

SFWR ENG 3A04 Project
Cabpool
Deliverable 3 - Class Diagrams

Group 10

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1 Introduction

1.1 Purpose

The purpose of this document is to identify and analyse the major components of the system. This document will show the overview of the system using state charts, sequence diagrams, and a detailed class diagram. The reader will understand the system behaviour and follow how the app runs. The document will familiarize a user with the architecture of the system and responsibilities of the states. This document was created for software engineers, developers and management. These users shall be able to read and understand how the Application will work on a higher level after reading this document.

1.2 System Description

Cabpool will be an Android Application created for a Hamilton taxi company to be used in conjunction with their Dispatcher system with the aim of attracting customers by implementing a system that allows users to share taxis. The software will serve as a social networking service to connect users who want to travel to similar locations. The software will provide a platform for users to share taxis and reduce individual fare cost without having to share personal contact information. The software will allow the User to enter a taxi and scan the taxi QR code to offer the taxi and will also allow a User to request a taxi. When offering or requesting a taxi the User can accept or reject a taxi share match based on distance, rating and fare price.

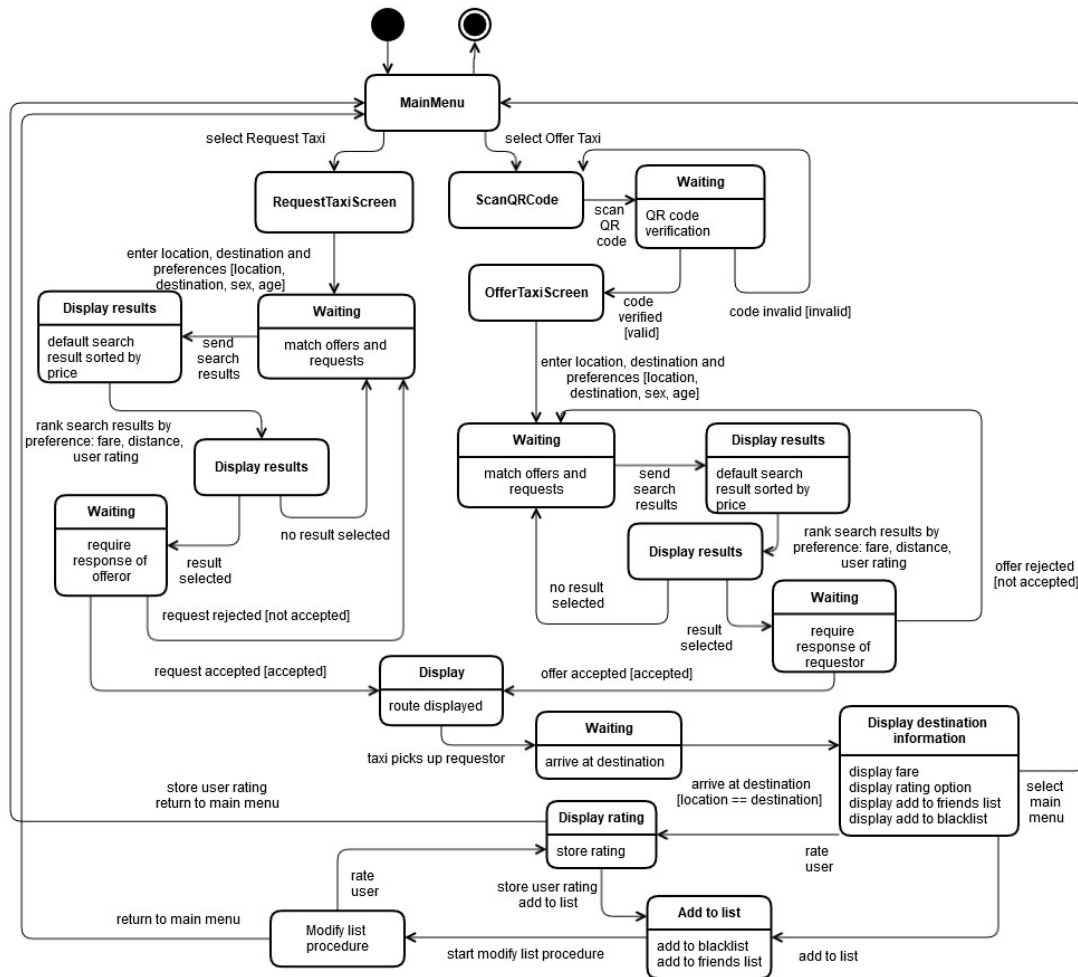
Additionally, the User of the software shall be able to add users to their Friends List and share contact information with one another. Conversely, users will be able to add other users to a Blacklist to ensure they never share a cab with that User again. The User can also manage their own Favourite Locations List. If a User is travelling to a location on another user's Favourite Locations List, and wants to offer to share their taxi, the system can notify the user(s) outside the cab if they would like to join. The software will interface with Google Maps to enable users to view their route and potential route changes. The software shall not allow third party interception of personal information nor shall it allow release of personal information to unauthorized Users.

1.3 Overview

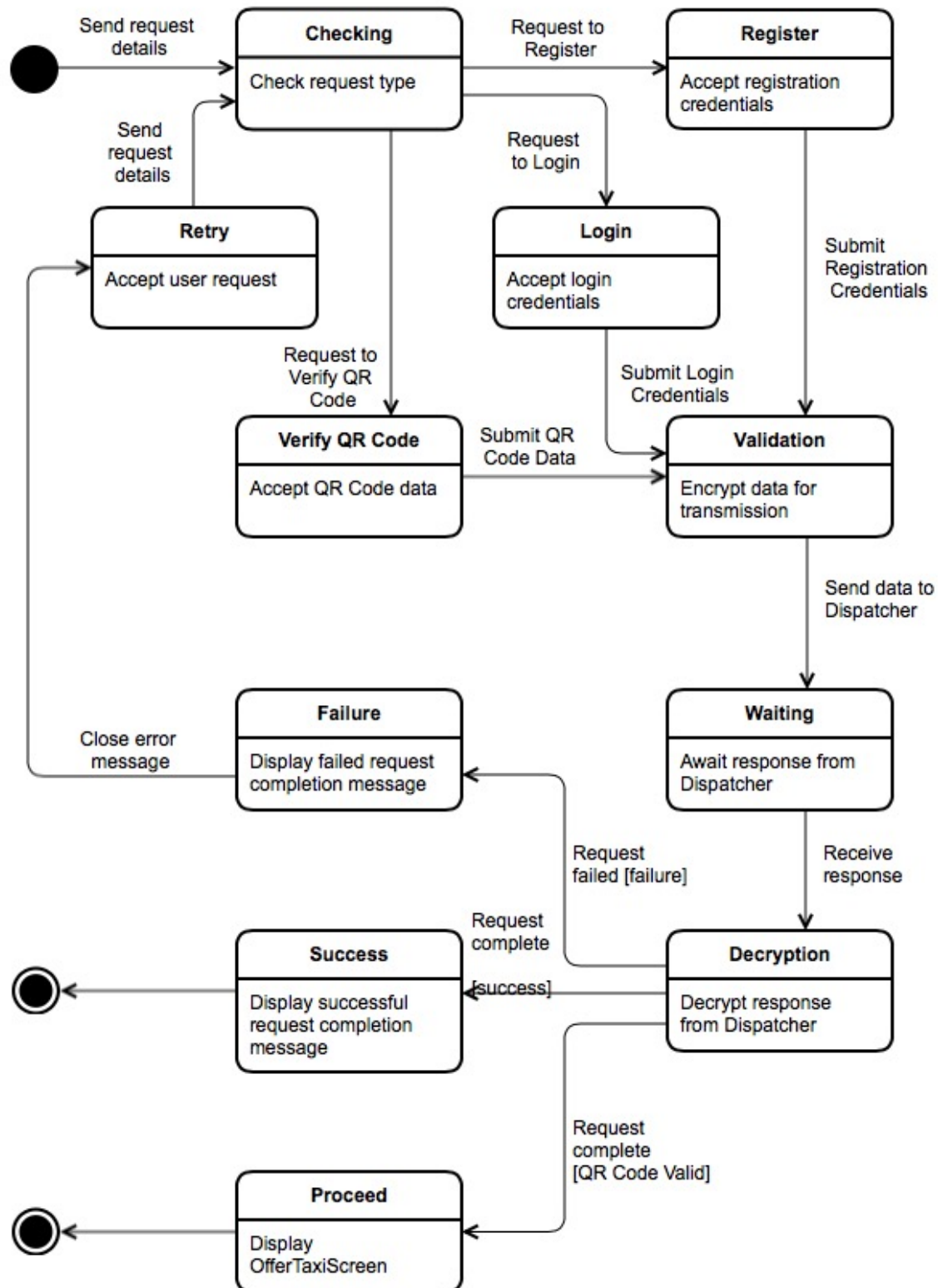
Section 2 of this document contains state charts for controller classes. Section 3 contains a sequence diagrams for each class. Section 4 provides a detailed class diagram for the app.

2 State Charts for Controller Classes

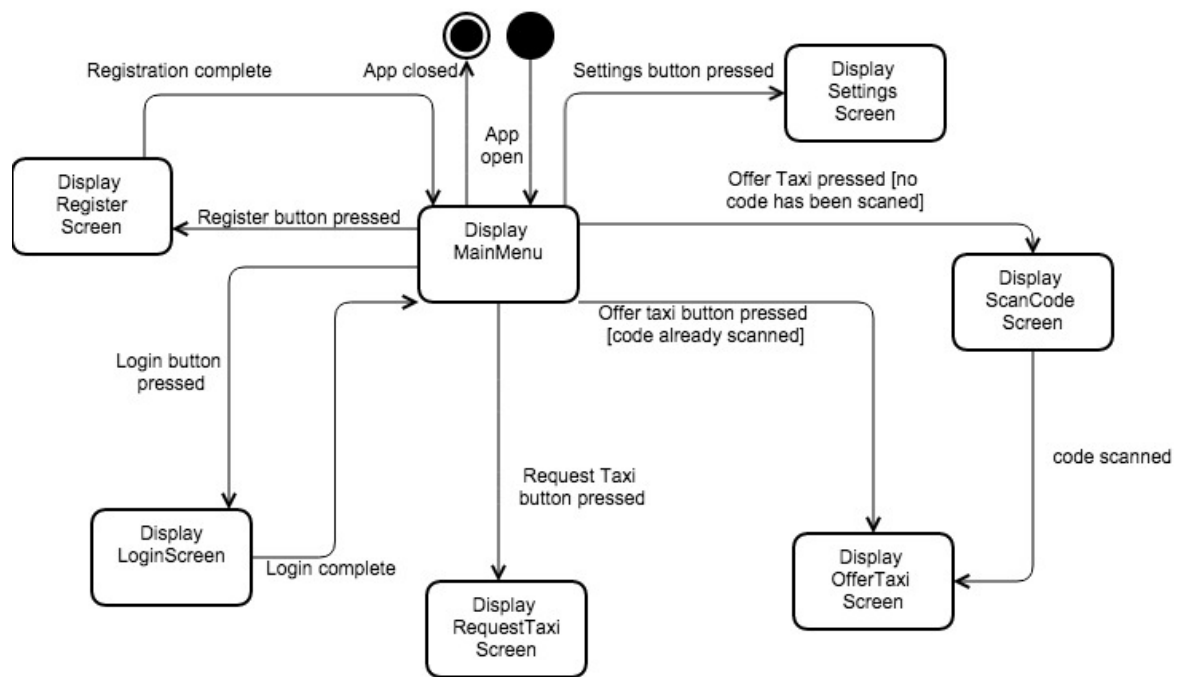
2.1 Share Controller



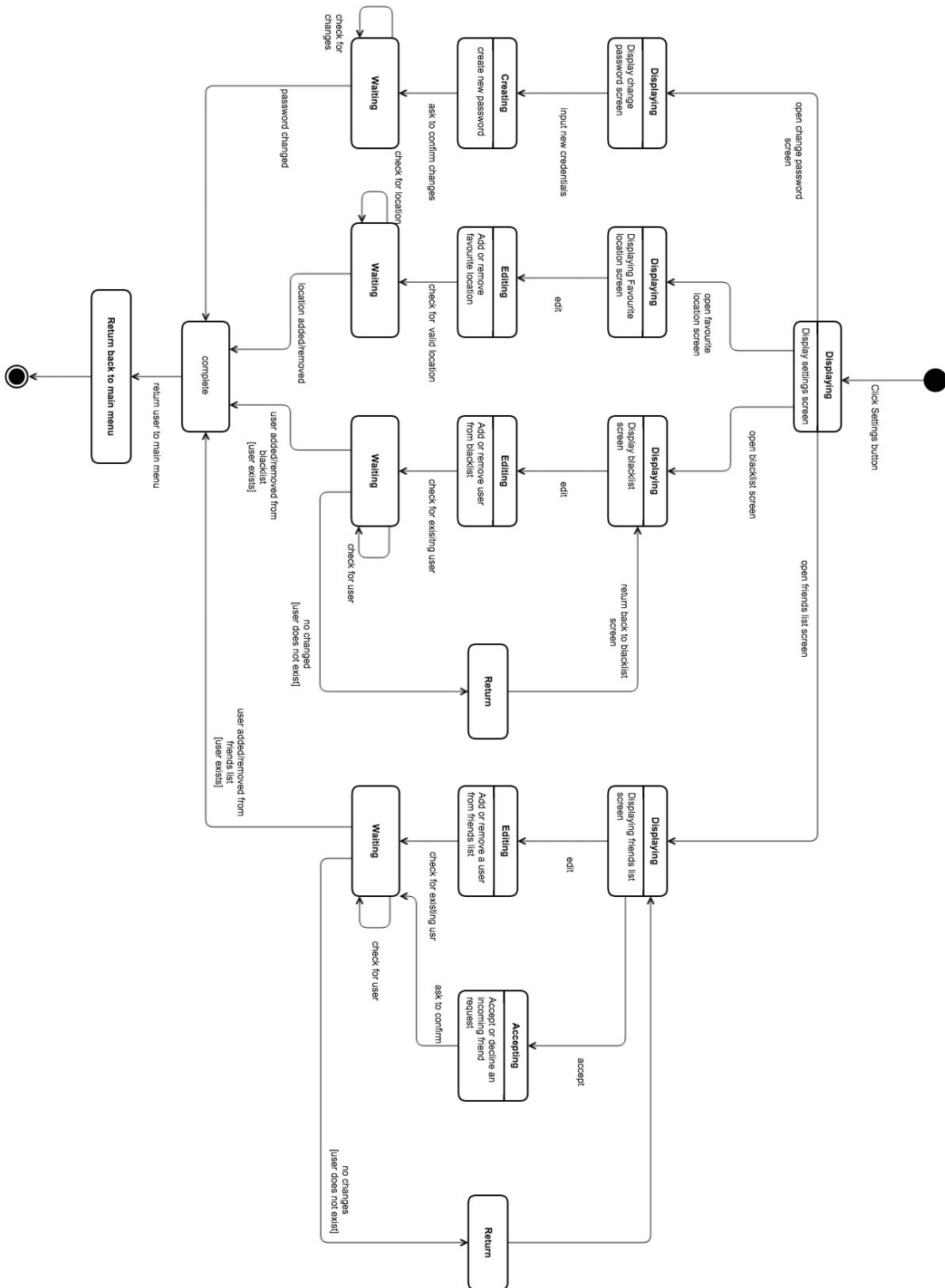
2.2 Security Controller



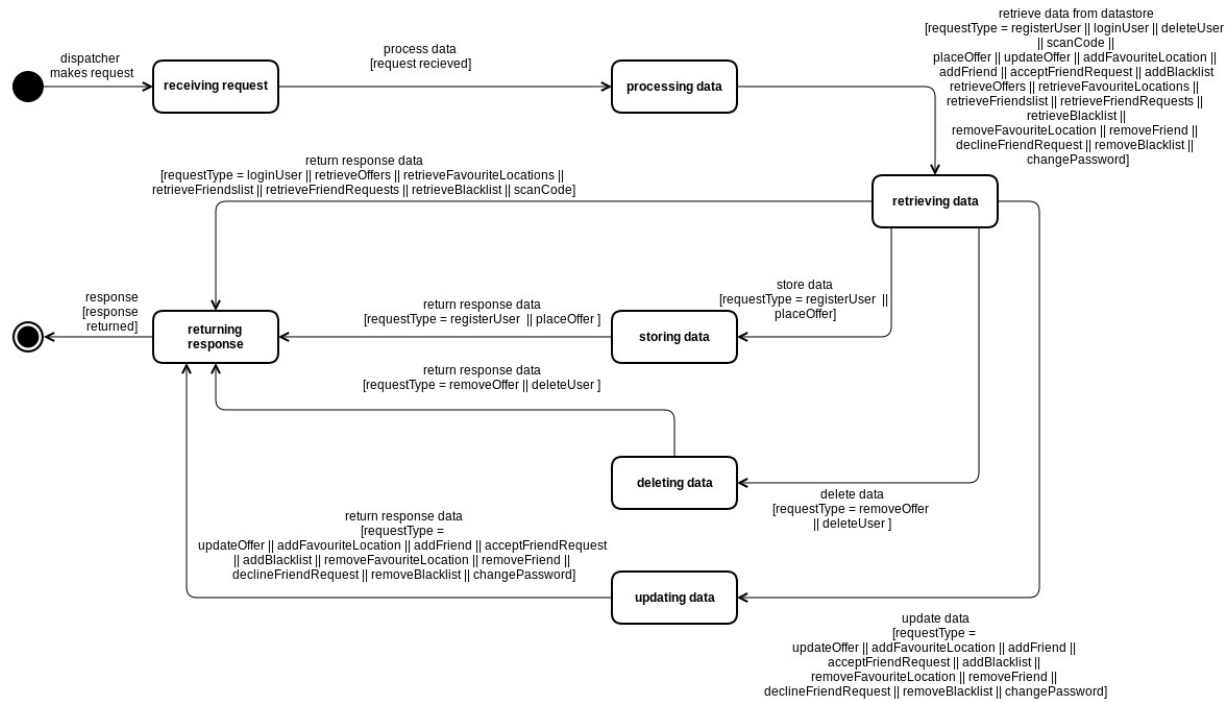
2.3 Main Controller



2.4 Settings Controller

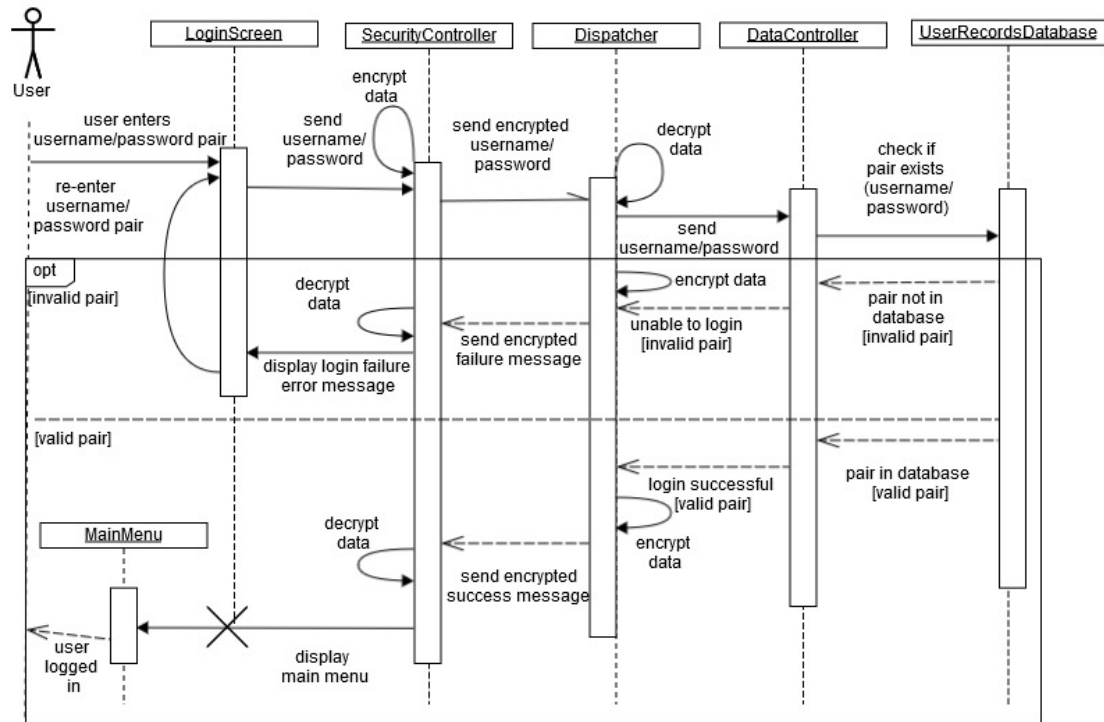


2.5 Data Controller

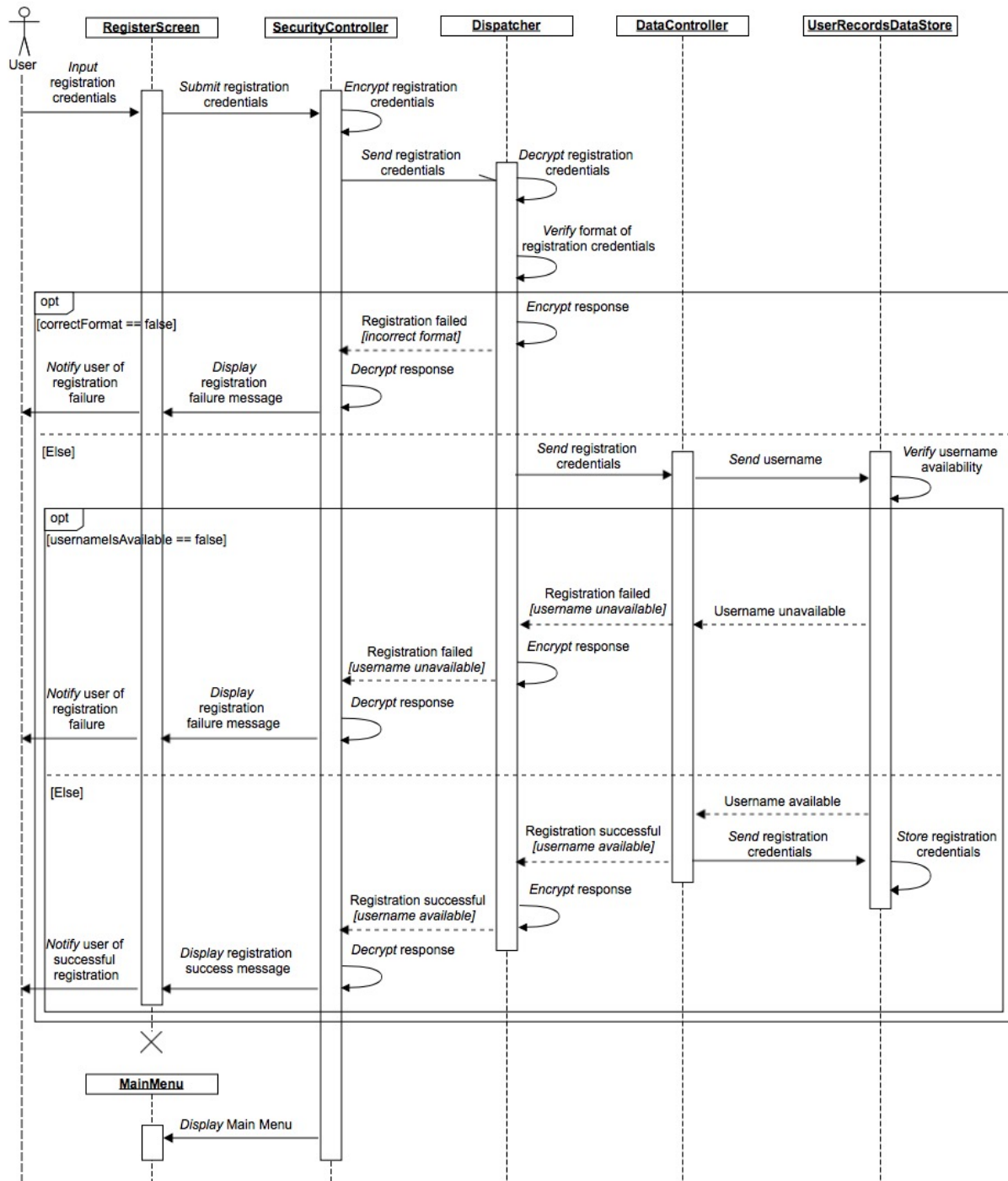


3 Sequence Diagrams

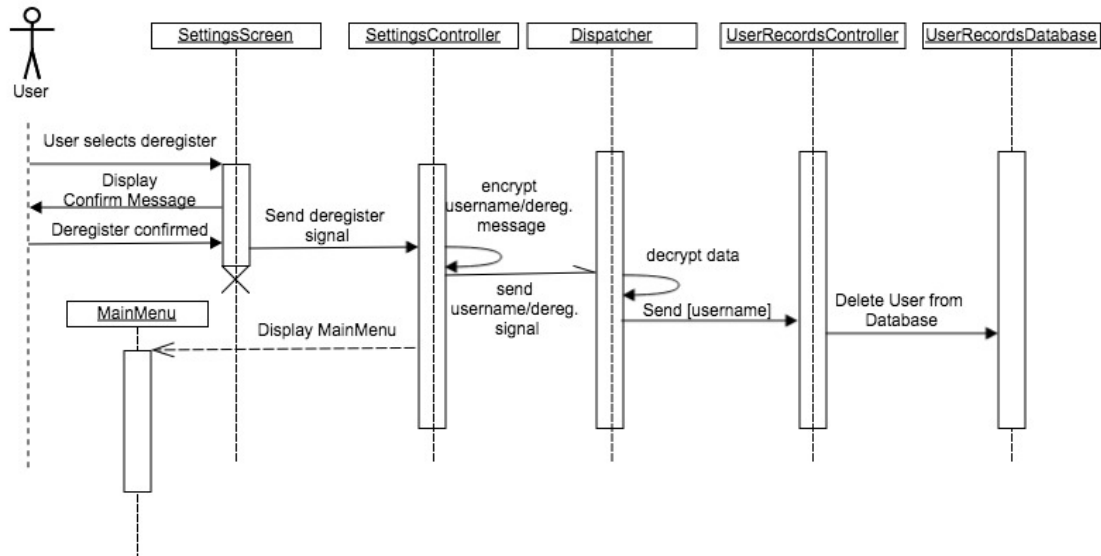
3.1 Login Screen



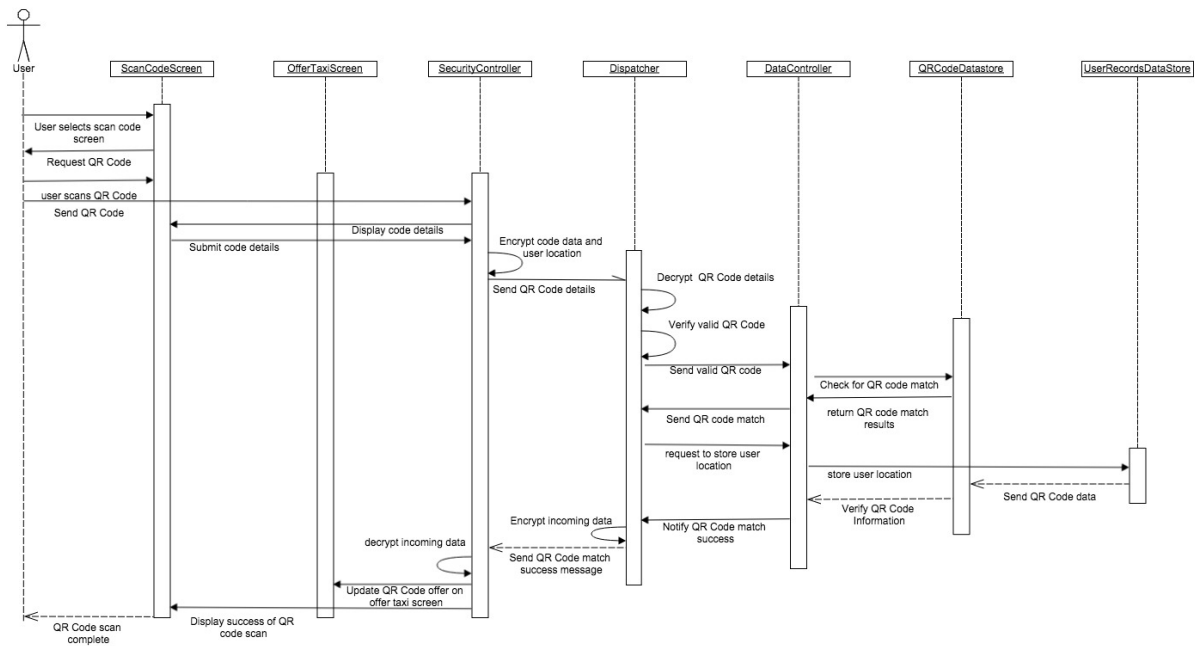
3.2 Register



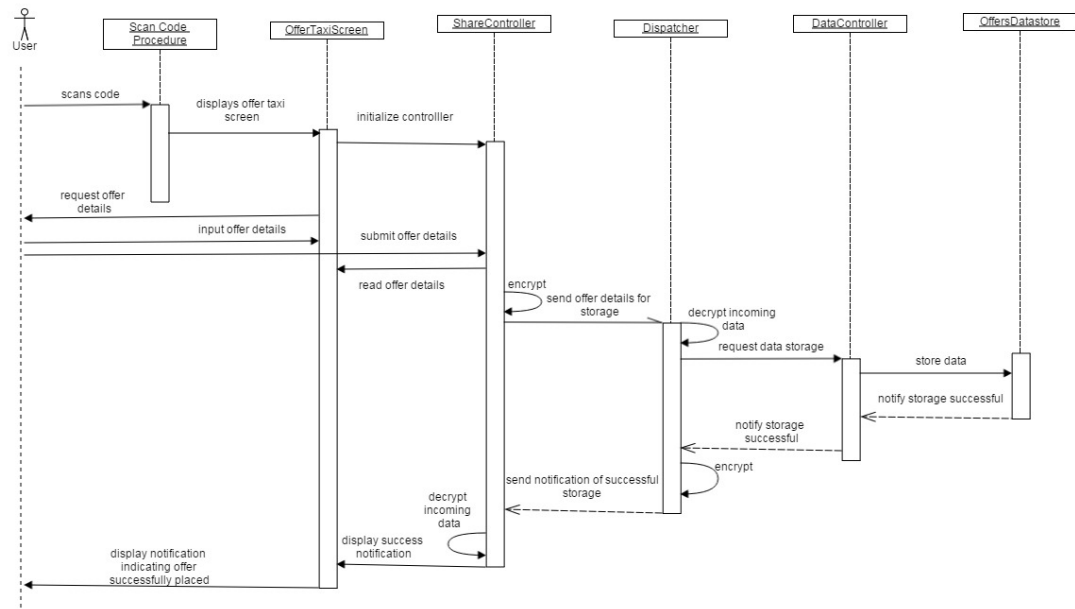
3.3 Deregister



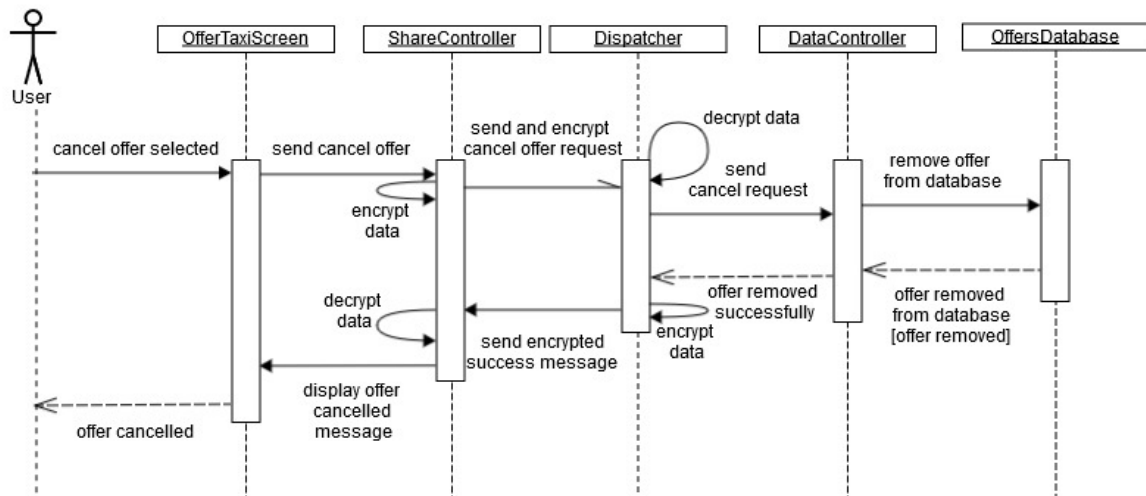
3.4 Scan QR Code



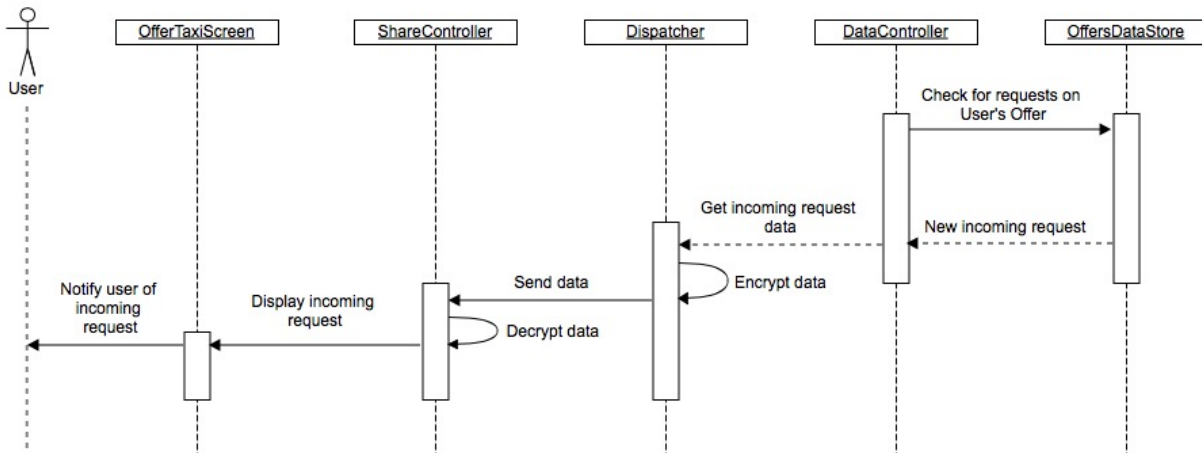
3.5 Offer Taxi



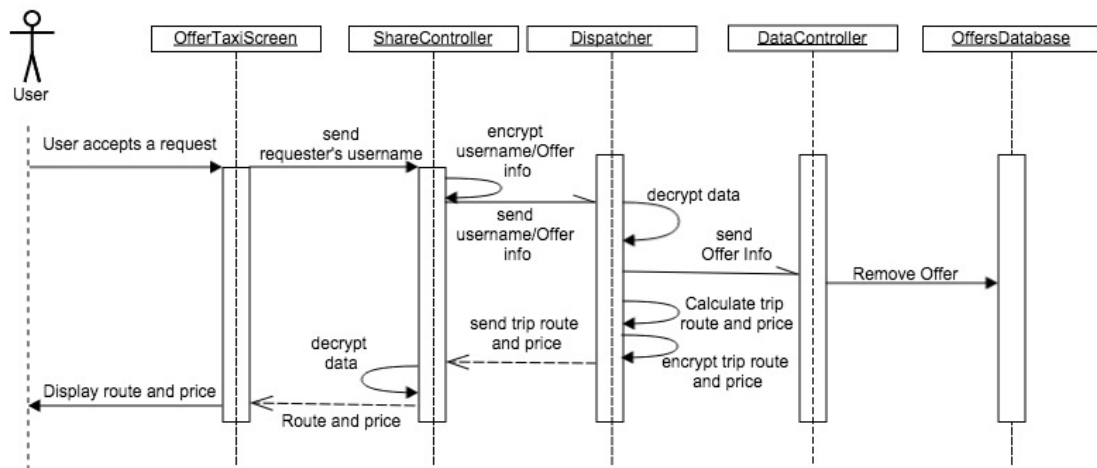
3.6 Cancel Offer



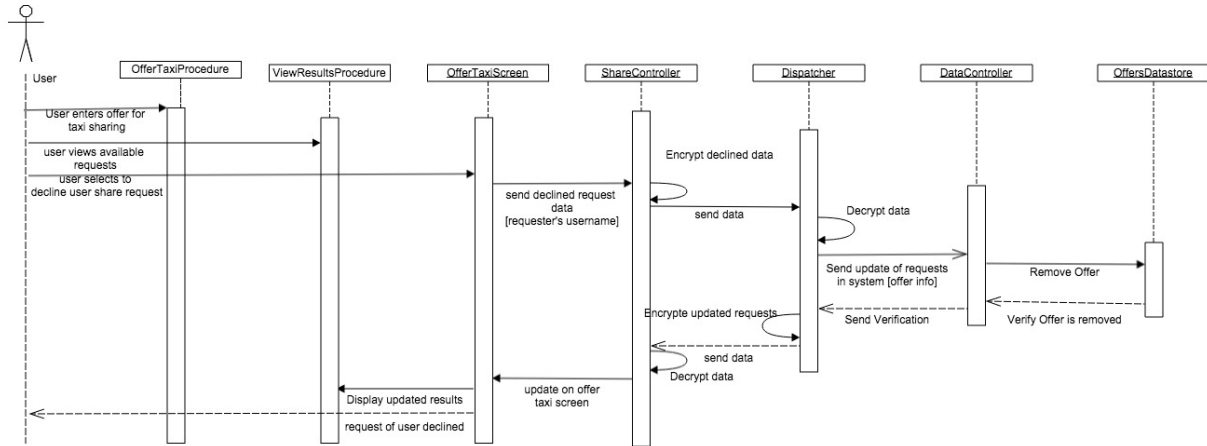
3.7 View Incoming Request



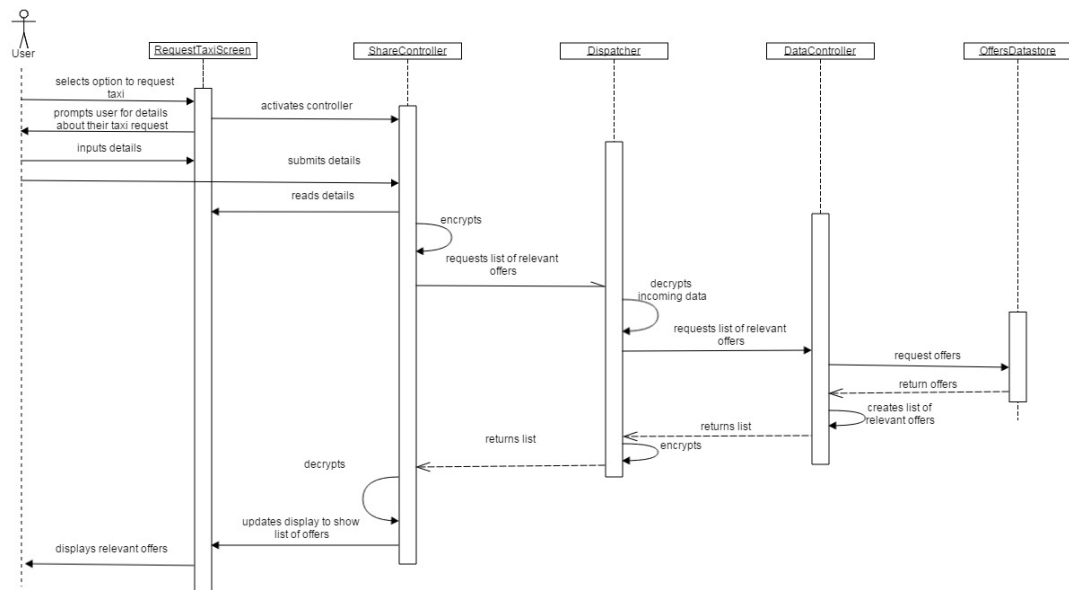
3.8 Accept User



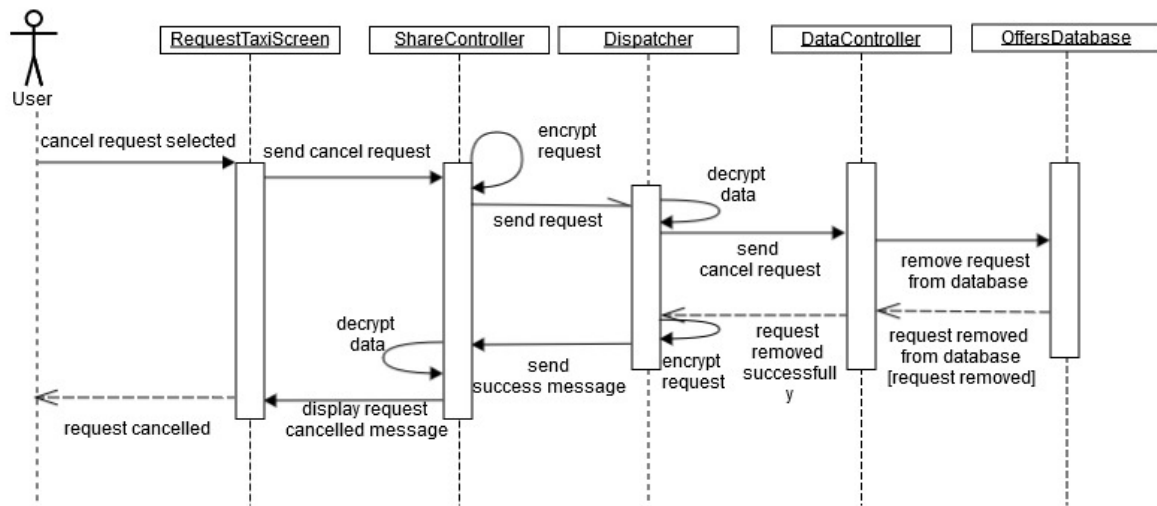
3.9 Decline User



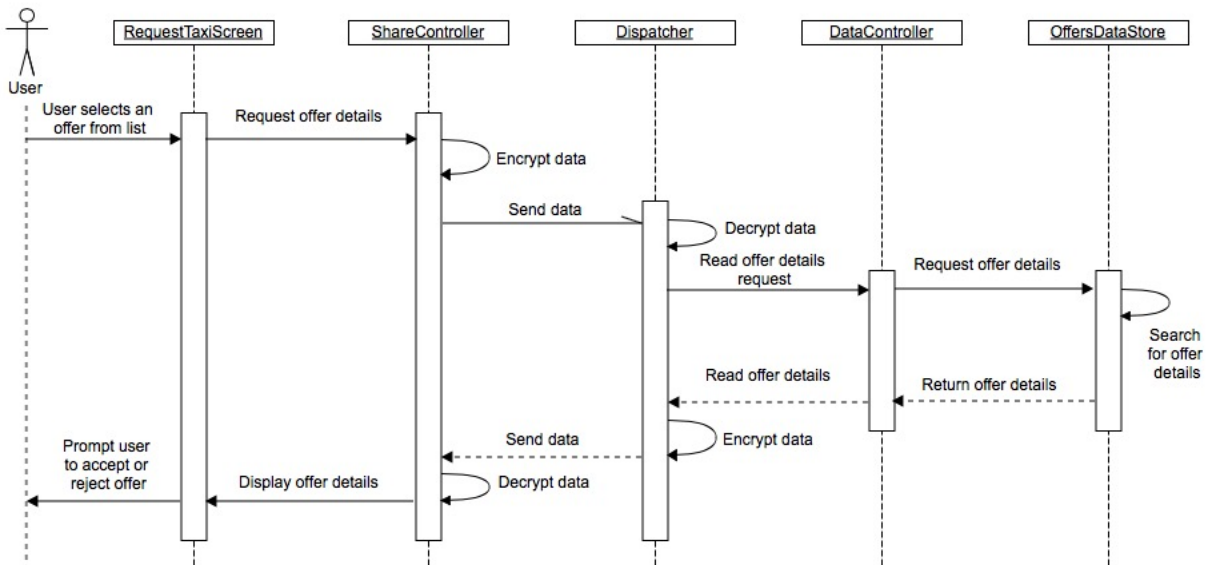
3.10 Request Taxi



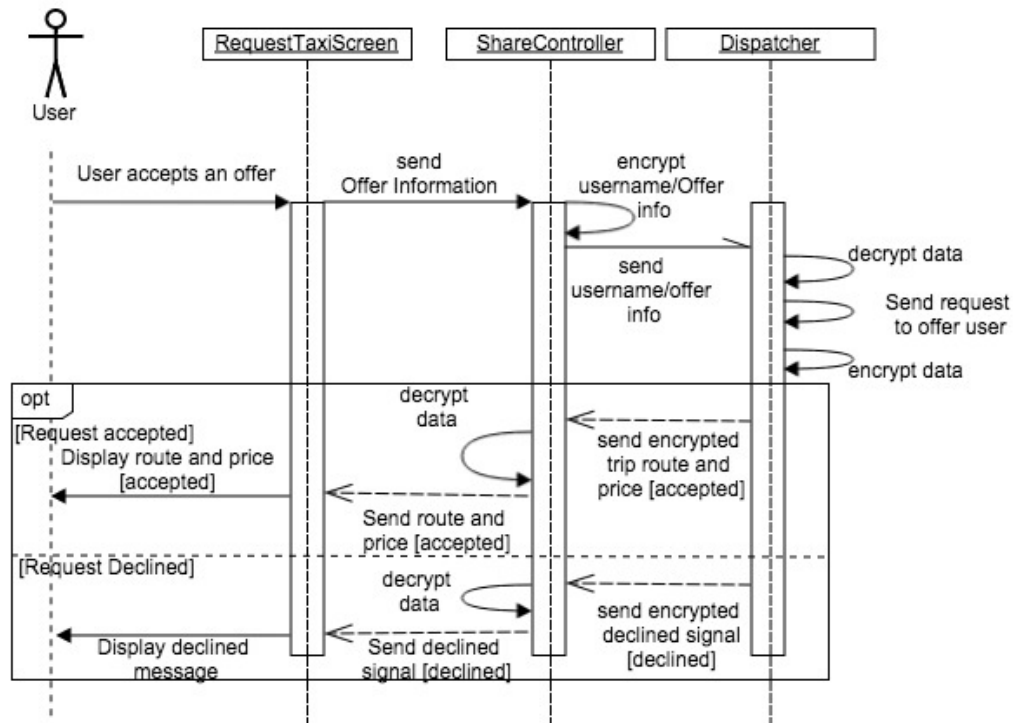
3.11 Cancel Request



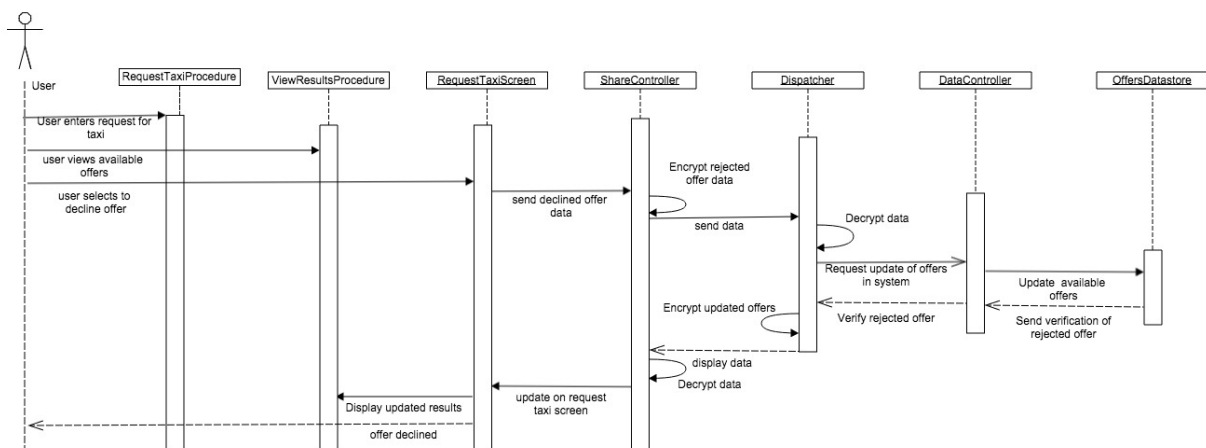
3.12 View Search Results



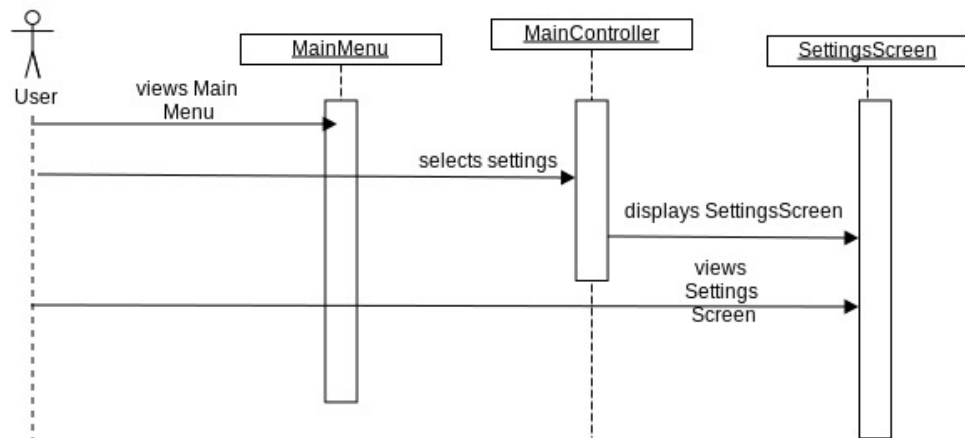
3.13 Accept Offer



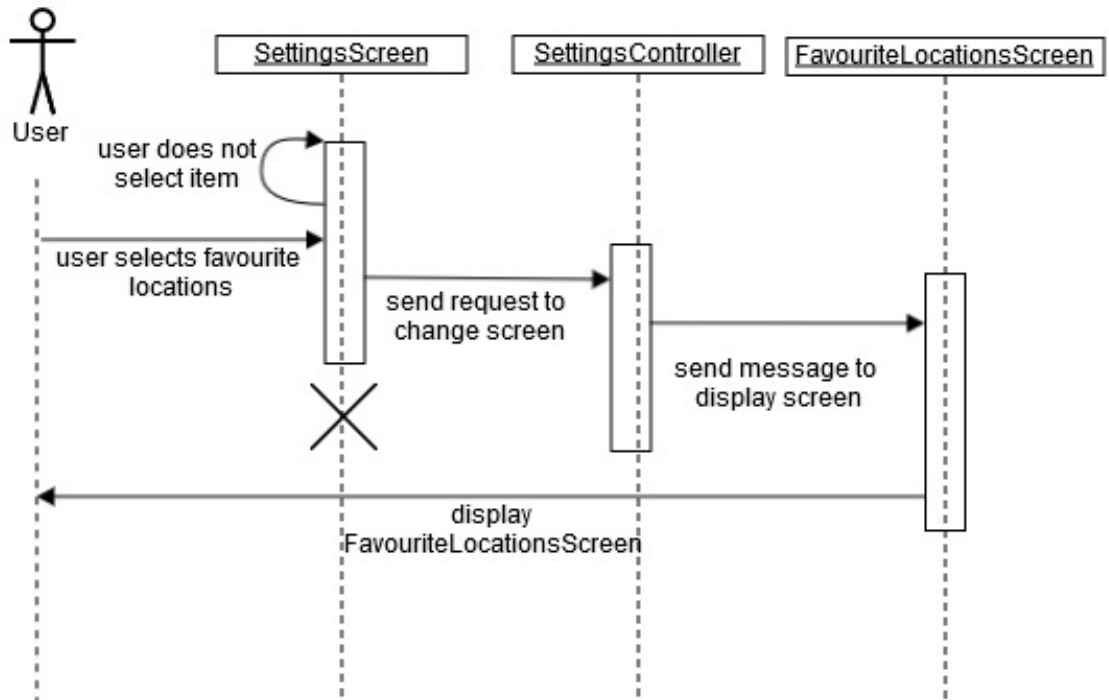
3.14 Reject Offer



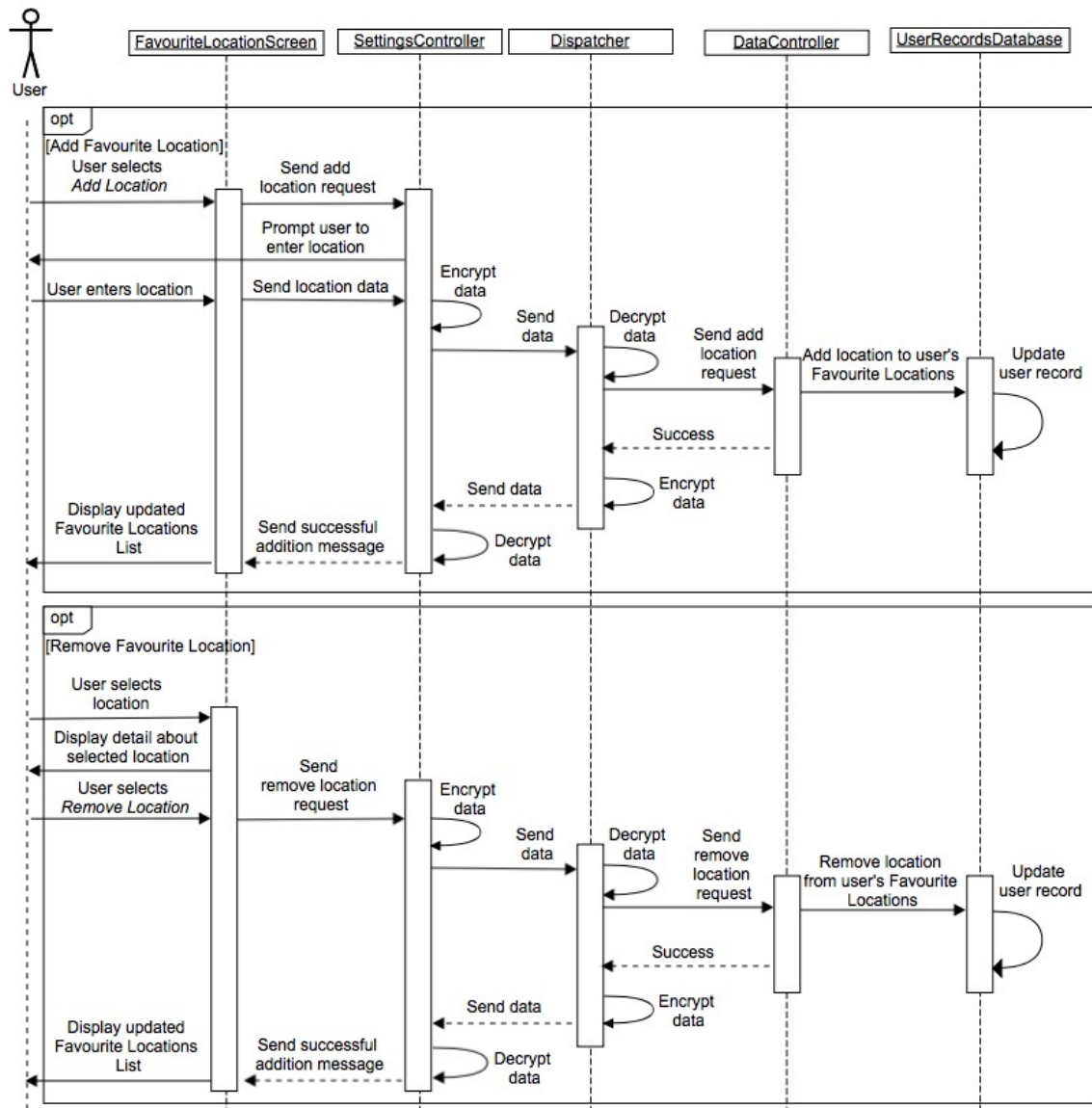
3.15 Select Settings



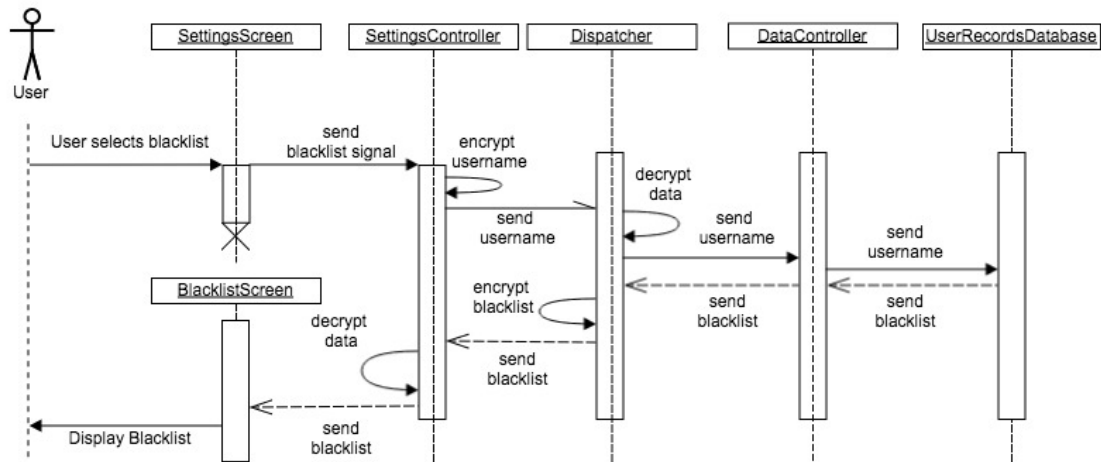
3.16 Select Favourite Locations



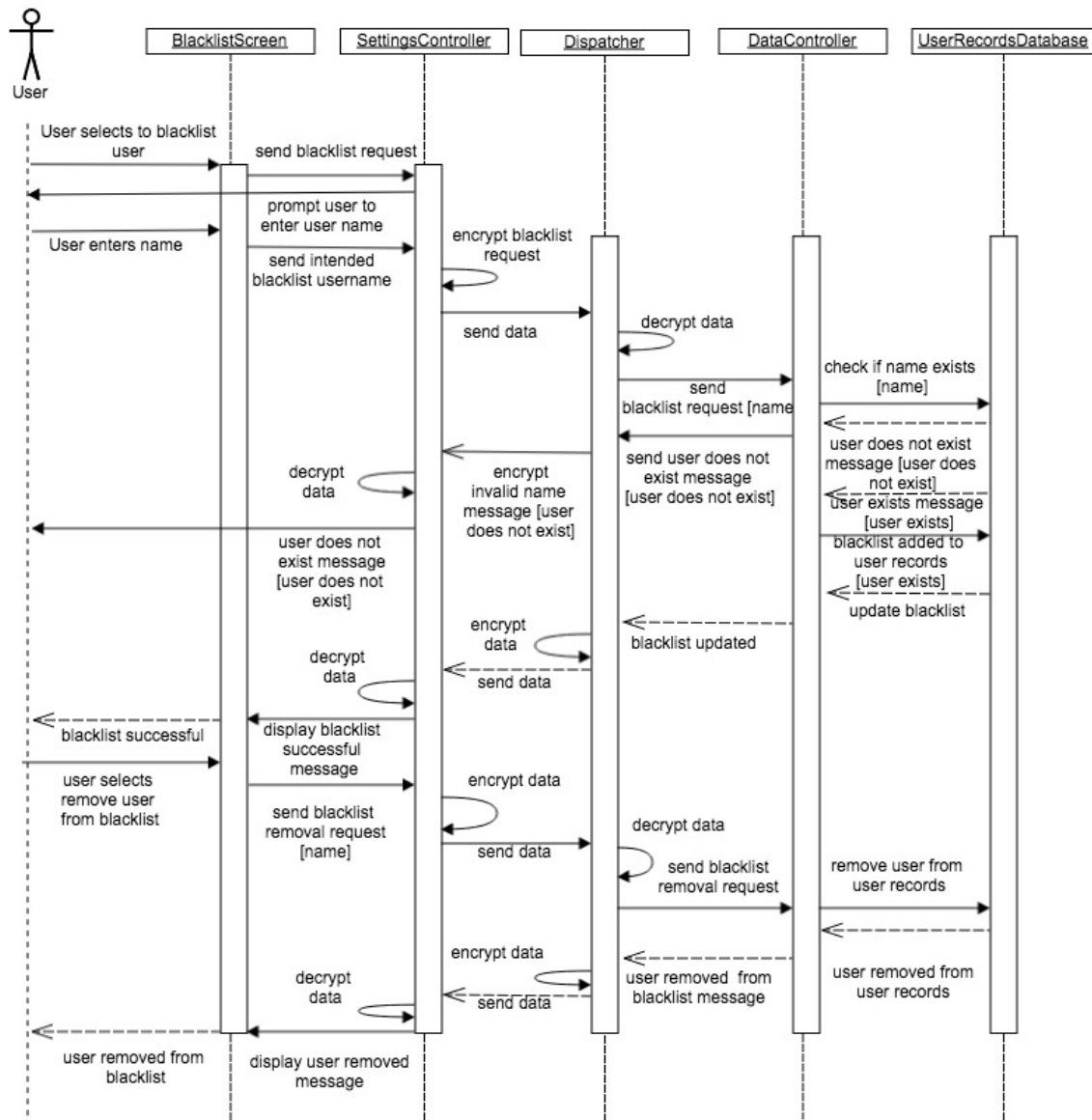
3.17 Modify Favourite Locations



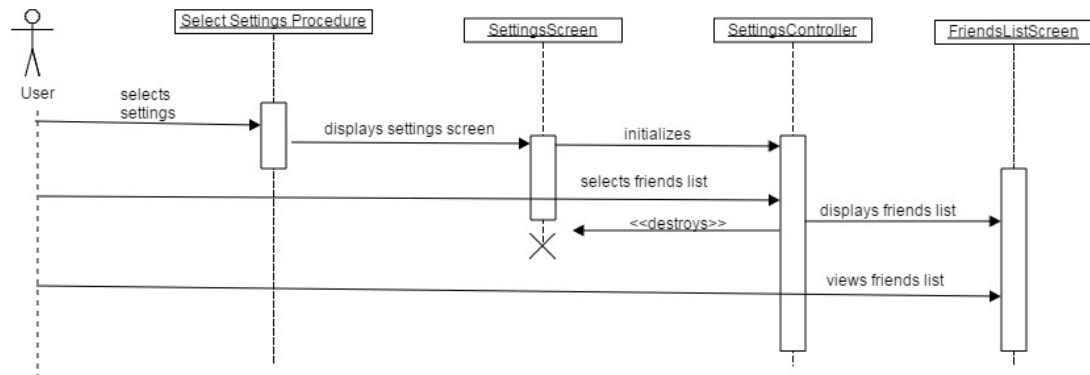
3.18 Select Blacklist



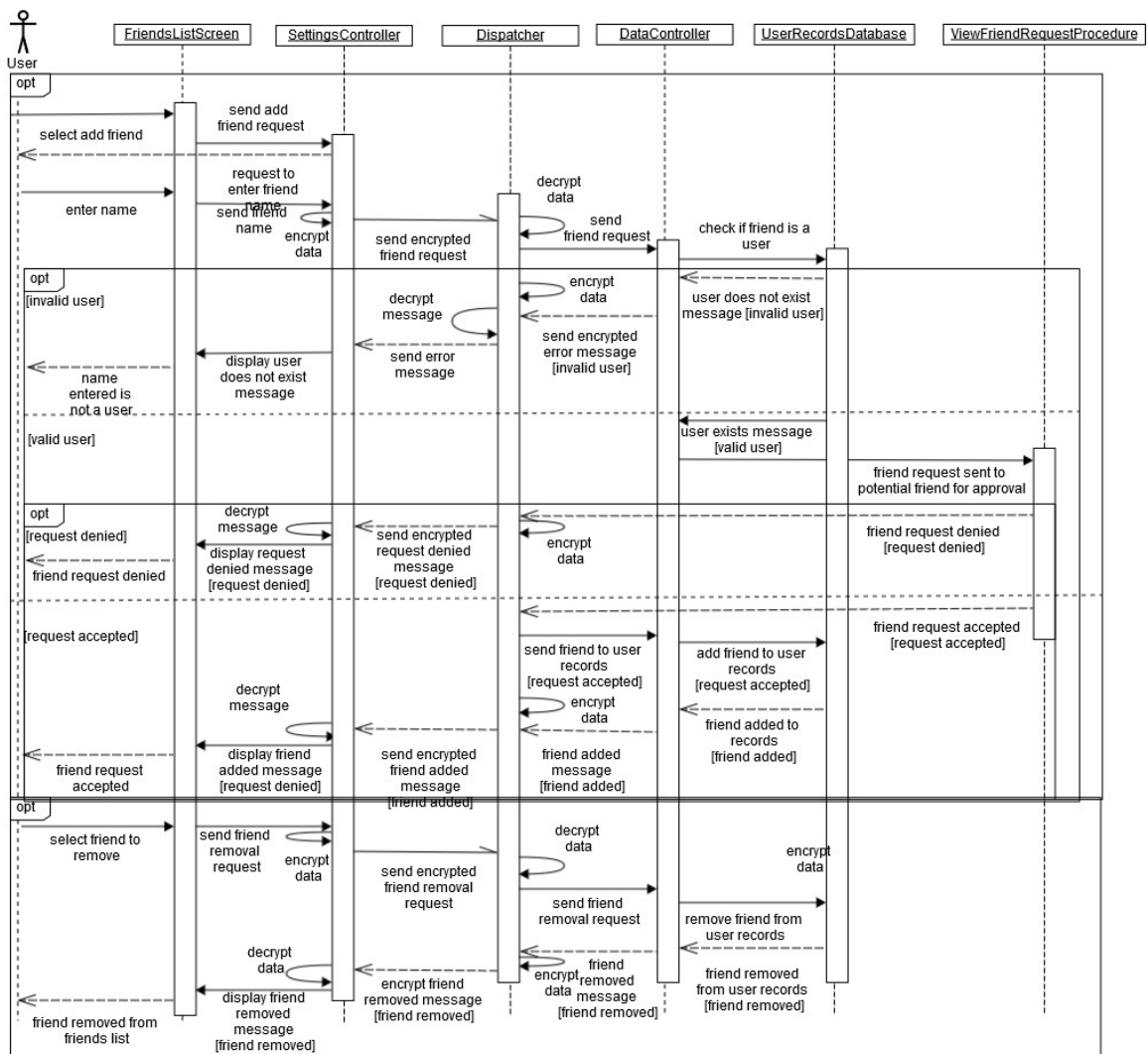
3.19 Modify Blacklist



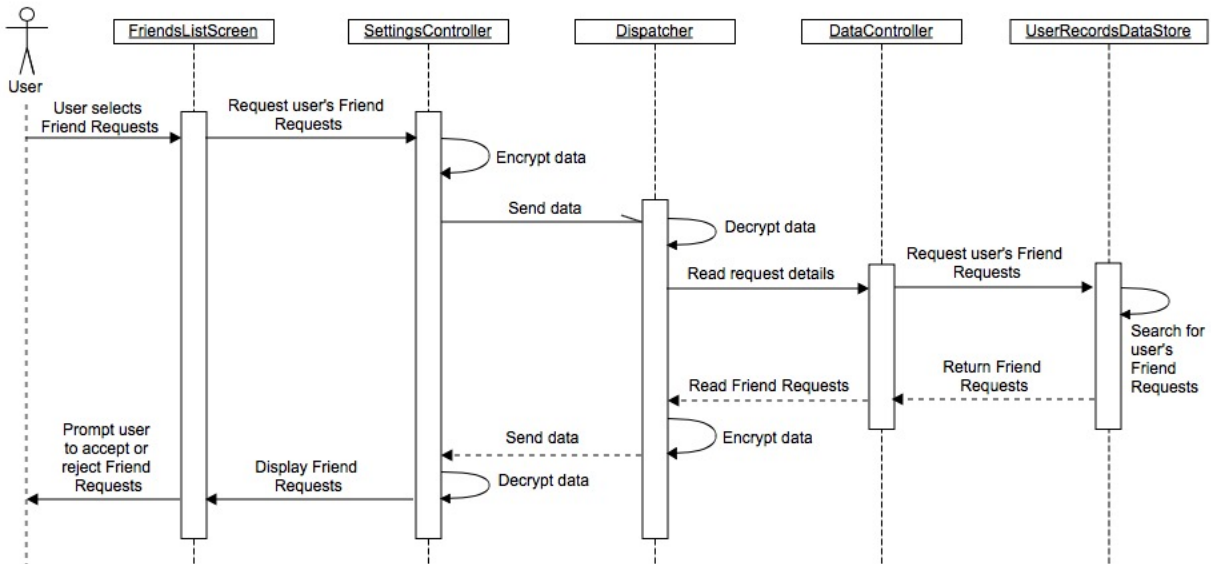
3.20 Select Friends List



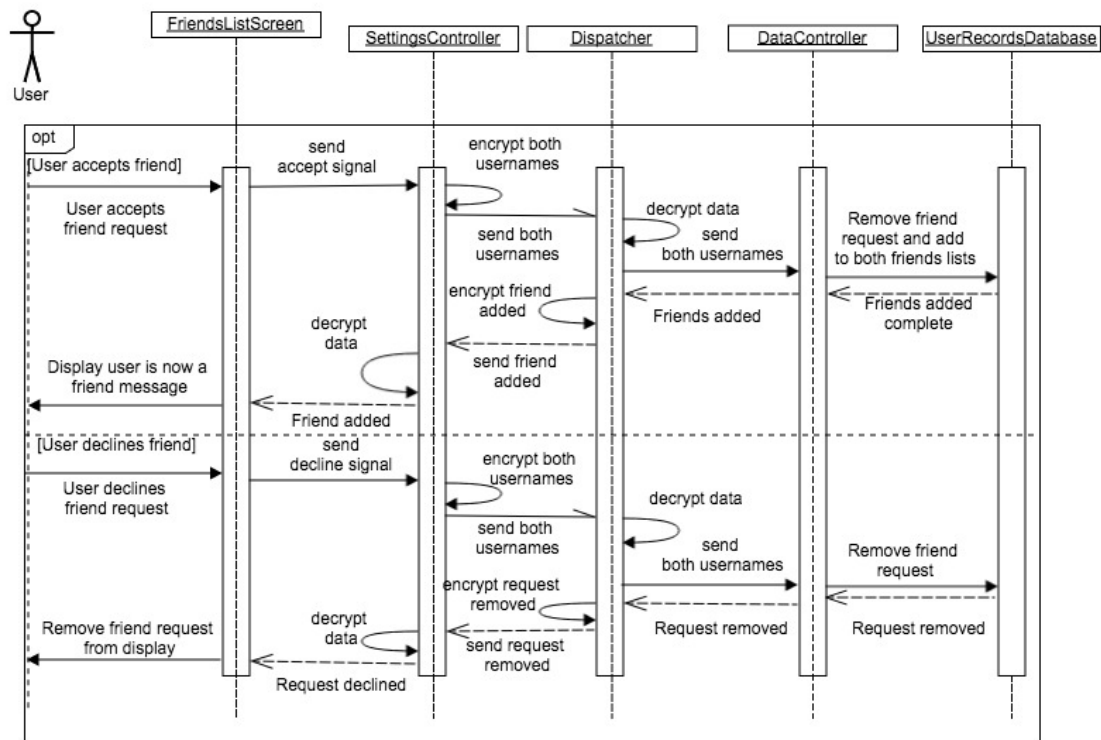
3.21 Modify Friends List



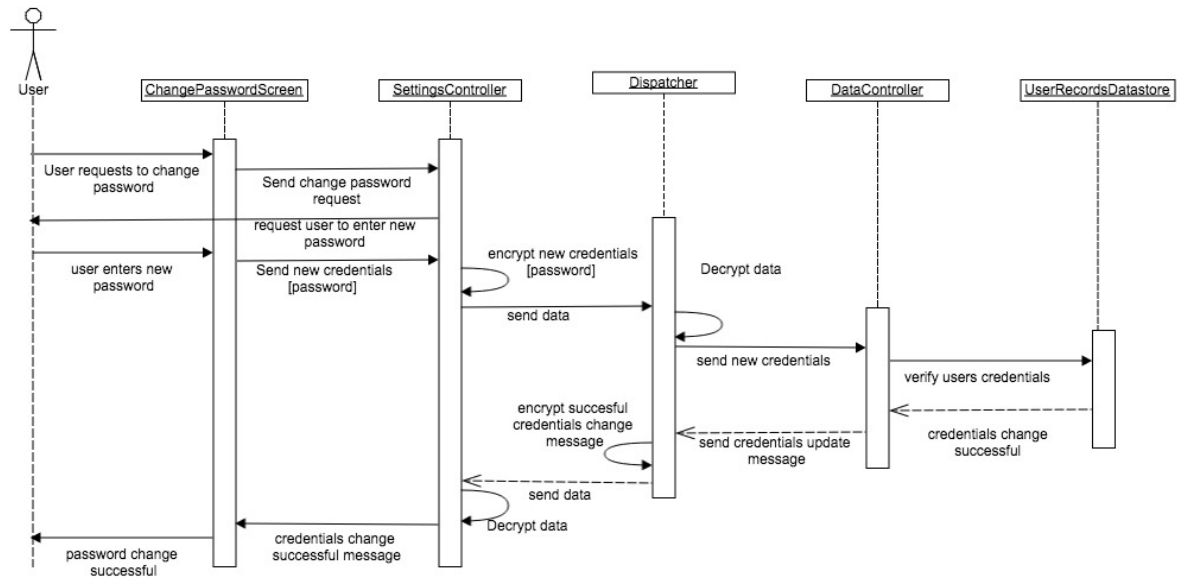
3.22 View Friend Request



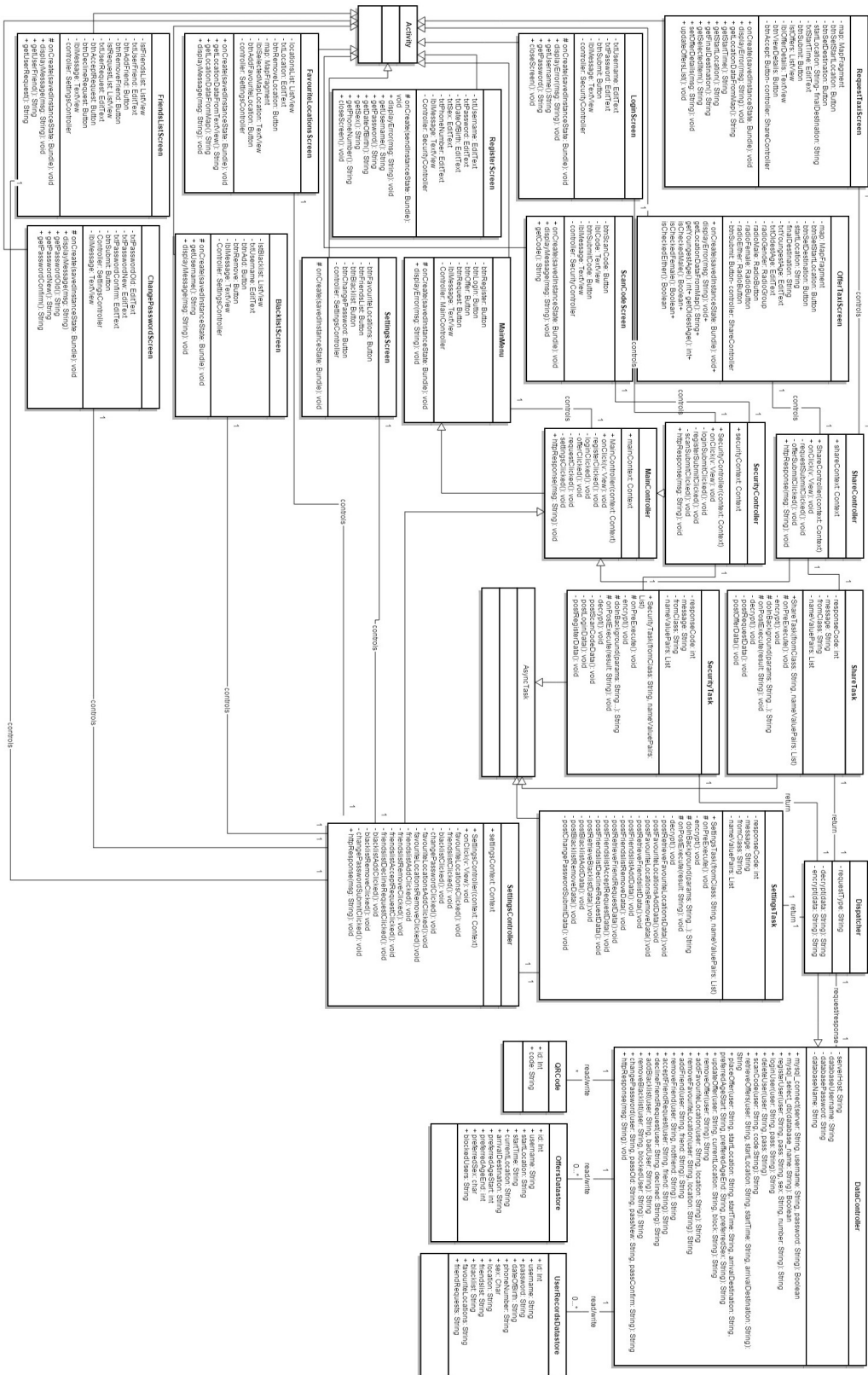
3.23 Modify Friend Request

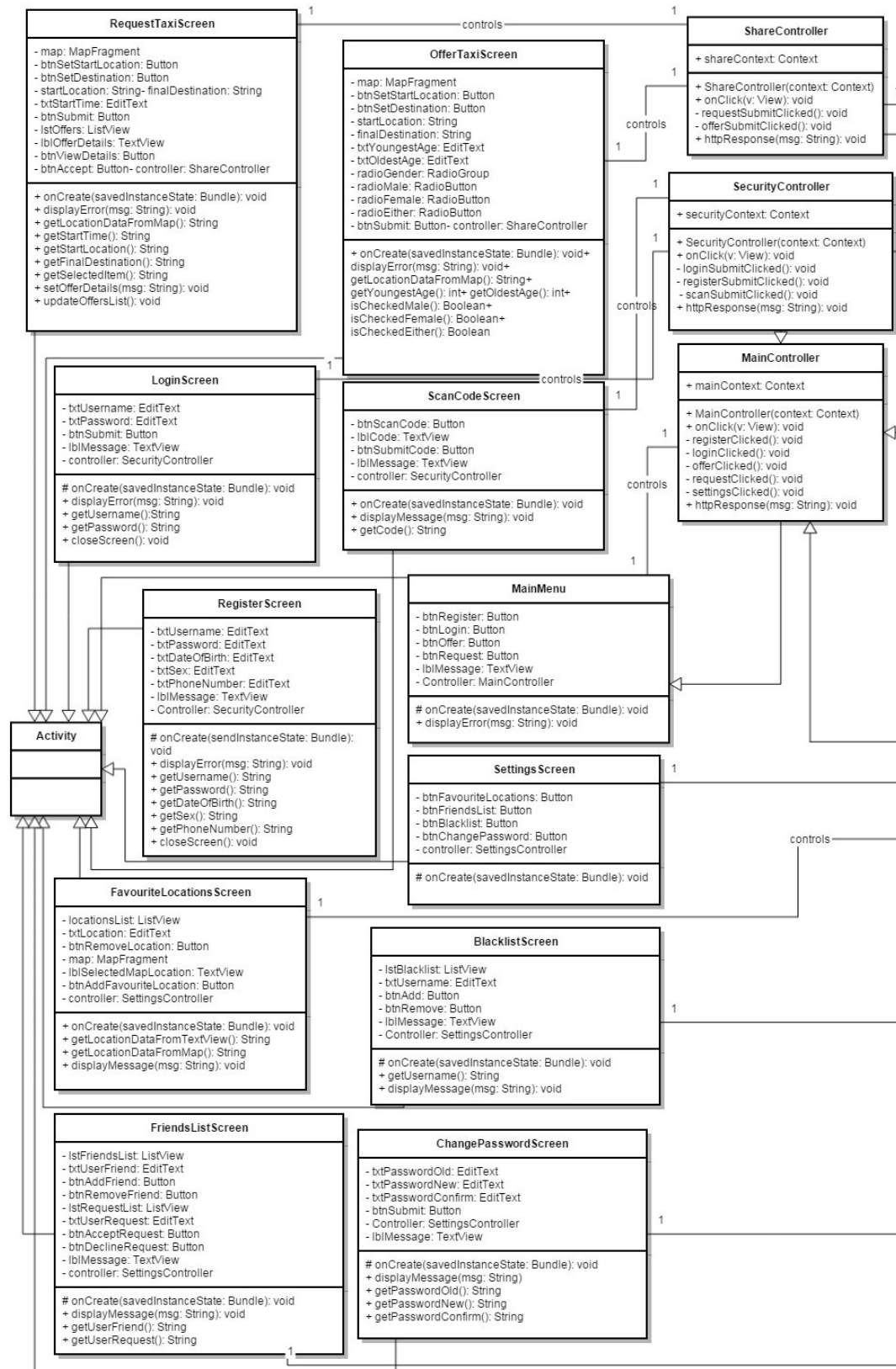


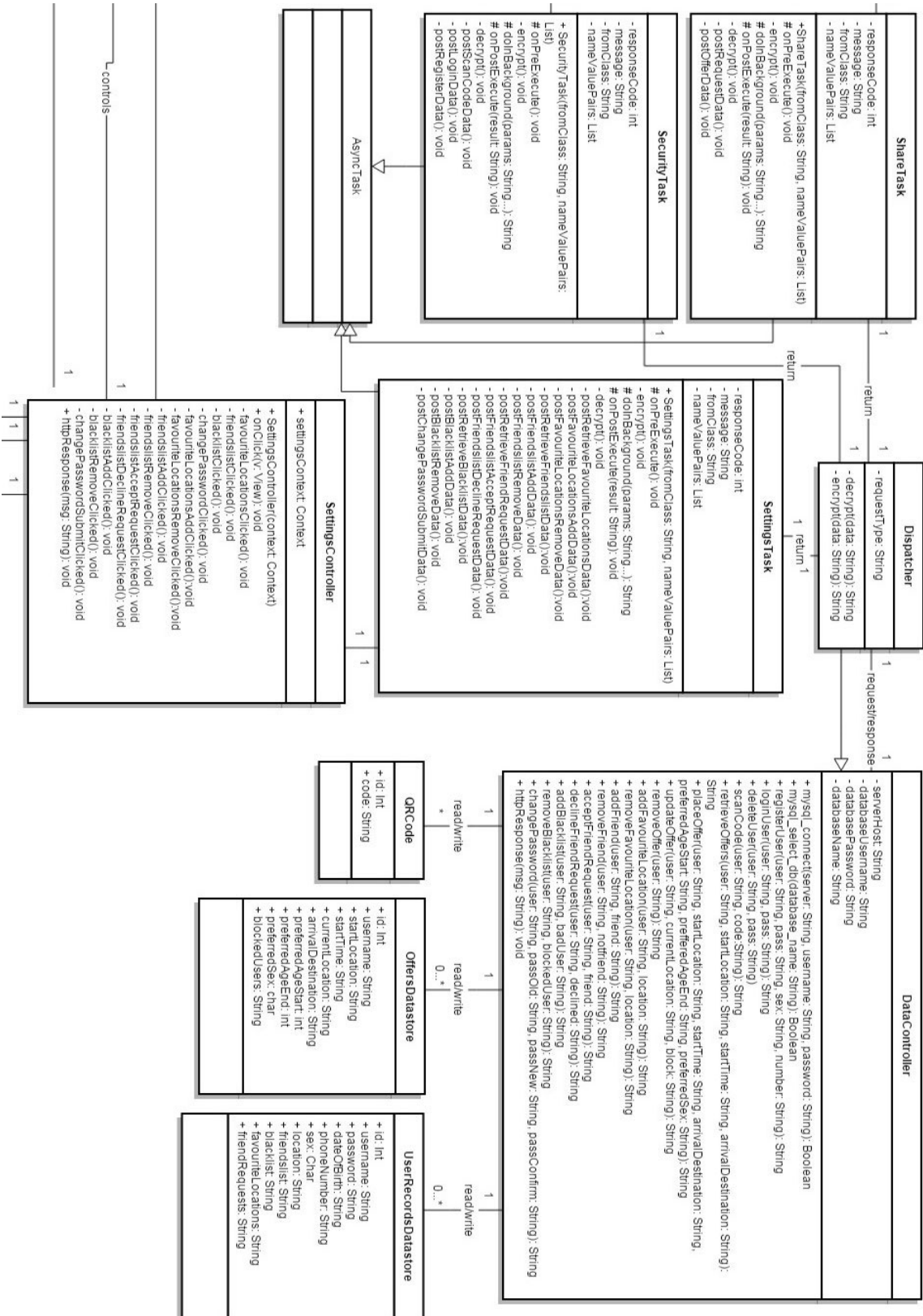
3.24 Change Password



4 Detailed Class Diagram







A Division of Labour

Due to the nature of this document, we worked collaboratively to complete each section. The sections built upon one another and, as such, we met regularly to complete the document as a team. Each group member made an equal contribution to the project. By signing below, we hereby acknowledge that the work was in fact divided equally.

| | |
|-----------------|-------|
| Amanda Boudreau | _____ |
| Jordan Floyd | _____ |
| Mario Machado | _____ |
| Rakesh Mistry | _____ |
| Ali Reda | _____ |