Deliverable #3 Template

SE 3A04: Software Design II – Large System Design

Tutorial Number: T03
Group Number: G07
Group Members:

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IMPORTANT NOTES

- You do <u>NOT</u> need to provide a text explanation of each diagram; the diagram should speak for itself

- Please document any non-standard notations that you may have used

    - *Rule of Thumb*: if you feel there is any doubt surrounding the meaning of your notations, document them

- Some diagrams may be difficult to fit into one page

    - It is OK if the text is small but please ensure that it is readable when printed

    - If you need to break a diagram onto multiple pages, please adopt a system of doing so and throughly explain how it can be reconnected from one page to the next; if you are unsure about this, please ask me

- Please submit the latest version of Deliverable 1 and Deliverable 2 with Deliverable 3

    - They do not have to be a freshly printed versions; the latest marked versions are OK

- If you do <u>NOT</u> have a Division of Labour sheet, your deliverable will <u>NOT</u> be marked

1 Introduction

This section should provide an brief overview of the entire document.

1.1 Purpose

This document outlines key aspects of the Mushroom Identification App's architecture, featuring state chart diagrams, sequence diagrams, and a comprehensive class diagram. It is designed for internal stakeholders, such as project managers, developers, domain experts, and investors. Reviewing earlier deliverables is recommended, as having technical knowledge can aid in fully grasping the details presented.

1.2 System Description

The mushroom identification app is a mobile application that uses image recognition and user input to help users identify different mushroom species. It provides information about each species, including whether they are edible or toxic, and allows users to contribute to a shared database. This document builds on Deliverable 2 by adding technical detail through state charts, sequence diagrams, and a class diagram that show the system's internal structure.

1.3 Overview

This document is organized by diagram type to clearly represent different aspects of the system. Section 2 contains state charts for key controller classes, Section 3 includes sequence diagrams for main use cases like mushroom identification and account registration, and Section 4 has a detailed UML class diagram showing class relationships and structure.

2 State Charts for Controller Classes

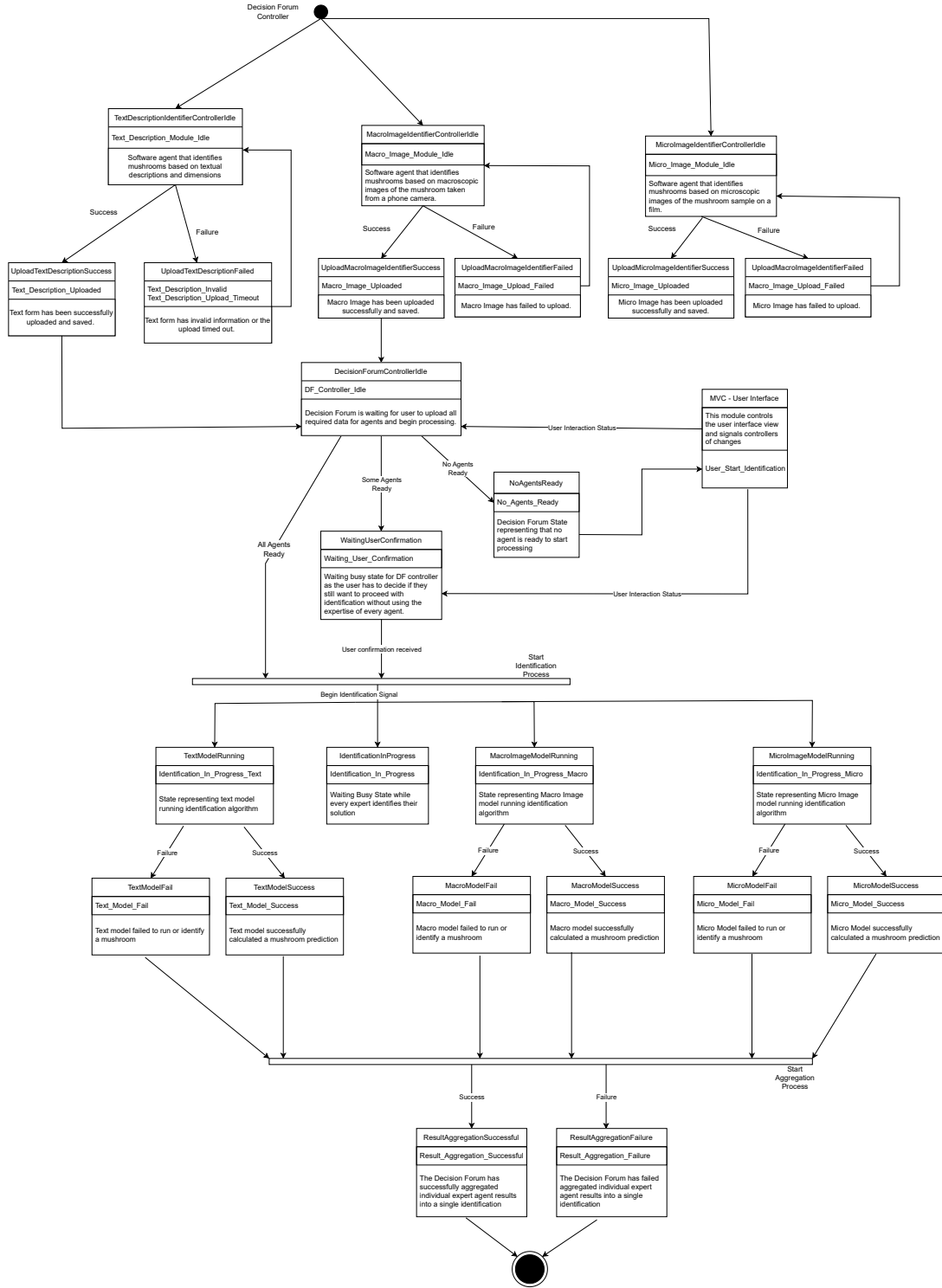State chart diagrams are provided as SVG files and may be zoomed into to reveal more detail.

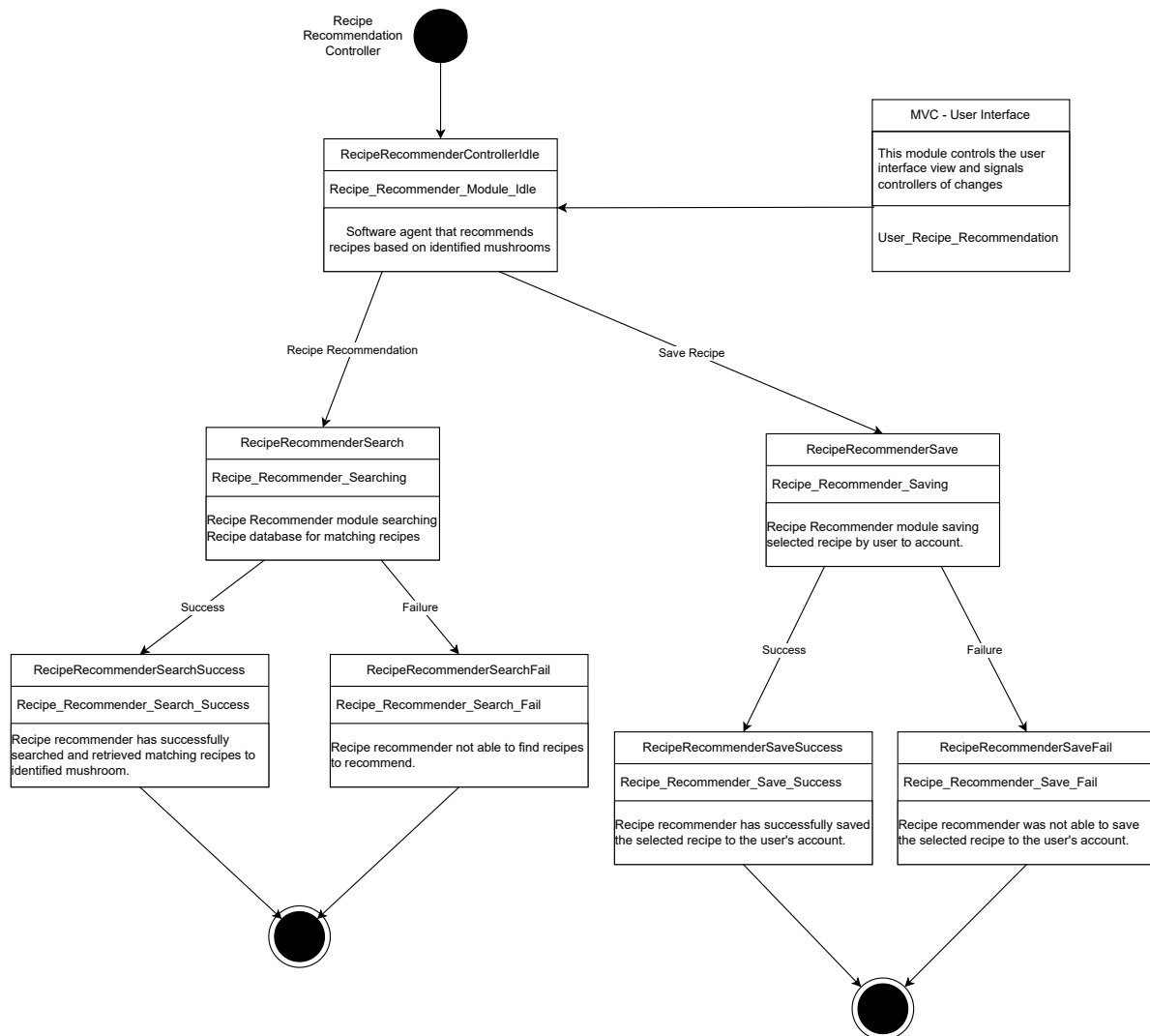Figure 1: State Chart Diagram for the Decision Forum Controller

Figure 2: State Chart Diagram for the Recipe Recommendation Controller
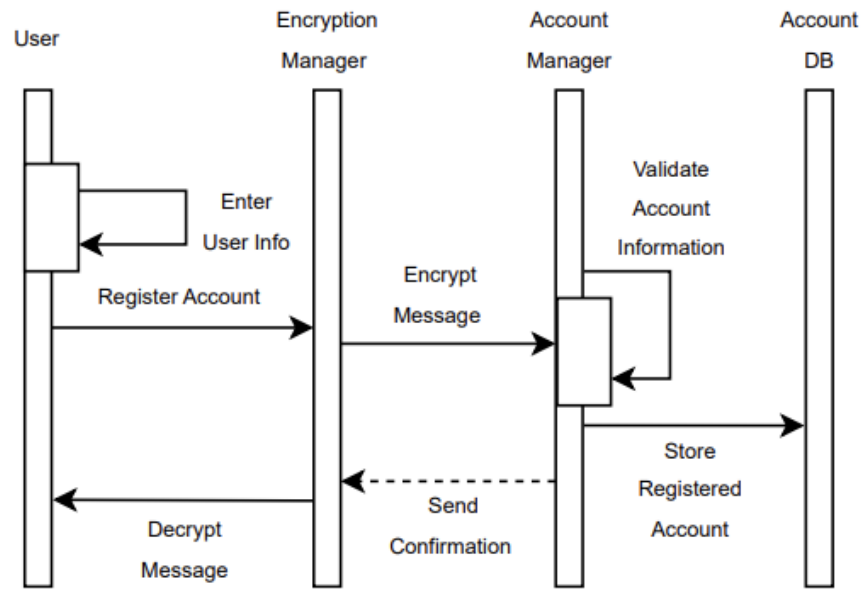
3 Sequence Diagrams
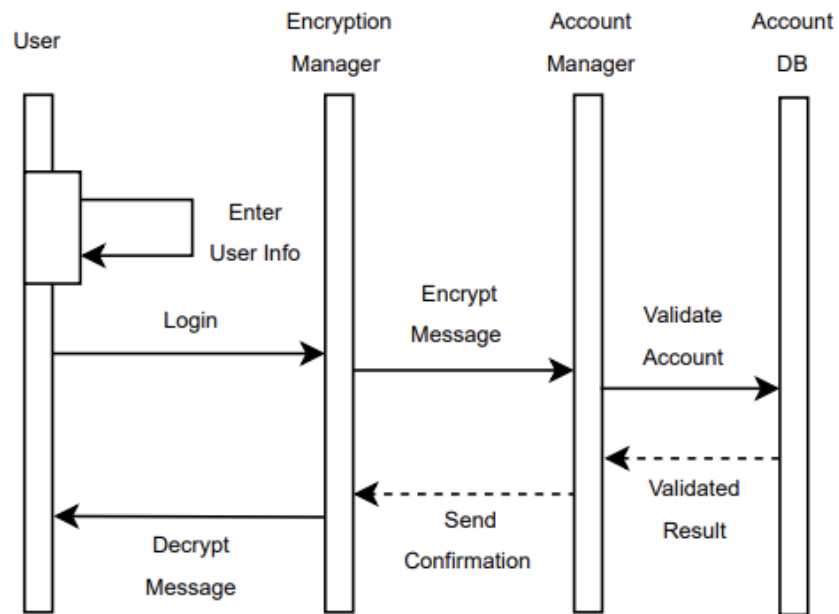

Figure 3: Register Account Sequence Diagram
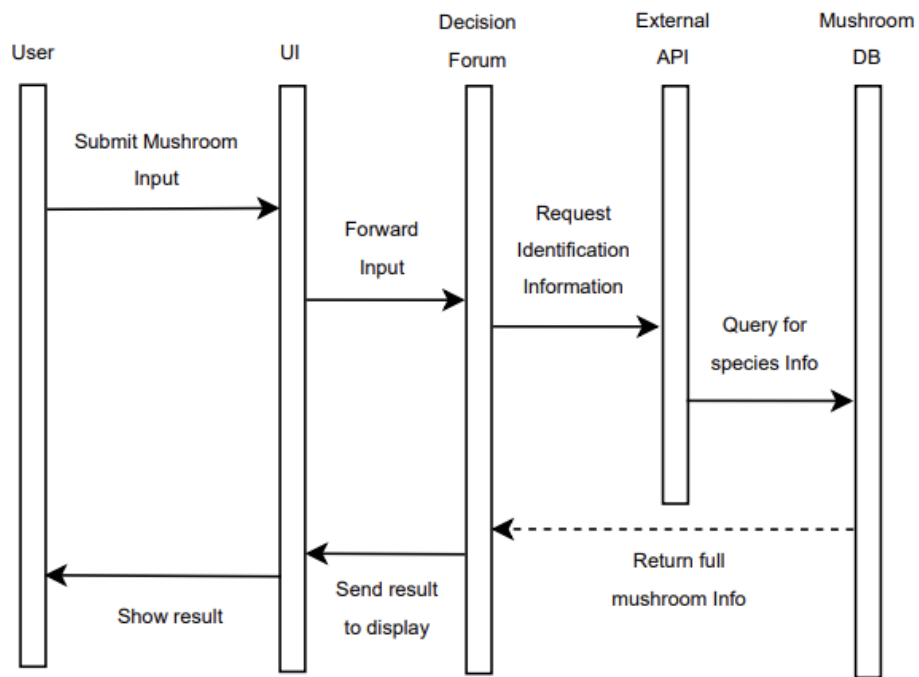

Figure 4: Login Sequence Diagram
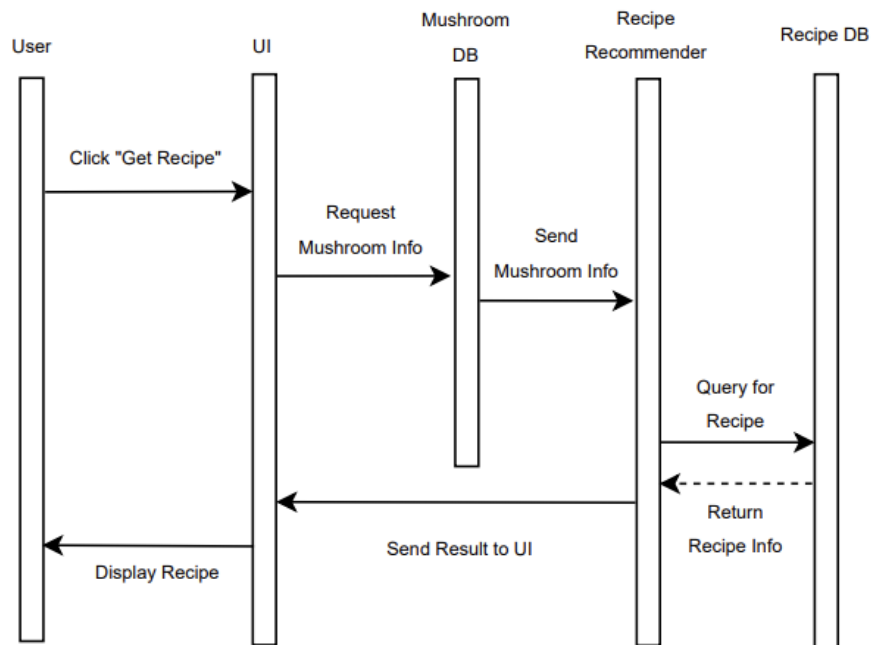
Figure 5: Identify Mushroom Sequence Diagram

Figure 6: Get Recipe Sequence Diagram

User

Select "Share on Social Media"

Display list of supported platforms

Selects preferred platform

alt [User not authenticated]

Request authentication

Provide credentials

alt [Authentication successful]

Proceed to sharing

[Authentication fails]

Prompt retry or reset password

alt [Multiple failed attempts]

Suggest contacting support

Submit post request

alt [Connection successful]

Confirm post received

Generate auto-formatted post

Customize post (caption, hashtags, tags)

Submit post

Share post

Confirm post shared

Show confirmation

[Connection fails]

alt [API request rejected]

Inform about error and suggest alternatives

Save post in queue for retry

alt [User enters invalid content]

Notify and request modifications

Edit and resubmit

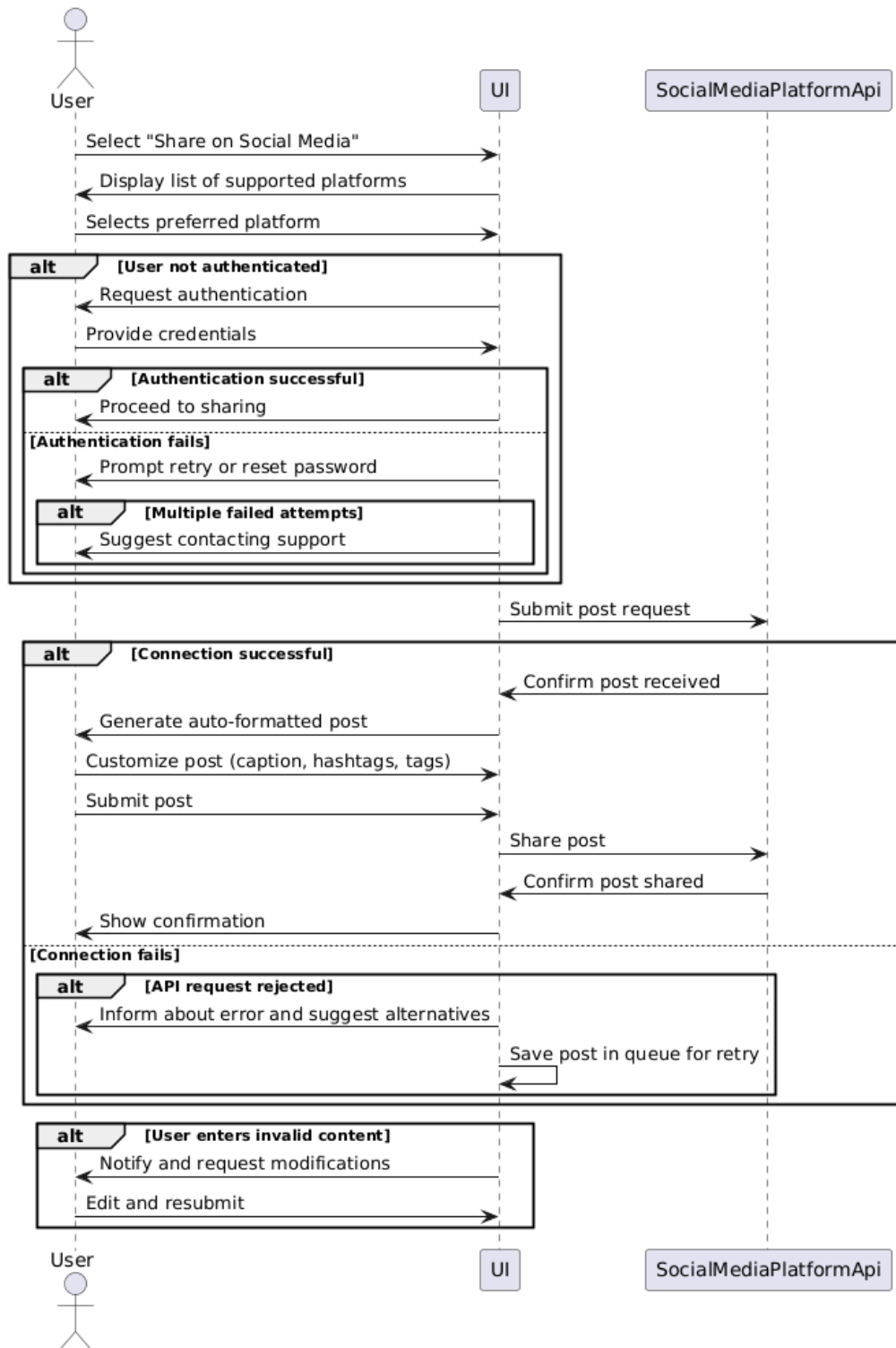User   UI   SocialMediaPlatformApi

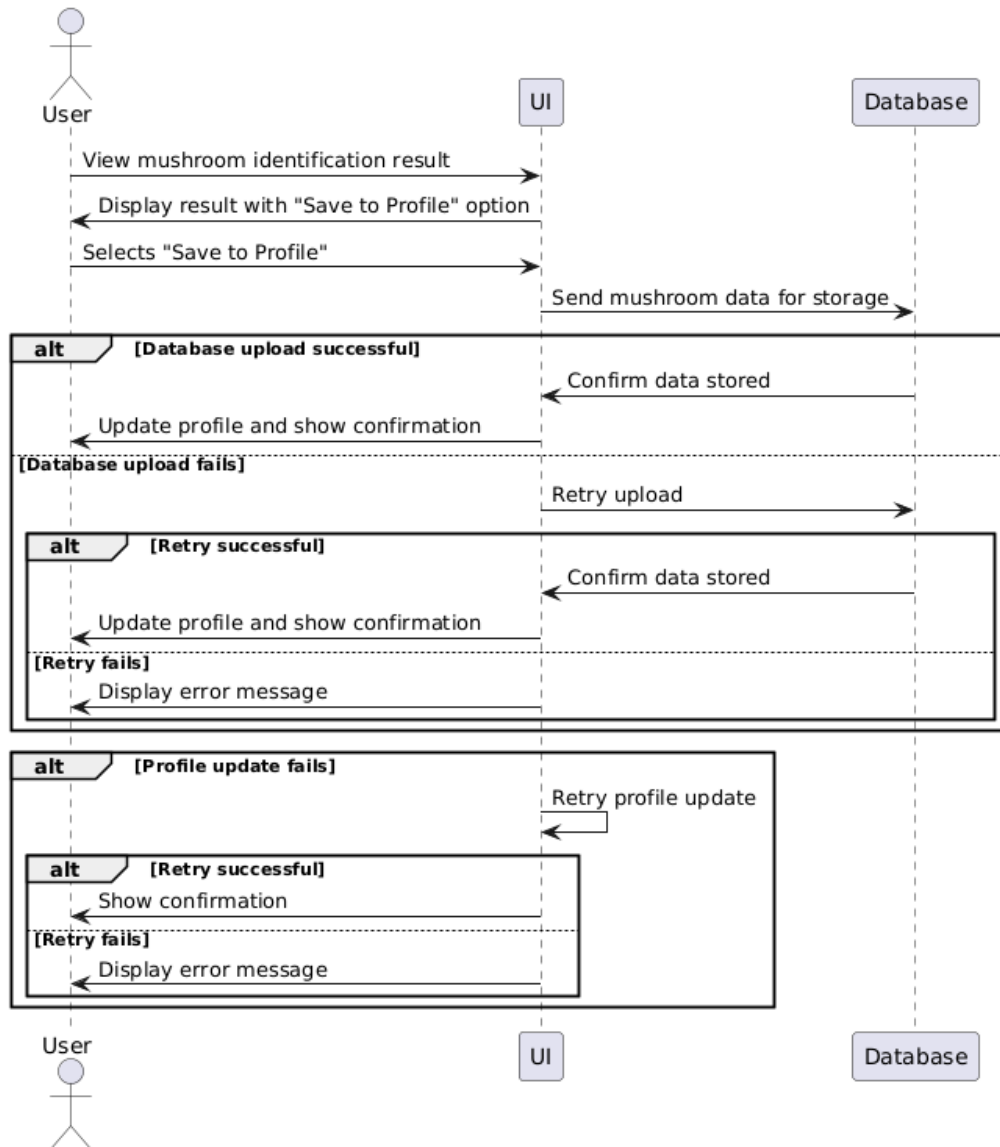Figure 7: Share to Social Media Diagram

7

Figure 8: Save Mushroom to Account Diagram

4   Detailed Class Diagram

This section should provide a detailed class diagram for your application.
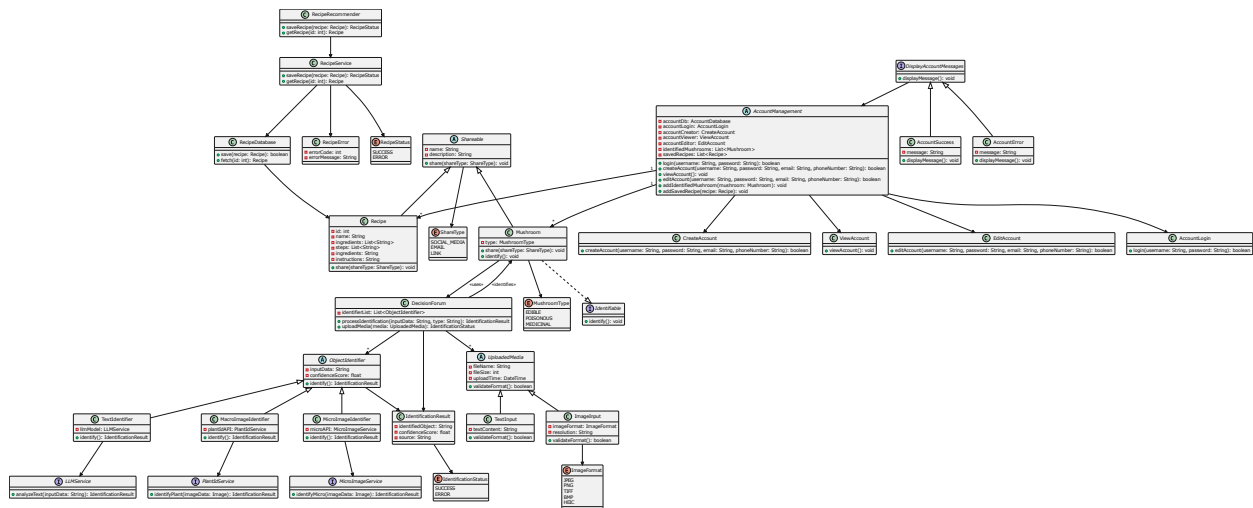

Figure 9: PlantUML Diagram

A   Division of Labour

Include a Division of Labour sheet which indicates the contributions of each team member. This sheet must be signed by all team members.

1. Omar Alam

    - State chart diagrams for the Decision Forum Controller and Recipe Recommendation Controller.
    - Latex formatting and editing.