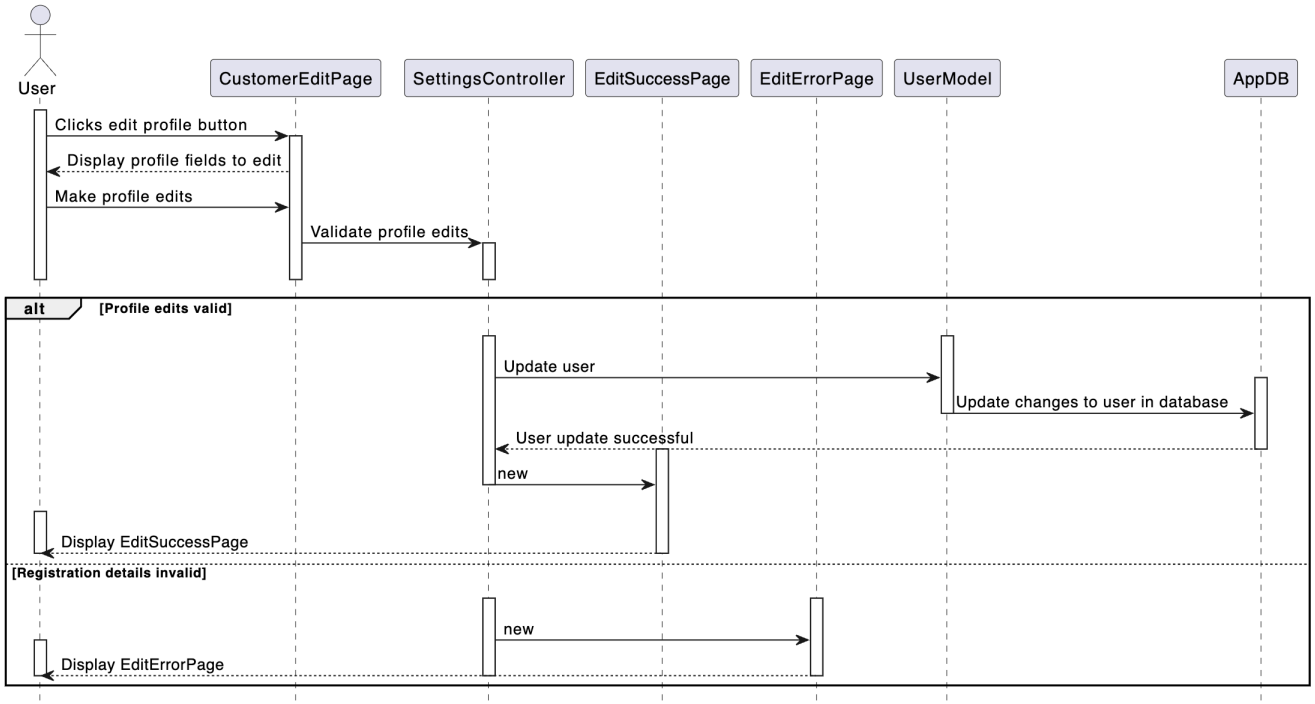
This section should provide a state chart for each controller class for your application.

3 Sequence Diagrams

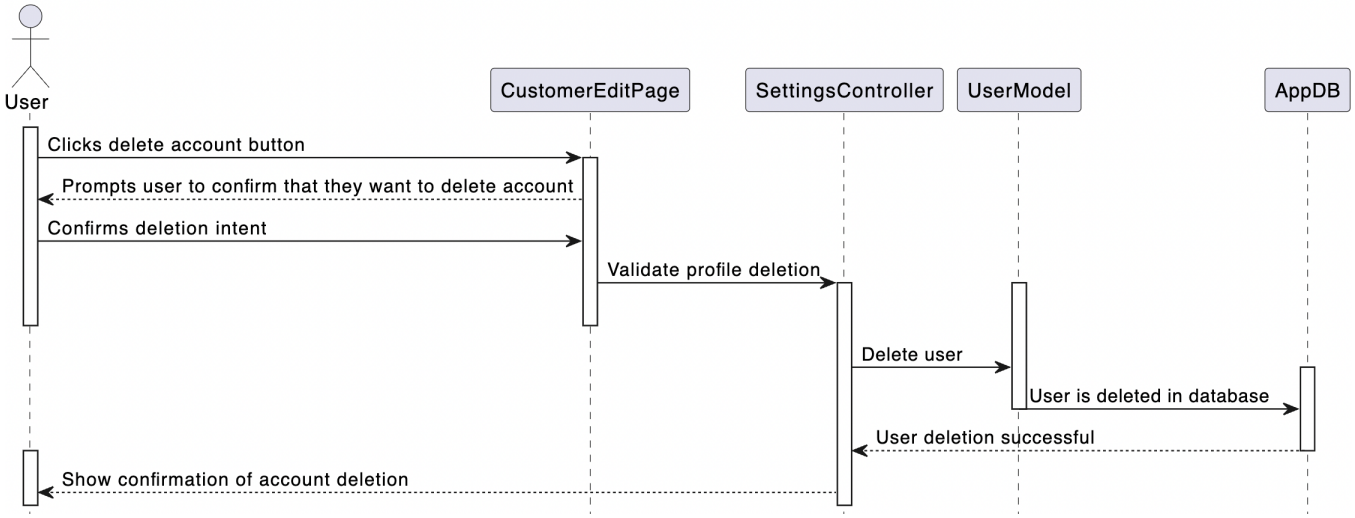
Use Case: User Creates Account



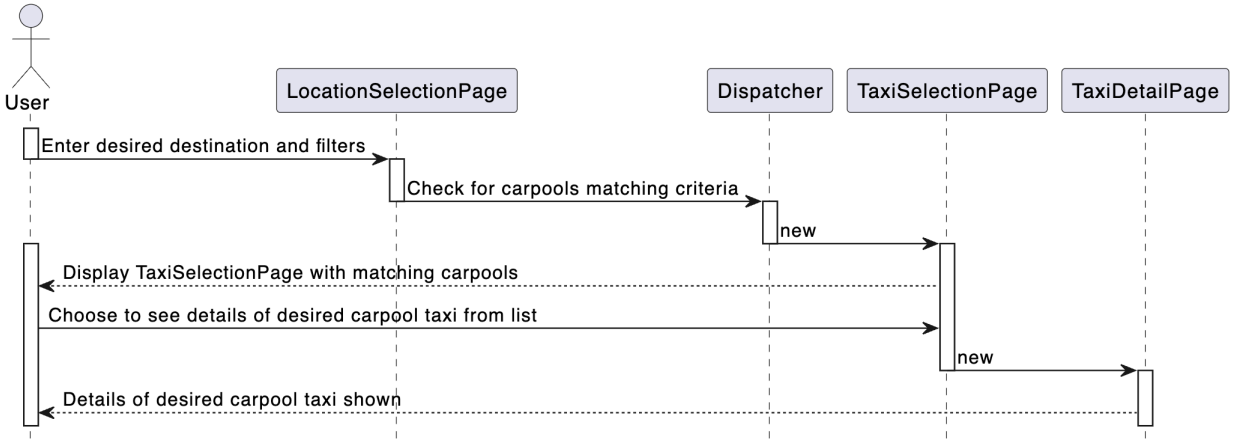
Use Case: User Edits Profile



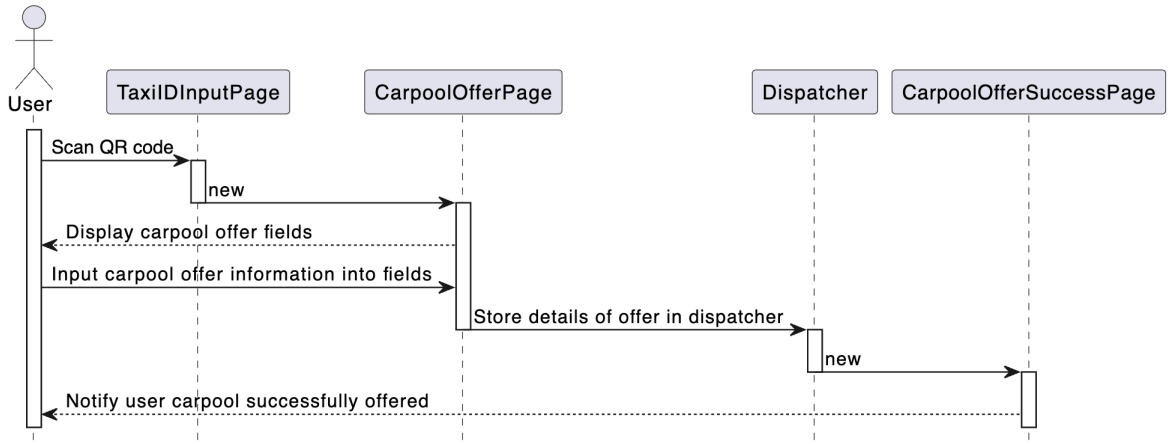
Use Case: User Deletes Account



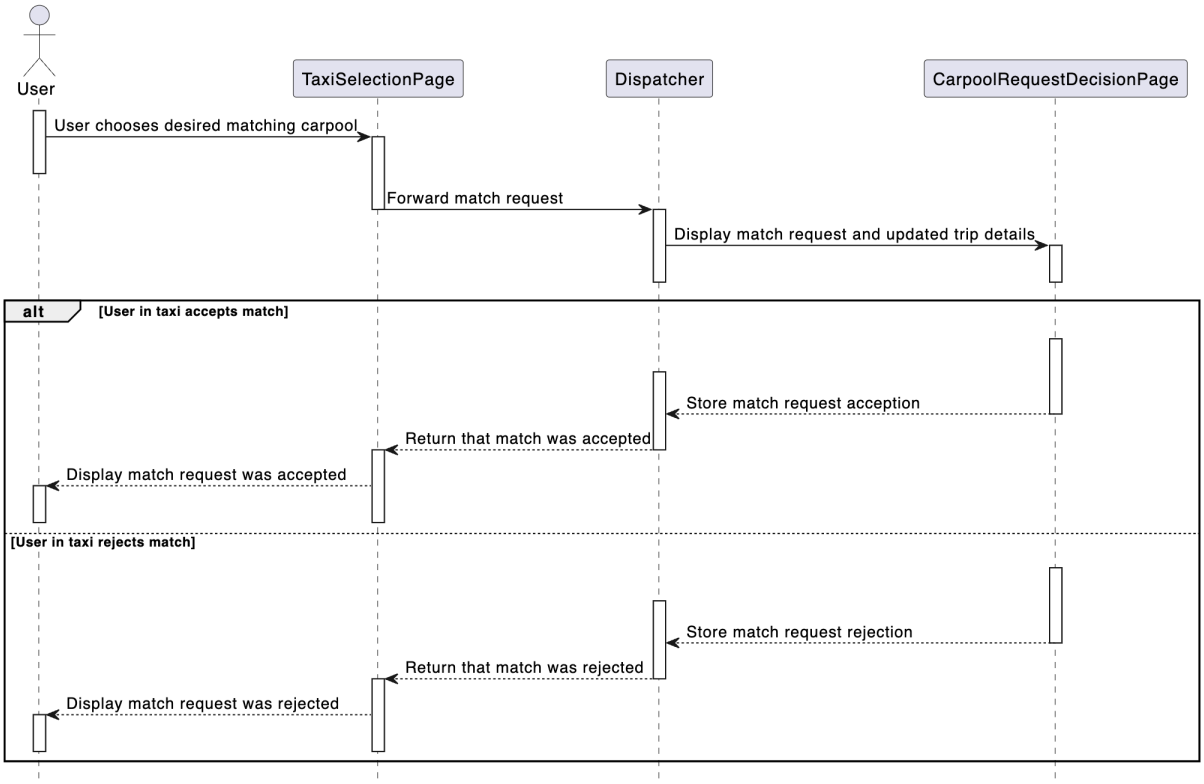
Use Case: Taxi Carpool is Requested



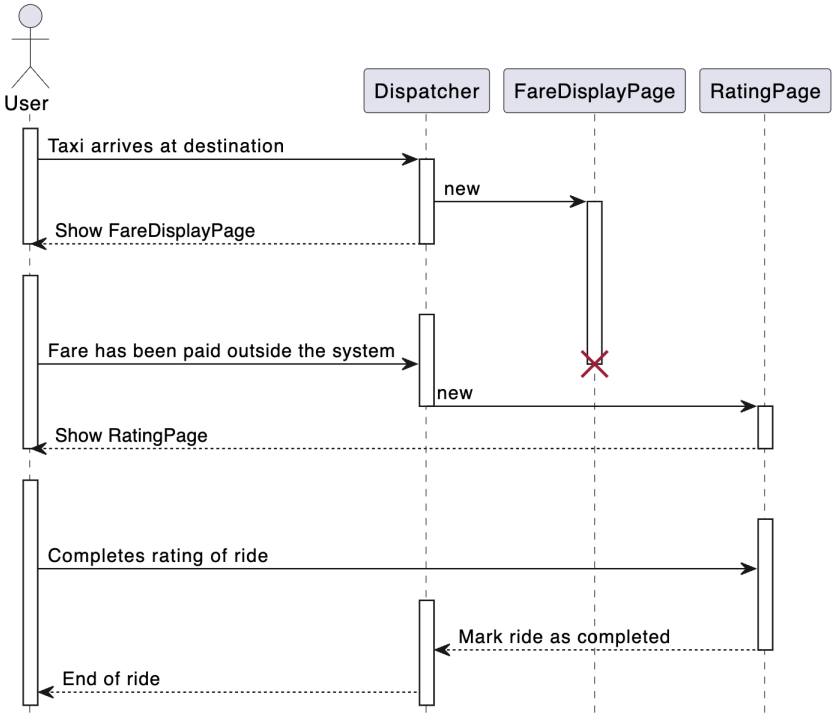
Use Case: Taxi Carpool is Offered



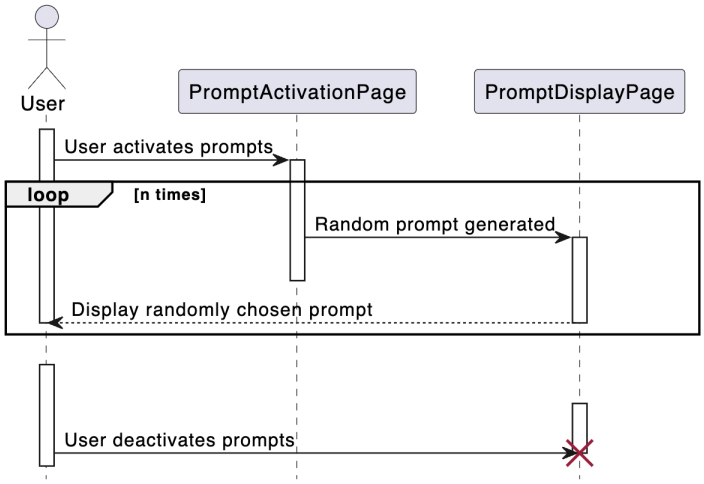
Use Case: Requester Chooses Match, Offerer Accepts Match



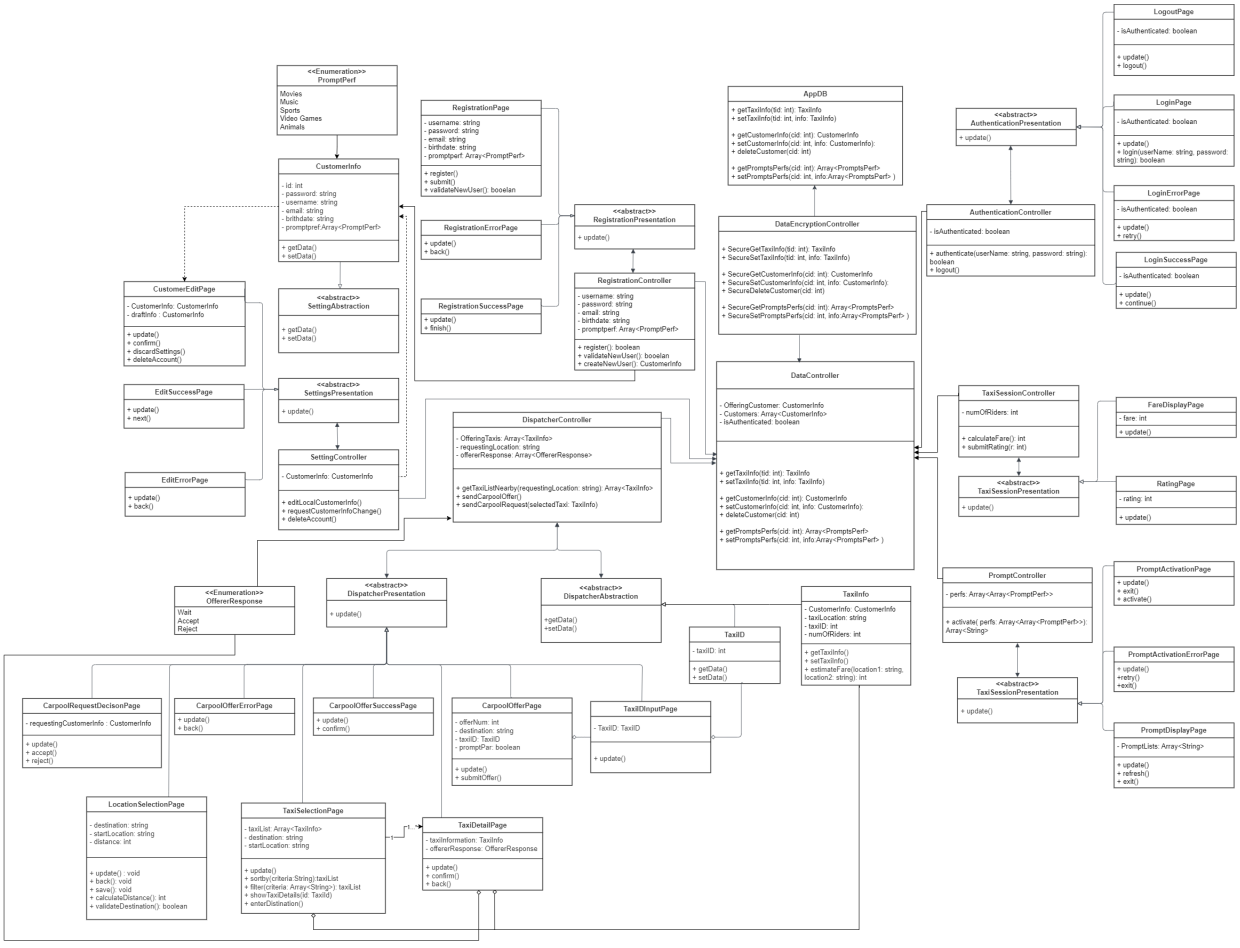
Use Case: Taxi Carpool Arrives at Destination



Use Case: Carpoolers Activate Prompts

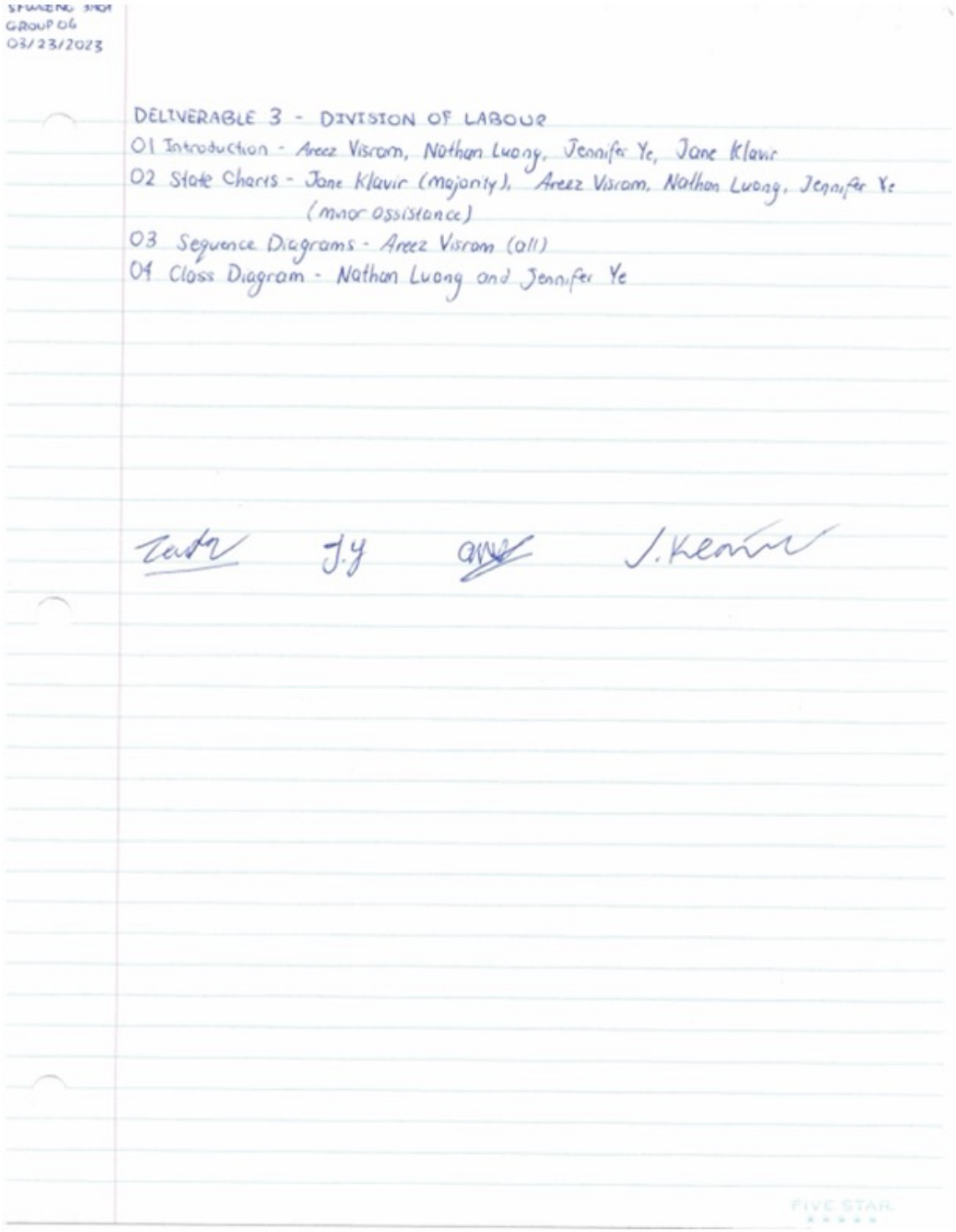


4 Detailed Class Diagram



The full diagram can be seen here: UML Diagram Full

A Division of Labour



GROUP 06
03/23/2023

DELIVERABLE 3 - DIVISION OF LABOUR

01 Introduction - Areez Visram, Nathan Luong, Jennifer Ye, Jane Klavir

02 State Charts - Jane Klavir (majority), Areez Visram, Nathan Luong, Jennifer Ye (minor assistance)

03 Sequence Diagrams - Areez Visram (all)

04 Class Diagram - Nathan Luong and Jennifer Ye

FIVE STAR