Deliverable #3

SE 3A04: Software Design II – Large System Design

Tutorial Number: T03
Group Number: G6
Group Members:

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- Nehad Shikh Trab

- Savvy Liu

- Tvesha Shah

- Victor Yu

1 Introduction

1.1 Purpose

This document provides further information about the Gaim wildlife identification system architecture, including state chart diagrams, sequence diagrams, and a detailed class diagram. This document is intended for internal Gaim stakeholders, including but not limited to, project managers, developers, domain experts, and Gaim team members/investors. Gaim Deliverable 1 and 2 should be read prior, and technical knowledge may be beneficial in better understanding the contents of the document.

1.2 System Description

An overview of the system description can be found in deliverable 2. This document acts as an extension of deliverable 2, providing more context in form of state charts, sequence diagrams, and a detailed class diagram.

1.3 Overview

This document is organized by chart/diagram type. Section 2 contains relevant state chart diagrams, section 3 contains relevant sequence diagrams, and section 4 provides a detailed UML diagram of the system
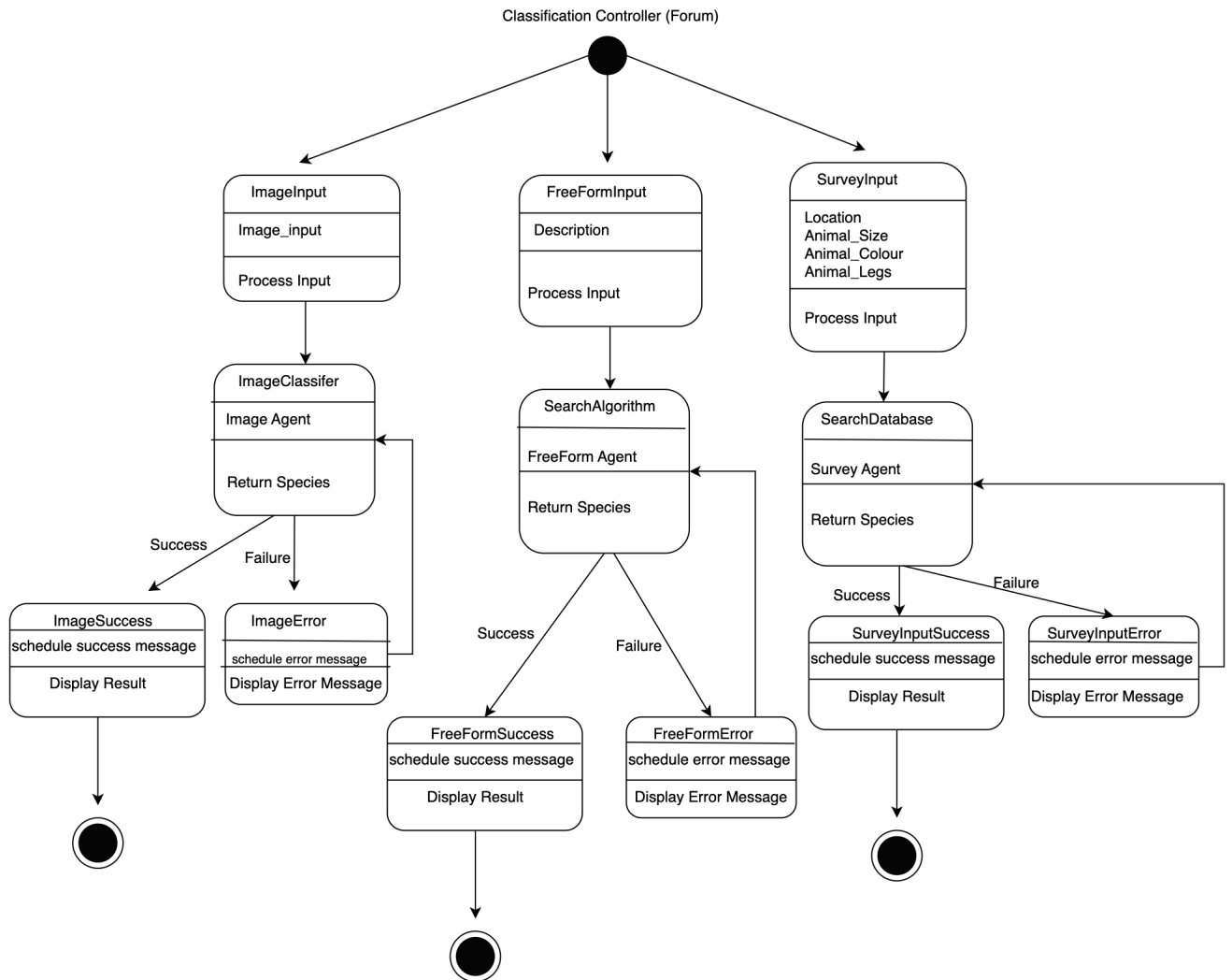
2 State Charts for Controller Classes

Classification Controller (Forum)

ImageInput

Image_input

Process Input

FreeFormInput

Description

Process Input

SurveyInput

Location
Animal_Size
Animal_Colour
Animal_Legs

Process Input

ImageClassifer

Image Agent

Return Species

SearchAlgorithm

FreeForm Agent

Return Species

SearchDatabase

Survey Agent

Return Species

Success

Failure

Success

Failure

Success

Failure

ImageSuccess

schedule success message

Display Result

ImageError

schedule error message

Display Error Message

FreeFormSuccess

schedule success message

Display Result

FreeFormError

schedule error message

Display Error Message

SurveyInputSuccess

schedule success message

Display Result

SurveyInputError

schedule error message

Display Error Message

Figure 2.1: Forum Controller State Chart Diagram

Generate Report Controller

reportGeneration

UserName
Location
ClassificationResult

Generate Report

DisplayReport

Report

Save to Account

SaveReport

Save to Report Database
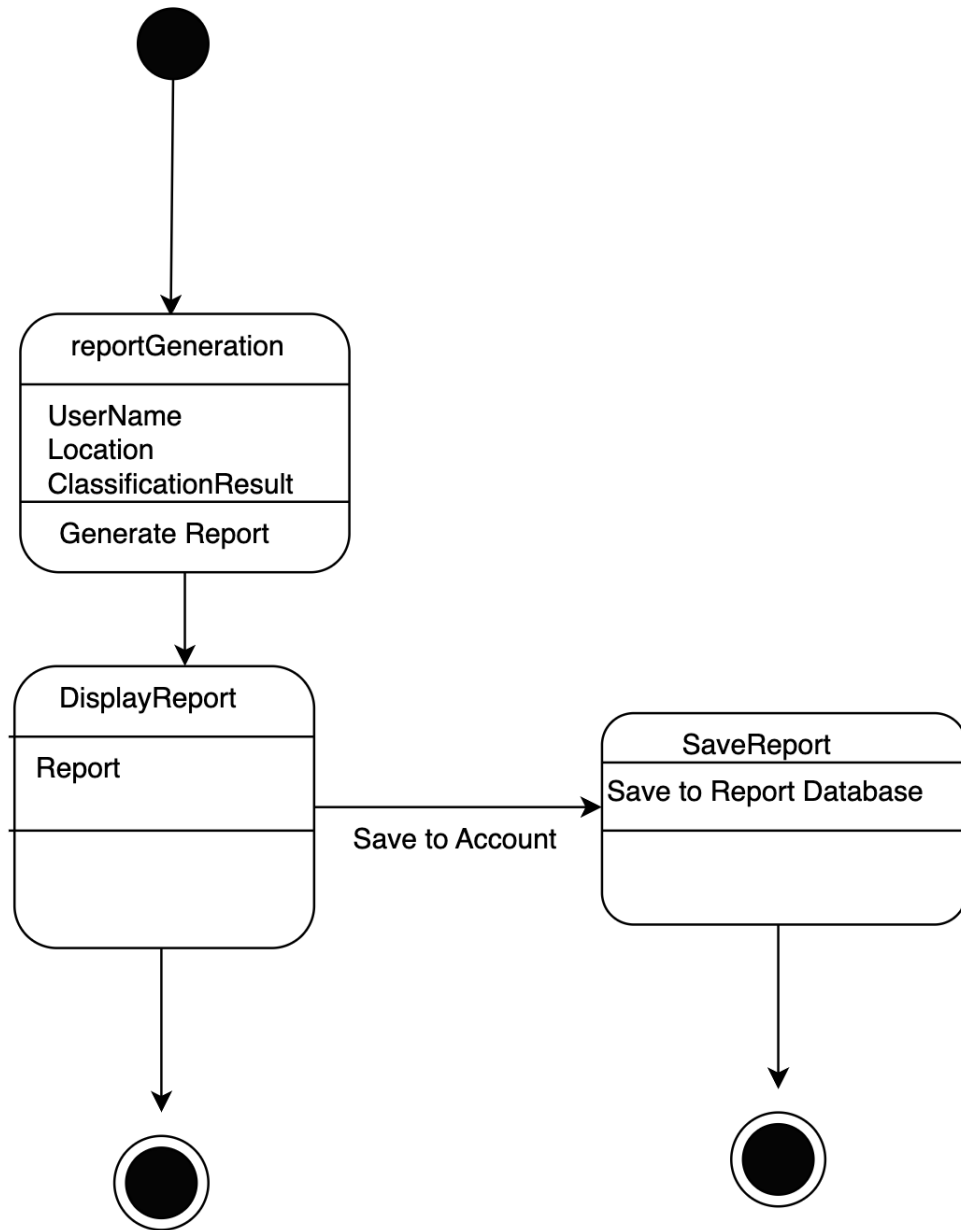
Figure 2.2: Generate Report Controller State Chart Diagram
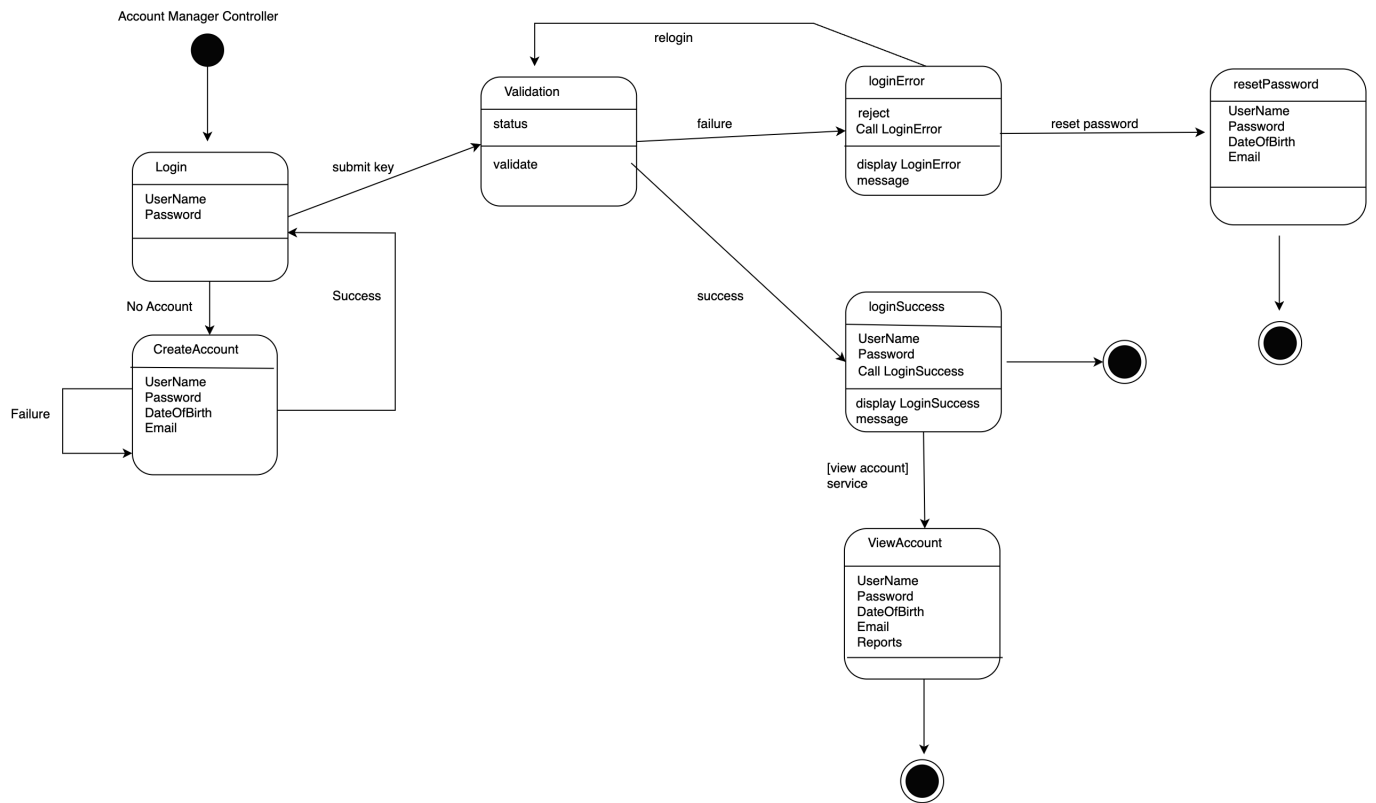
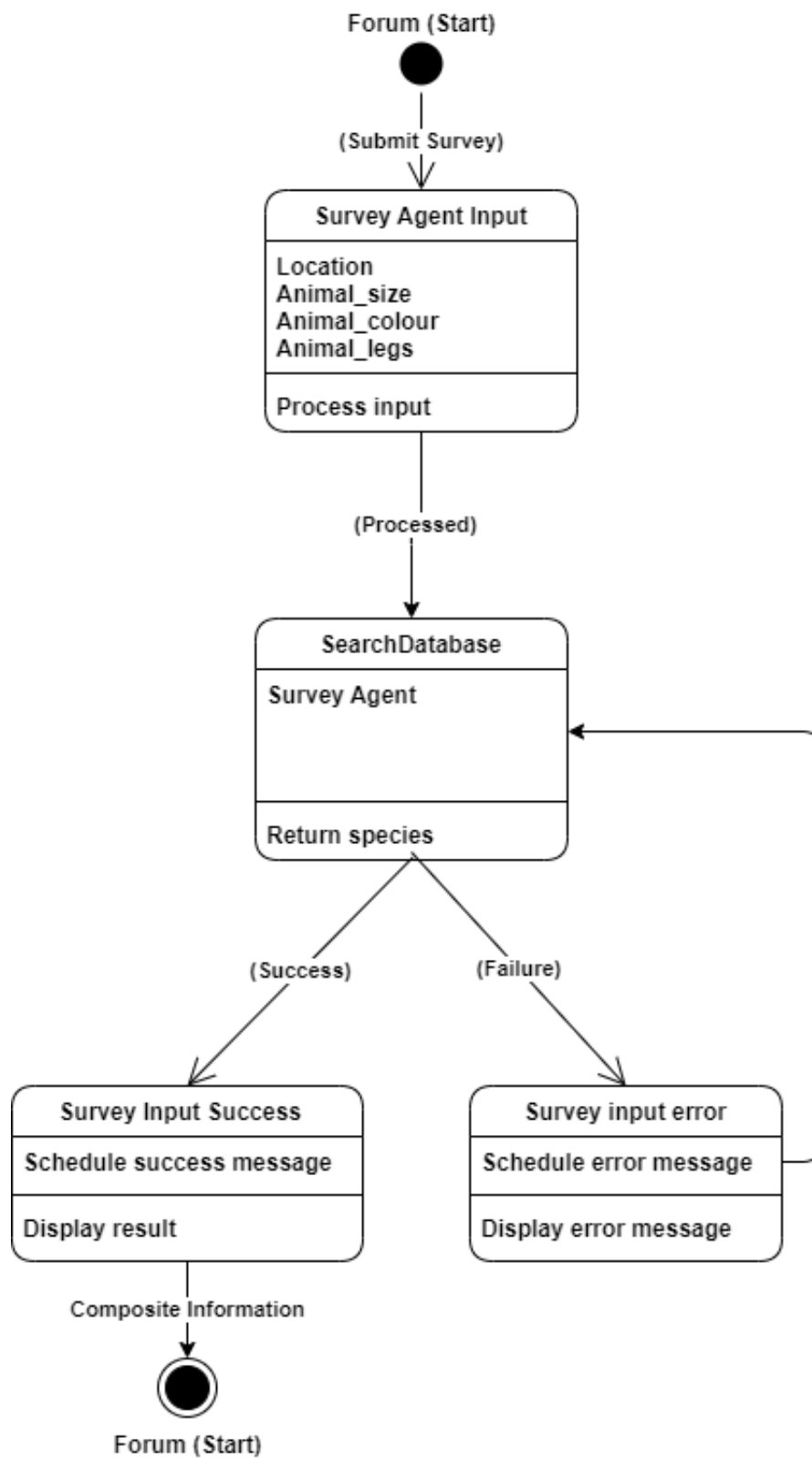Figure 2.3: Account Manager Controller State Chart Diagram

Forum (Start)

(Submit Survey)

Survey Agent Input

Location
Animal_size
Animal_colour
Animal_legs

Process input

(Processed)

SearchDatabase

Survey Agent

Return species

(Success)   (Failure)

Survey Input Success

Schedule success message

Display result

Survey input error

Schedule error message

Display error message

Composite Information

Forum (Start)

Figure 2.4: Account Manager Controller State Chart Diagram
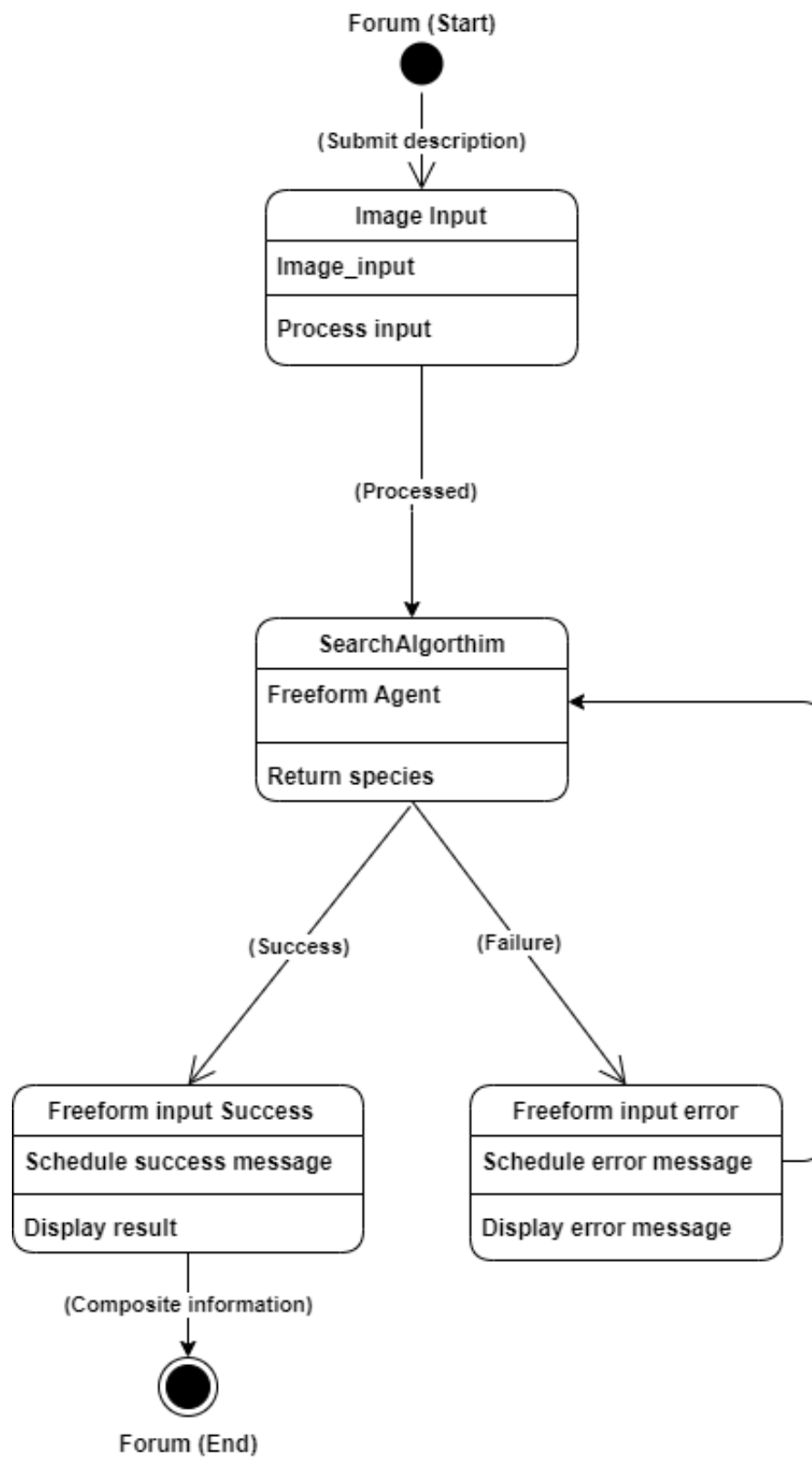
Figure 2.5: Account Manager Controller State Chart Diagram
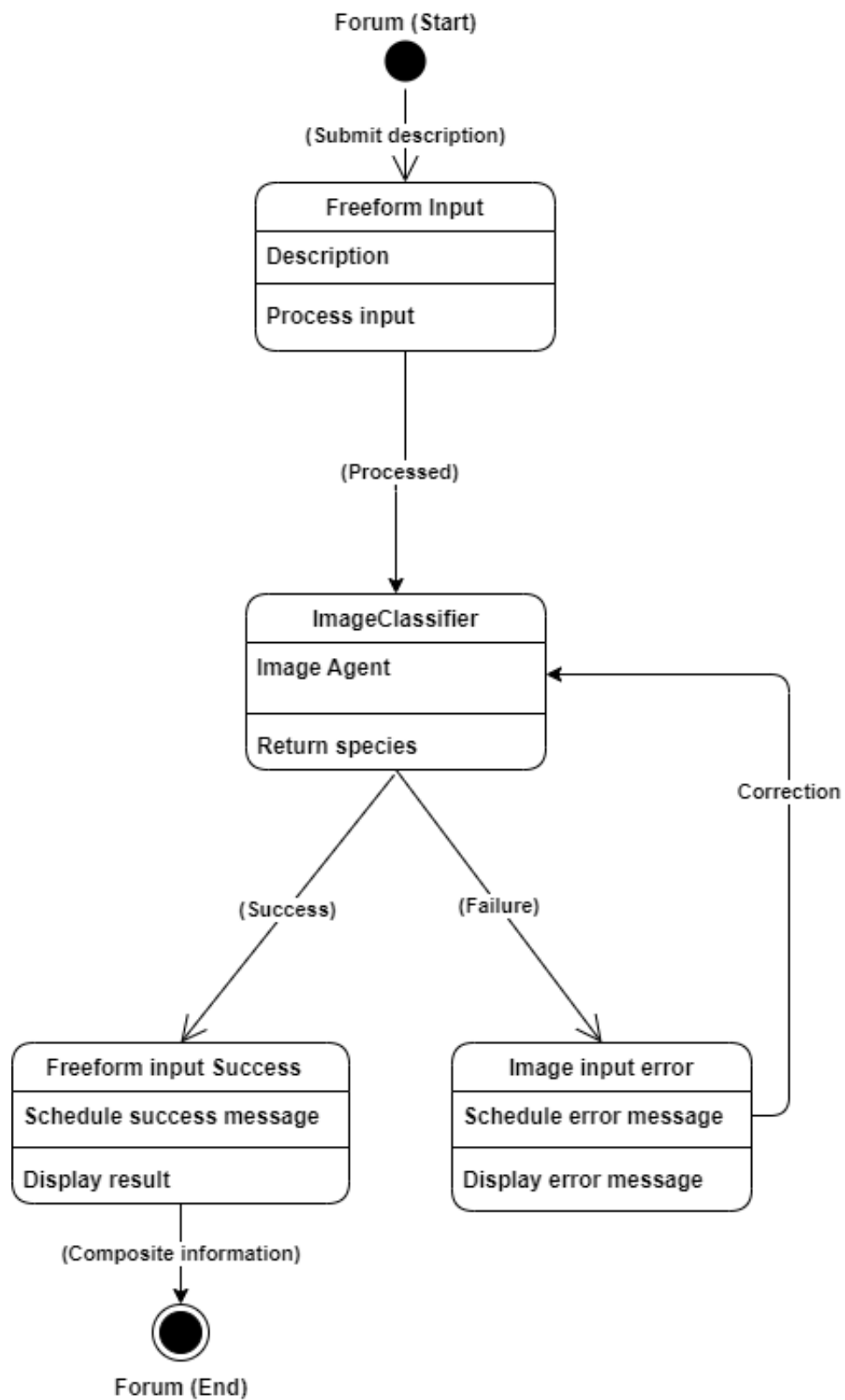
Figure 2.6: Account Manager Controller State Chart Diagram

3   Sequence Diagrams
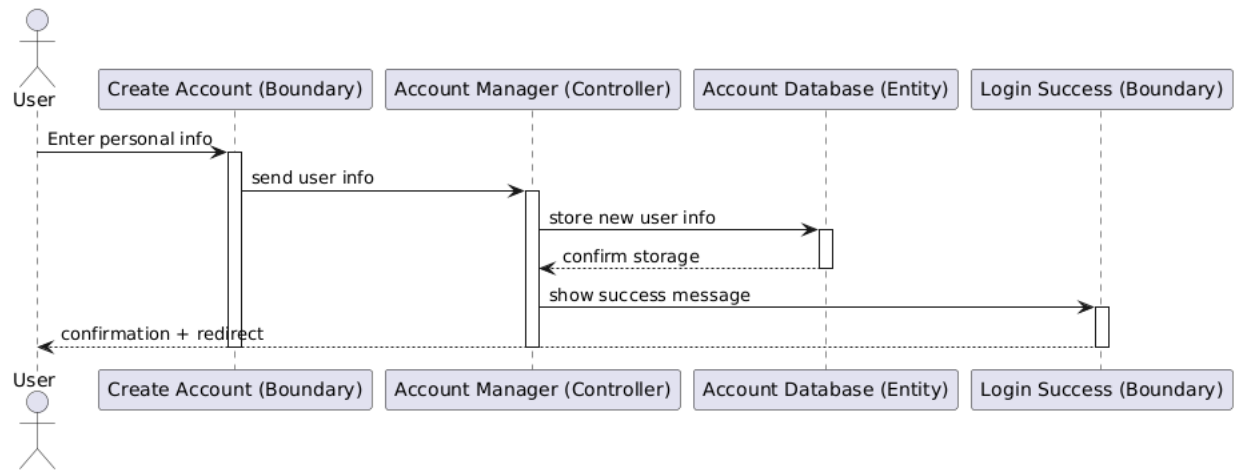
Figure 3.1: Log in to Account Sequence Diagram
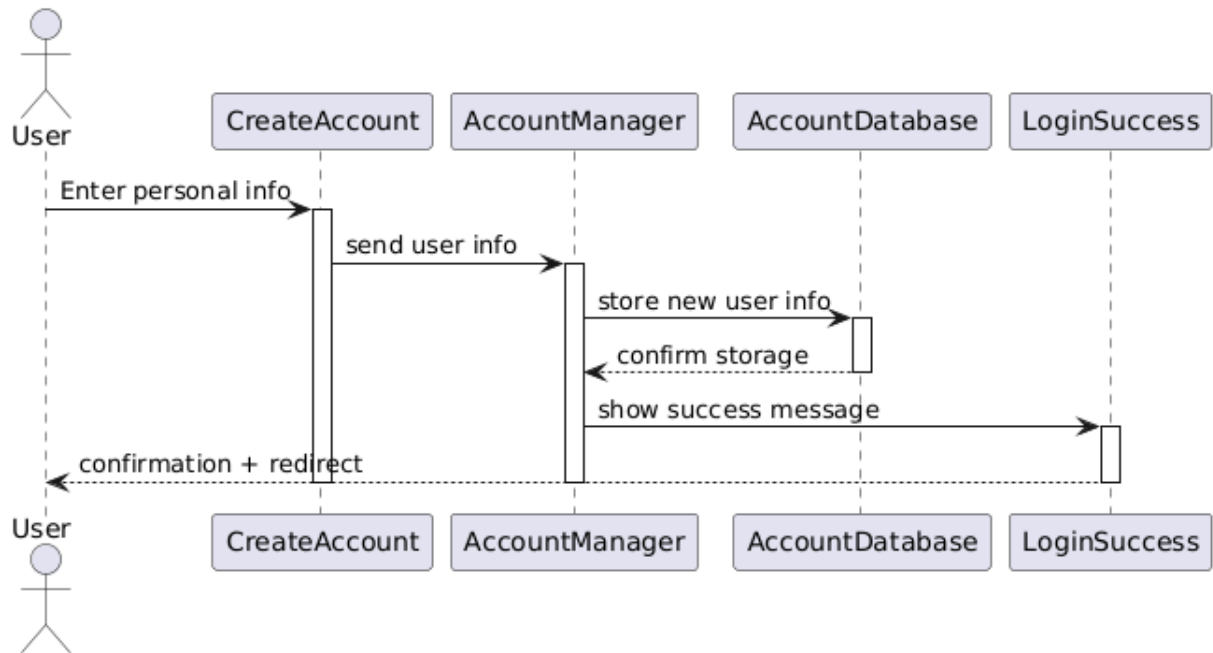
Figure 3.2: Creating an Account Sequence Diagram
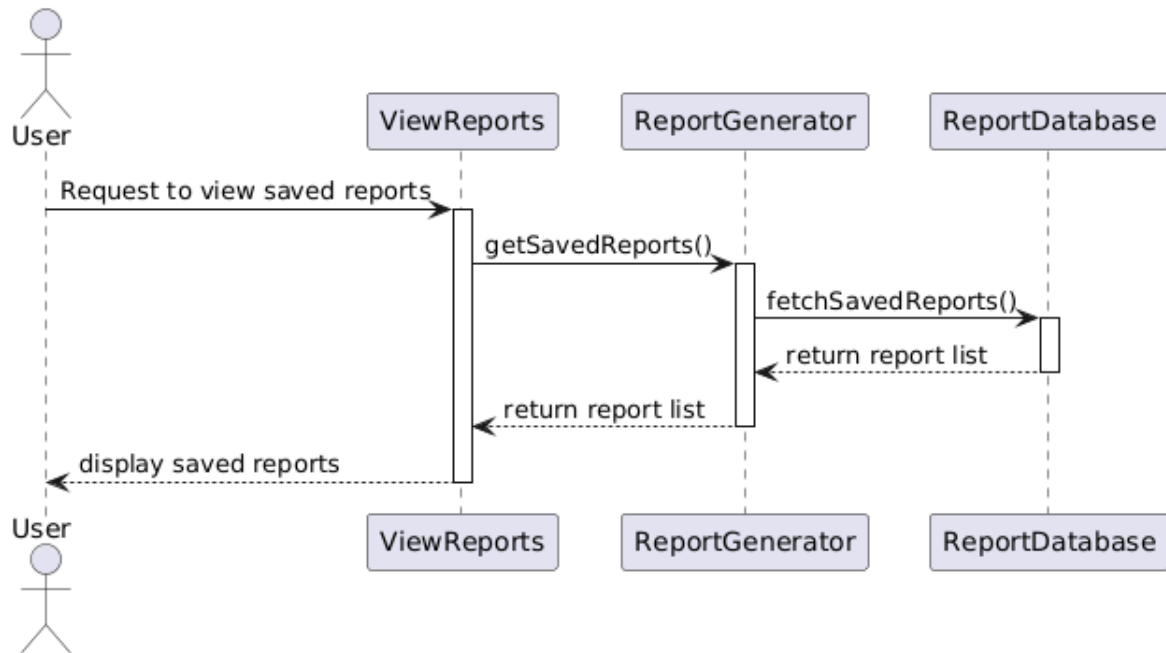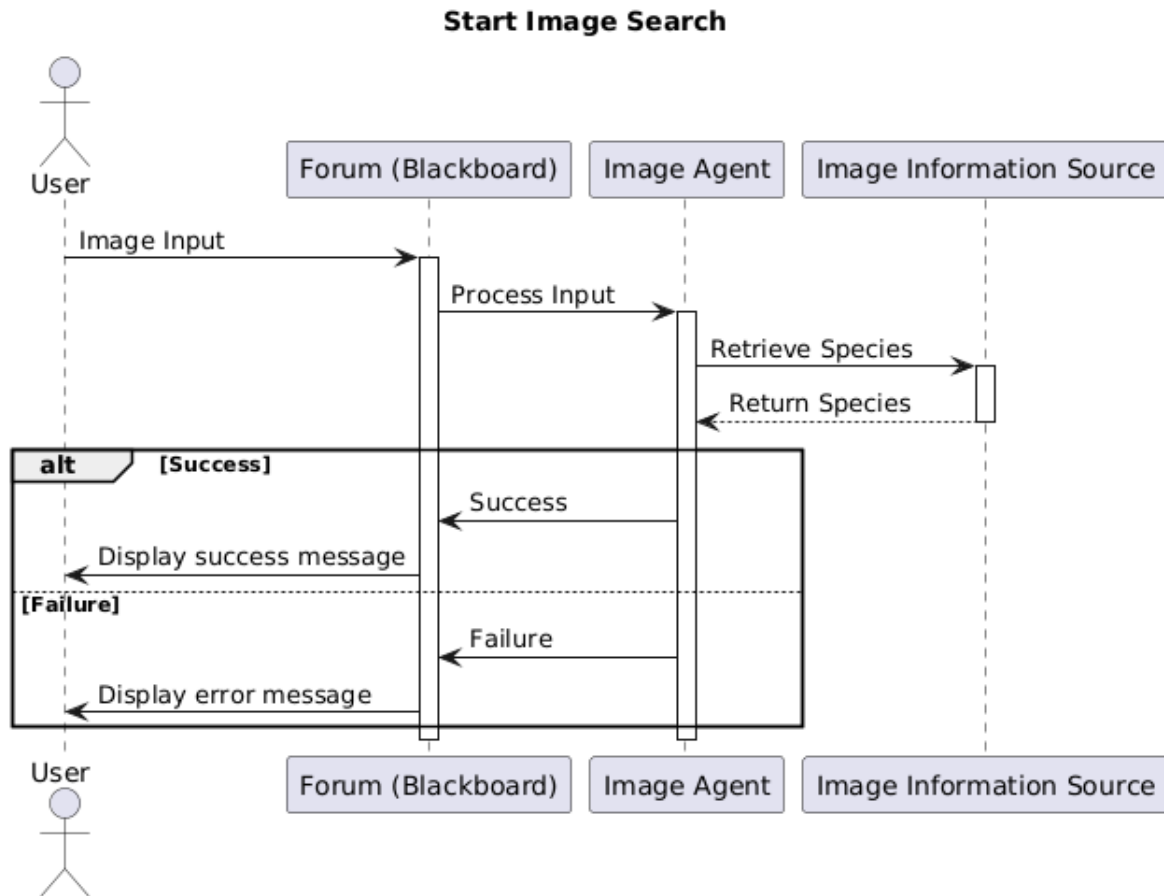
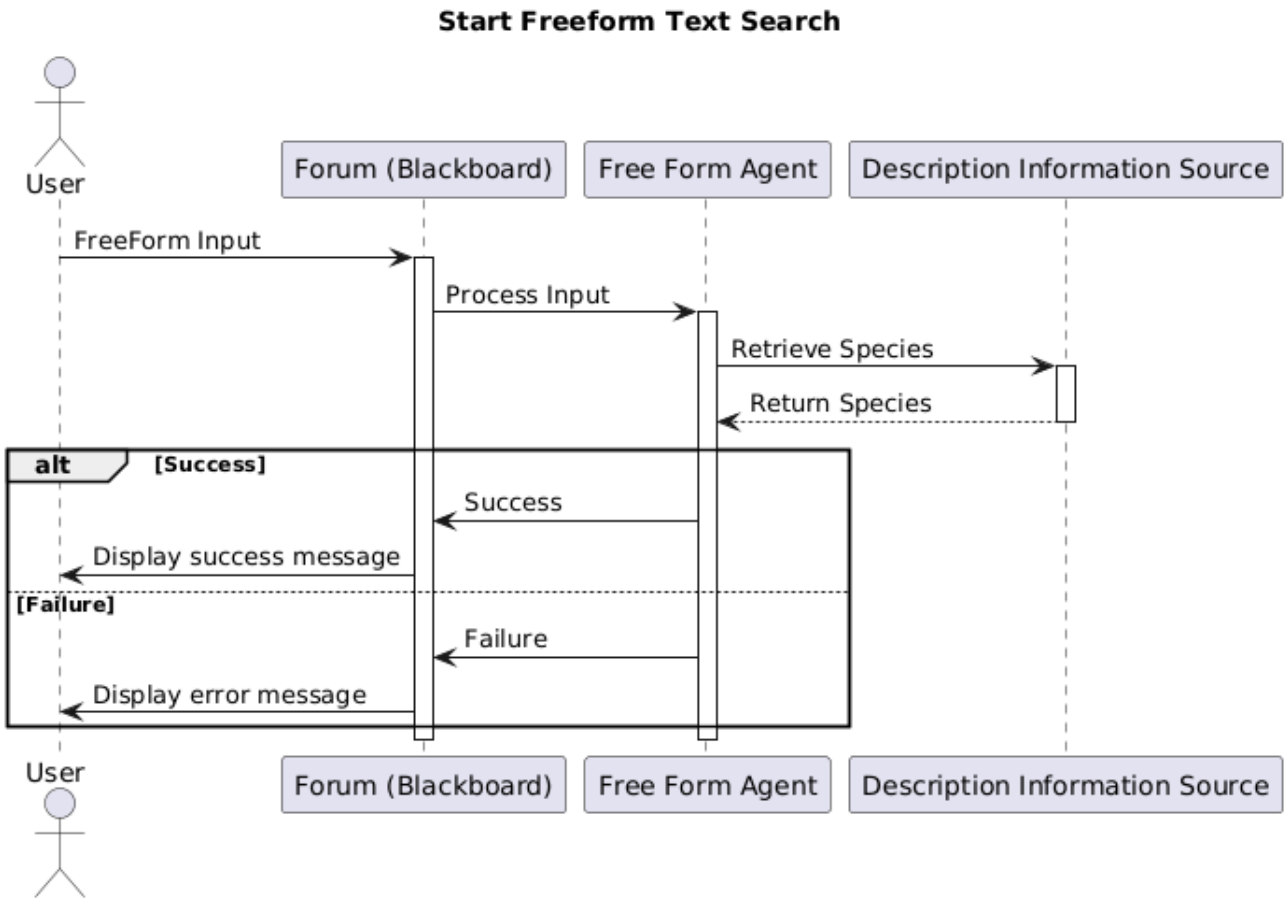Figure 3.3: Viewing a Saved Report Sequence Diagram

Start Image Search

Figure 3.4: Start Image Search Sequence Diagram

Figure 3.5: Start Freeform Text Search Sequence Diagram
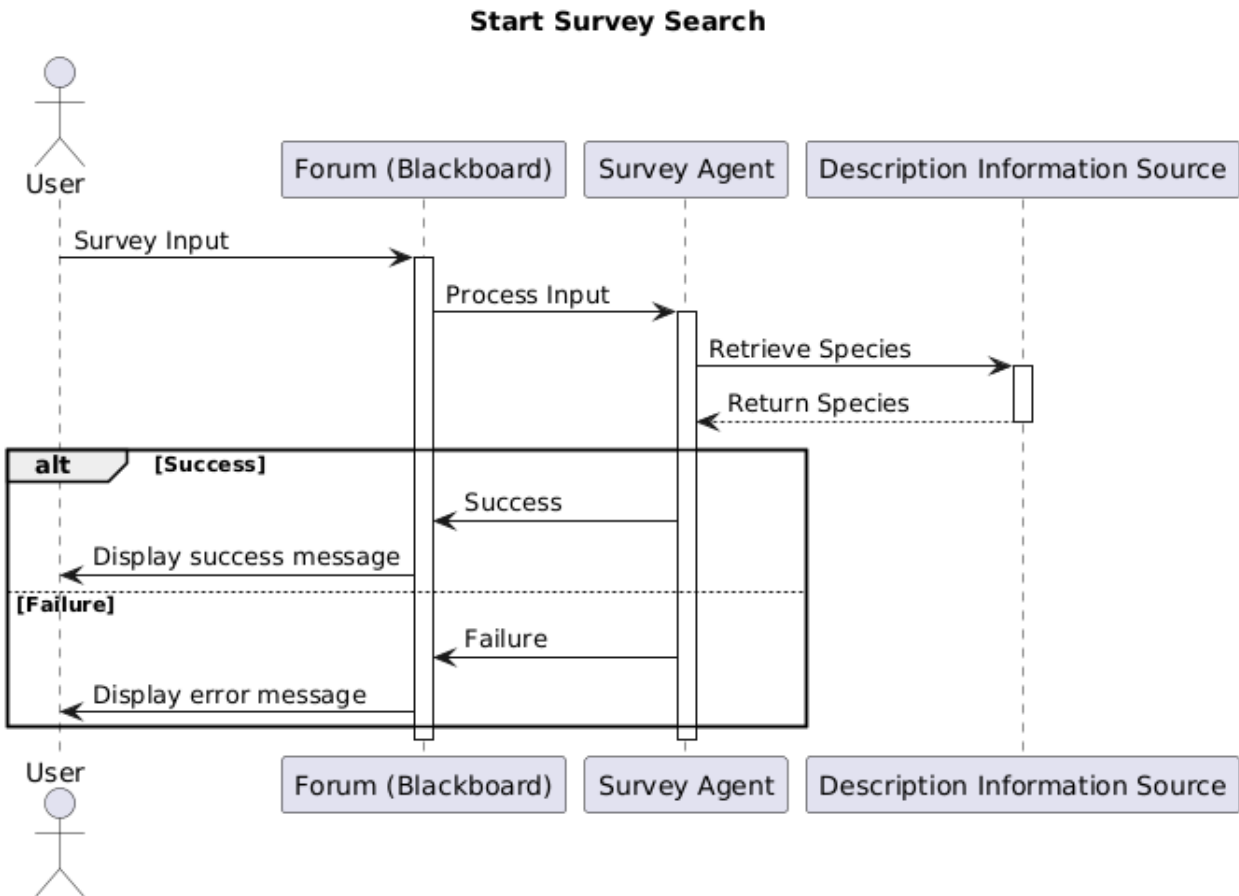
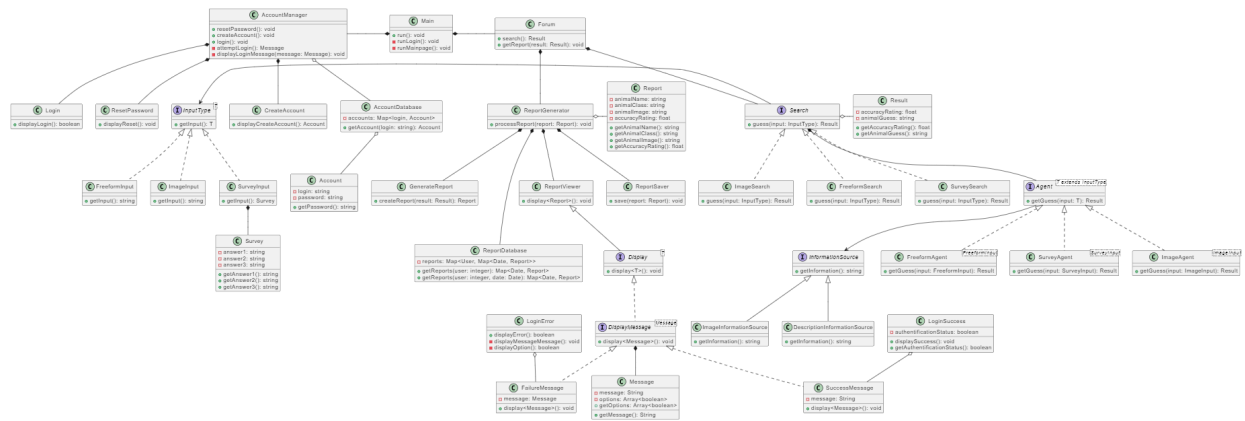Figure 3.6: Start Survey Search Sequence Diagram

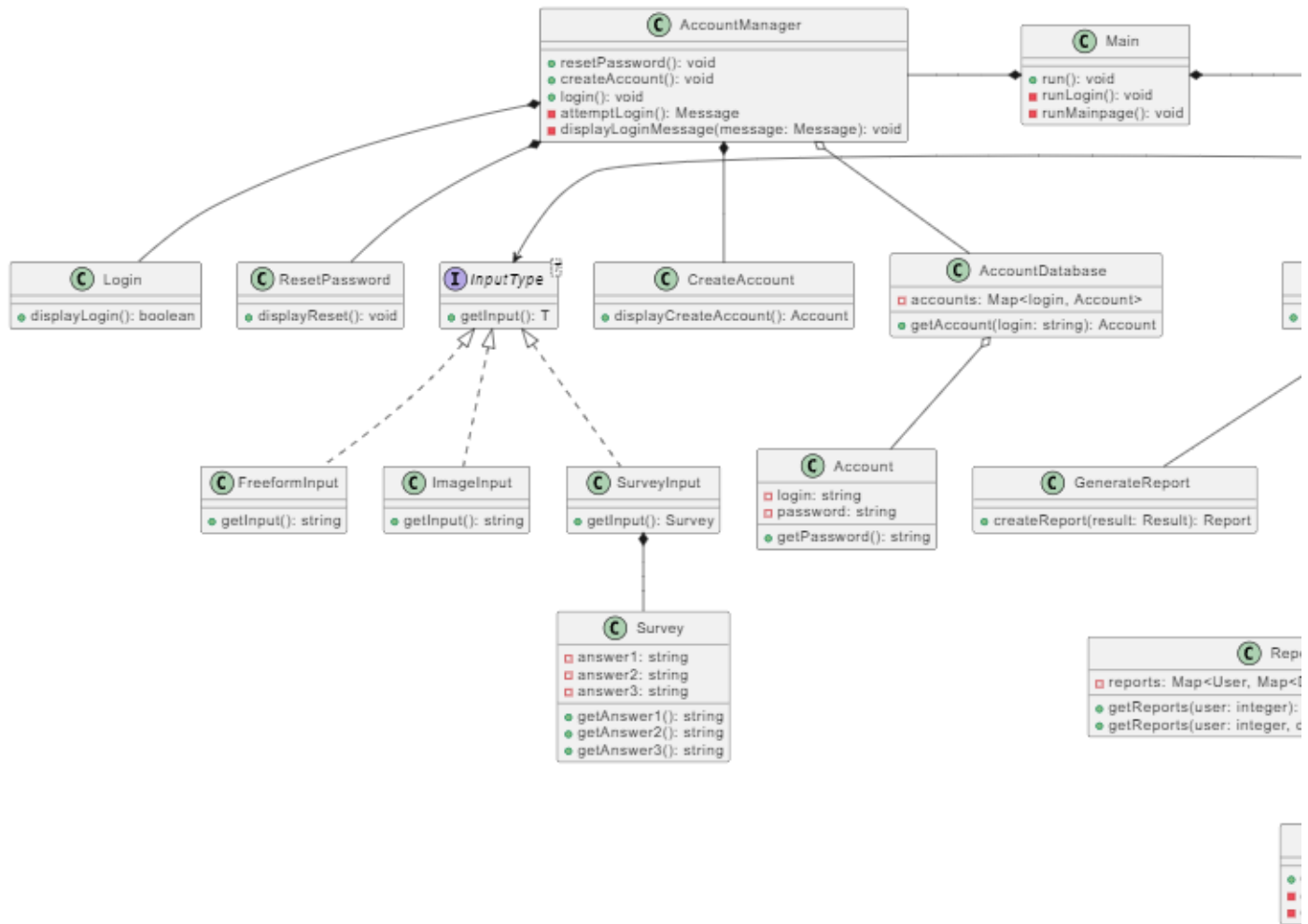# 4 Detailed Class Diagram

Figure 4.1: Entire Class Diagram
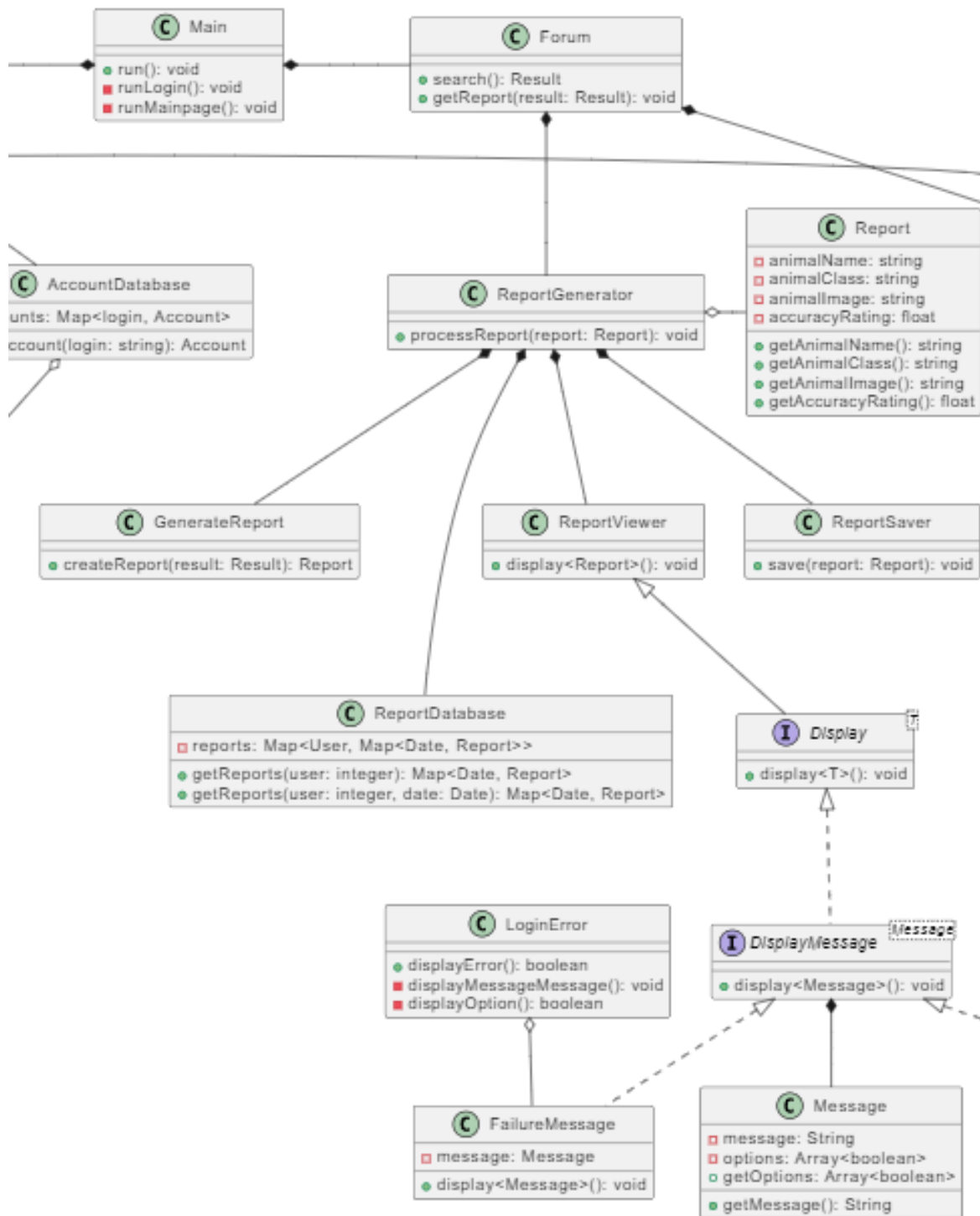
Figure 4.2: Account Manager Section of Class Diagram

Figure 4.3: Report Generator Section of Class Diagram
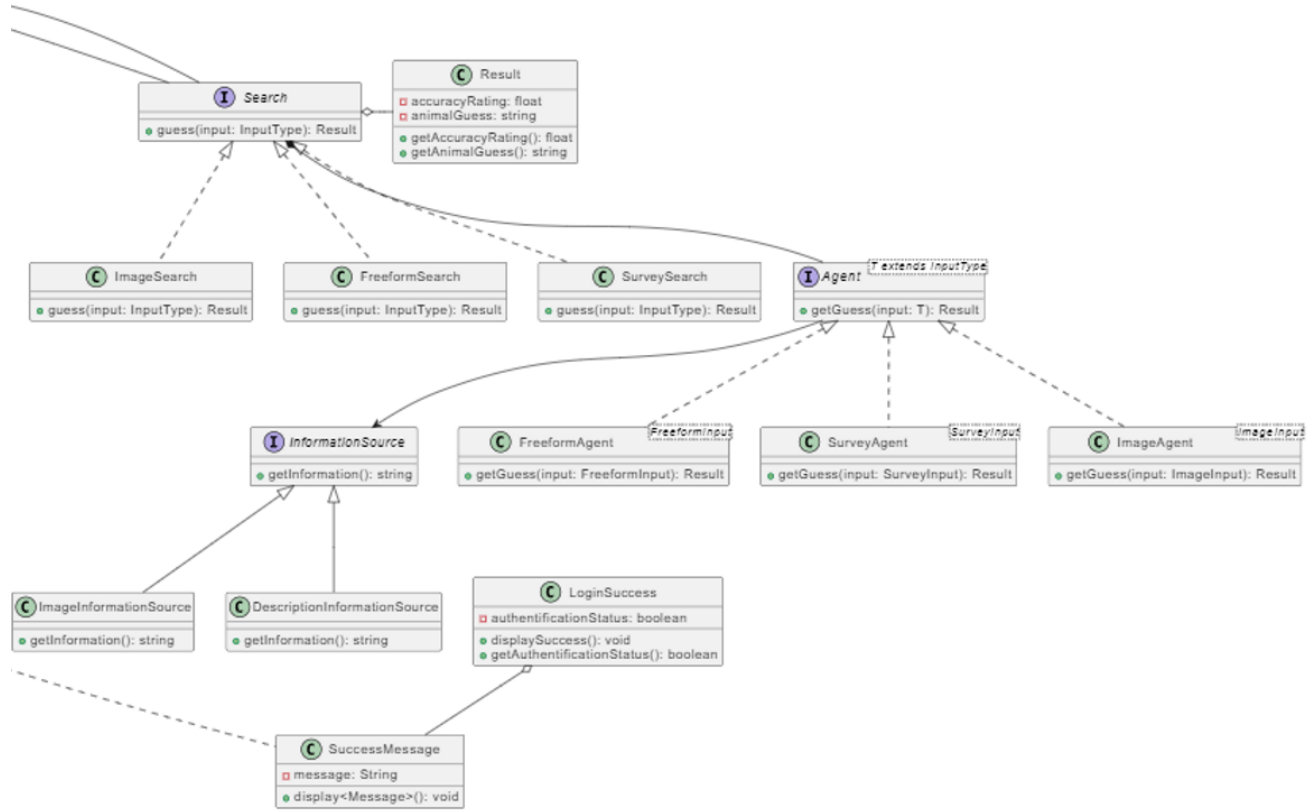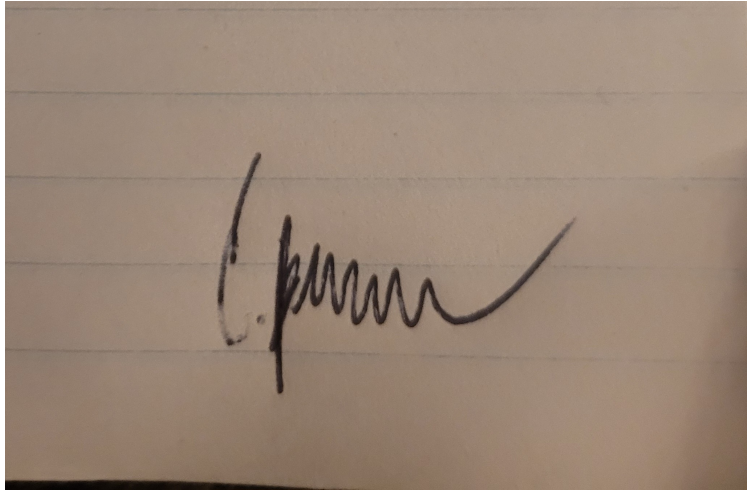
Figure 4.4: Search Section of Class Diagram

A Division of Labour

Cass Braun

- text

Nehad Shikh Trab

- Section 3 - Log in to account Sequence Diagram

- Section 3 - Creating an account Sequence Diagram

- Section 3 - Viewing saved reports Seqeucen Diagram
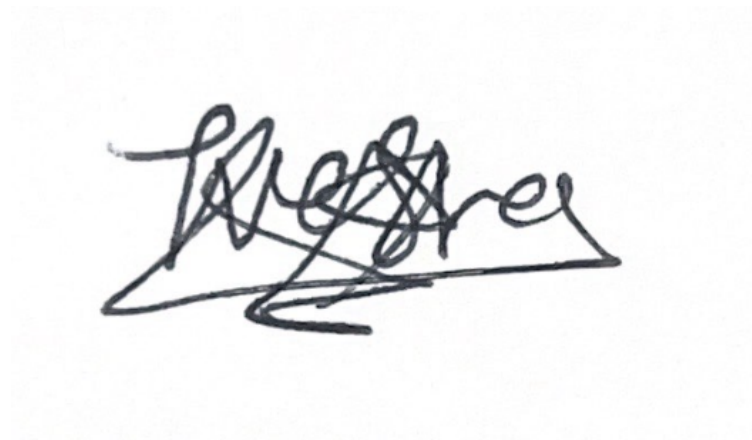
- Assisted with formatting

Savvy Liu

- Section 3 - Start Image Search Sequence Diagram
- Section 3 - Start Freeform Text Search Sequence Diagram
- Section 3 - Start Survey Search Sequence Diagram
- General formatting checks and proofreading

Tvesha Shah

- Section 2 - Forum Controller State Diagram
- Section 2 - Account Manager Controller State Diagram
- Section 2 - Generate Report Controller State Diagram
- Section 1.1 Purpose
- Section 1.2 System Description
- Section 1.3 Overview
- Managed github set up and assisted with formatting

Victor Yu

- Section 2 - Survey Agent State Diagram
- Section 2 - Image Agent State Diagram
- Section 2 - Freeform diagram State Diagram
- Assisted with formatting, Forum State Diagram