
Software Requirements Specification

for

Admission Help System

Version 1.0 approved

Prepared by

Team 12

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Document Approval

The following Software Requirements Specification has been accepted and approved by the following:

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1. Introduction

The purpose of this Systems Requirements Specifications document (henceforth referred to as SRS) is to provide the guidelines necessary to design and implement software that fulfills all the requirements given.

1.1 Purpose

The purpose of this document is to present a detailed description of the Admission Help System. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both the stakeholders and the developers of the system.

1.2 Scope

The “Admission Help System” is a web application which helps aspirants to explore about premiere professional institutions and other specification like announcements regarding admissions, entrance exams, tips and more. The application will be user friendly and easy to use. More specifically, this system is designed to allow users to explore the top notch institutes in various fields. This web application connects the education seekers with the education providers. Information on educational institutes, programs and admission notifications for various programs in premiere professional institutions in India is available on the website. It empowers the user to make choices by going through the tips and suggestions.

1.3 Definitions, Acronyms, and Abbreviations

Term	Definition
User	Author or Reviewer.
Admin/Administrator	System administrator who is given specific permission for managing and controlling the system
Database	Collection of all the information monitored by this system.
Editor	Person who receives articles, sends articles for review, and makes final judgments for publications.
Reader	Anyone visiting the site to read articles.
Review	A written recommendation about the appropriateness of an article for publication; may include suggestions for improvement.
Reviewer	A person that examines an article and has the ability to recommend approval of the article for publication or to request that changes be made in the article.

Software Requirements Specification	A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document.
Stakeholder	Any person with an interest in the project who is not a developer.
Field	Field represents the following areas: Medicine, Engineering, Architecture and Design.
News Stories	Important pieces of information that might help a candidate make an informed choice and also help achieve his goal with regards to admissions.
Announcements	Important dates of Entrance Exams, Interviews and information regarding Admission Procedure to various Premier Institutes.
Tips	Important articles related to a specific field that might help the aspirants to make a right choice.
Institutes	Organizations that seek to impart knowledge and required skill to their students.
Entrance exams	Examinations taken by concerned authorities to evaluate a candidate to determine the outcome of his application .
Study Material	Books, links , videos that might help a candidate prepare for his application to the premier institutes.
Experts	People from a particular field who have the required expertise to guide aspirants.

1.4 References

[1] IEEE Software Engineering Standards Committee, “IEEE Std. 830-1998, IEEE Recommended Practice for Software Requirements Specifications”, October 20, 1998.

1.5 Overview

The second chapter, the General Description section, of this document gives an overview of the functionality of the product as per the customer requirements. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter.

The third chapter, Specific Requirements section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product.

Both sections of the document describe the same software product in its entirety, but are intended for different audiences and thus use different language.

2. General Description

This section will give an overview of the whole system. The system will be explained in its context to show how the system interacts with other systems and introduce the basic functionality of it. It will also describe what type of stakeholders that will use the system and what functionality is available for each type. At last, the constraints and assumptions for the system will be presented.

2.1 Product Perspective

The system brings together all information regarding admissions to premier institutions. It interacts with news reporting sites from educational domain and official website of premier institutes to gather the latest information.

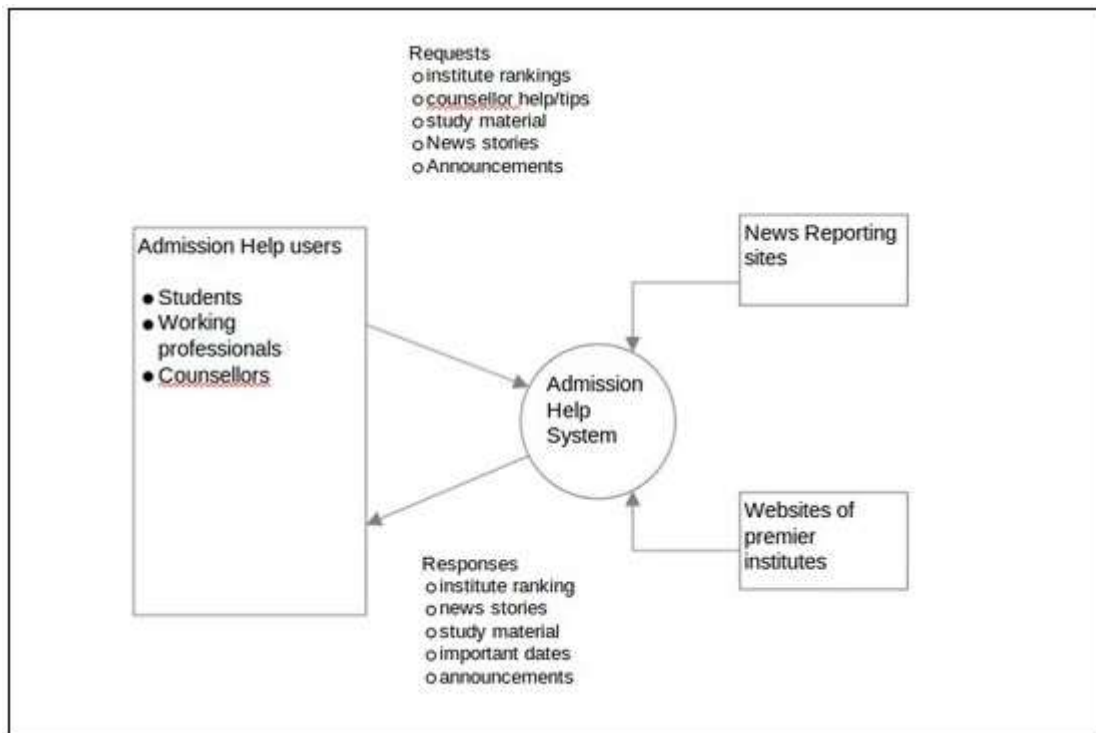


Figure 2.1.1: Outline of the product

2.2 Product Functions

With the web application, the users will be able to search for premiere professional institutes in India. The result will be based on the criteria the user inputs. There are several search criteria and it will be possible for the administrator of the system to manage the options for those criteria that have that.

The result of the search will be viewed either in a list view, depending on what criteria included in the search. The list view will have institute information so the user can get detailed information about that institute admission procedure, reviews about that institute and more.

The Web Application will be able to provide links to study materials for the courses of different fields. It will provide tips regarding entrance exams of engineering and medical fields.

The web portal will provide functionality to manage the system and the premiere professional institutes' information.

2.3 User Characteristics

There are three types of users that interact with the system: users of the web application (aspirants), experts and administrators. Each of these three types of users has different use of the system so each of them has their own requirements.

The web application users can only use the application to find institutes information, tips and study materials regarding entrance exams. This means that the user have to be able to search for premiere institutes in specific field, choose a institute from that search and then get all the information of it. In order for the users to get a relevant search result there are multiple criteria the users can specify and all results matches all of those.

The experts will use the web application to aid aspirants with study materials and tips for various entrance exams.

The administrators also interact with the web portal. They are managing the overall system so there is no incorrect information within it.

2.4 General Constraints

The Internet connection is also a constraint for the application. Since the application fetches data from the database over the Internet, it is crucial that there is an Internet connection for the application to function.

Web portal will be constrained by the capacity of the database.

2.5 Assumptions and Dependencies

One assumption about the product is that it will always be used on desktop/laptop that have enough performance. If does not have enough hardware resources available for the application, for example the users might have allocated them with other applications, there may be scenarios where the application does not work as intended or even at all.

3. Specific Requirements

This section contains all of the functional and quality requirements of the system. It gives a detailed description of the system and all its features.

3.1 External Interface Requirements

3.1.1 User Interfaces



The Sign In form is titled "Sign In" and contains the following elements:

- Email input field
- Password input field
- Sign In button
- ☐ Remember Me checkbox
- [Forgot your password?](#) link
- Don't have an account yet? text
- Sign Up button

Figure 3.1.1.1: Sign in page for User



The Sign Up form is titled "Sign Up" and contains the following elements:

- Full Name input field
- Email input field
- Password input field
- Confirm input field
- Area of Interest input field
- ☐ I have read and agree to be bound by the Terms and Conditions and Privacy Policy checkbox
- Sign Up button

Figure 3.1.1.2: Sign up page for User

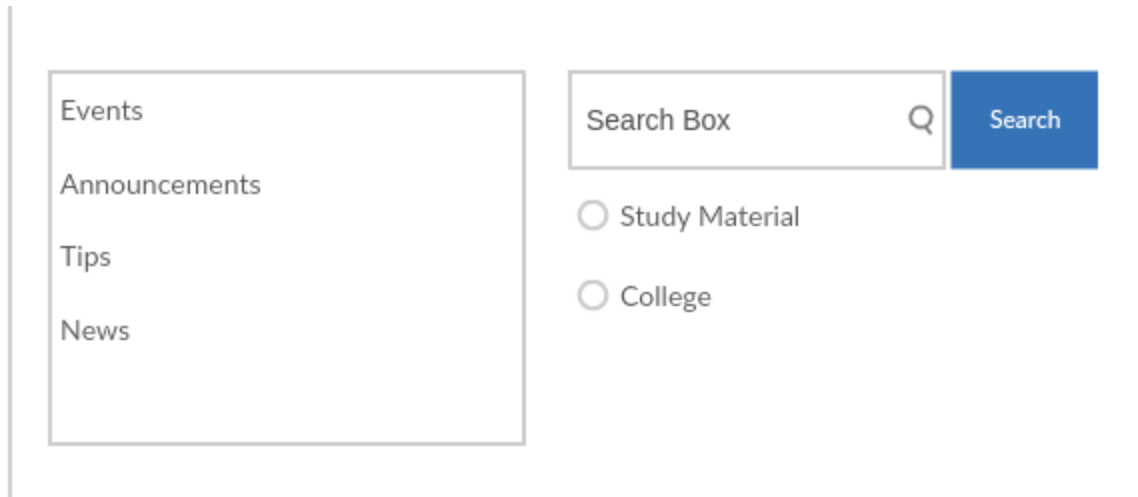


Figure 3.1.1.3: Search Page and major links for getting information

3.1.2 API Interfaces

The system will interface with news reporting API and the official websites of premier institutes.

3.2 Functional Requirements

3.2.1 Use Cases

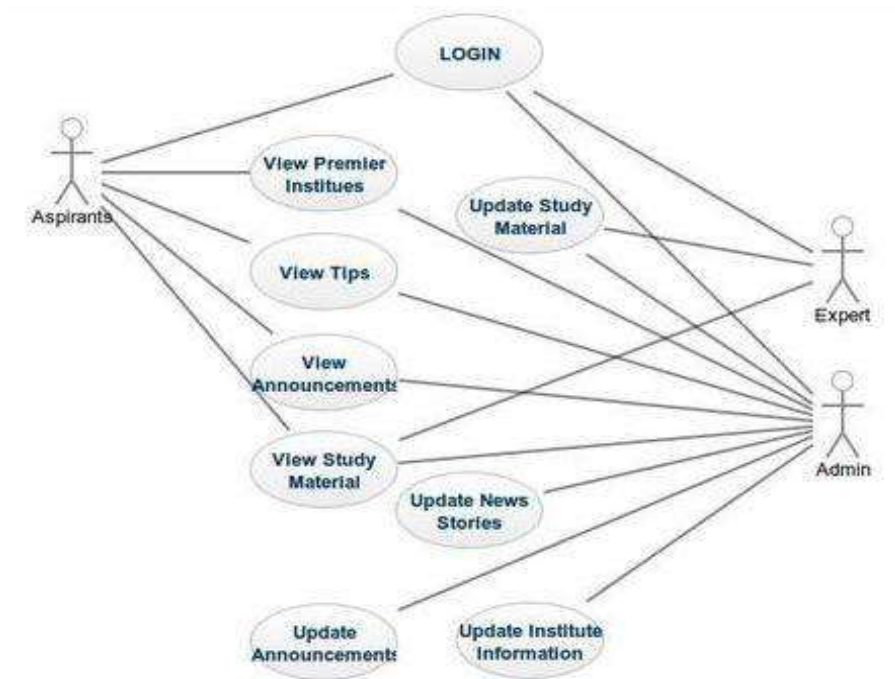


Figure 3.2.1.1: Use case diagram

3.2.1.1 Login

Actors: Aspirants, Administrator, Experts.

Description: The actor can access the system by providing name and password once the user registers to the system with necessary details like name, email Id, field, contact information etc.

3.2.1.2 View Premier Institutes

Actors: Aspirants, Administrator.

Description: The aspirants can get the list of the premier institutes based on the field they are interested in.

3.2.1.3 View Tips

Actors: Aspirants, Administrator.

Description: The system provides the aspirants with the tips and counseling help they need based on their interested field or the entrance exam.

3.2.1.4 View Announcements

Actors: Aspirants, Administrator.

Description: The aspirants can get the announcements and important dates based on the institute or the entrance exam.

3.2.1.5 View Study Material

Actors: Aspirants, Administrator, Experts.

Description: The system provides the aspirants with study materials they need based on their interested field or the entrance exam.

3.2.1.6 Update Institute Information

Actors: Administrator.

Description: The administrator can update the information about the premier institute, thereby maintaining the latest information.

3.2.1.7 Update Announcements

Actors: Administrator.

Description: The administrator can update the announcements and important dates related to the institute or the entrance exam and ensure the availability of latest updates to the aspirants.

3.2.1.8 Update Study Material

Actors: Administrator, Experts.

Description: The experts can add or update important and relevant study materials related to the entrance exam or the field thereby guiding the aspirants in a systematic way.

3.2.1.9 Update News Stories

Actors: Administrator.

Description: The administrator can update all the major news stories about the premier institutes and helps the aspirants in making the right choice.

3.2.1.10 Logout

Actors: Aspirants, Administrator, Experts.

Description: The user exits the system by logging out of their accounts.

3.2.2 Classes / Objects

3.2.2.1 Aspirants

Attributes: name:string,contact:integer,field:string,mail-id:string,password:string
Functions: login(),view(),update_profile()

3.2.2.2 Administrator

Attributes: name:string,mail-id:string,password:string
Functions: login(),view(),update()

3.2.2.3 Expert

Attributes: name:string,field:string,mail-id:string,password:string
Functions: login(),view(),update()

3.2.2.4 Study Material

Attributes: field:string,exam:string
Functions: get_information()

3.2.2.5 News Stories

Attributes: filed:string,institute_name:string
Functions: get_information()

3.2.2.6 Institutes

Attributes: field:string,name:string
Functions: get_information()

3.2.2.7 Announcements

Attributes: exam:string,institute_name:string
Functions: get_information()

3.3 Non-Functional Requirements

3.3.1 Performance

The product shall take initial load time depending on internet connection strength which also depends on the media from which the product is run.
The response time will be less than a minute.

3.3.2 Reliability

The system will not crash on invalid data files or input files. The system will check the validity of the user files when they are loaded. If there is an error the system will ask the user to make a new account. If there is a fatal error the system shuts down without crashing the computer it is running on.

3.3.3 Availability

The system will have an availability of 99%(one-nine). The web application will have an average run time of 15 to 20 min per session depending on the user, although the user may use the web

application longer. The web application will be available as long as their good internet connectivity.

3.3.4 Security

The system shall use secure sockets in all transactions that include any confidential customer information. The system shall automatically log out all users after a period of inactivity. The system shall confirm all transactions with the customer's web browser. The system shall not leave any cookies on the customer's computer containing the user's password. The system shall not leave any cookies on the customer's computer containing any of the user's confidential information.

3.3.5 Maintainability

The expert/administrator will be able to update the web-site with updated information. The product will be built using components that are as independent as possible to make the system easily modifiable. All components of the system will be modular and be as independent as possible. Users will be able to add new accounts.

3.3.6 Portability

The software will be written in a platform independent programming language for portability; there will be no platform specific code. We will write all the software using Java.

3.4 Design Constraints

This section includes the design constraints on the software caused by the hardware.

- There are no memory requirements as it is web based product.
- The computers must be equipped with web browsers such as Internet explorer.
- The product must be stored in such a way that allows the client to access it easily.
- Response time for loading the product should take no longer than a minute.
- A general knowledge of basic computer skills is required to use the product

3.5 Logical Database Requirements

Database tables

Table Name	Attributes
User	<ul style="list-style-type: none"> • Name • E-mail id • Area of Interest
Expert	<ul style="list-style-type: none"> • Name • E-mail id • Area of expertise
Study Material	<ul style="list-style-type: none"> • Exam • Text
Articles/Tips	<ul style="list-style-type: none"> • Expert Name • Topic • Text
Announcements	<ul style="list-style-type: none"> • Institute Name • Text
News stories	<ul style="list-style-type: none"> • Institutes • Text

Data integrity will be ensured after every update.

4. Analysis Model

4.1 Sequence Diagrams

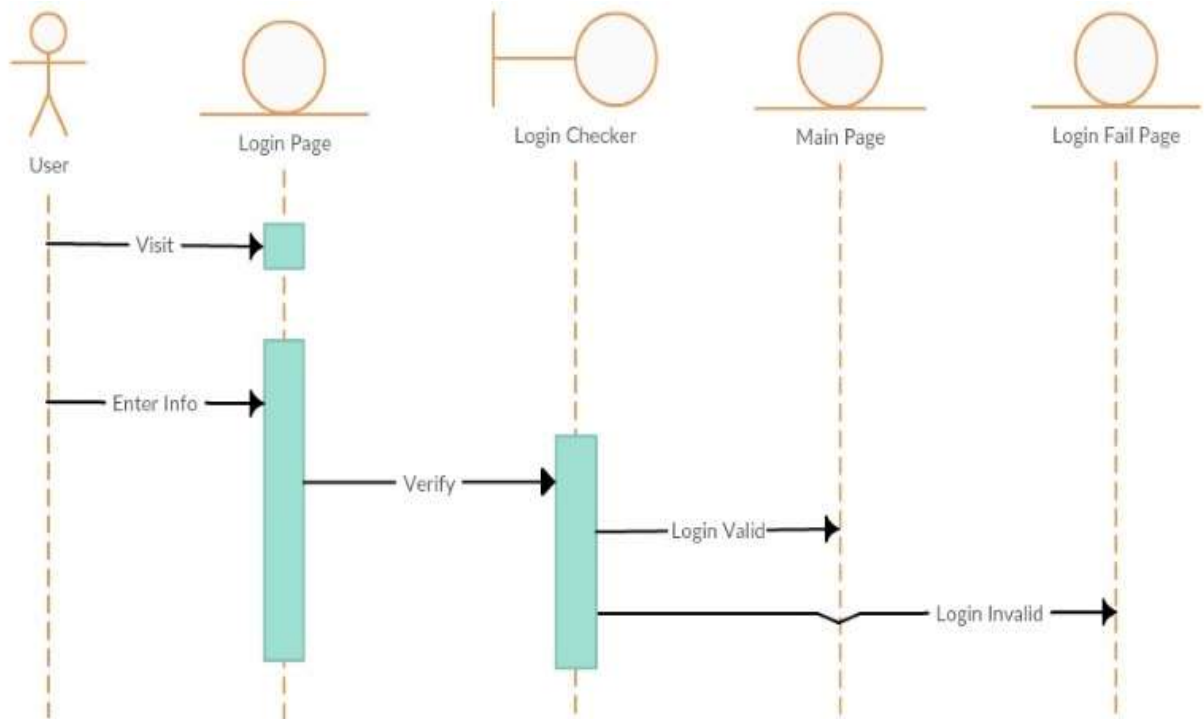


Figure 4.1.1: Sequence diagram of updating information for users profile and other information

Figure 4.1.2: Sequence diagram for user/administrator logins

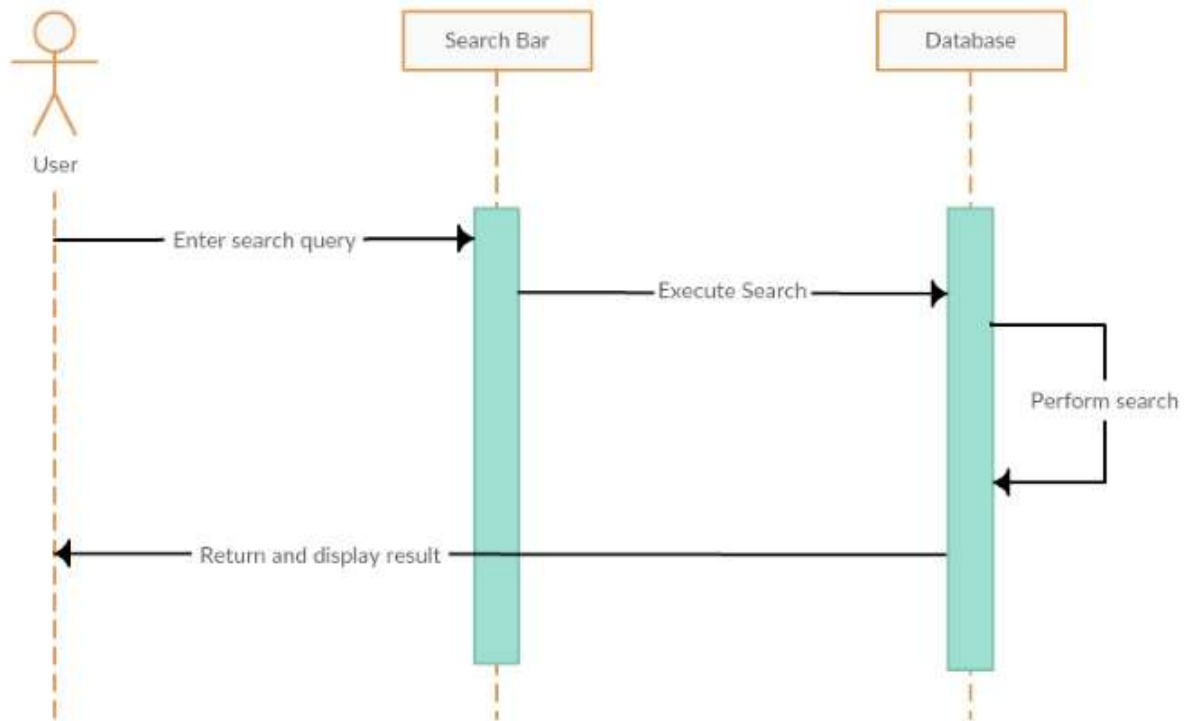


Figure 4.1.3: Sequence diagram for querying for information

4.2 State-Transition Diagrams (STD)

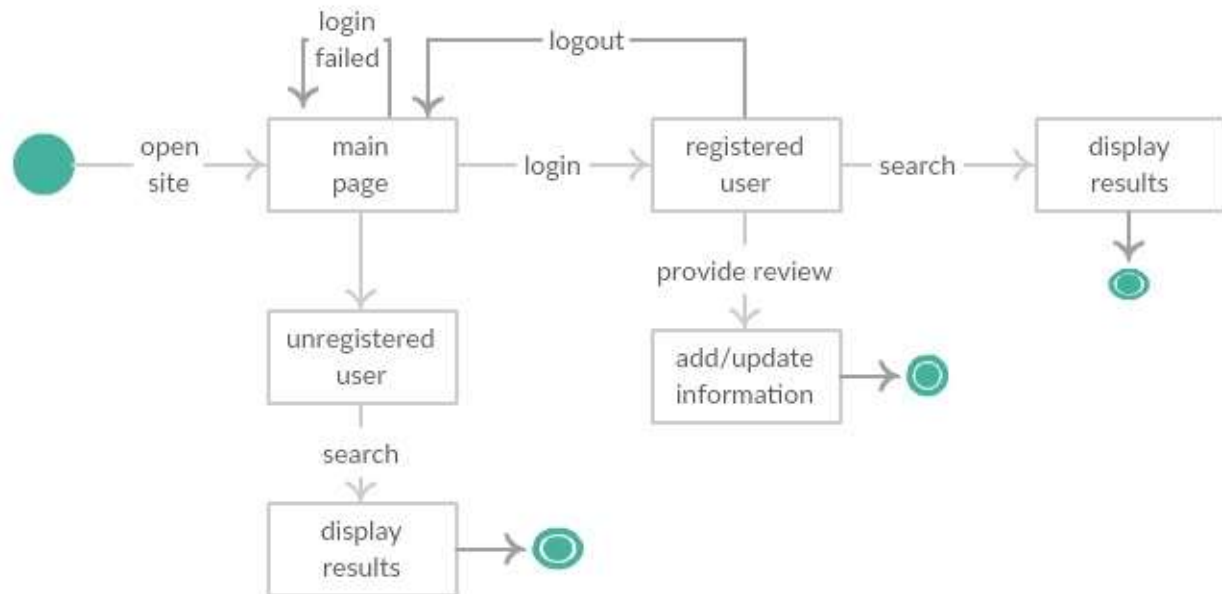


Figure 4.2.1: State-Transition diagram of Admission Help System

5. Change Management Process

Any requests to change the project scope and requirements shall be discussed by all the members of the team. A change will be made only when the majority of the team and the project mentor, agrees on the change. In this case, the SRS document shall be updated by the team members in order to reflect the changes, and a date of change shall be noted in the file. If this change request is made by the client or anyone outside of the team, he or she will have to contact the team members. If a change request is made by a team member, he or she can raise it during the course of project.