Detailed Design
Identif.ai

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1 Introduction

1.1 Purpose

The purpose of this document is to examine the architectural design of the Indentifai application in greater detail. More specifically, the interaction, behaviour and specifics of the classes within the system are discussed.

The intended audience of this document are any stakeholders, including the developers, the maintenance team, the professor(Dr. Ridha Khedri) and the teaching assistants(Andrew Le Clair and Spencer Deevy) of the course.

1.2 System Description

Identif.ai is an android application that identifies celebrities through multimedia input such as audio, photo, and text. Within the system there are three experts corresponding to each individual input. The information from each input will then be sent to their respective subsystems where it is analyzed and identification is attempted.

1.3 Overview

This remainder of this document is organized into three sections: State Charts for Controller Classes, Sequence Diagrams, Detailed Class Diagrams. The State Charts for Controller Classes section defines the required behaviour of the controller classes within the system. The Sequence Diagrams present the interactions between classes, specifically messages passed over time. Finally, the Detailed Class Diagrams will provide the specific details of each class such as methods and variables that will be used.

2 State Charts for Controller Classes
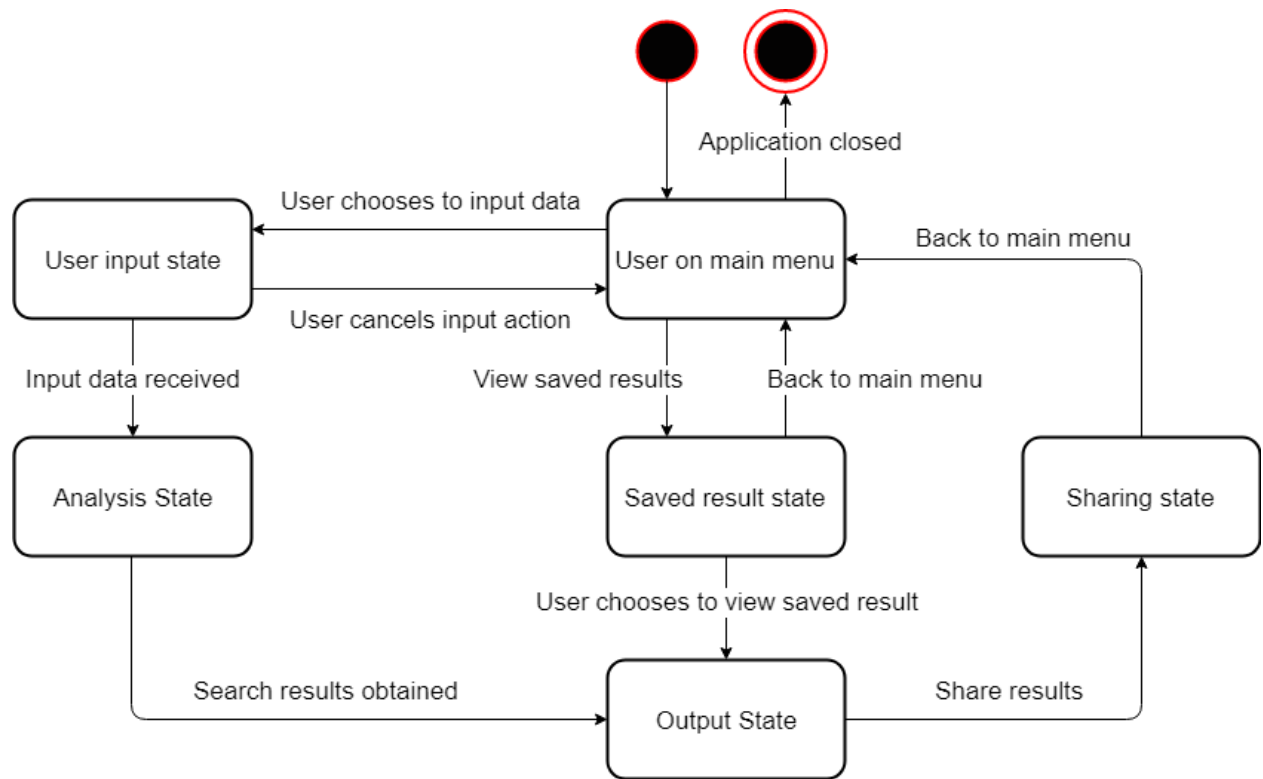
2.1 State Chart for the Main Controller

Figure 1: Main Controller

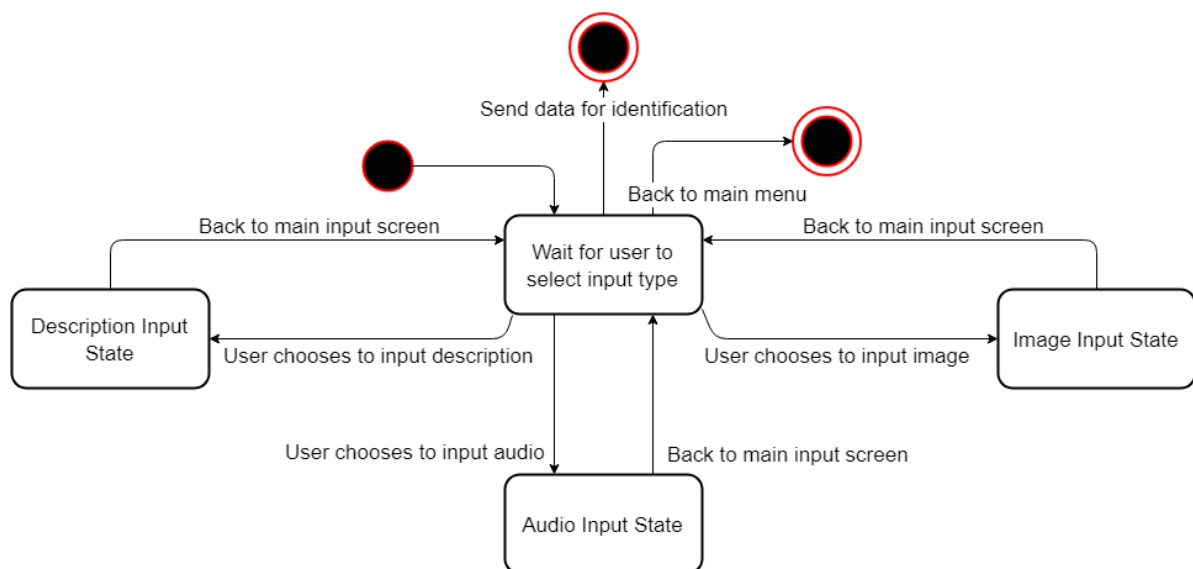## 2.2 State Chart for the Input Controller

Figure 2: Input Controller

2.3 State Chart for the Analysis Controller
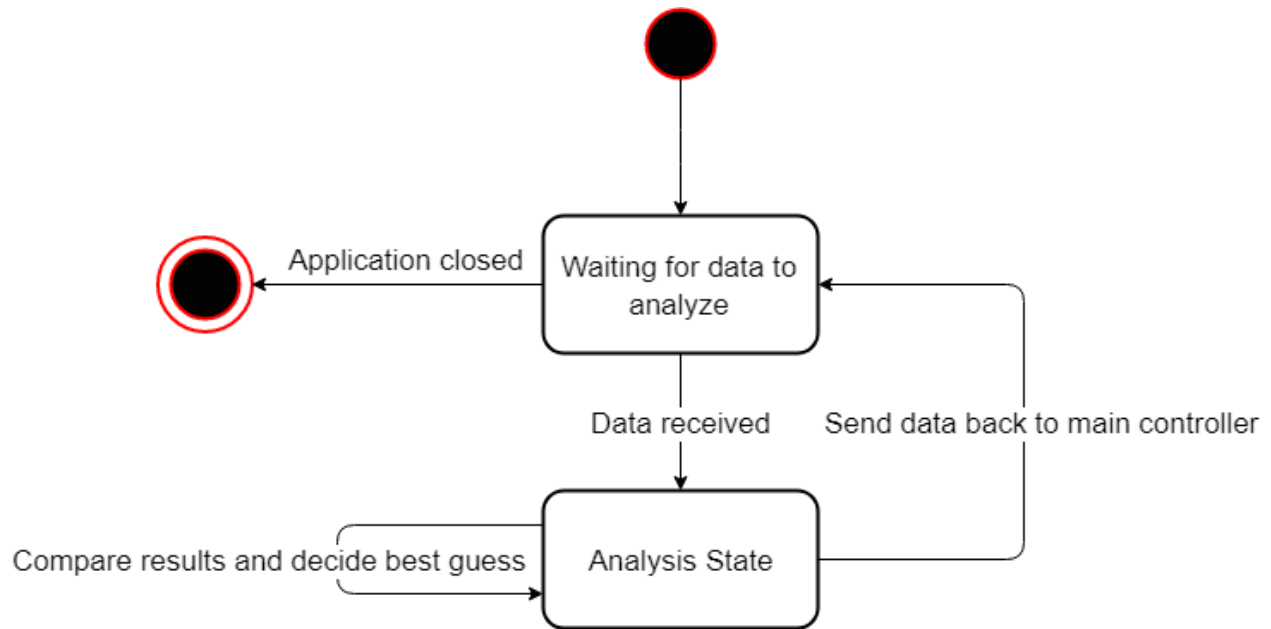
Figure 3: Analysis Controller

2.4 State Chart for the Sharing Controller
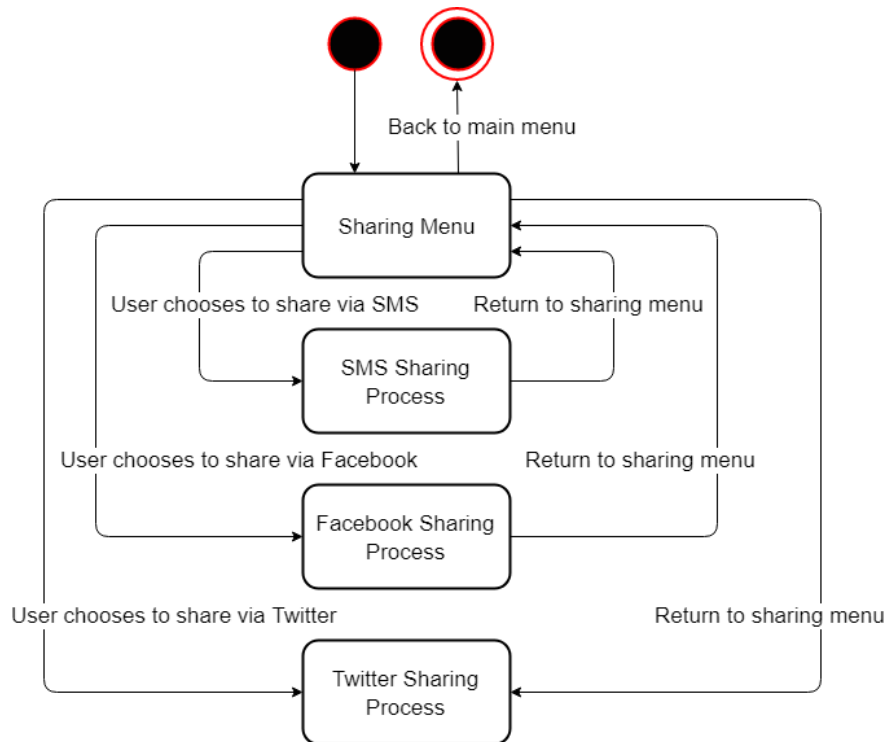
Figure 4: Sharing Controller

2.5 State Chart for the Output Controller

Save search results

Result Overview   Back to main menu

Share search results   Back to result overview

Wait for user to
return from sharing
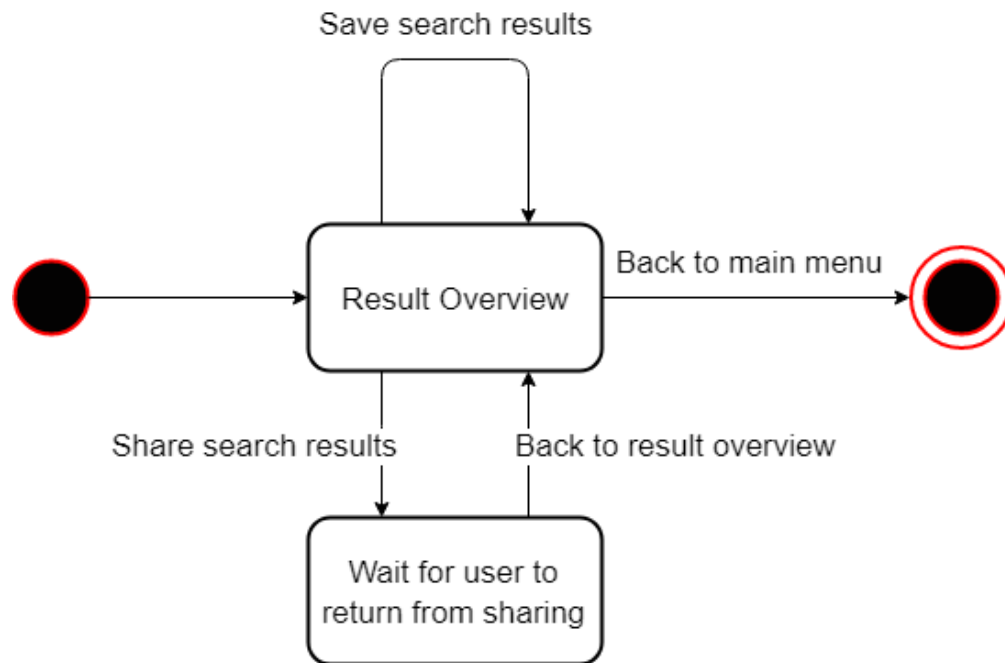
Figure 5: Output Controller

2.6 State Chart for the Data Controller

Input

Verified Input   Sends the result
                        to Main Controller

Sends the input to the
corresponding controller
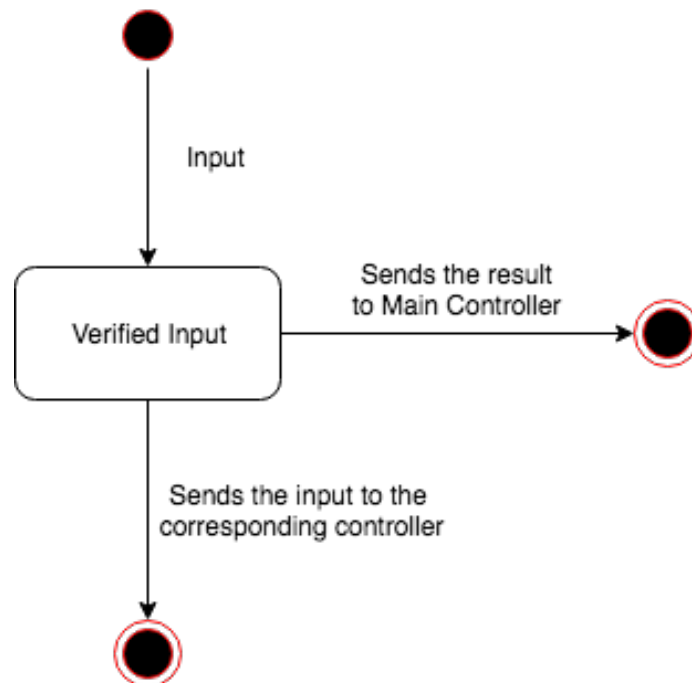
Figure 6: Data Controller

2.7 State Chart for the Audio Controller
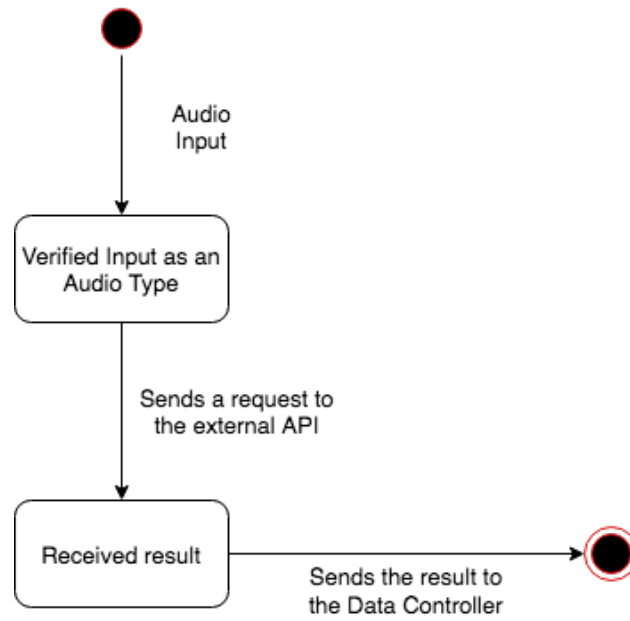
Figure 7: Audio Controller

2.8 State Chart for the Description Controller
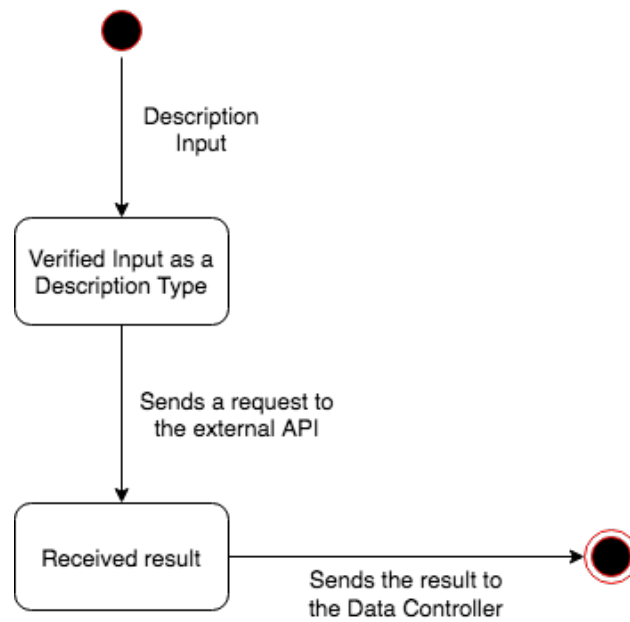
Figure 8: Description Controller

2.9 State Chart for the Image Controller
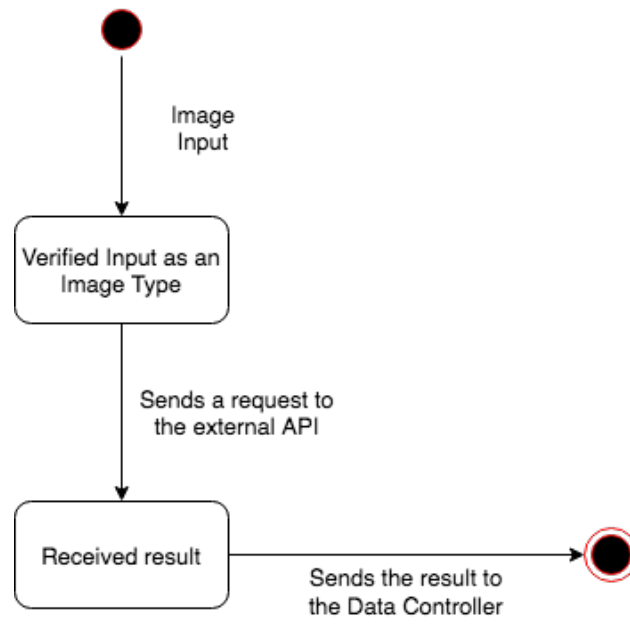
Figure 9: Image Controller

3 Sequence Diagrams

3.1 Sequence Diagram 1
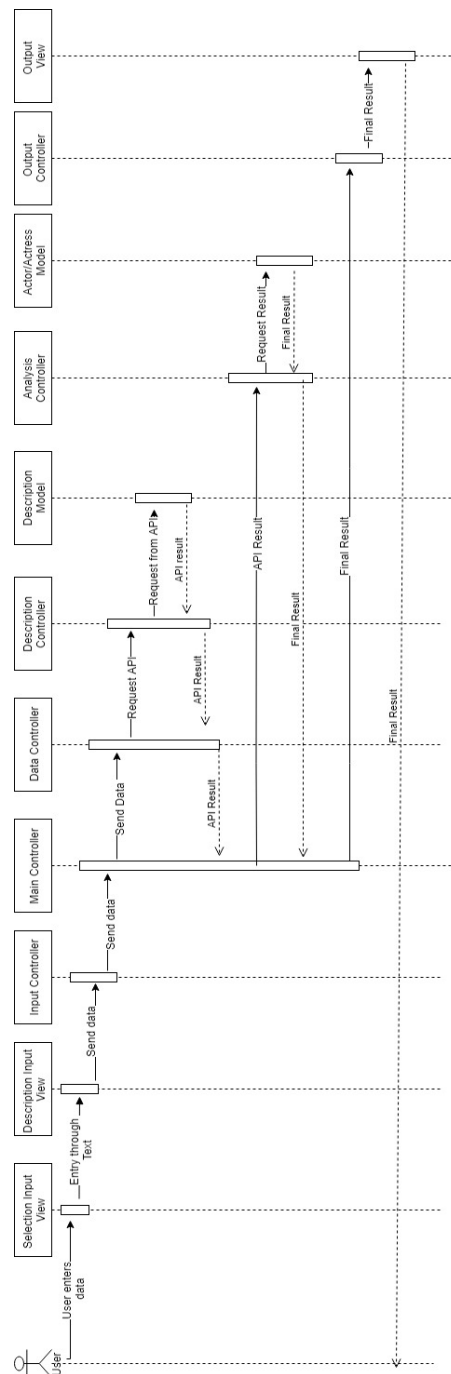
Figure 10: User wants to Search with description input

*Note: Sequence diagrams are the same of Audio and Image input.

3.2 Sequence Diagram 2
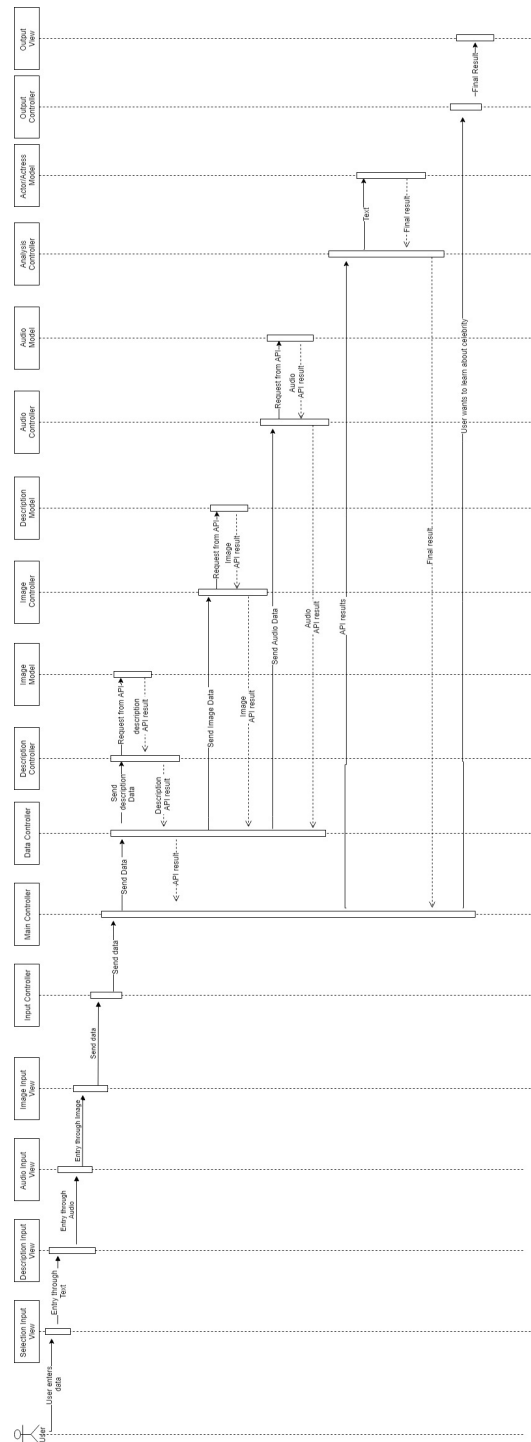
Figure 11: User wants to Search with multiple inputs

*Note: Sequence Diagrams are similar when the user choices two input instead of three.

3.3 Sequence Diagram 3
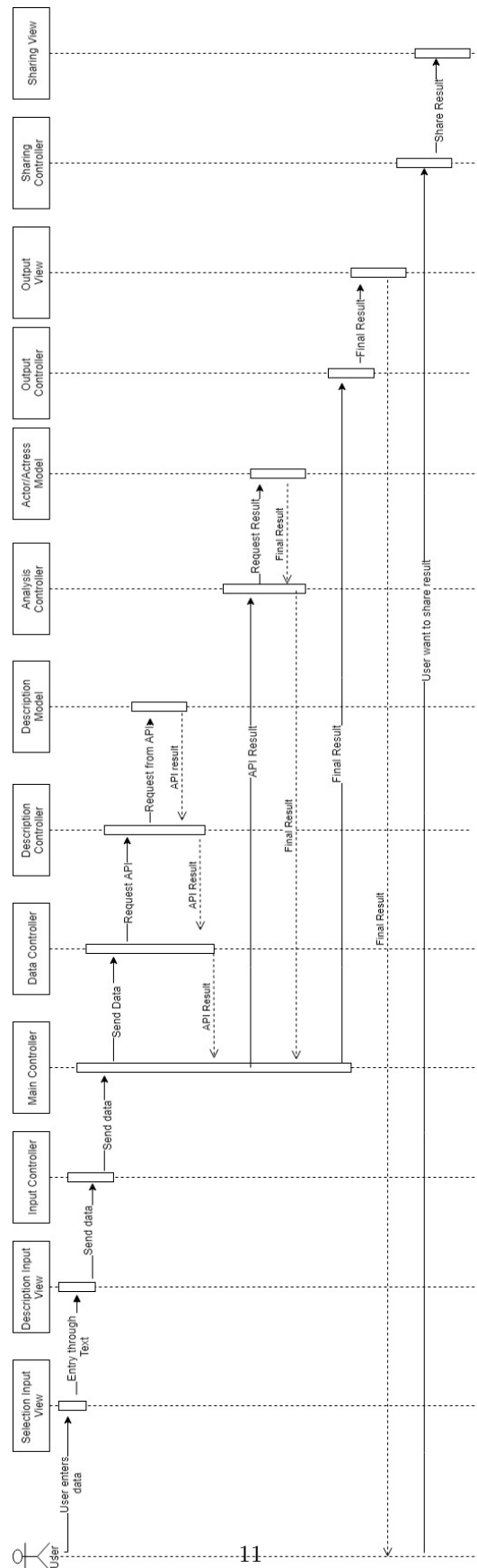
Figure 12: User wants to share result

3.4 Sequence Diagram 4

3.5 Sequence Diagram 5

Figure 14: User wants to learn more about celebrity

4   Detailed Class Diagram

OutputView

- GetOutputData()
- GoToSharing()
- NewSearch()
- Display()

OutputController

- CompileData()

SharingController

+ Result : String

- FacebookShare(Result : String)
- SMSShare(Result : String)
- TwitterShare(Result : String)

SharingView

- Display()
- NewSearch()

DescriptionInputView

+ Description : String

- Display()
- GoToImage()
- GotToAudio()
- GoToOutput()

ImageInputView

+InImage : Image

- Display()
- GotToAudio()
- GoToOutput()

AudioInputView

+InAudio : Audio

- Display()
- GoToOutput()

SelectionView

+ DoDescription : Bool
+ DoImage : Bool
+ Do Audio : Bool

- GoToDescription()
- GoToImage()
- GoToAudio()

InputController

+ Description : String
+ InImage : Image
+ InAudio : Audio

- CollectData() : String, Image, Audio
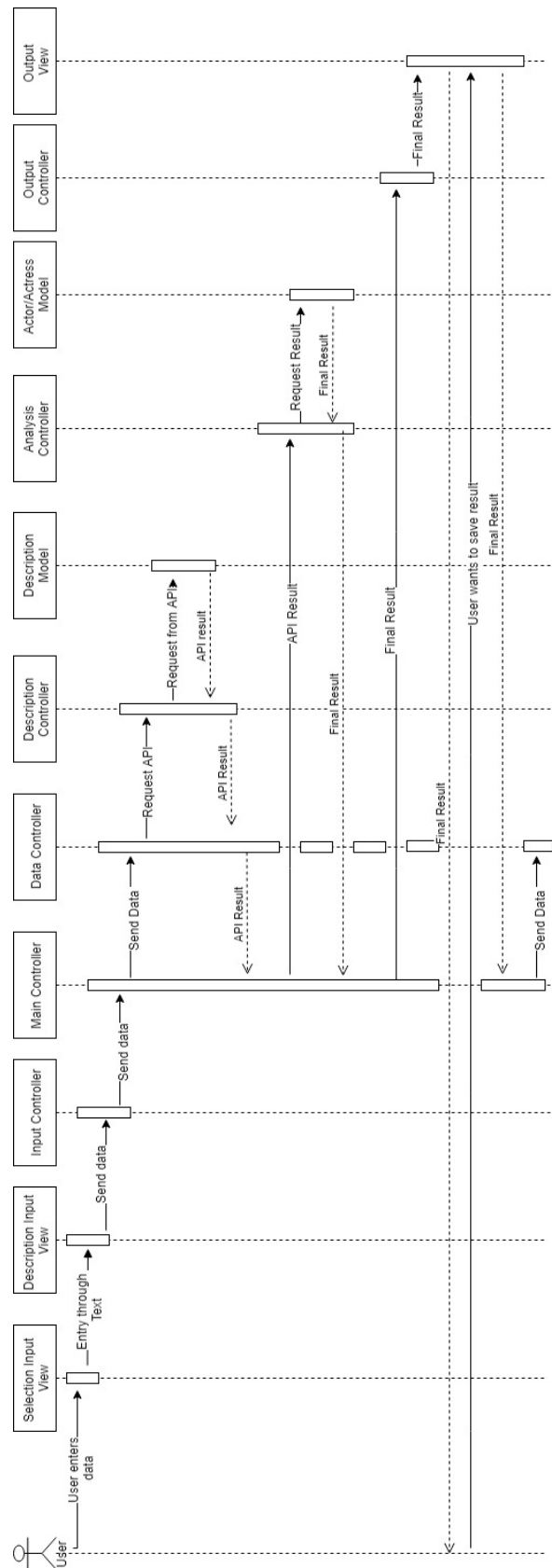+ SendData(Data : String, Image, Audio)

MainController

+ Description : String
+ InImage : Image
+ InAudio : Audio
+ DescriptionResult : String
+ ImageResult : String
+ AudioResult : String
+ Result : String

+ RequestData(Input : String, + Image, Audio)
RequestShare(Data : String)

AnalysisController

- DescriptionResult : String
- ImageResult : String
- AudioResult : String
- Result : String

+ AnalyzeResults(
DescriptionResult : String,
ImageResult : String,
AudioResult : String) : String

ActorModel

+ Name : String
+ Age : Int
+ Gender : String

DataController

+ Description : String
+ InImage : Image
+ InAudio : Audio

- ProcessDescription(
Description : String) : String
- ProcessImage(InImage : Image) : String
- ProcessAudio(InAudio : Audio) : String

AudioController

+ AudioResult : String
+ InAudio : Audio

- SendAudioAPI(InAudio : Audio) : String

DescriptionController

+ DescriptionResult : String
+ Description : String

- SendAudioAPI(Description : String) : String

ImageController

+ ImageResult : String
InImage : Image

- SendAudioAPI(InImage : Image) : String

AudioModel

+ InAudio : Audio

DescriptionModel

+ Description : String

ImageModel

+ InImage : Image

A Division of Labour

Name	Contribution	Signature
Alex Nguyen	Section 4	
Junni Pan	Section 2	
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Tommy Tran	Section 1 and 2	
Shalmi Patel	Section 3	