

Software Requirements Specification

for
**RKU Hostel Management
App**

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version
	11/09/22	Studied & started preparing SRS	1.0.0
	11/09/22 12/09/22	Reviewing SRS Completed the Introduction part of SRS	1.0.1 1.0.2
	12/09/22	Reviewed previous content and started Overall Description	1.0.3
	13/09/22	Completed Overall Description	1.0.4
	14/09/22	Studied System Features	1.0.5
	15/09/22	Started and completed upto 3.2	1.0.6
	15/09/22	Reviewed System Features and completed it	1.0.7

	16/09/22	Completed External Requirements Interface	1.0.8
	17/09/22	Reviewed SRS and go for non-functional requirements	1.0.9
	18/09/22	Reviewed and completed non-functional requirements	1.0.10
	19/09/22	Reviewed and started for other requirements	1.0.11
	20/09/22	Completed other requirements	1.0.12
	21/09/22	Reviewed and added Wireframe in document after preparation in figma	1.0.13

1. Introduction

1.1 Purpose

The purpose of this app is to digitalize the ordinary system of hostel. To provide committee details easily to all students , to provide event details and to register in it we have easy access to our app for students through Student Organization Advisory Council (SOAC) event club for those who are interested , to provide easy information about GYM instrument details and GYM schedule and joining in GYM to hostel students and those who are interested , to provide all kinds of Mess Menu to all kinds of students easily and even students can see menu of each others mess , to provide announcement by warden to all hostel students easily and students can even present their complain in the field of complaint box.

1.2 Document Conventions

- **Main Heading Titles:**

- ❖ Font: Arial

- ❖ Face: Bold black
- ❖ Size: 25
- **Sub Heading Titles:**
 - ❖ Font: Arial
 - ❖ Face: Bold black
 - ❖ Size: 17
- **Main points:**
 - ❖ Font: Arial
 - ❖ Face: bold black underline & displayed with bullets.
 - ❖ Size: 12
- **Other text explanation:**
 - ❖ Font: Arial
 - ❖ Face: Normal black
 - ❖ Size: 12

1.3 Intended Audience and Reading Suggestions

This project is a prototype for the hostel management system and it is restricted within the college premises. This has been implemented under the guidance of college professors and hostel warden. This project is useful for the hostel management team and as well as to the hostel students..

1.4 Project Scope

The purpose of the hostel management system is to ease hostel management and to create a convenient and easy-to-use application for hostel students and staff, trying to replace old paper working on the system as well as to cover below objectives-

Objectives:

- **Objectives:**
 - HMS activities.
 - The basic HMS objectives as follows
 - ❖ GYM info & joining form
 - ❖ SOAC club info & registration

- ❖ Providing Mess Menu
- ❖ Committee info & easy to contact committee members
- ❖ Students can complain
- ❖ Warden can announce regarding any events,etc.

Above all, we hope to provide a comfortable user experience along with the best functionalities.

1.5 References

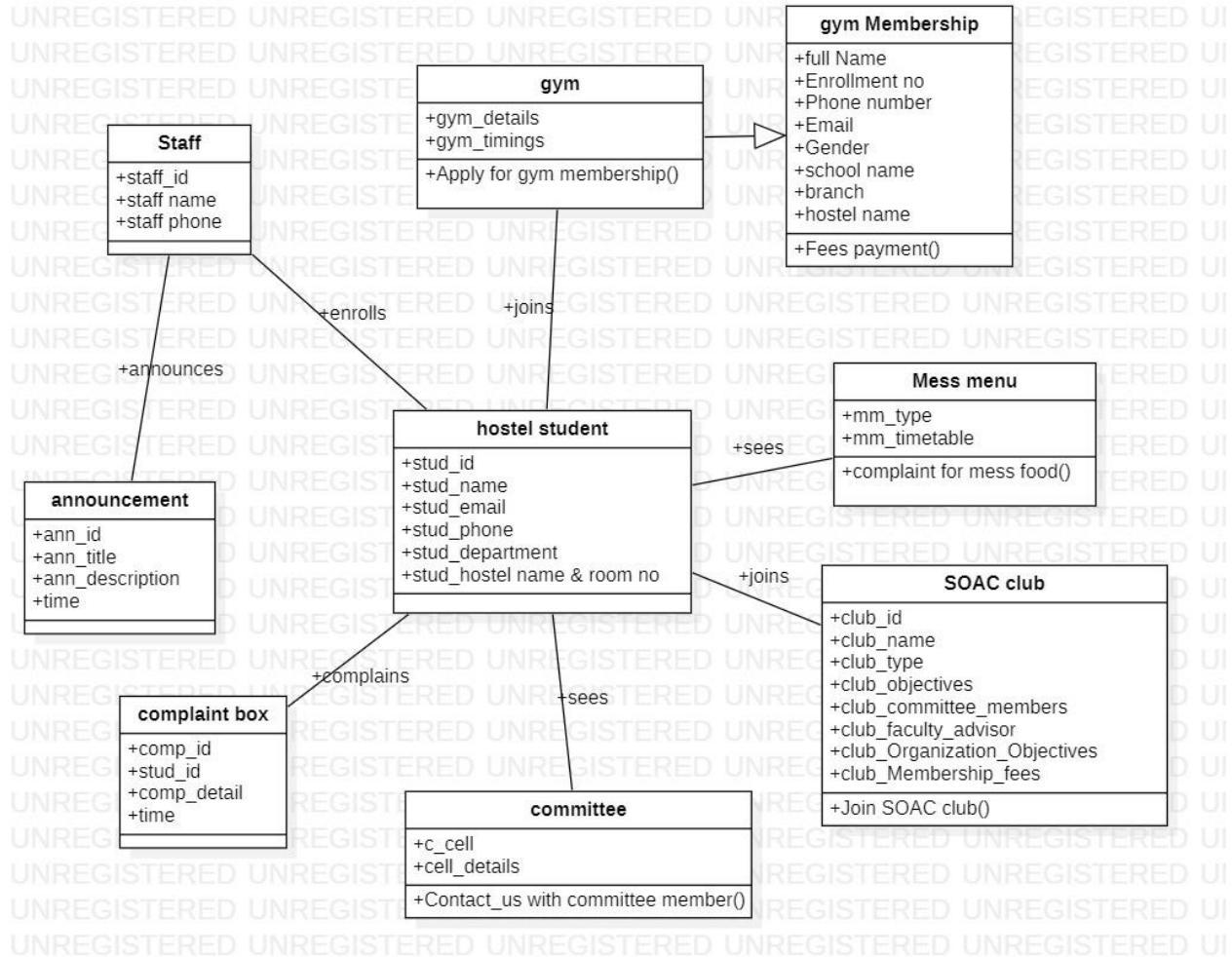
<https://forms.gle/yMV9x9uTzK3xG1jk6>

- RKU hostel warden
- Ankit Pandya

2. Overall Description

2.1 Product Perspective

The major features of hostel management system is shown in below **Class diagram**



2.2 Product Features

The following list depicts the features of Hostel Management System.

- GYM info & joining form
- SOAC club info & registration
- Providing Mess Menu
- Committee info & easy to contact committee members
- Students can complain
- Warden can announce regarding any events,etc.

2.3 User Classes and Characteristics

User Characteristics:

- **Educational Level:**
 - ❖ At least user of the system should be comfortable with English language.
- **Technical Expertise:**
 - ❖ User should be comfortable using general purpose applications on the system.

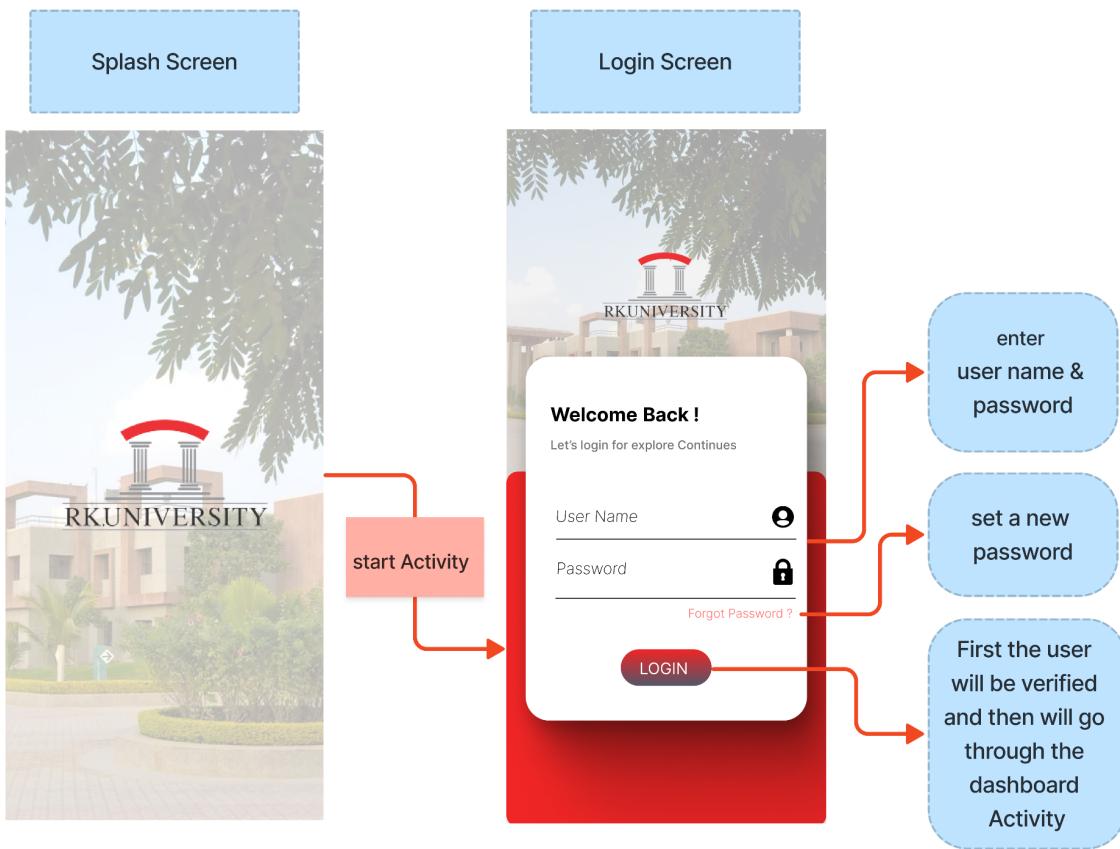
User Classes with Functionality:

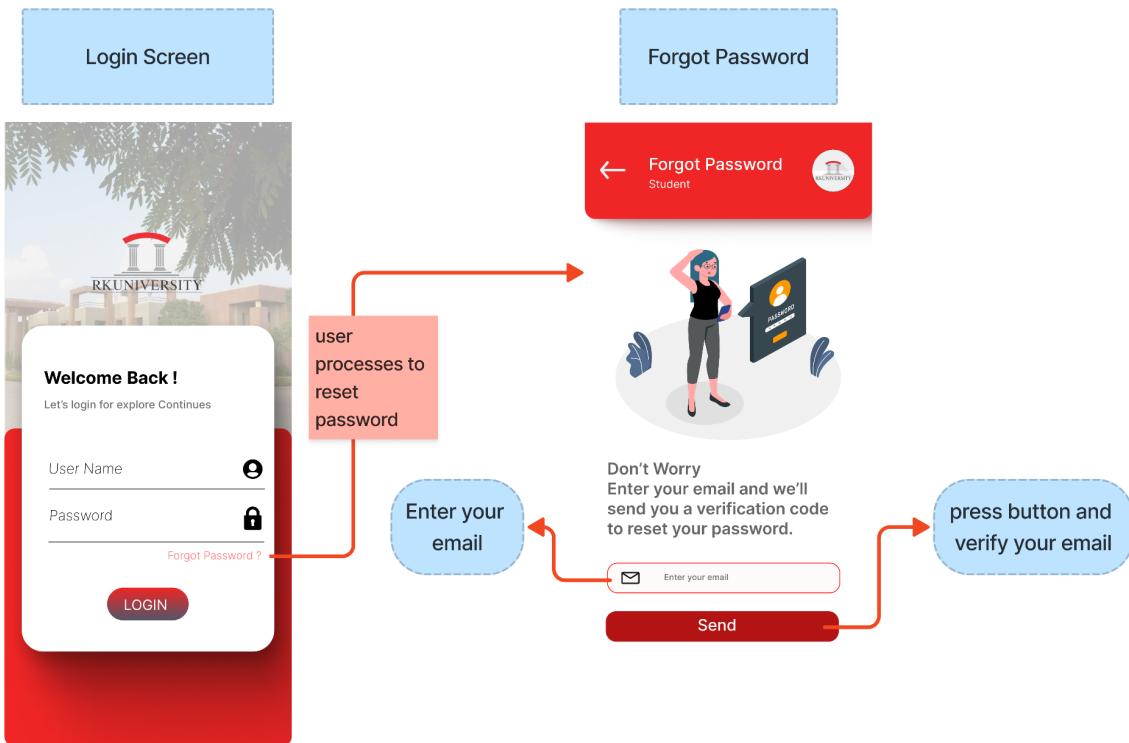
- **Warden:**
 - The warden can
 - ❖ Make announcements
 - ❖ see complain
- **Students:**
 - Every student can view SOAC club and GYM details and can be part of them as well as SOAC and Committee members details and can contact them

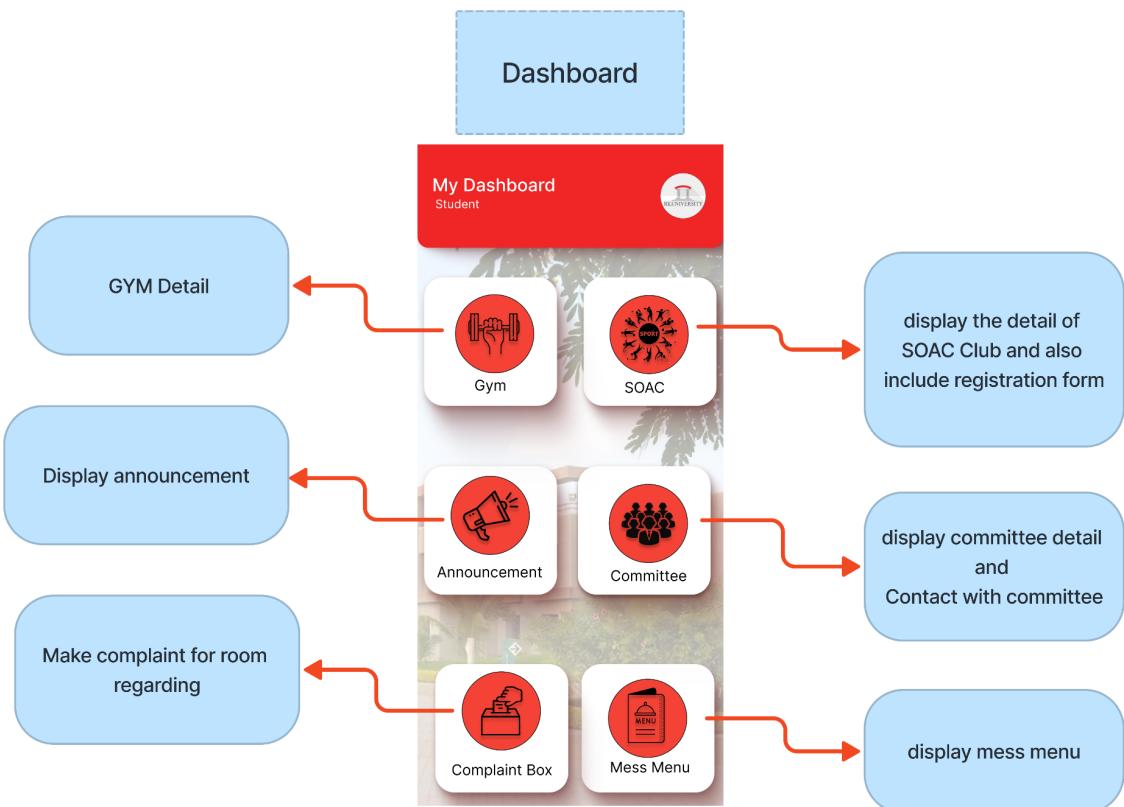
2.4 Operating Environment

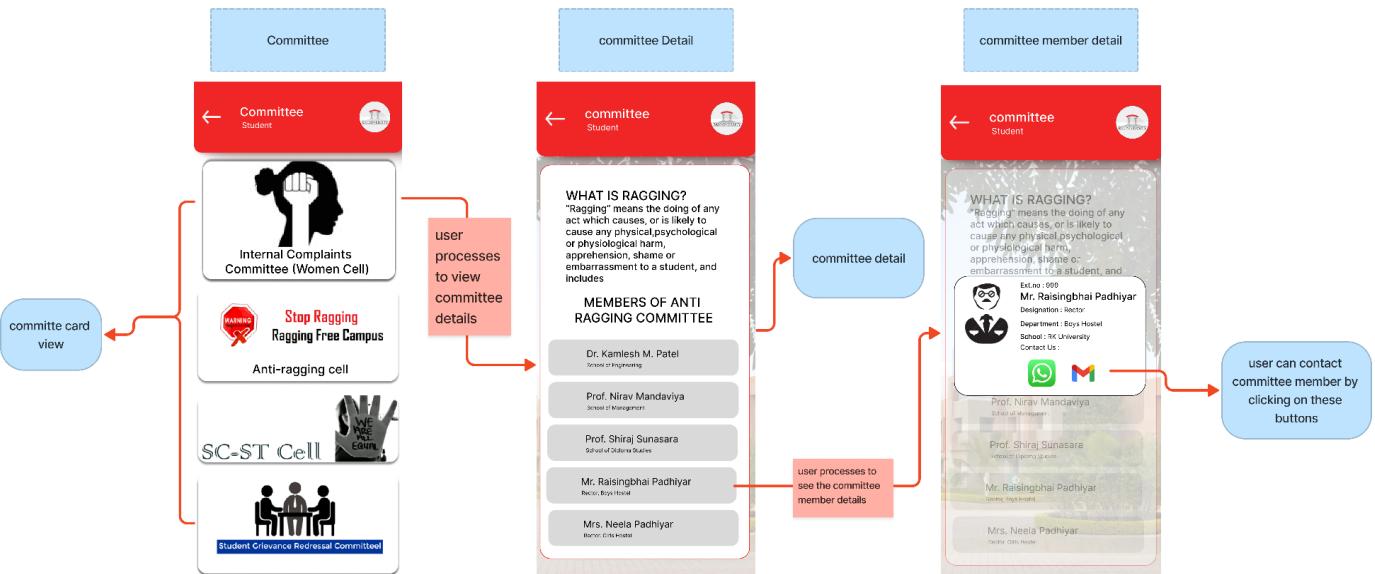
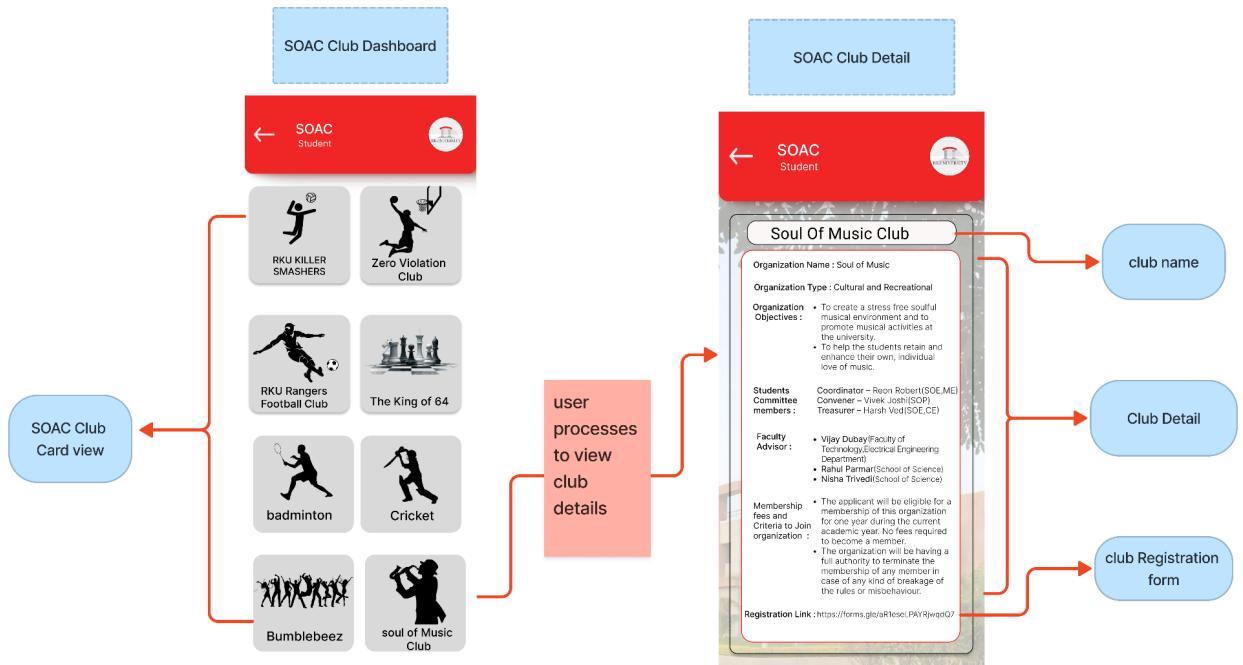
The Application of HMS has a very user friendly interface. The software provides accuracy along with a peasant interface. Make the present manual system more interactive, speedy & user friendly.

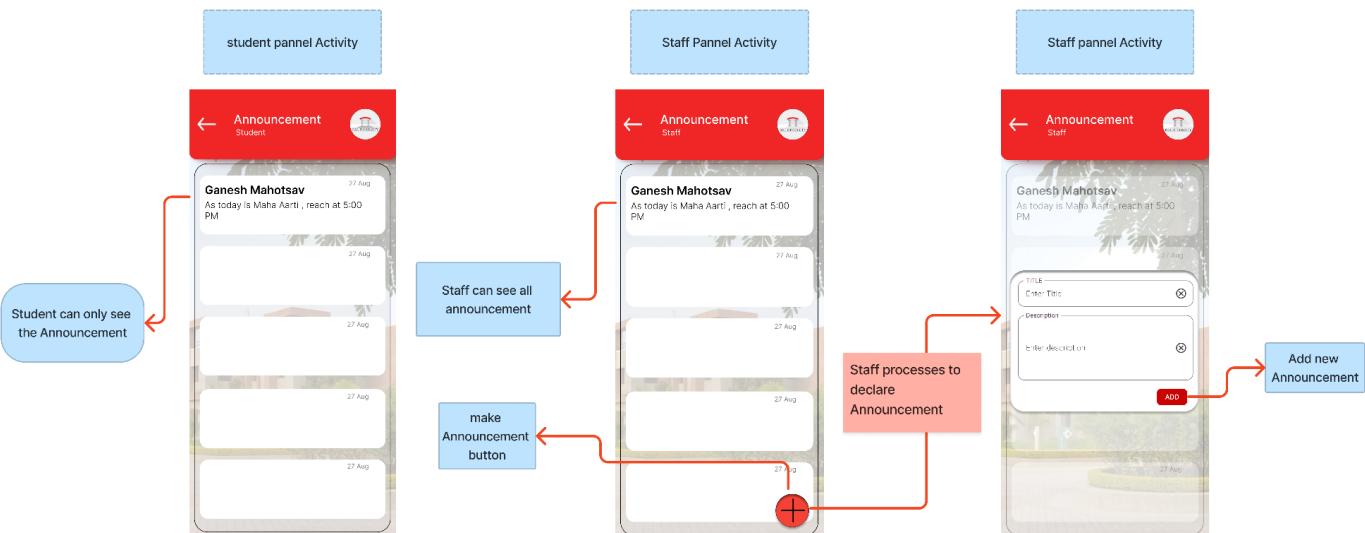
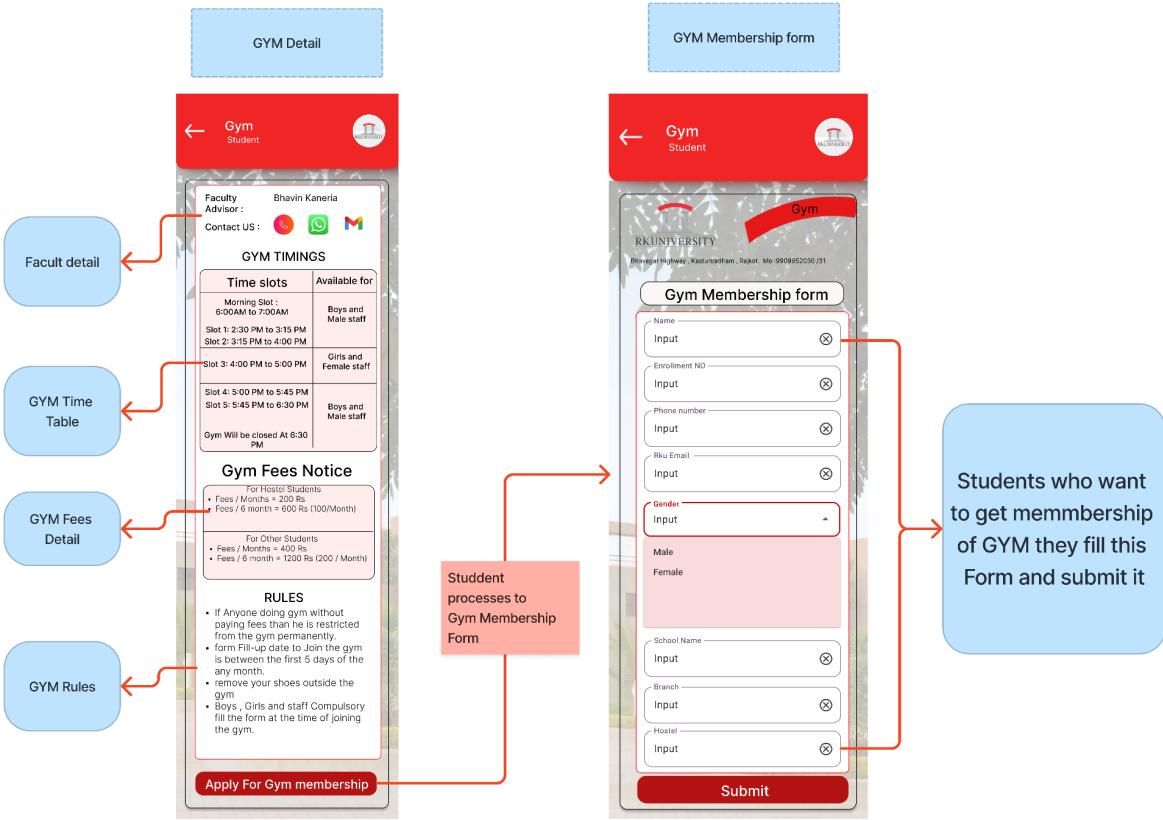
2.5 Design and Implementation Constraints

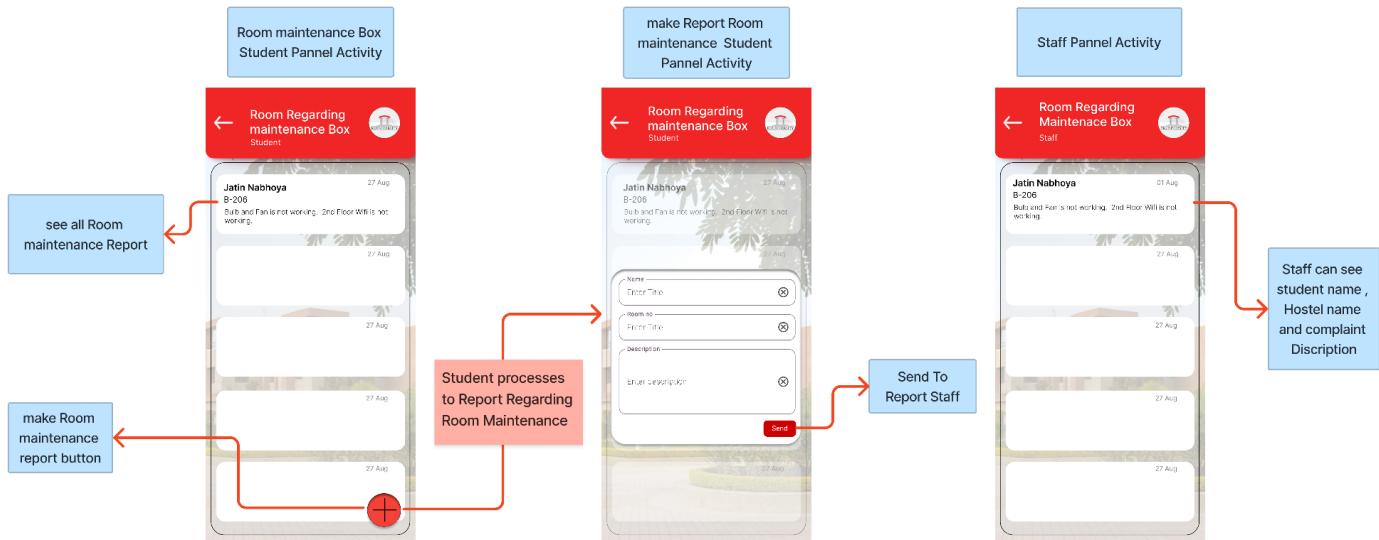










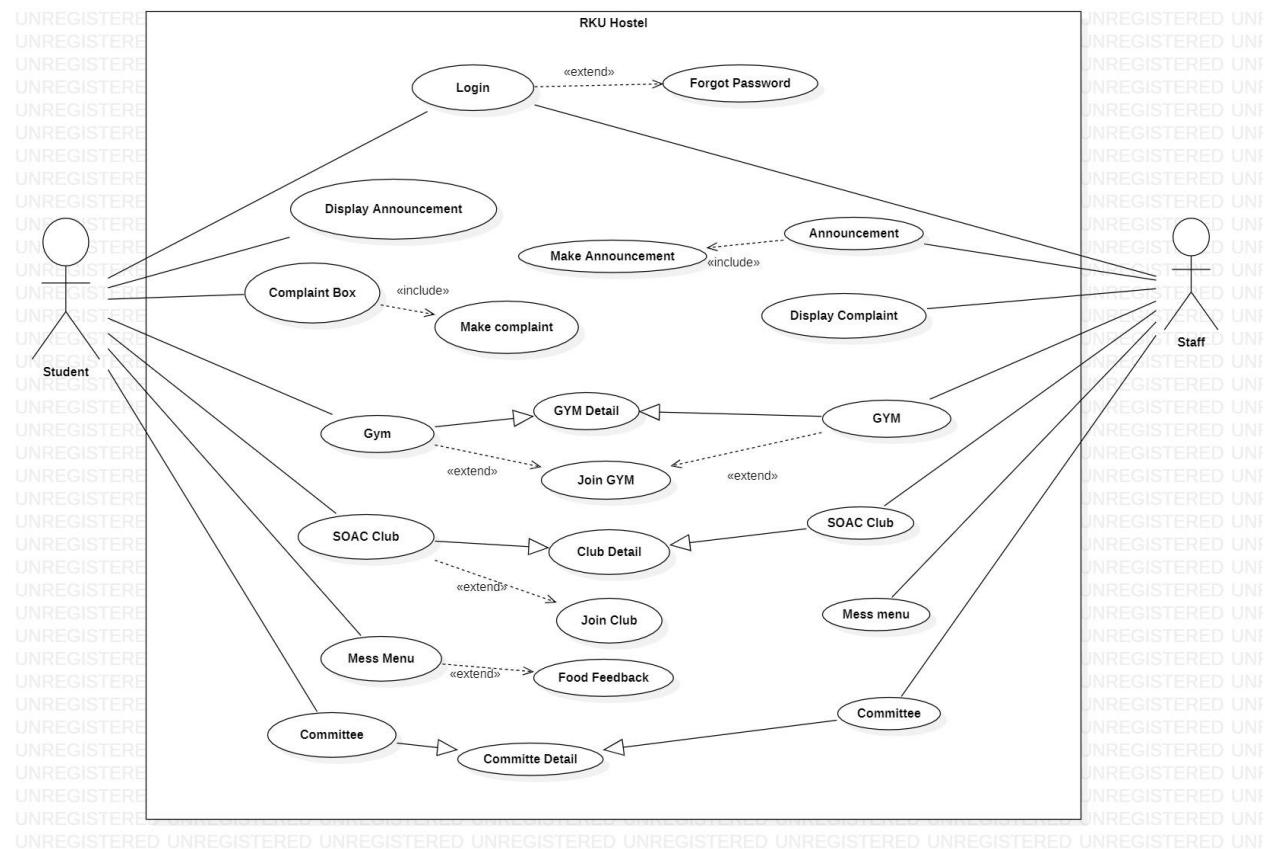


2.7 Assumptions and Dependencies

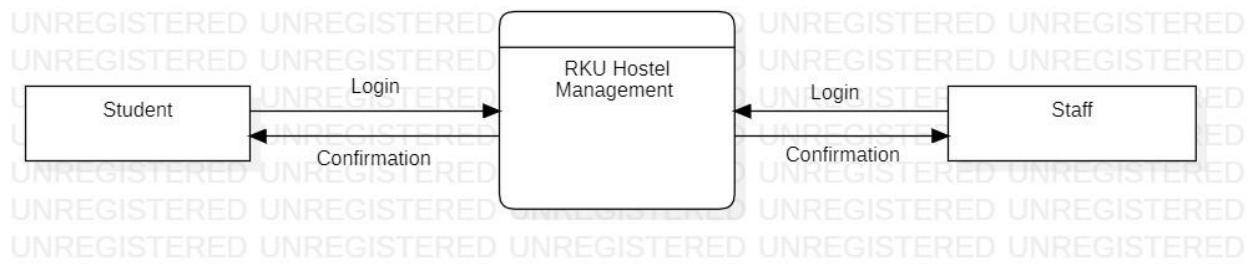
The user must have to log in using their email and password. If the user is warden then they can announce in the announcement section and can only watch the complains in the complaint box and if the user is a hostel student then they can only watch the announcement from the announcement section and can complain in the complaint box.

Users must be registered on this application to access the features of it.

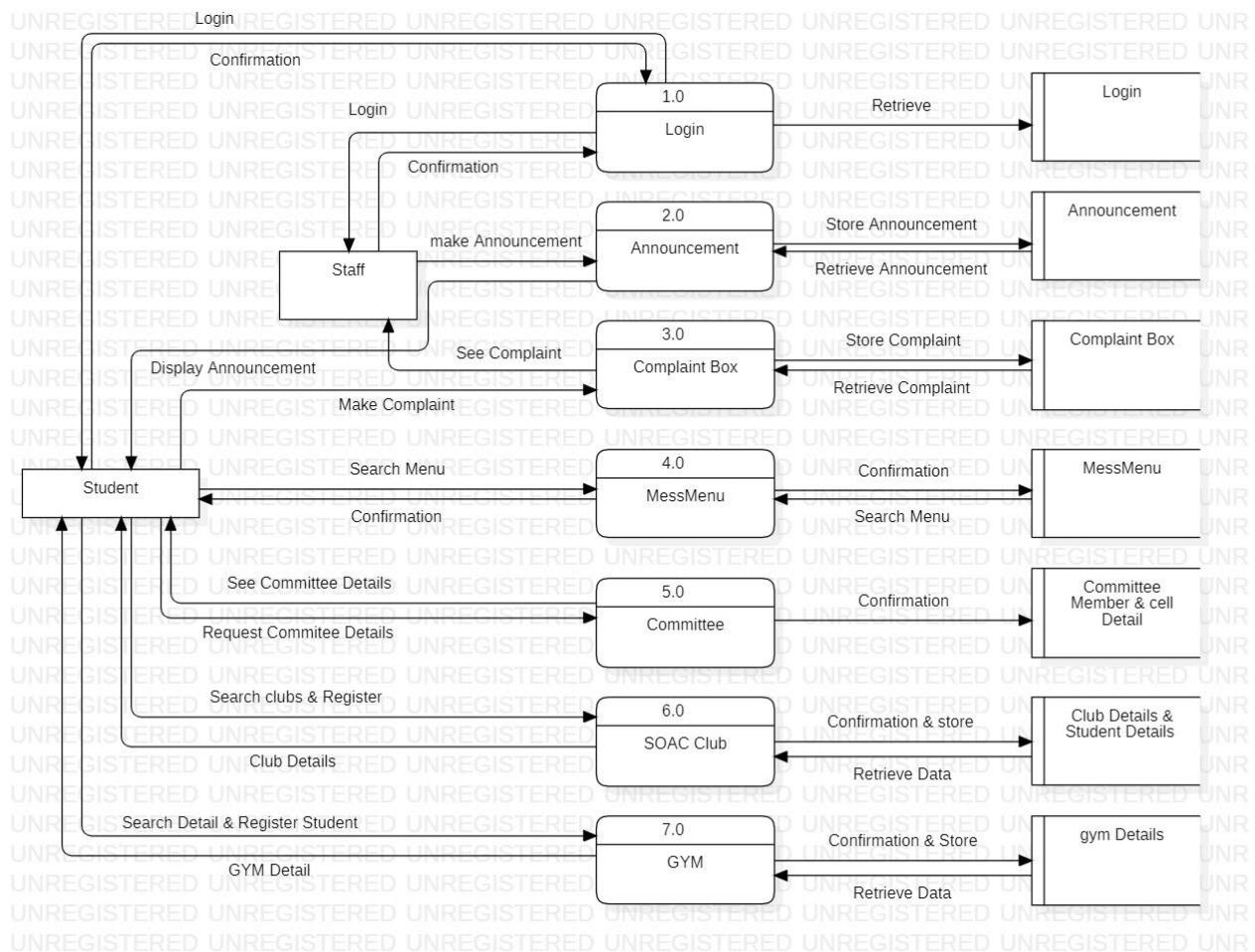
3. System Features



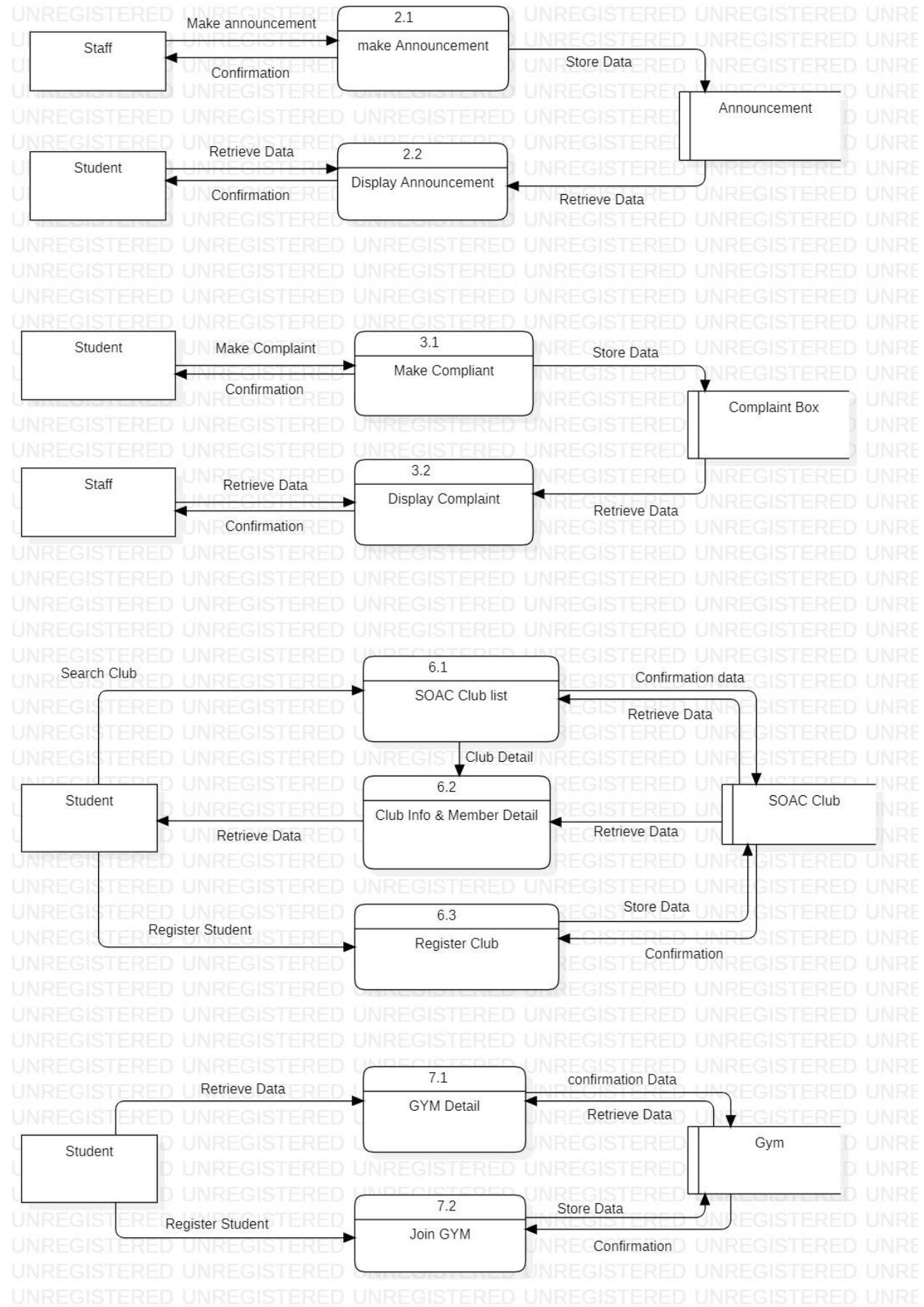
3.1 System Feature 1



3.2 System Feature 2



3.3 System Feature 3



4. External Interface Requirements

4.1 User Interfaces

RAM : minimum 2GB or Above

Processor : Android 5.0 or Above

4.2 Hardware Interfaces

Hardware Interfaces exist in computing systems between many of the components such as various storage devices.

Processor: intel i5 or ryzen 5

RAM: min 4GB or above

Mouse & Keyboard

Hard: Hard disk

4.3 Software Interfaces

The software is developed with all the basic controls and classes provided in java Android or above installed on the system. Application packages must be installed.

Operating system : Android

Language : java

UI Design : Android Studio 2.1

Database : firebase

4.4 Communications Interfaces

This app supports all types of android devices.

5. Other Nonfunctional Requirements

There are the following non-functional requirements of hostel management system

5.1 Performance Requirements

The application shall be based on java and has to be run on any platform. The application shall task initial load time depending on performance of operating system. The performance shall depend upon hardware and software and software components of the computer.

5.2 Safety Requirements

The database may get crashed any certain time due to the virus or operating system failure therefore, it is required to take the backup of the database.

5.3 Security Requirements

This project provides genuine security to all those individuals who are having their account on the database as they are password protected. This is a very important aspect of the design and should cover areas of hardware reliability fall, back procedures, physical security of data and provision for detection of fraud and abuse.

5.4 Software Quality Attributes

➤ **Reliability and Availability:**

The project shall provide storage of all database on redundant computer with oracle database.

➤ **Maintainability:**

The system shall provide the capability to back up the database.

➤ **Portability:**

The Hostel Management System shall run on any Microsoft Windows environment.

➤ **Flexibility:**

Ability to add new features to the system and handle them conveniently.

➤ **Reusability:**

What is ability to use the available components of the system in other.

➤ **Efficiency:**

How much less number of resources and time are required to achieve a particular task through the system.

6. Other Requirements

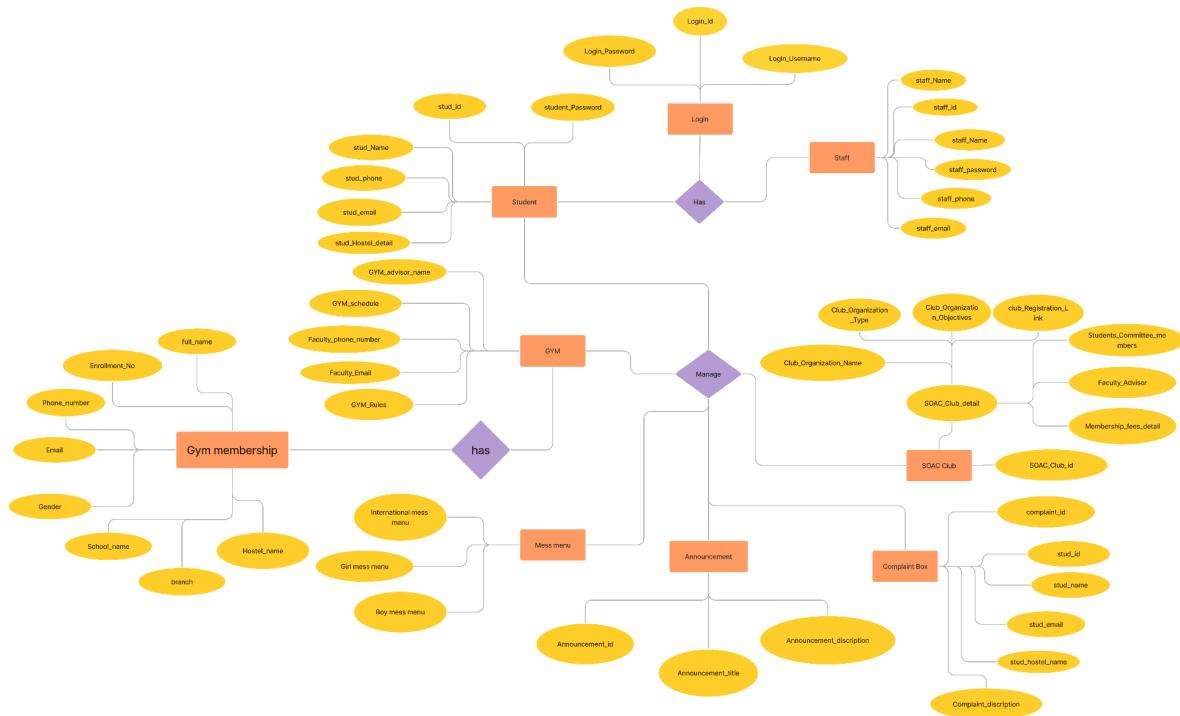
Appendix A: Glossary

Abbreviations & Definitions:

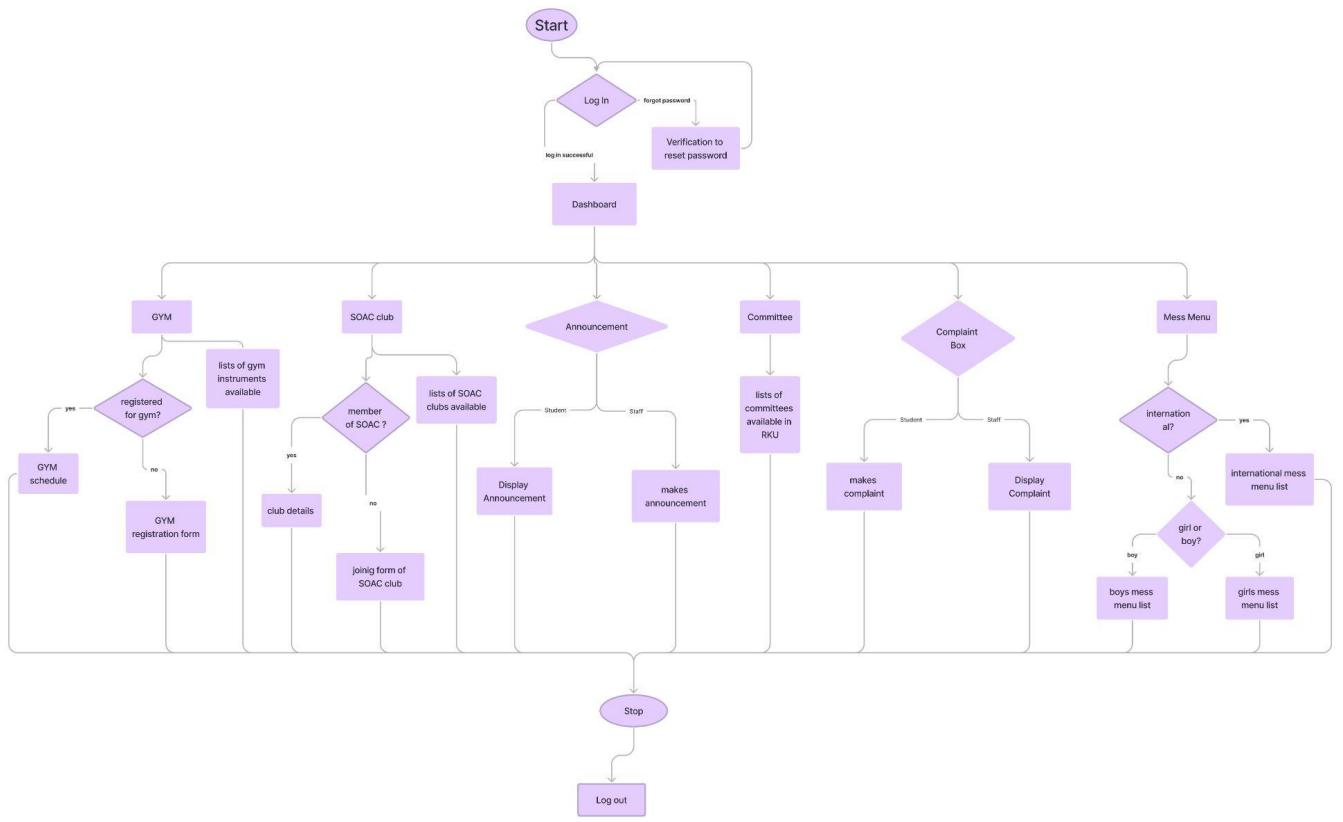
- ❖ SRS System Requirement Specification
- ❖ DFD Data Flow Diagram
- ❖ ERD Entity Relationship Diagram
- ❖ User The student who lived in Hostel
- ❖ Database The records of every old and current student is saved here
- ❖ Mess Status It tell the mess information of student

Appendix B: Analysis Models

ER Diagram :



Flow Chart -



Appendix C: Future enhancements

- ❖ Add some sample programs wherever required and an interface to execute the sample programs which helps the user to have a more clear understanding of it.
- ❖