SOFTWARE REQUIREMENT SPECIFICATION

FOR

LEARNING PIE

PREPARED BY

Project Team 19

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Revision History

Author	Date	Reason For Changes	Version
Project Team 19			00

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1. Introduction

Learning Pie has become important factor in modern education field. This system should help the learner to streamline the administrative task and provide real-time access to the data. Building this system in standalone application interface will further help the ease of accessibility through the provided portal. The study findings enable the definition of the project problem statement, its objectives, scopes and advantages of the Learning Pie.

1.1 Purpose

This project facilitates online sharing of questions and answers (Content). This will help users to find/Locate all necessary content at one place. It is also helpful in solving doubts/queries. We use problem solving approach as user can search their doubts on the website to find the answer. If the question is not present then user can post it and any user with relevant technology knowledge can solve it. The most relevant answer would be suggested first.

Intended Audience and Reading Suggestions

This document is intended for developers, users, testers and project managers for the purpose of understanding the design of system in terms of different perspectives. Further, this document contains functionalities and characteristics of system along with the working environment.

1.2 Scope

Our project is based on an internet is an internet enabled electronic platform that facilitates communication for the purposes of study materials and question answers. To provide user efficient working environment. User friendly interface for the target stakeholders. Proper monitoring facility for the authority. Easy maintenance and administration. Ensure high level of security. The software will have all common features and functionalities along with some other special facilities.This system will help in tracking records so that past records can be verified through them and one can make decisions based on the past records. This system will complete the work in a very less time resulting in less time consumption and high level of efficiency.

1.3 Document Conventions

Headings: -

Text : - Bold
Font-Size : - 14
Highlighting : - Times New Roman

Sub Headings: -

Text : - Bold
Font-Size : - 14
Highlighting : - Times New Roman

Header: -

Text : - Bold
Font-Size : - 10
Highlighting : - Times New Roman

Footer: -

Text : - Bold
Font-Size : - 10
Highlighting : - Times New Roman

1.4 References

https://docs.oracle.com/javaee

https://javaee.github.io/tutorial

https://reactjs.org

https://www.mysql.com/

https://spring.io/

https://www.javascript.com/

https://developer.mozilla.org/en-US/docs/Web/JavaScript

2. Overall Description

2.1 Product Perspective

This project is going to bring the students and professionals on one platform where they can view questions, answers and other resources. A user can also post questions. The main point of view of the project is to provide a platform for all the people to learn and share their knowledge.

2.2 Product Functions

User:

The user will be able to post an question as well as answers.

The user will be able to view the available resources.

The user will be able to filter the best suitable answers.

Admin:

Admin can view all users and their queries and also answer

Admin can delete a answer which is irrelevant

Admin can upload the resources on the group

2.3 User Classes and Characteristics

Admin:
This person will be able to access all the functions of the system. This person can validate user, can remove user also can view all kind of question answers such as which is most trending questions and answers.

User:
A user can be a anyone who is curious about seeking knowledge. User can view his own question and answer. He can also view how many people have answer the question. By default all users are students they can view all posts.

2.4 Operating Environment

Hardware platform:

Processor: i5 or above, with clock speed of 2.0 GHz or above

Ram: 4 GB or more (Recommended)

Free disk Space:1 GB or more (Recommended)

Software platform:

Front-end: React JS, HTML, CSS, Bootstrap.

Back-end: Spring Boot, Databases MySQL.

Supported tools:

Visual Studio Code, MySQL Workbench, Eclipse EE.

2.5 Design and Implementation Constraints

Constraints:

- o Interface is only in English. No other language option is available.
- o User can log-in only with his assigned user-name and password.
- o Limited to HTTP/HTTP

2.6 User Documentation

User documentation mainly comprises of help menu of application.
It will give all the minute details about the project, if any user has any query about any module or functionality, one can refer it and see how to operate the application.
This report is the complete documentation of our project. It gives complete details about the project, its functionality, users, software used, hardware requirement, environment and so on.

2.7 Assumptions and Dependencies

➢ Assumptions

> o There is an active internet connection with the system.
> o The system has internet browser installed.
> o Users know the English language, as the user interface will be provided in English.

➢ Dependencies

Active participation from User for posting queries and answer.

3. External Interface Requirements

3.1 User Interfaces

The main element is web-pages using React JS. The UI design is based on single page Interface where user get view pages for login, register, post queries and view answers on single page.

3.2 Hardware Interfaces

In the hardware interface, the system interacts with hardware given the processor is above i5 with clock speed of 2.0 GHz with 4 GB RAM and the Hard Disk with 1 GB free space in the memory. In future enhancements, it can be made responsive to be able to work with mobile devices as well.

3.3 Software Interfaces

In software interfaces, Spring Boot is the back-end technology used along with MySQL Database. The front-end technologies include HTML, CSS, Bootstrap, React JS. Data will be communicated between these interfaces accordingly.

3.4 Communications Interfaces

The main communication interface for interacting with the Front End and Back End Ajax will used.

4. System Features

4.1 Description

You are allowed to post free queries in this project. Once this is done, all you have to do is sit back and wait for the answers. Our project does not act as a middle man but rather knowledge-park.

4.2 Functional Requirements

4.2.1 Forum

The system will allow users to post free queries.

The system will allow users to search questions and answers

according to his/her requirement.

The system will give multiple answers for user to search.

The users can any time update or delete his/her questions and answers.

The users can view response for his/her.

4.2.2 Admin Analysis

The system shall allow the admin to use all functionality of project.

Admin should have delete authority for irrelevant questions and answers.

Admin can have access to all database.

5. Other Non-functional Requirements

User satisfaction - The system is such that it stands up to the user expectation.

Response time – The response of all the operation is good. This has been made possible by careful programming.

Error Handling: - Response to user errors and undesired situations has been taken care of to ensure that the system operates without halting.

Safety and Robustness: - The system is able to avoid or tackle disastrous action. In other words, it should be foul proof. The system safeguards against undesired events, without human intervention.

Portable: - The software should not be architecture specific. It should be easily transferable to other platforms if needed.

User friendliness: - The system is easy to learn and understand. A native user can also use the system effectively, without any difficulties.

5.1 Performance Requirements

The application should be available for use 24*7 through the server. Also, the application should be user friendly with a proper user interface which makes it easy for the user to understand. All the options should be present in properly accessible places for user convenience.

5.2 Safety Requirements

All login ids and passwords of the Metro management should be protected for privacy using whatever constraints required the application.

5.3 Security Requirements

All passwords of the administrators should be protected for privacy using whatever constraints required for the application. Transactions regarding user records should be carried out properly.

5.4 Software Quality Attributes

Availability

The system should run on a variety of operating systems that support the Java language. The system should run on a variety of hardware.

Accessibility

The software will be accessible to public.

Compatibility

The software will be compatible with multiple platforms.

Durability

The software will be tested for working with multiple users.

Effectiveness

The software will be made to handle operations effectively.

Maintainability

The system should be easy to maintain. There should be a clear separation between the interface and the business logic code.

# 6. Other requirements

Appendix A : Glossary

| Sr. No.	Abbreviation	Full Form
1.	SRS	Software Requirements and Specifications
2.	ANSI	American National Standards Institute
3.	DTO	Data Transfer Object
4.	DAO	Data Access Object
5.	MVC	Model View Controller
6.	HTML	HyperText Markup Language
7 .	CSS	Cascading Style Sheets
8.	GUI	Graphical User Interface
9.	HTTP/HTTPS	HyperText Transfer Protocol/HyperText Transfer Protocol Secure
10.	SQL	Structured Query Language

Appendix B: Analysis Models

Registration Process Flow Chart:
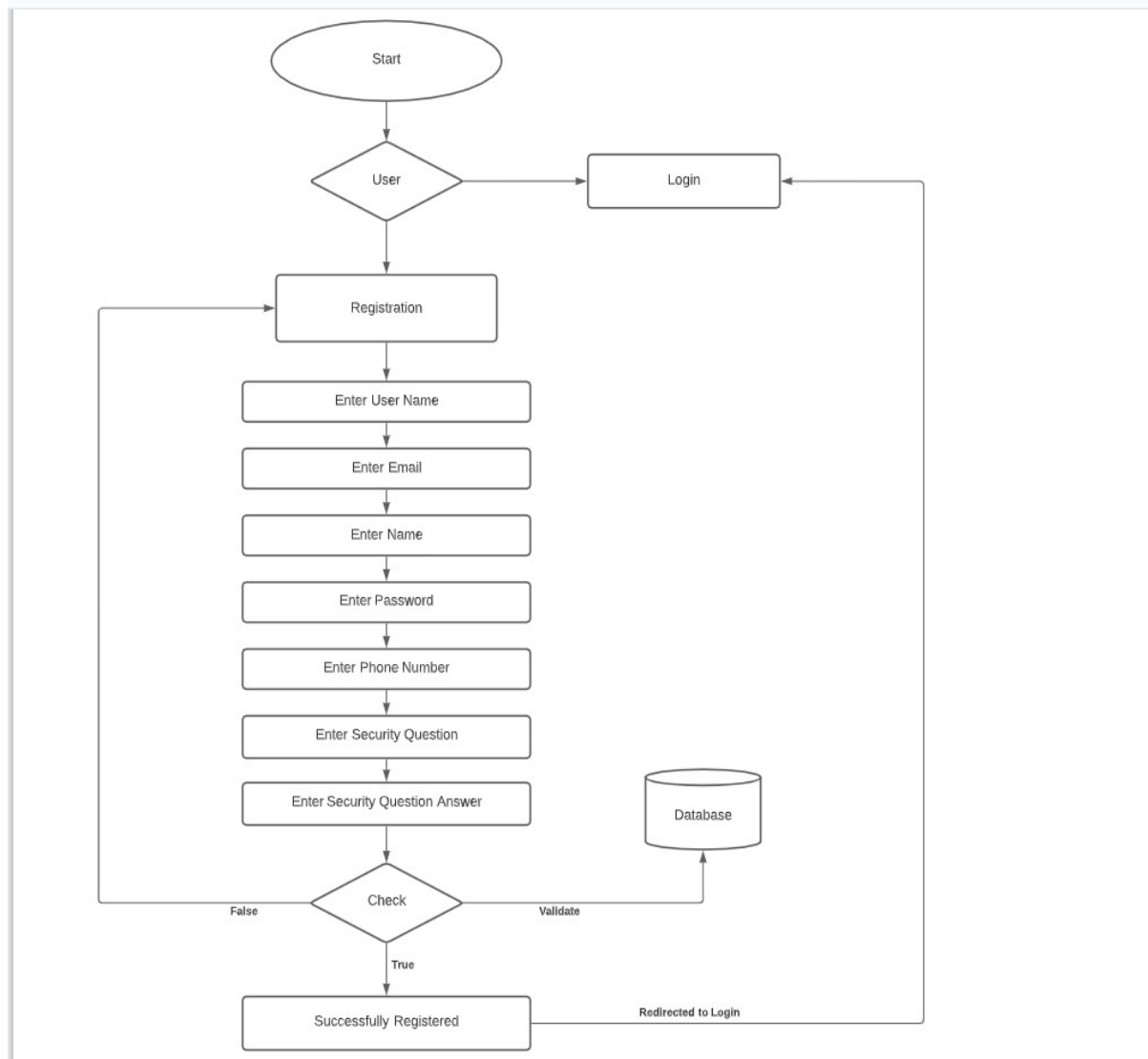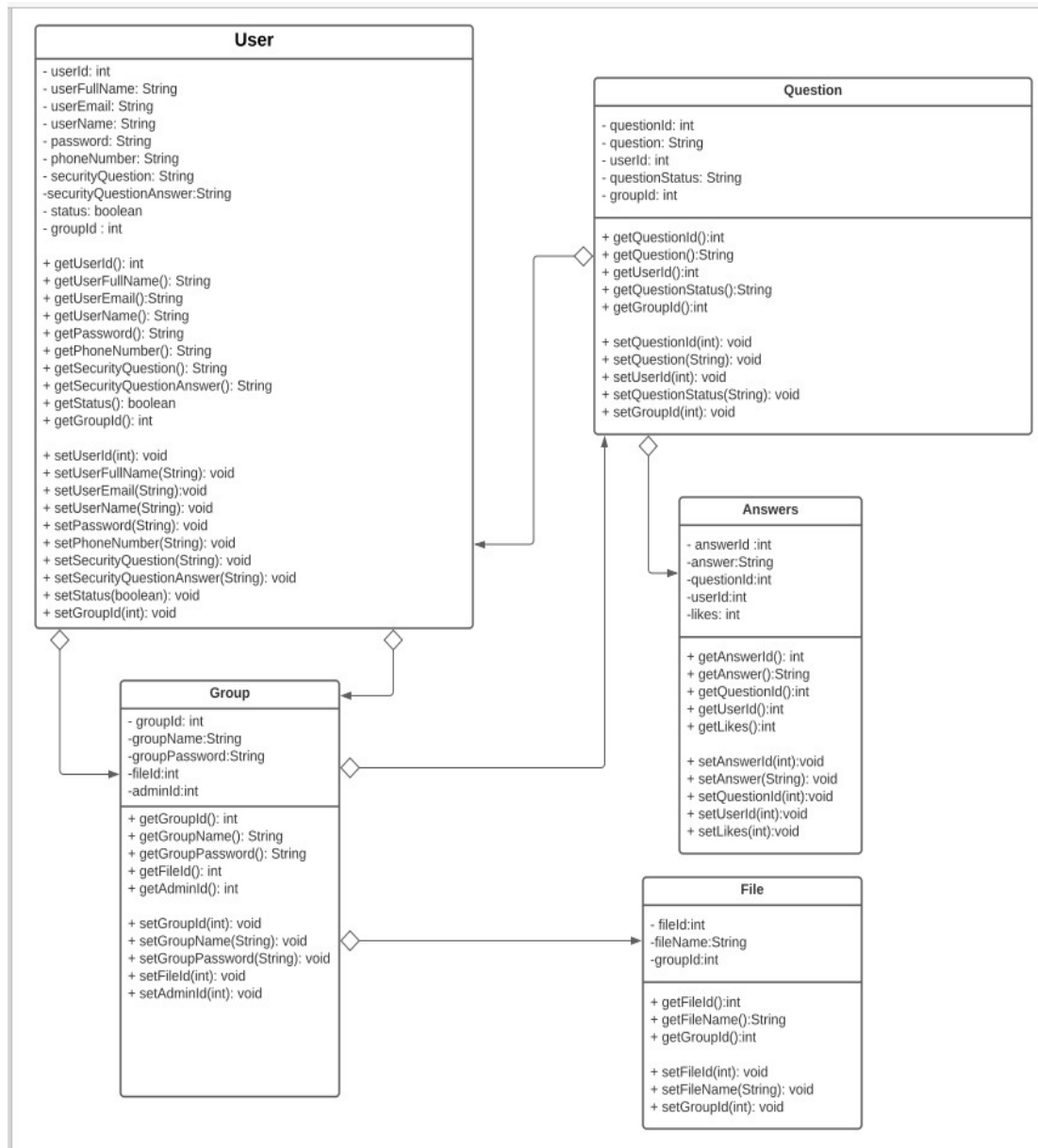
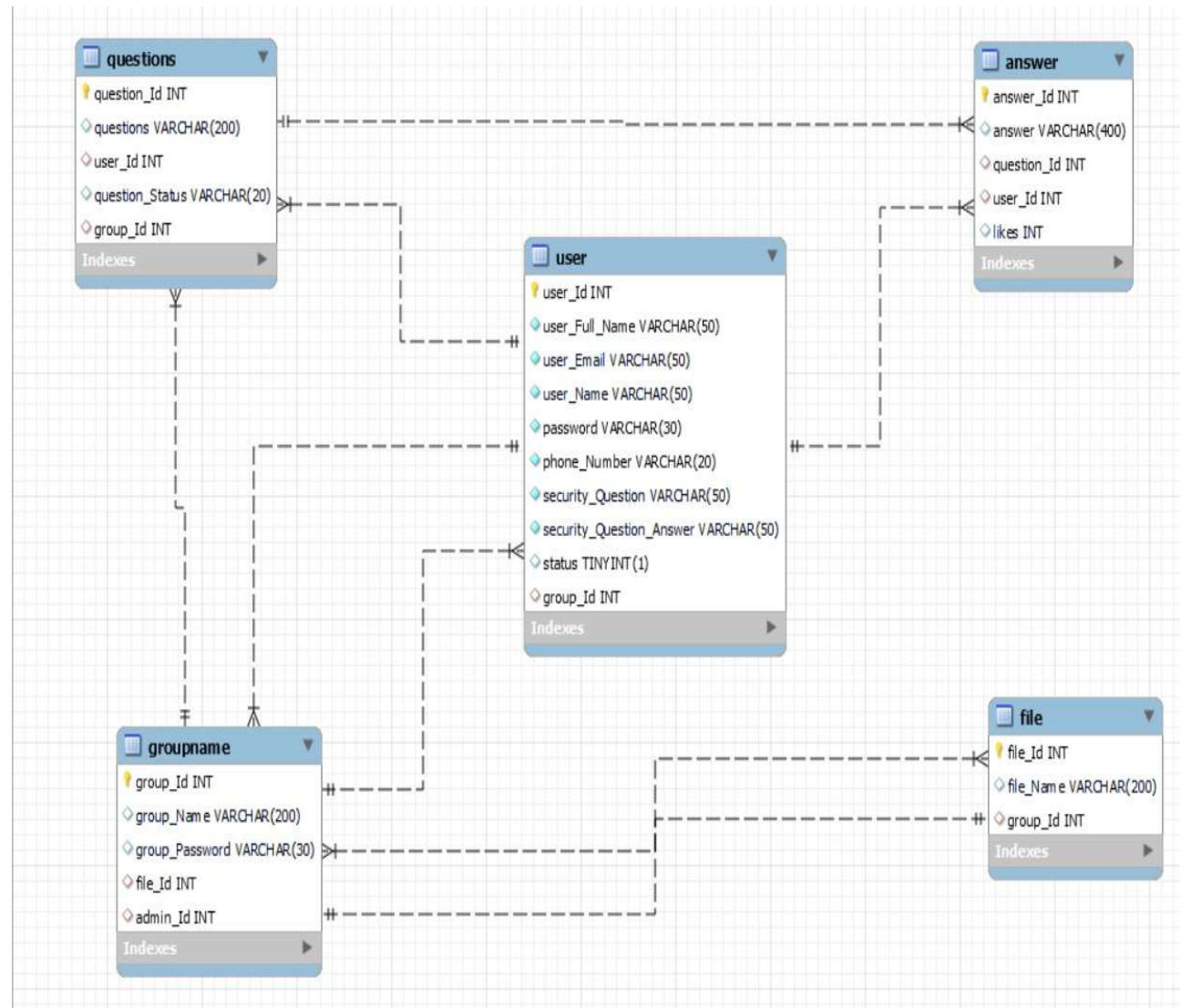## Login Process Flow Chart:
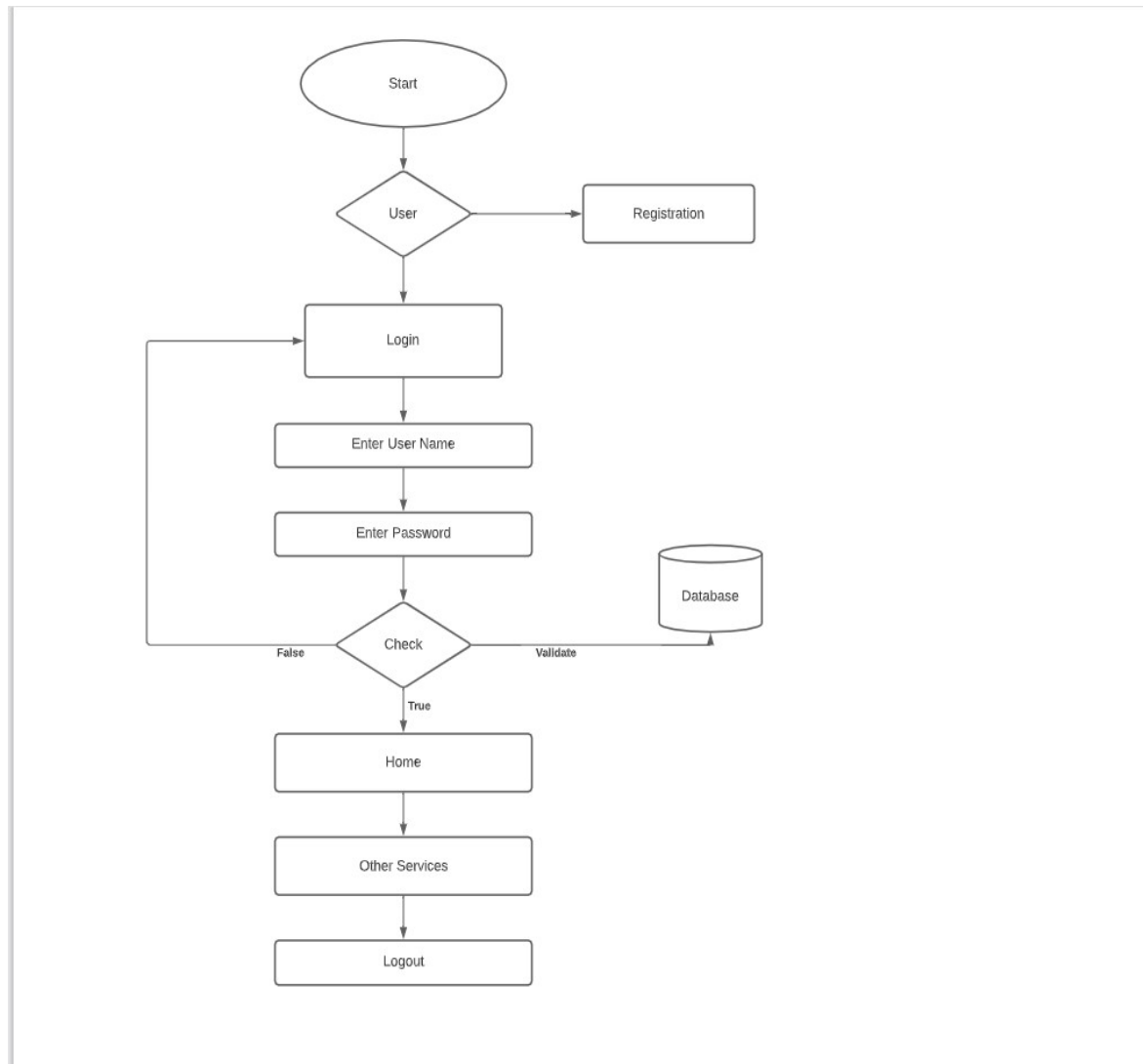
Use Case Diagram:
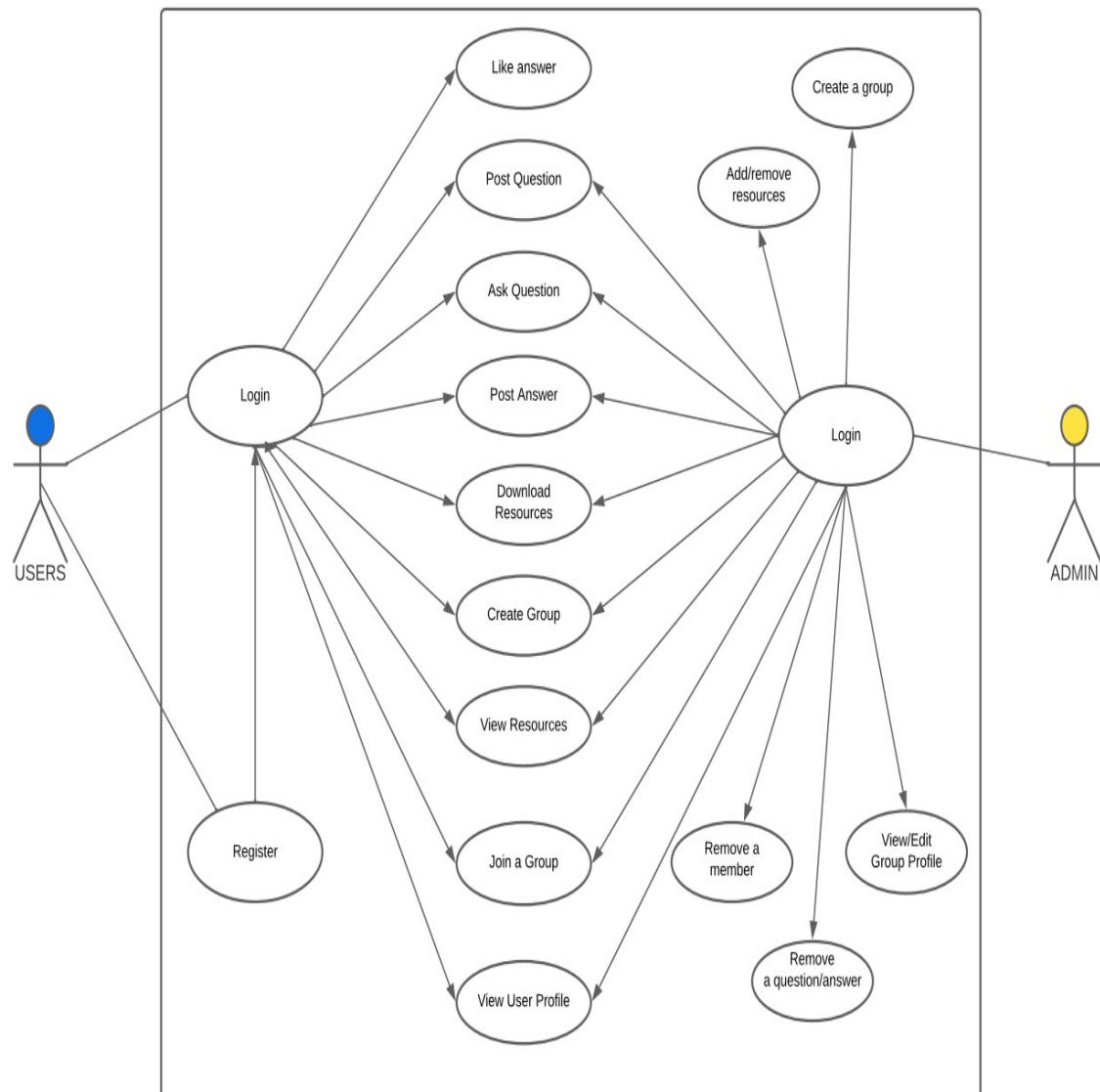
Activity Diagram

Admin:
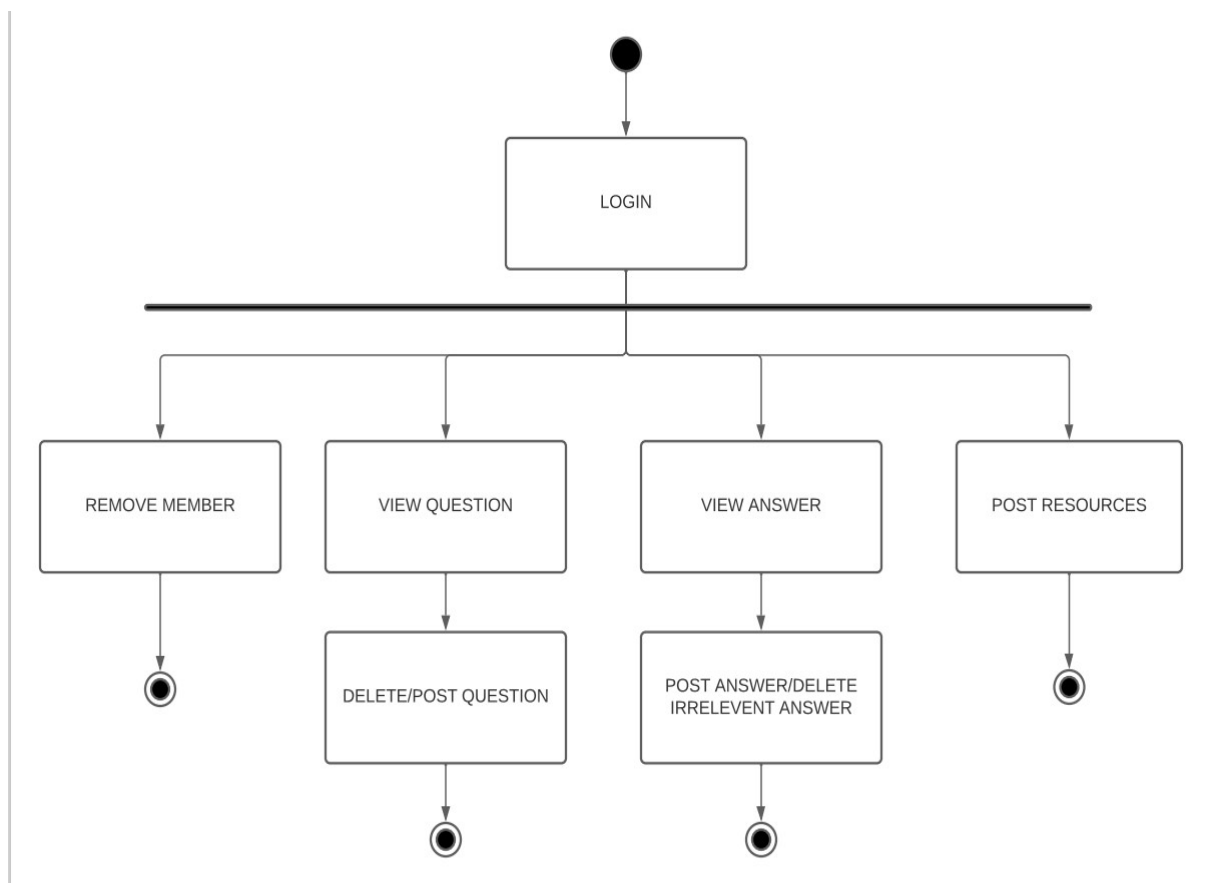
User:
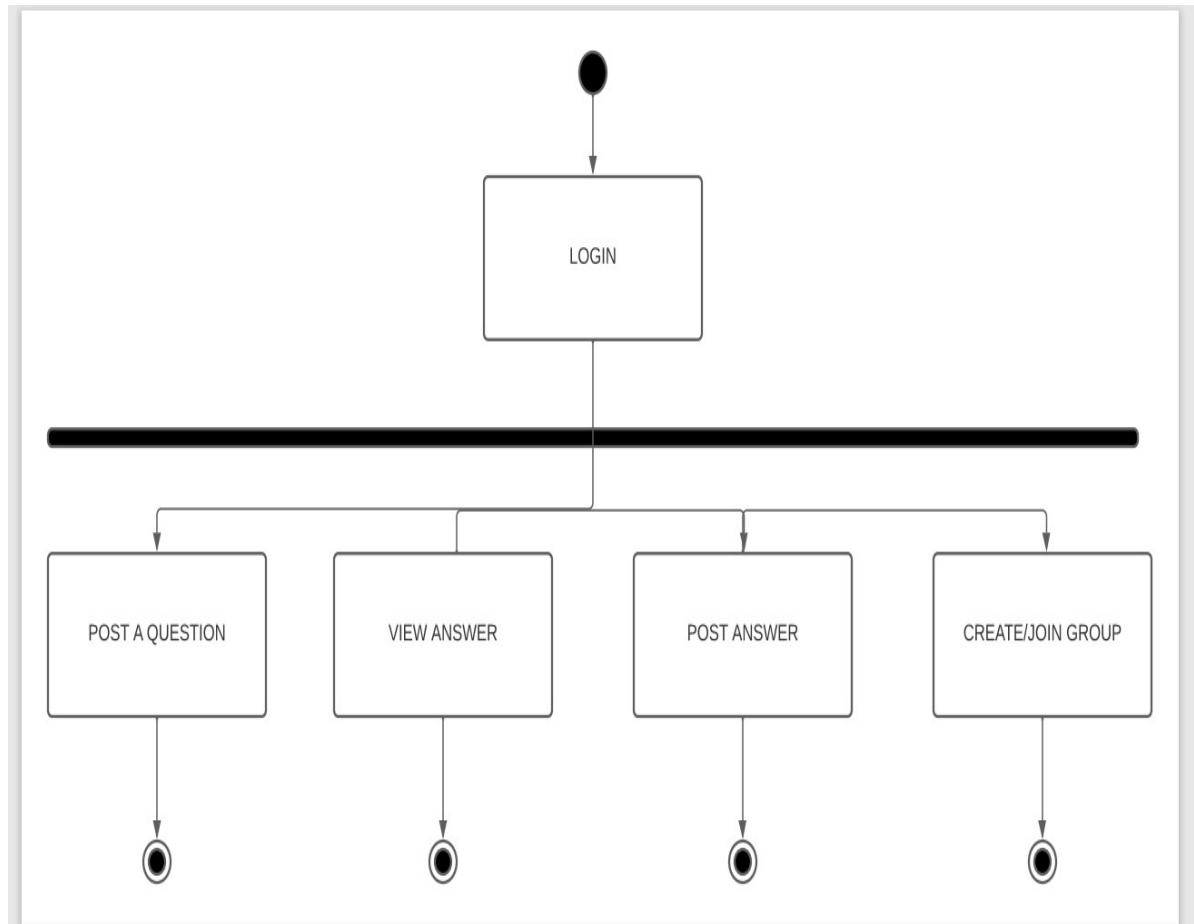
Class Diagram

ER Diagram

Sequence Diagram: