# Augmented Reality Based Scanner

**UCS 503**

**Software Engineering**


Submitted by

101783039 – Shivam Bhushan

101603316 – Shivam Mittal

101610081 – Satwik Tripathi

101610082 – Shagun Kaushal

B.E Third Year, Computer Engineering


Submitted to

Dr. Sanmeet Bhatia



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# UCS 503

## Software Engineering, BE 3rd Year

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# Introduction

## 1.1 Scope Definition

Augmented Reality Based Framework is an augmented reality based application project that has the purpose of scanning the surroundings through a camera and projecting an image that can act as a guide cum virtual projection of the surrounding. We plan to implement these functionalities for an audience of Thapar university students and staff members.

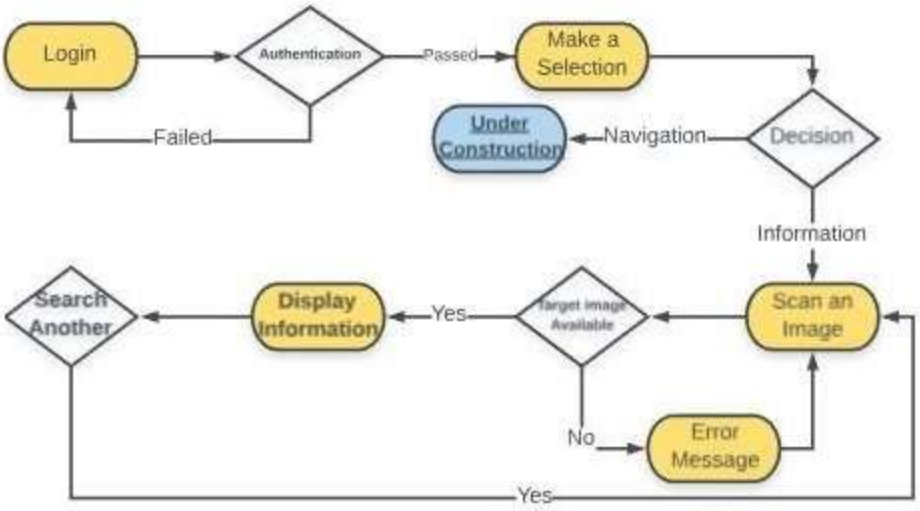
The AR Scanner System is to be implemented in the following three phases:

1. Pilot Phase: Here the AR scanner including access control will be implemented at the university level. Initially we will be providing access privileges for three types of users: Students, Staff and Admin as they will be ones most involved in this phase.

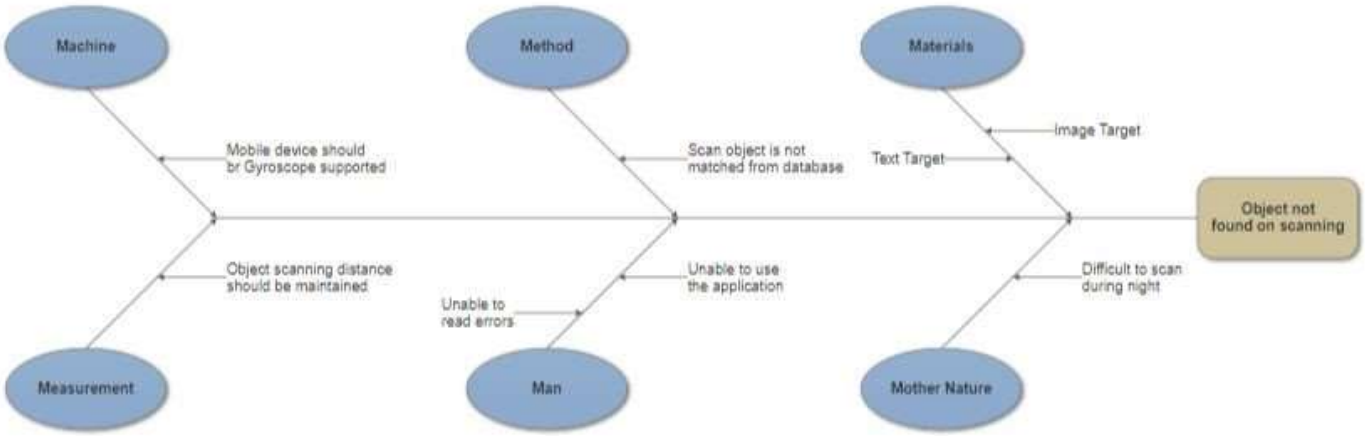
2. Institute wise deployment: Following the successful completion of the pilot phase, we plan to deploy the same across city and functionalities of AR Navigation and Art Draw will be implemented.

3. Extension of AR Scanner system to other applications: In the future we can have train our project using computer vision to give information about the objects scanned.

## 1.2 Block Diagram of the Project

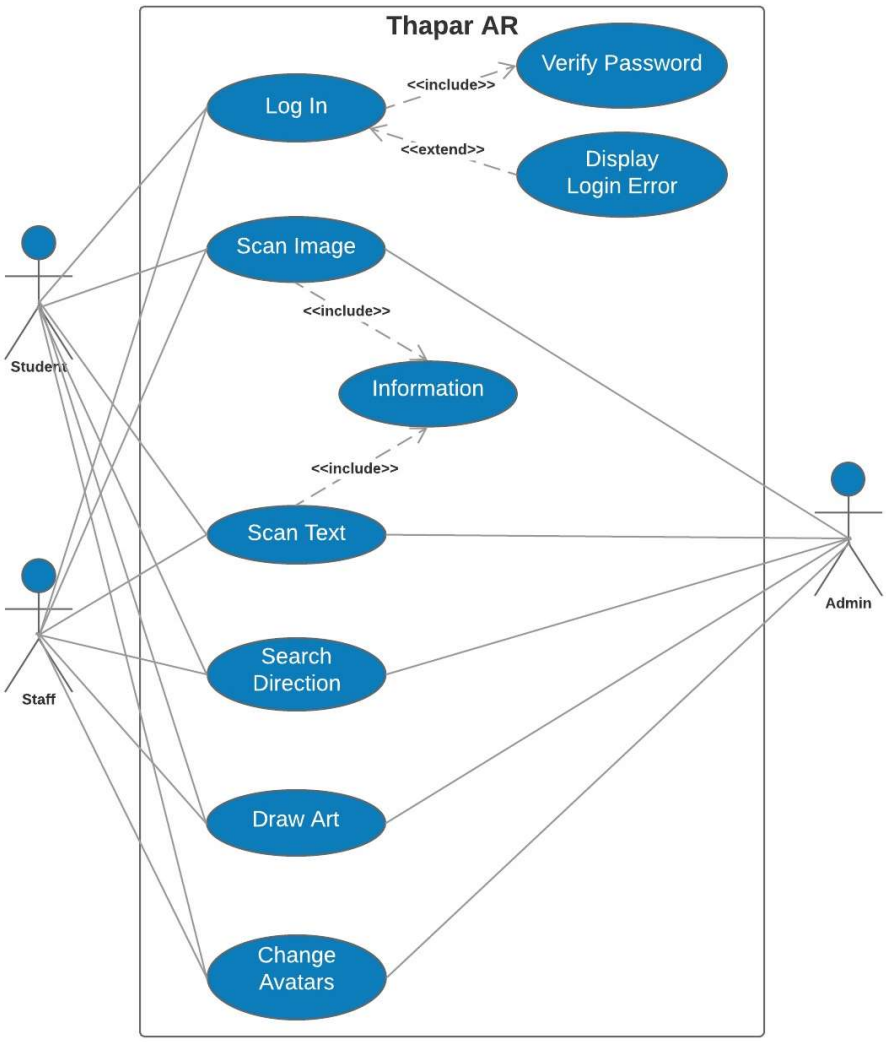


## 1.3 Ishikawa Diagram of the problem formulated

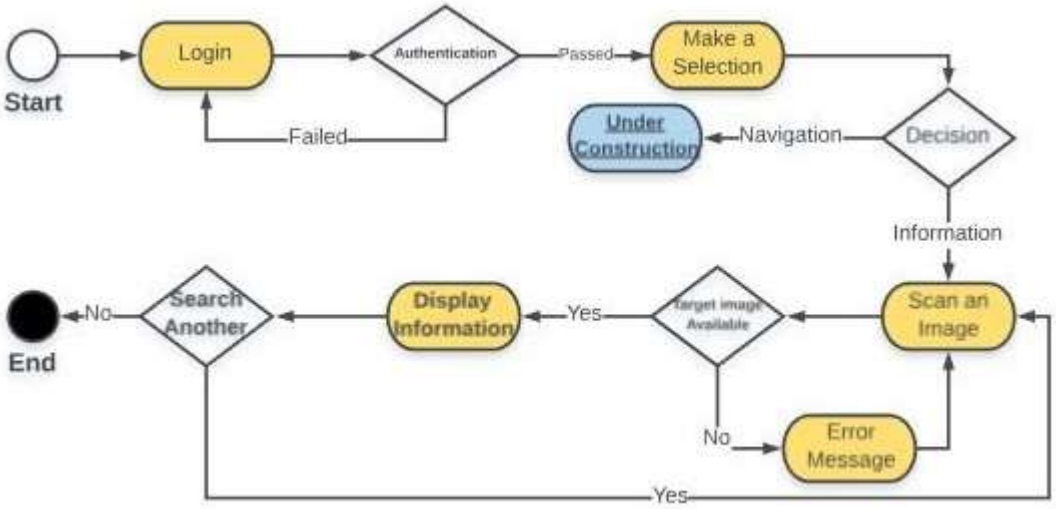


# Analysis Phase

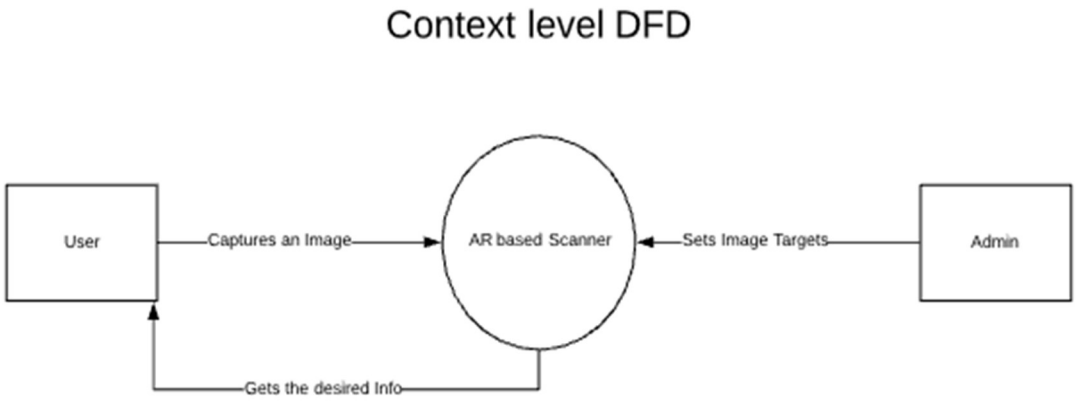
## 2.1 Use Case Diagram



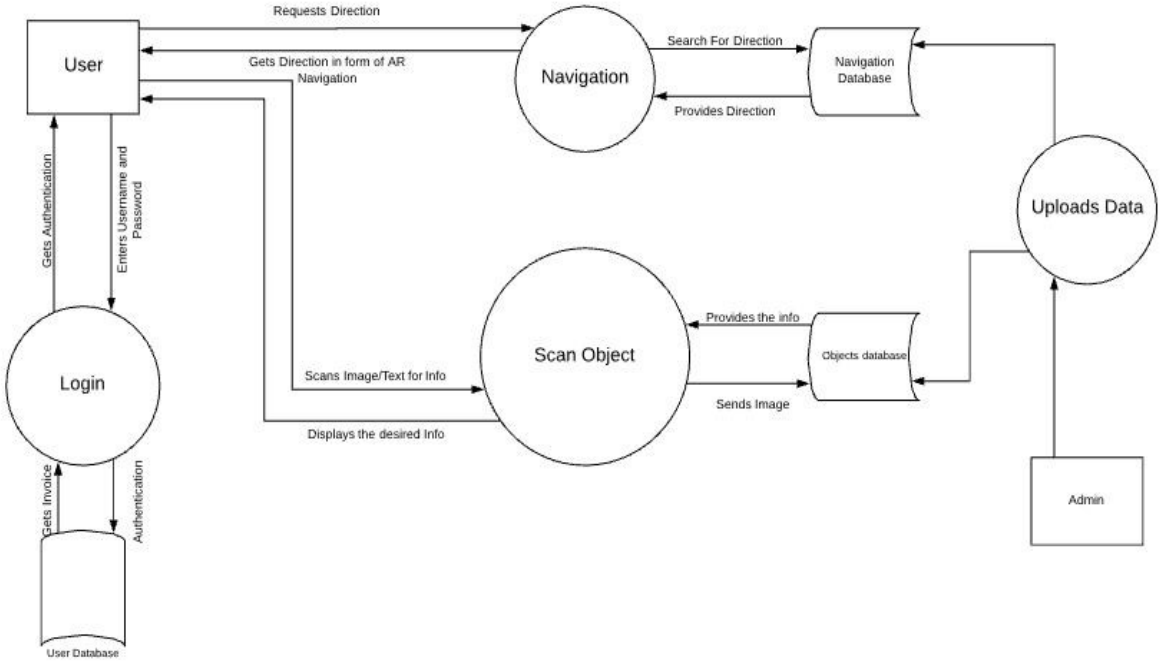
## 2.2 Activity Diagram



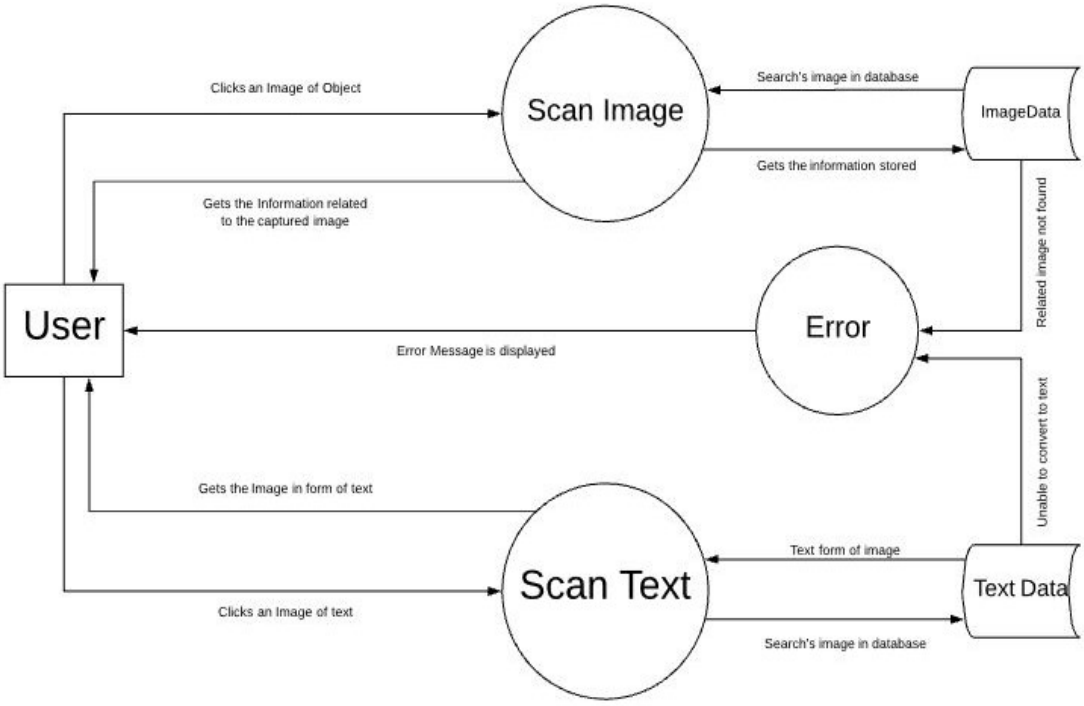

## 2.3 Data Flow Diagram



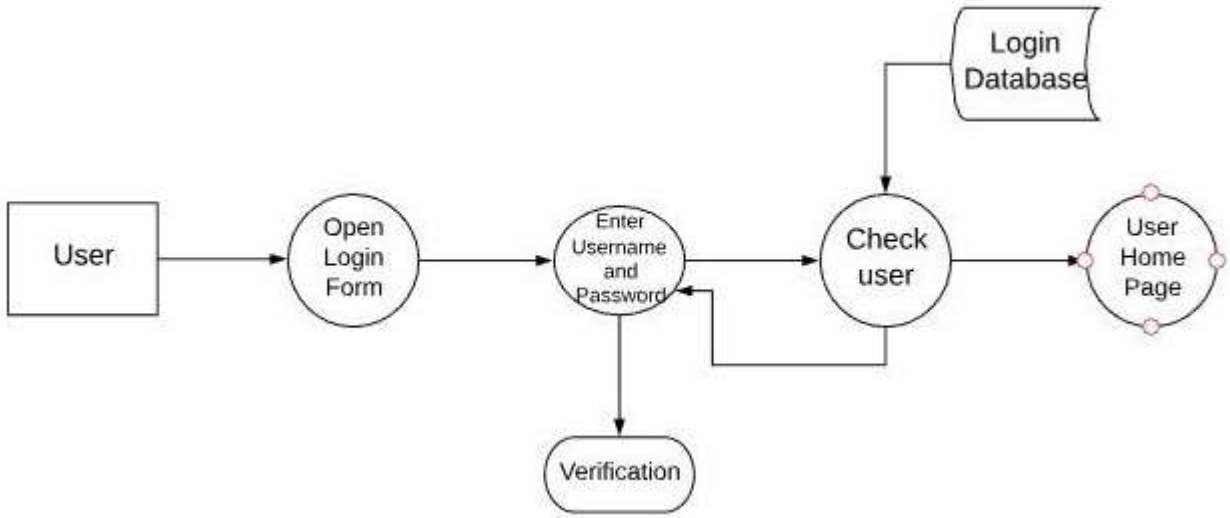
DFD Level 1




(Scan object)

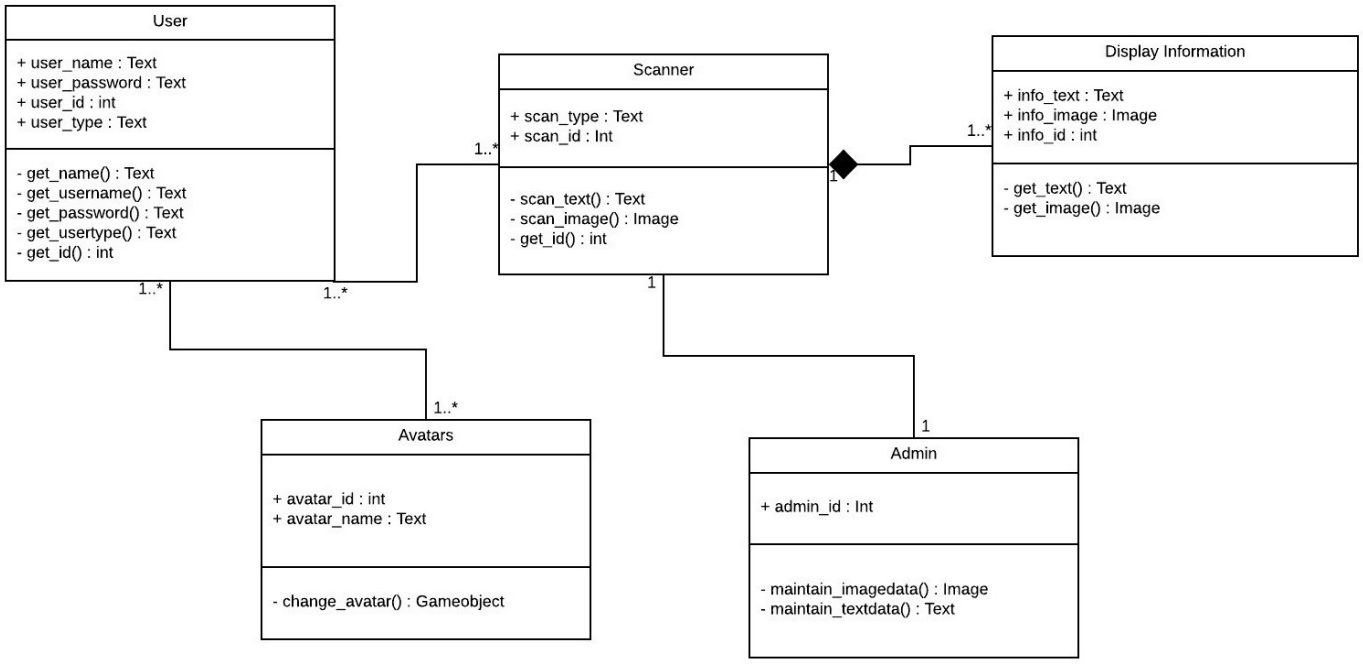


(Login)

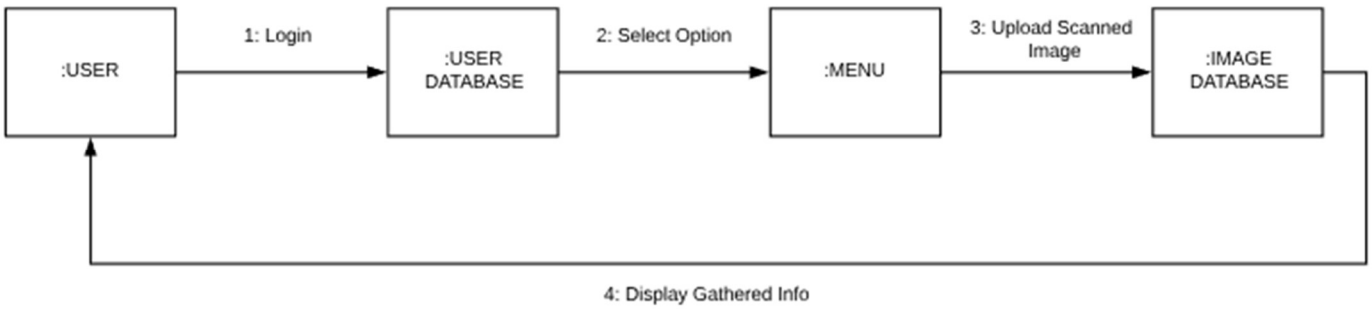

Login Database
User
Open Login Form
Enter Username and Password
Check user
User Home Page
Verification

# Design Phase

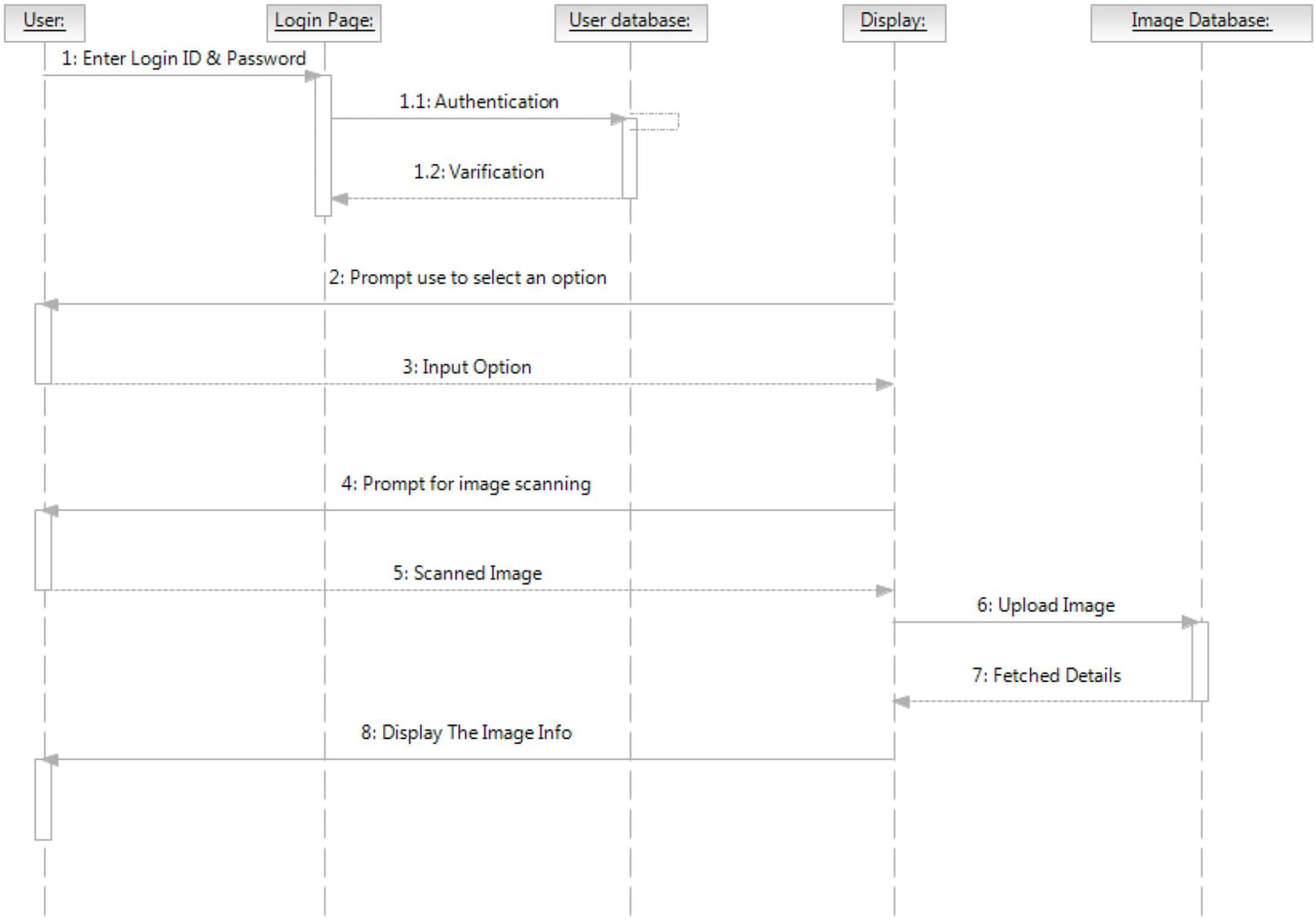
## 3.1 Class Diagram



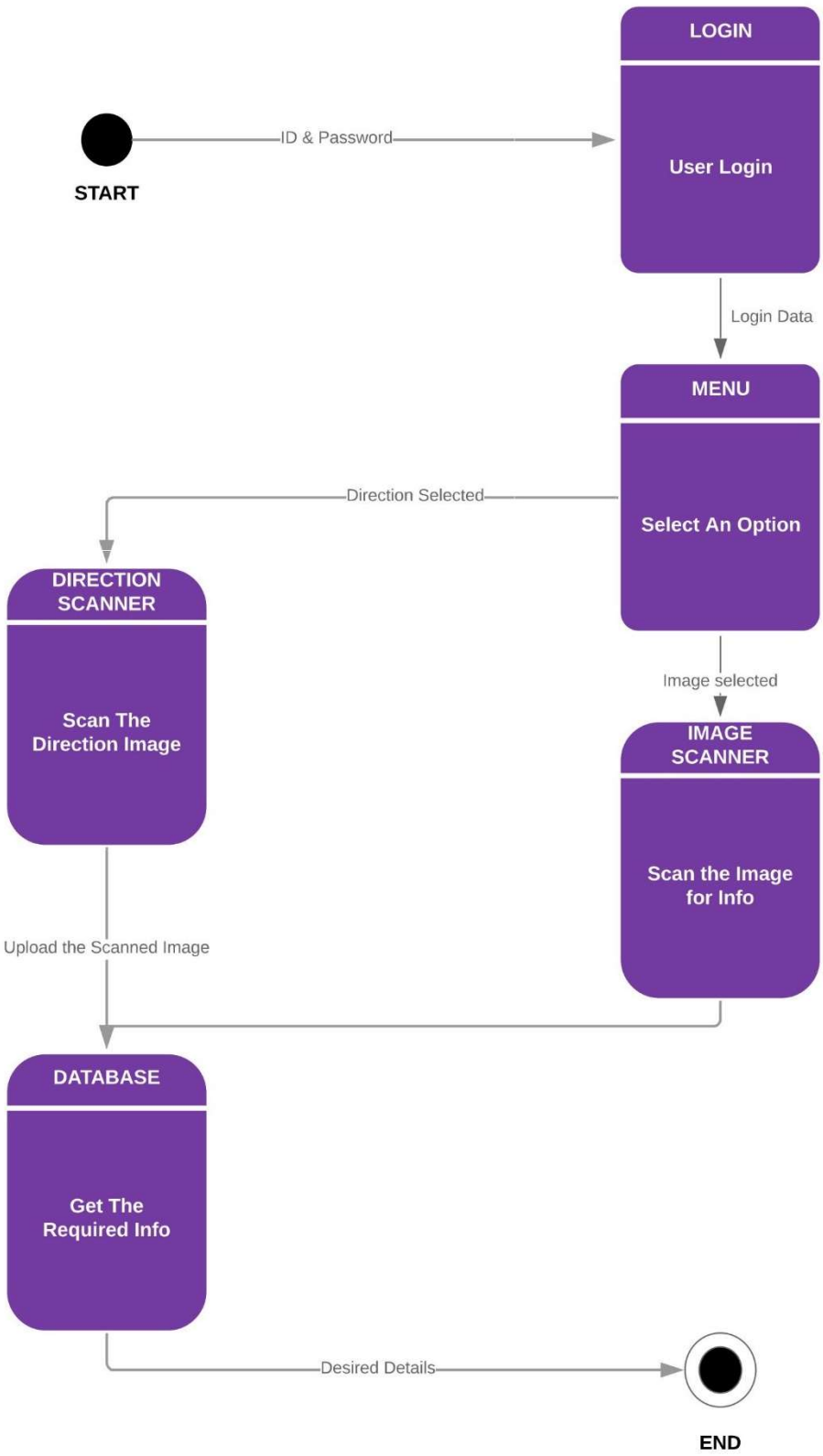

## 3.2 Collaboration Diagram



## 3.3 Sequence Diagram

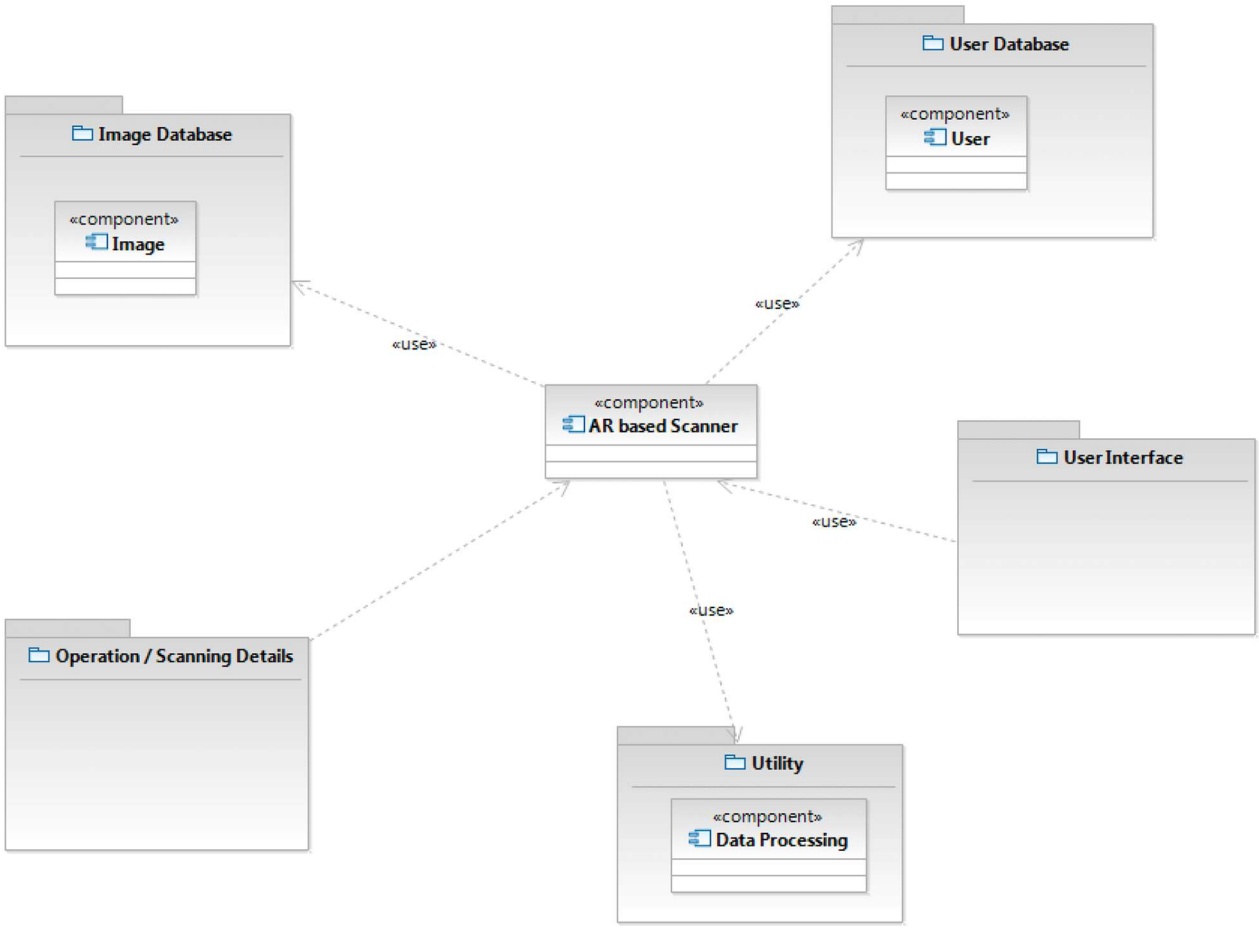


## 3.4 State Chart Diagram



# Deployment Phase

## 4.1 Component Diagram



## 4.2 Deployment Diagram