

Deliverable #2

SE 3A04: Software Design II – Large System Design

Tutorial Number: T02

Group Number: G2

Group Members: Chengze Zhao, Ganghoon (James) Park, Jack Walmsley, Luna Aljammal, Pranav Kalsi, Samih Dalvi

1 Introduction

1.1 Purpose

The document offers a more intricate view of the *SecureChat* application's architecture, represented using visual diagrams such as state diagrams for controller classes, sequence diagram for use cases, and a detailed class diagram.

The document is designed to serve the informational needs of the internal stakeholders of *SecureChat*, encompassing but not limited to the board of directors, the employees, and the members of the company at large. Prior familiarity with *SecureChat*'s SRS (deliverable 1), deliverable 2, as well as some technical knowledge regarding KDC & cryptography is recommended for seamless understanding of this document.

1.2 System Description

An overview of the *SecureChat* system description can be found in deliverable 2 where the system architecture and subsystems were discussed in detail. This document provides additional details to deliverable 2 via the use of visual representations such as state diagrams for controller classes, sequence diagram for use cases, and a detailed class diagram.

1.3 Overview

This document is divided into different diagrams describing the system. Section 2 contains state diagrams. Section 3 contains sequence diagrams, and section 4 contains the detailed class diagram.

2 State Charts for Controller Classes

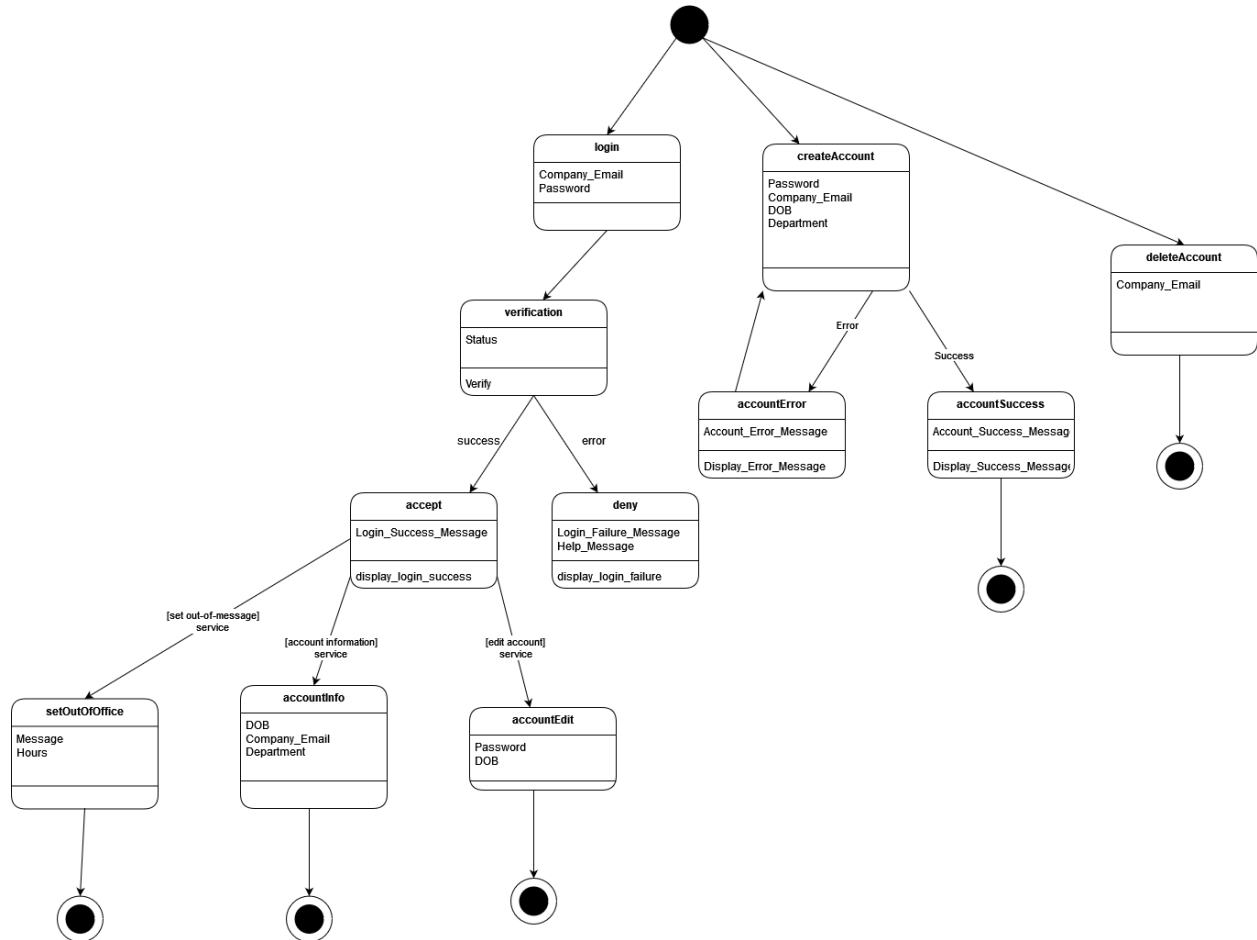


Figure 2.1 - Account Management State Diagram

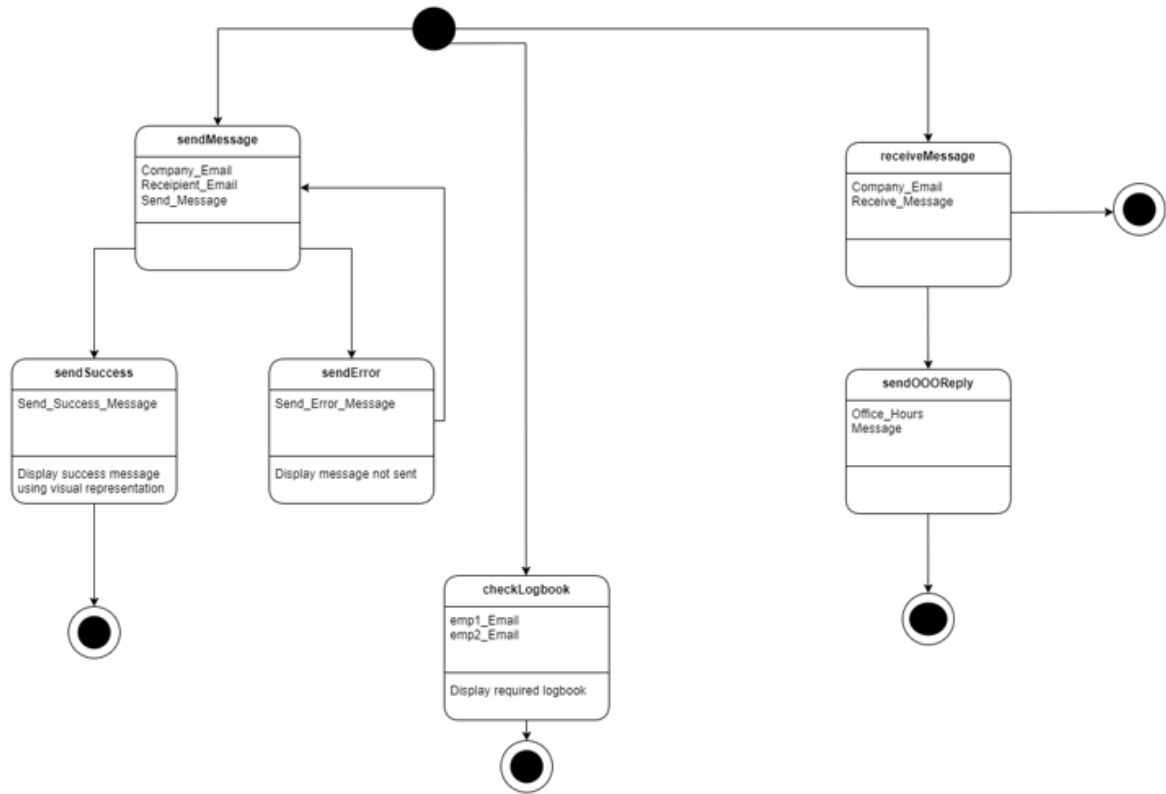


Figure 2.2 - Message Management State Diagram

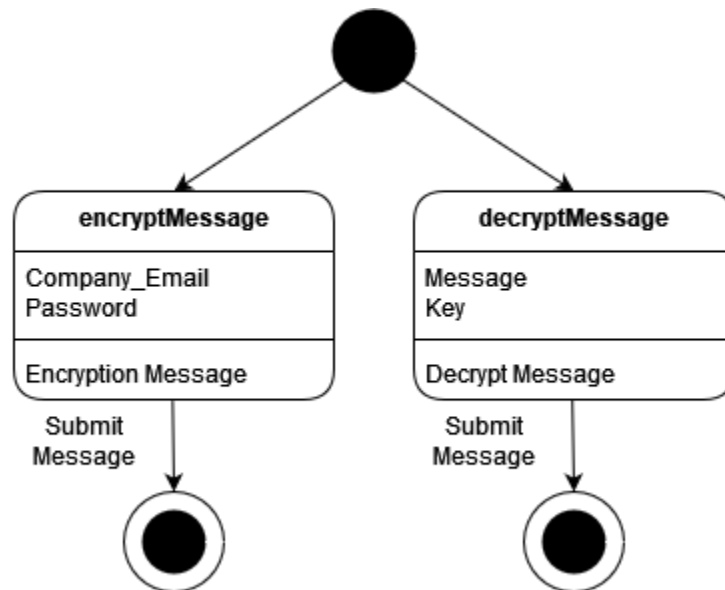


Figure 2.3 - Encryption Management State Diagram

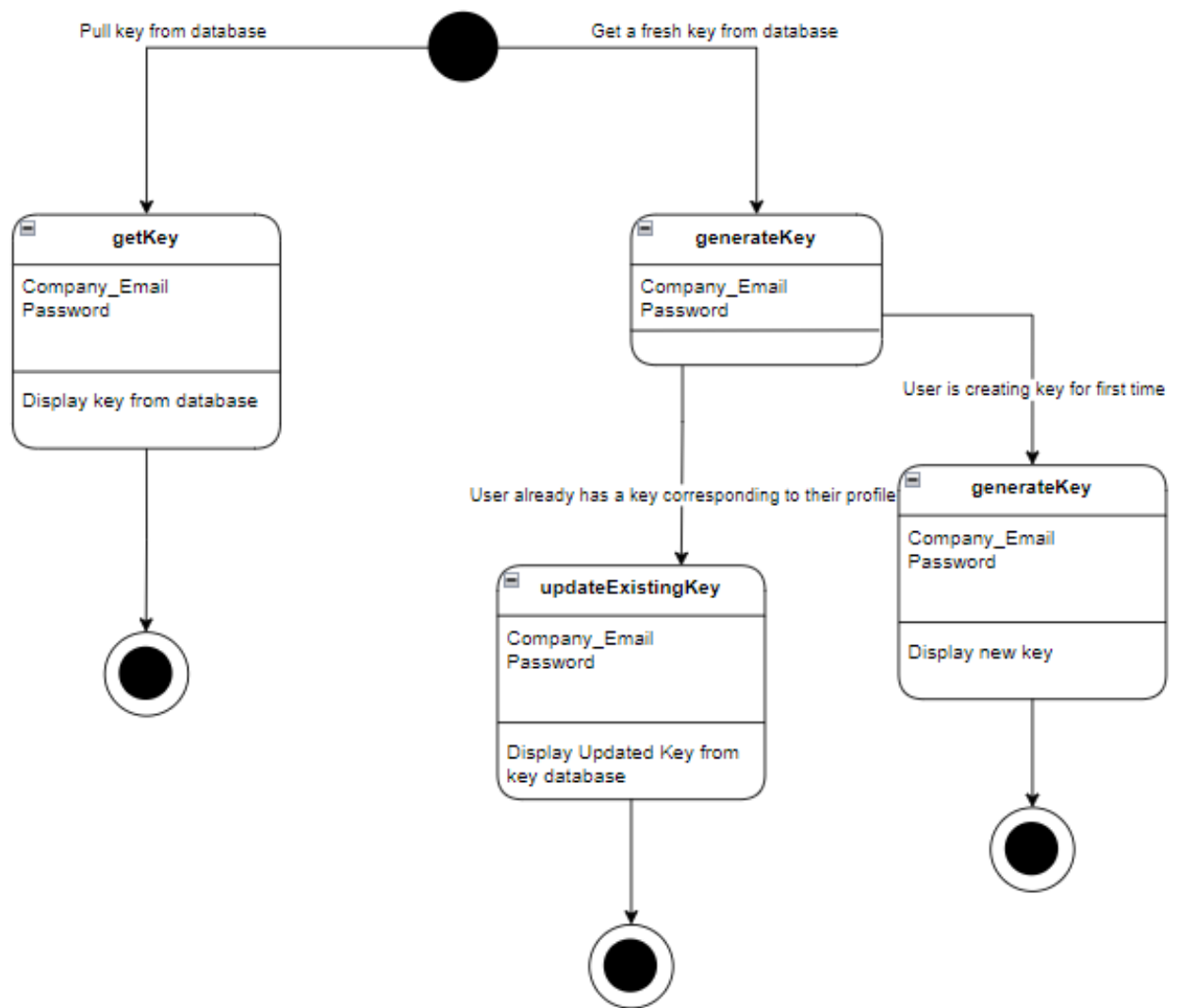


Figure 2.4 - KDC Manager State Diagram

3 Sequence Diagrams

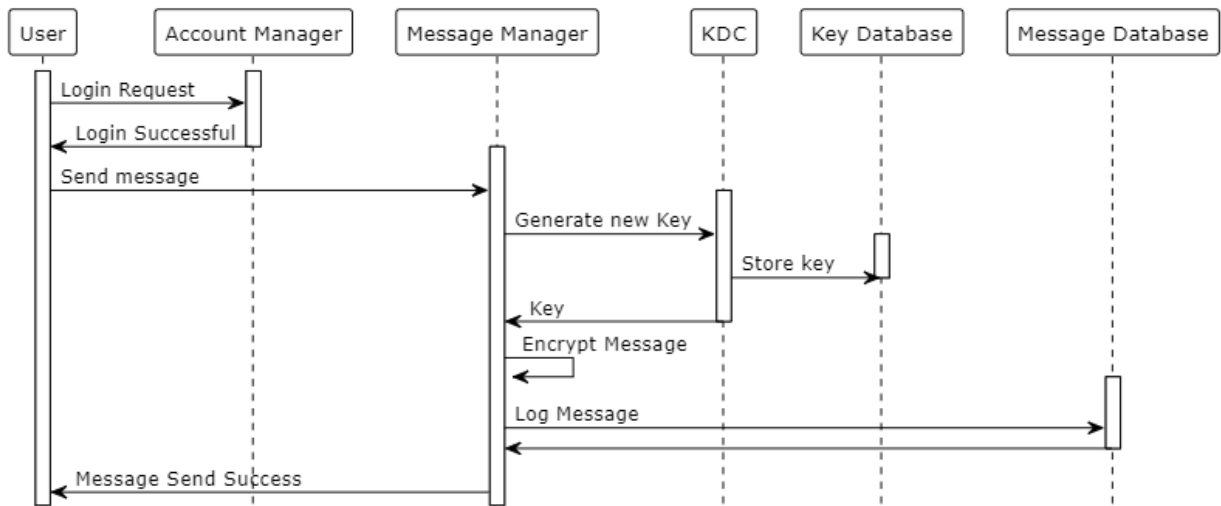


Figure 3.1 - Start Chat Sequence Diagram

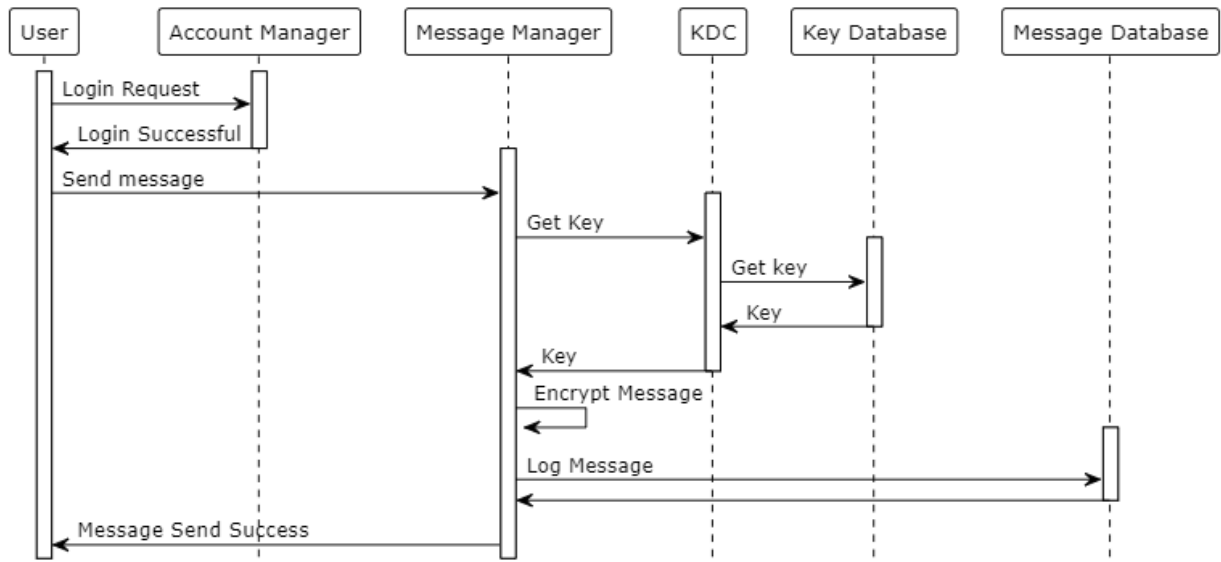


Figure 3.2 - Send Message Sequence Diagram

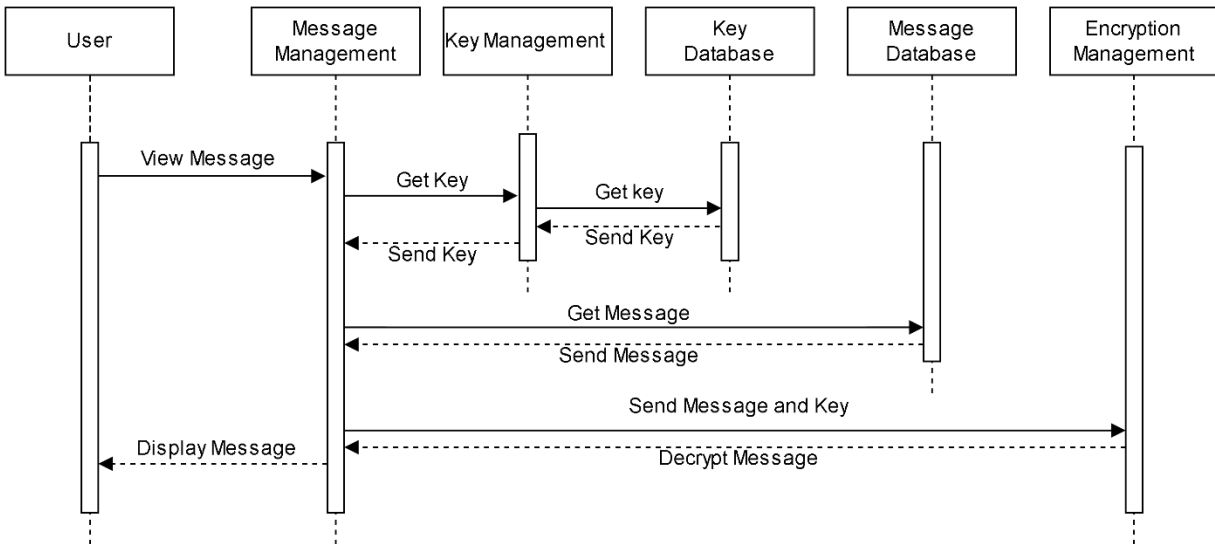


Figure 3.3 - View Message Sequence Diagram

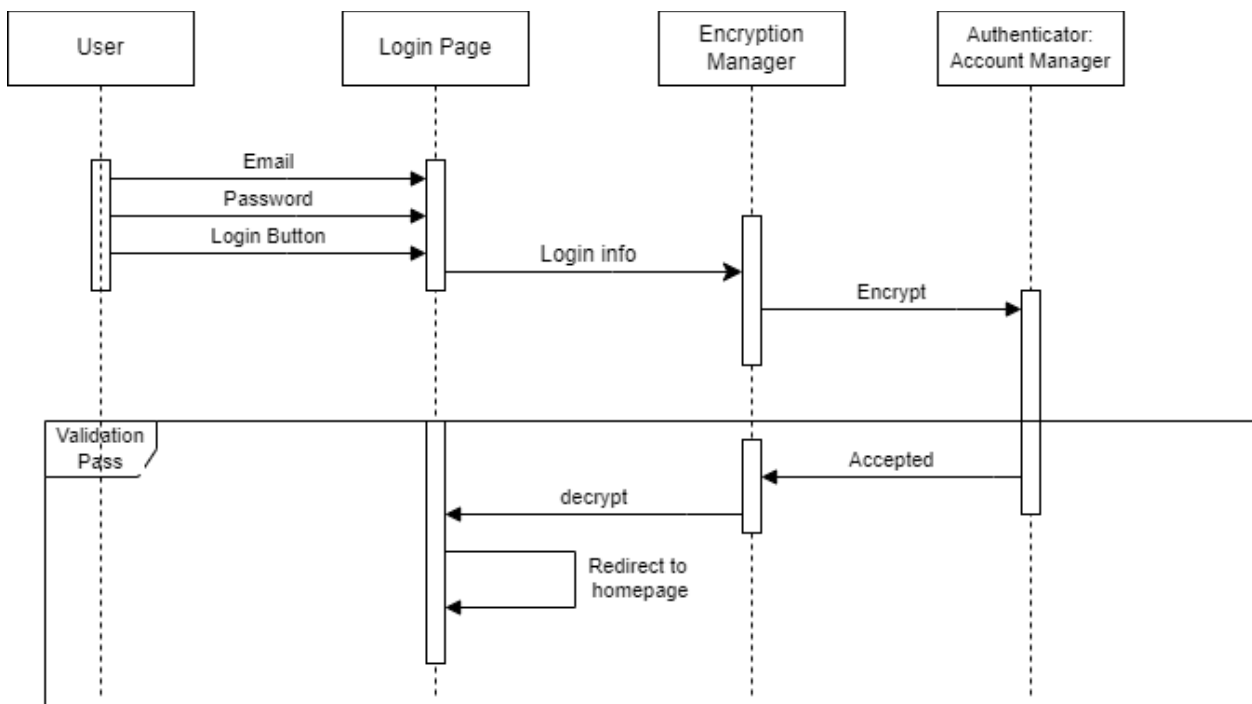


Figure 3.4 - Login Sequence Diagram

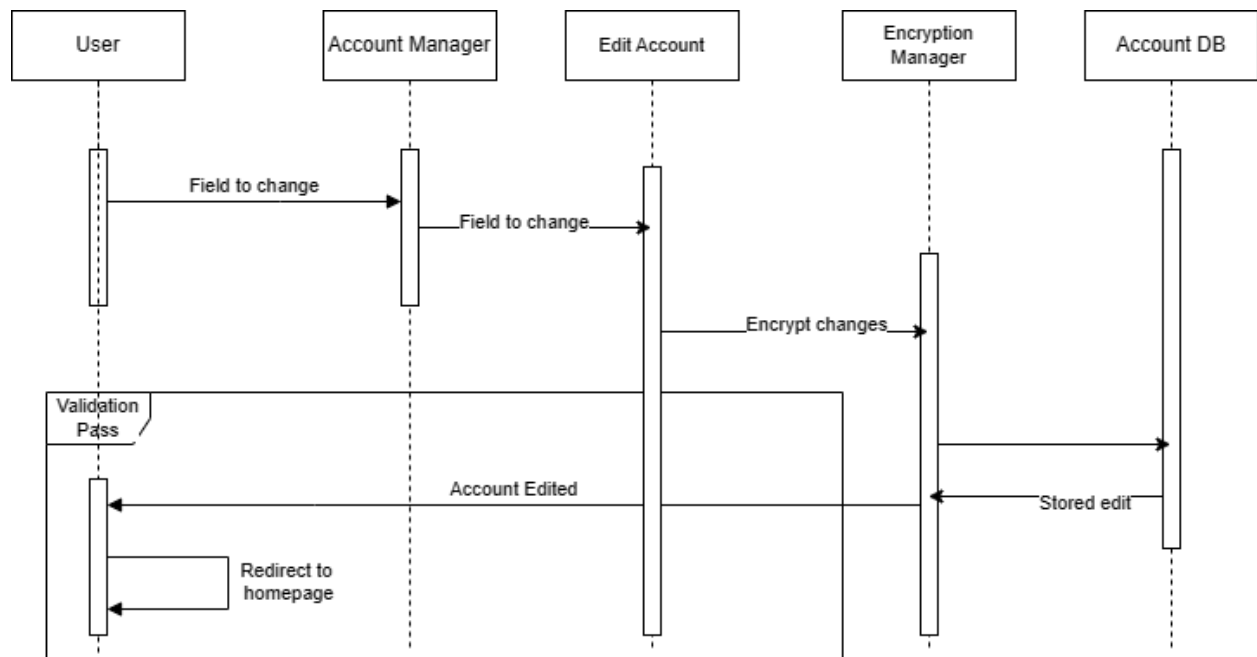


Figure 3.5 - Edit Account Sequence Diagram

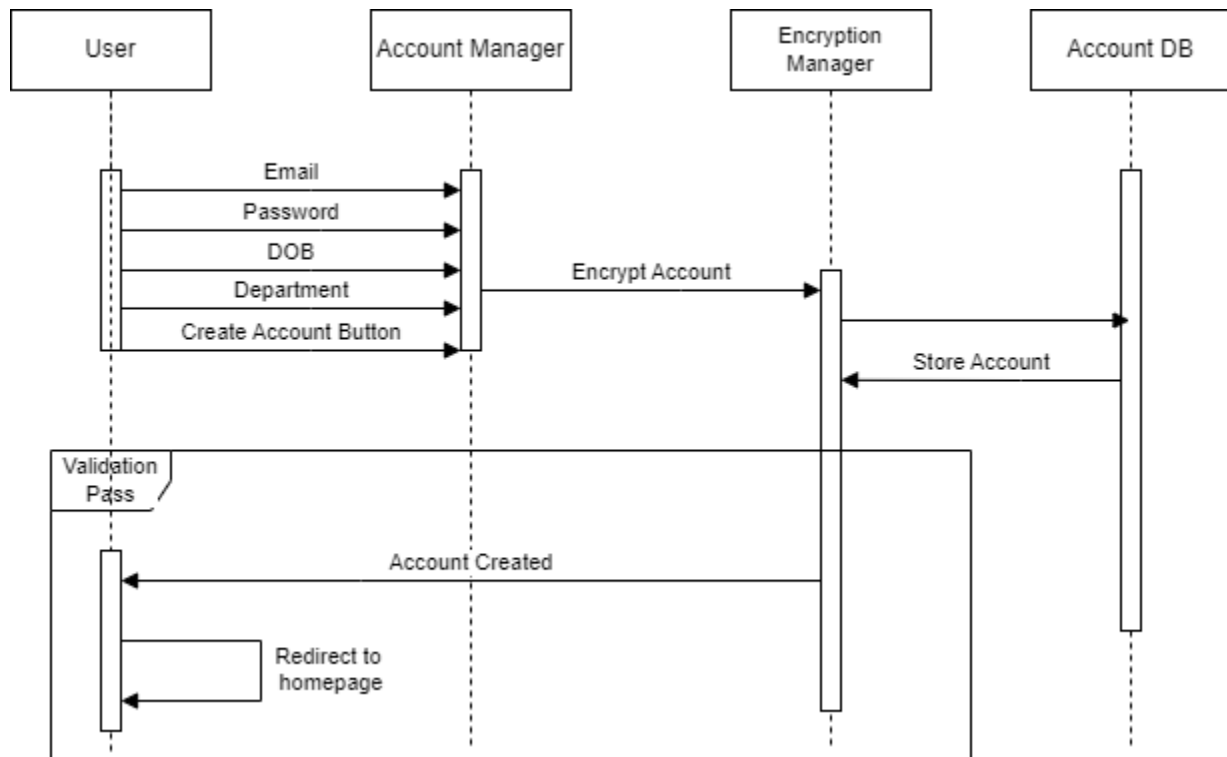


Figure 3.6 - Create Account Sequence Diagram

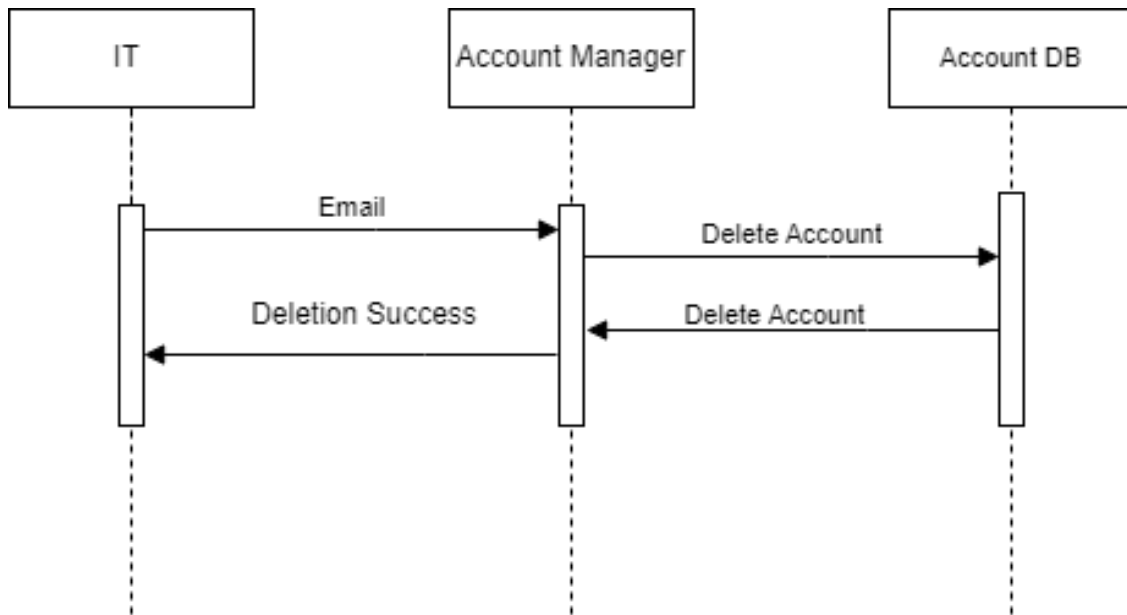


Figure 3.7 - Delete Account Sequence Diagram

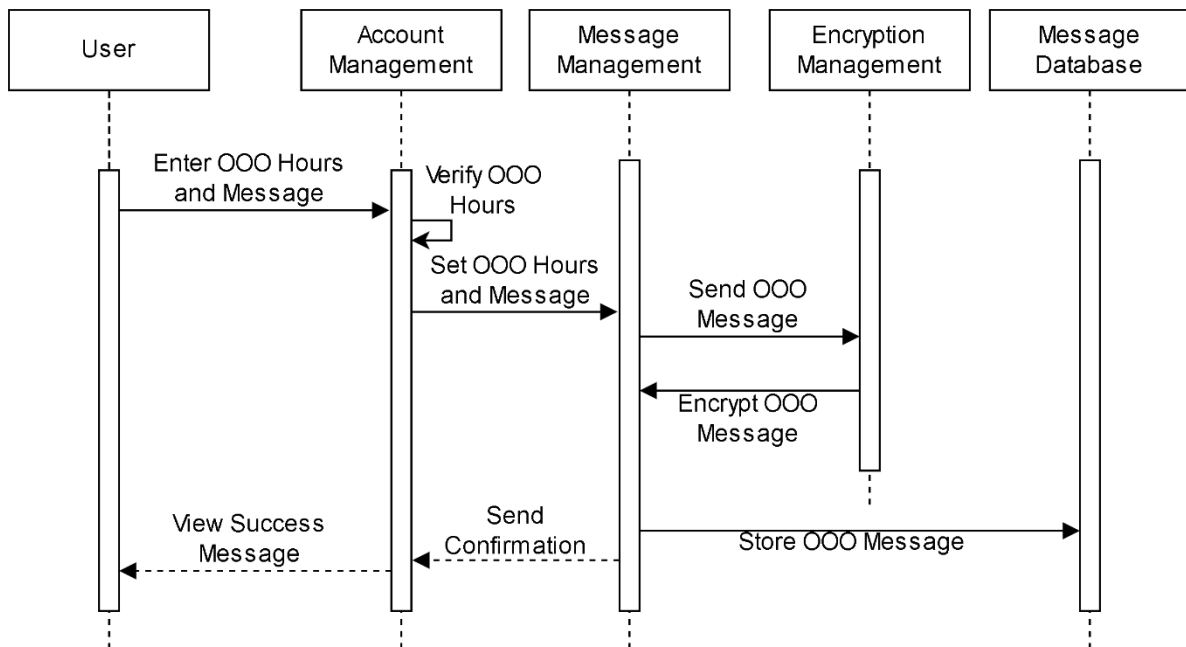


Figure 3.8 - Set Out-of-Office Hours Sequence Diagram

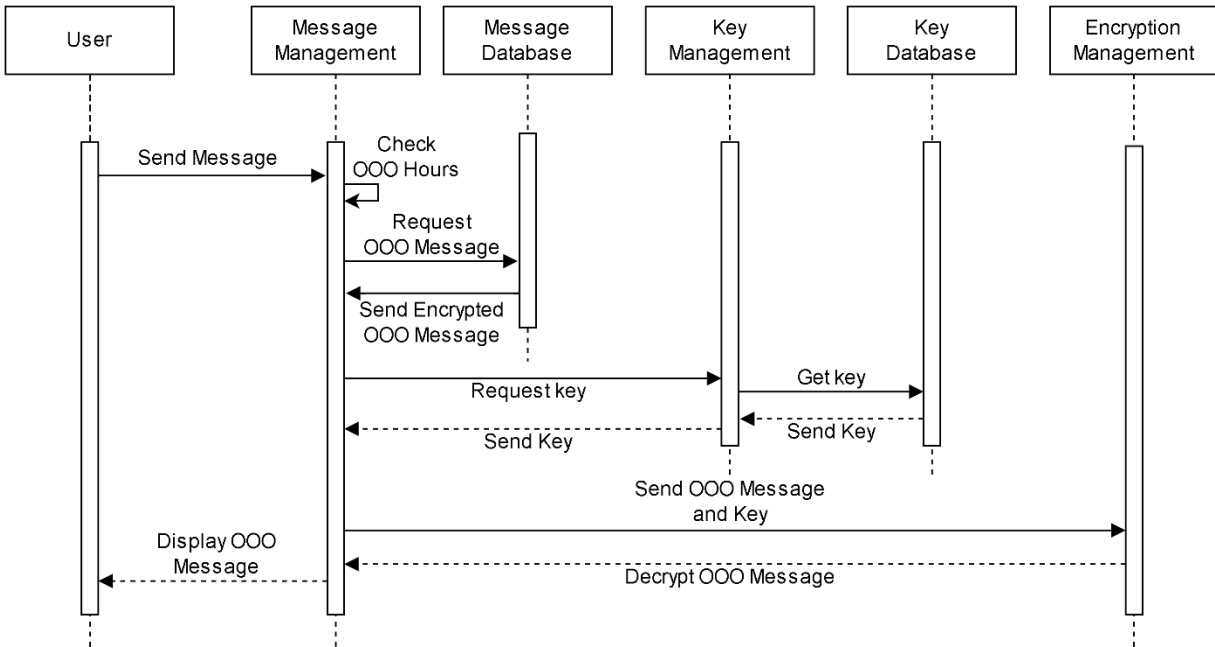


Figure 3.9 - Receive Out-of-Office Hours Message Sequence Diagram

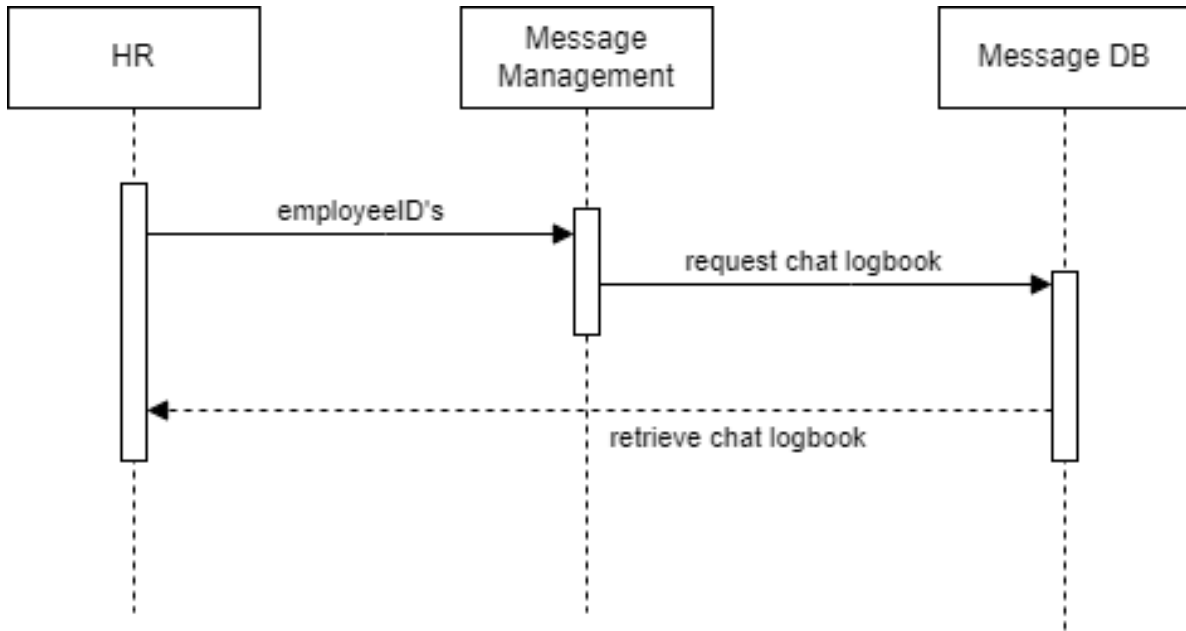


Figure 3.10 – Retrieve logbook Sequence Diagram

4 Detailed Class Diagram

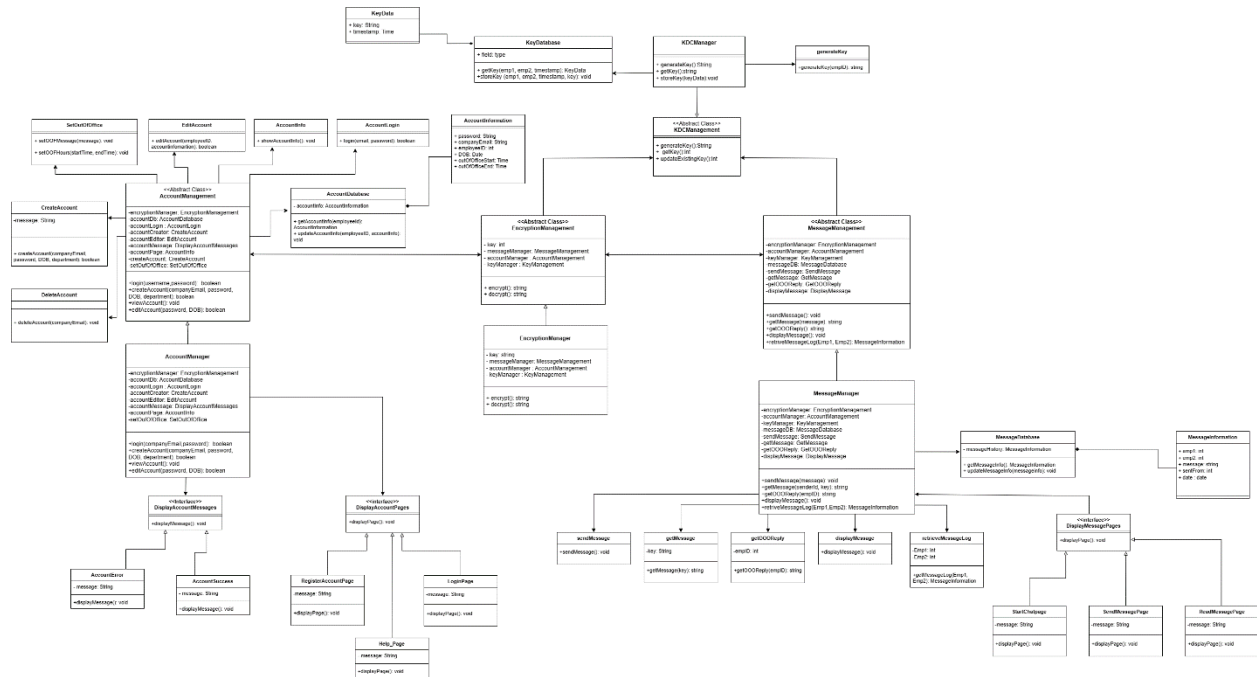


Figure 4.1 - Full Class Diagram

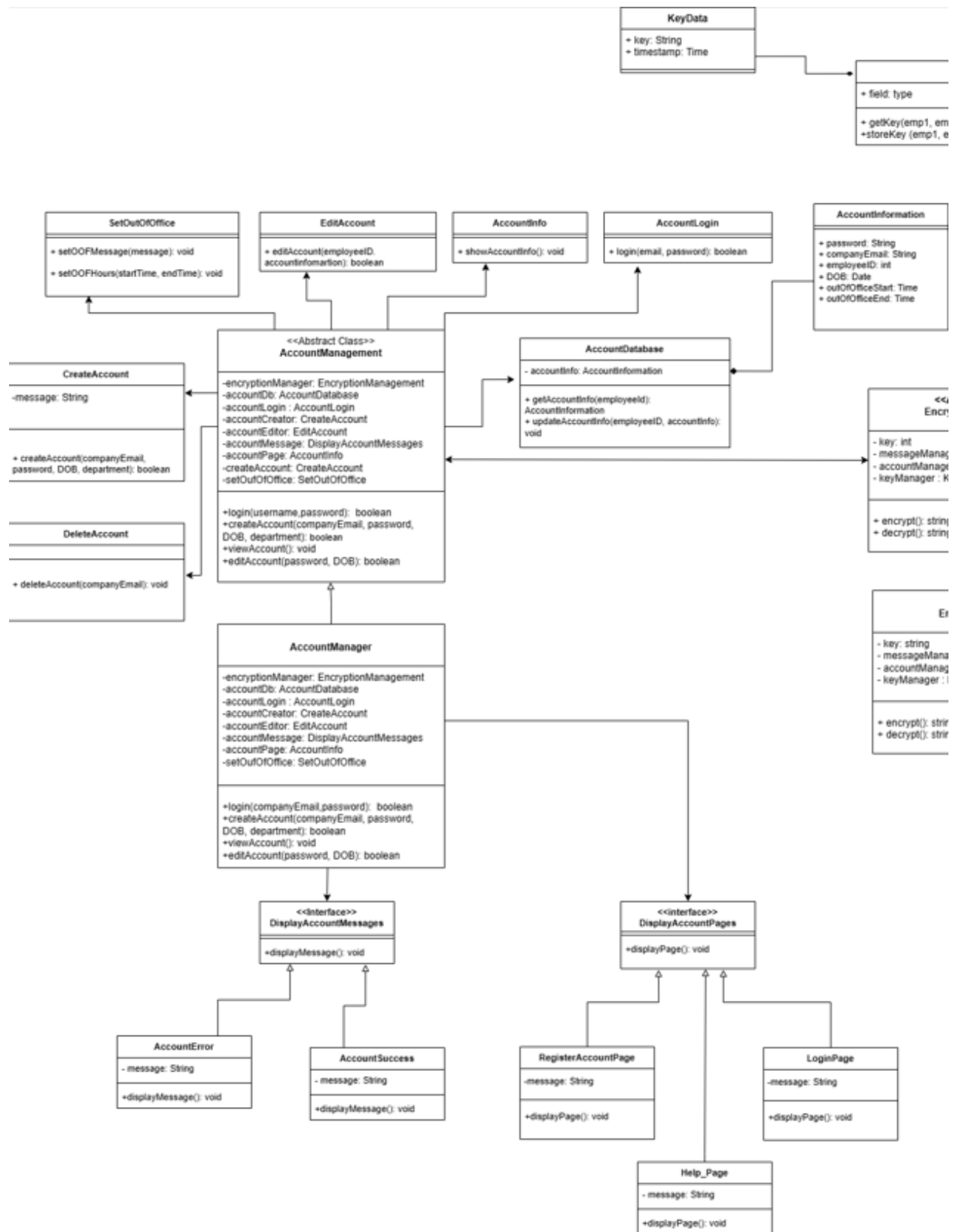


Figure 4.1.1 - Left side of class diagram zoomed in

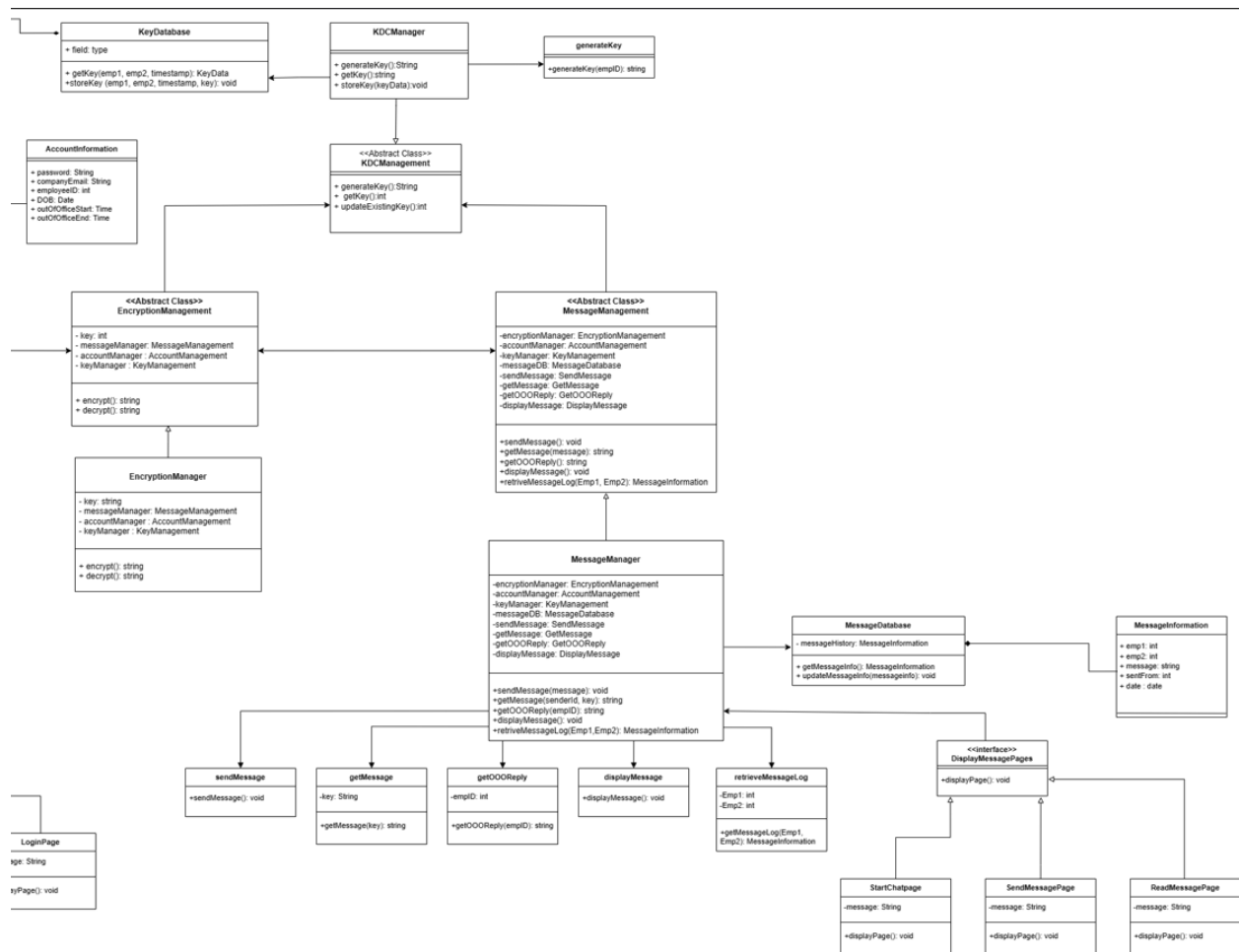


Figure 4.1.2 - Right side of class diagram zoomed in

A Division of Labour

Samih Dalvi

- Section 1
 - Section 1.1: Did the purpose section of the introduction
 - Section 1.2: Did the system description section of the introduction
- Section 2
 - Section 2.2: Worked with James to create message management state diagram
- Section 3
 - Section 3.3: Created login sequence diagram
- Section 4
 - Section 4.1: Worked with James to put together the encryption and message management portion of the class diagram
 - Section 4.1: Helped with the creation of the KDC management portion of the class diagram along with other group members
 - Edited some components of Account Management section
- Joined team meetings to edit and review the document
- Participated in the team editing session
- Contributed to team discussions and suggested ideas for class diagram and how the whole process of the app would work for the different functionalities

A handwritten signature in pencil, appearing to read 'DALVI', with a stylized flourish above the letters.

Pranav Kalsi

- Section 1

- Section 1.1 edited system purpose.
 - Section 1.3 wrote system overview.
- Section 2
 - 2.4 worked with Oliver to make KDC state diagram.
 - Assisted team in looking over other diagrams.
- Section 3
 - 3.5 created the edit account sequence diagram.
 - Assisted team in looking over other diagrams in section for consistency.
- Section 4
 - Created KDC management in class diagram.
 - Created alert message components in class diagram.
 - Edited AccountDatabase in Class Diagram.
 - Edited MessageManager in Class Diagram
 - Edited MessageDatabase in Class Diagram
 - Edited MessageInformation in Class Diagram
 - Reworked get key logic in Class Diagram.
- Formatted document
- Joined team meetings to edit and review the document
- Participated in the team editing session
- Contributed to team discussions and suggested ideas to streamline the order of operations of the app.

P. Kalsi

Luna Aljammal

- Section 2
 - Section 2.1: Worked on the Account Management State Diagram with Jack
- Section 3
 - Section 3.6: Create Account Sequence Diagram
 - Section 3.7: Delete Account Sequence Diagram
- Section 4
 - Mainly worked on the account management portion of the class diagram with Jack
- Reviewed diagrams to maintain consistency
- Participated in the team editing meetings
- Brainstormed the required diagrams to ensure all system features are described



Chengze Zhao

- Section 2
 - Section 2.4: Worked on the KDC Manager State Diagram with Pranav
- Section 3
 - Section 3.10: Retrieve Logbook Sequence Diagram
- Participated in the team editing meetings
- Refactor Diagrams

Chengze Zhou

Ganghoon (James) Park

- Section 2.2: Worked with Samih to create message management state diagram
- Section 2.3: Create encryption state diagram
- Section 3.3: Created view message sequence diagram
- Section 3.8: Created set out-of-office hours sequence diagram
- Section 3.9: Create receive out-of-office hours message sequence diagram
- Section 4: Worked with Samih to put together the encryption and message management portion of the class diagram
- Formatted document
- Joined team meetings to edit and review the document
- Participated in the team editing session
- Contributed to team discussions and suggested ideas

James

Jack Walmsley

- Section 2: Account Management state diagram with Luna
- Section 3: Send Message state diagram
- Section 3: Start Chat state diagram
- Participated in group discussions
- General feedback on other parts of document and research on encryption
- Helped edit and format final document

Sam