



Daffodil
International
University

Online Medical Support

By

B. M. Kamruzzaman Shovon
(143-35-795)

A thesis submitted in partial fulfillment of the requirement for the degree of
Bachelor of Science in Software Engineering

Department of Software Engineering
DAFFODIL INTERNATIONAL UNIVERSITY

Fall – 2018

Copyright 2018@ Daffodil International University

Acknowledgement

As it is a complete project for us, I have completed my SRS part properly by the grace of almighty Allah.

A grateful thanks to my supervisor Tapushe Rabaya Toma who is so busy with her duties and took time to hear, guide and help me with her values information and knowledge to complete this SRS report. She helped so much for this project.

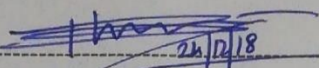
Executive Summary

The purpose of the SRS (Software Requirements Specification) document is to provide the whole process and overall description of the Traffic Control System for Bangladesh Police and car owner. In this document the requirements of this software are specified. In addition, the purpose of this software is to self-regulating the task execute by the people related to this system self-regulated operations. The specific design and software requirement specification are provided here for this system development.

APPROVAL


This **Project** titled Online Medical Support, submitted by **B.M. Kamruzzaman Shovon**, ID: 143-35-795 to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc in Software Engineering and approved as to its style and contents.

BOARD OF EXAMINERS



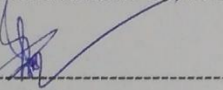
Dr. Touhid Bhuiyan
Professor and Head
Department of Software Engineering
Faculty of Science and Information Technology
Daffodil International University

Chairman



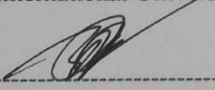
Dr. Md. Asraf Ali
Associate Professor
Department of Software Engineering
Faculty of Science and Information Technology
Daffodil International University

Internal Examiner 1



Md. Maruf Hassan
Assistant Professor
Department of Software Engineering
Faculty of Science and Information Technology
Daffodil International University

Internal Examiner 2

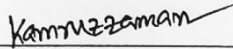


Prof Dr. Mohammad Abul Kashem
Professor
Department of Computer Science and Engineering
Faculty of Electrical and Electronic Engineering
Dhaka University of Engineering & Technology, Gazipur

External Examiner

Declaration

It hereby declare that this documenttion has been done byme under the supervisor of **Ms. Tapushe Rabaya Toma, Lecturer**, Department of Software Engineering, Daffodil International University. It also declare that neither this project nor any part of this has been submitted elsewhere for award of any degree.



B. M. Kamruzzaman Shovon

Student ID: 143-35-795

Batch: 15th

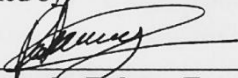
Department of Software Engineering

Faculty of Science & Information

Technology

Daffodil International University

Certified by:



Ms. Tapushe Rabaya Toma

Lecturer

Department of Software Engineering

Faculty of Science & Information Technology

Daffodil International University

Table of Contents

Acknowledgement.....	i
Executive Summary	ii
Approval.....	iii
Declaration.....	iv
Chapter 1.....	1
Introduction	1
1.1 Overview	1
1.2 Project Purpose	1
1.2.1 Background	1
1.2.2 Benefits & Beneficiaries.....	1
1.3 Identifying Stakeholders	2
1.4 Project Schedule	2
1.5 Gantt Chart	3
Figure 1.1: Gantt chart.....	3
Chapter 2.....	4
Software Requirement Specification of Online Medical Support.....	4
2.1 Product Perspective	4
2.2 Functional Requirement	5
2.3 Non-functional Requirements	6
2.3.1 Performance Requirements.....	7
2.3.2 Safety Requirements	7
2.3.3 Security Requirements.....	7
2.4 User Characteristics	7
2.4.1 Admin.....	8
2.4.2 Doctor	8
2.4.3 Patients	8
2.5 Planning meeting	8
2.6 Assumption and Dependencies	9
2.6.1 Data Entry	9
2.6.2 Server/Hardware Performance	9
2.6.3 Browser Dependency.....	9
Chapter 3.....	10

System Analysis of Online medical support.....	10
3.1 Use Case Diagram	10
Figure 3.1: Use Case Diagram	10
3.1.2 Use Case Description (Detailed)	11
3.1.3 Registration.....	11
3.1.4 Make an appointment	12
3.1.5 Treatment	13
3.1.6 Generate Report	14
3.1.7 Search Doctor	15
3.1.8 Suggestion of Medical Center	16
3.1.9 Primary Disease Treatment Help	17
3.3 Activity Diagram.....	18
Figure 3.2: Activity Diagram.....	18
3.3.1 Registration Activity.....	19
Figure 3.3: Activity diagram: Registration	19
3.3.2 Login Activity	20
Figure 3.4: Login Activity.....	20
3.3.3 Logout Activity	21
Figure 3.5: Logout Activity	21
3.3.4 Add Doctor Activity	22
Figure 3.6: Add Doctor Activity.....	22
3.3.5 Add Patient Activity	23
Figure 3.7: Add Patient Activity	23
3.3.6 Treatment	24
3.3.7 Generate report.....	25
3.3.8 Search Doctor	26
3.3.9 Suggestion of medical.....	27
3.3.10 Primary disease treatment help	28
3.4 Sequence Diagram	29
Figure 3.13: Sequence Diagram	29
3.4.2 Sequence diagram of Login.....	30
Figure 3.14: Sequence Diagram of Login	30
3.4.3 Sequence diagram of appointment	30
Figure 3.15: Sequence Diagram of Appointment	30
3.4.4 Sequence diagram of Doctor Add.....	31
Figure 3.16: Sequence Diagram of Doctor add	31
3.4.4 Sequence diagram of Report	31
Figure 3.17: Sequence Diagram of Report.....	31

3.4.6 Sequence diagram of Suggestion of medical center.....	32
Figure 3.18: Sequence Diagram of Medical center.....	32
3.4.7 Sequence diagram of Search Doctor	32
Figure 3.19: Sequence Diagram of Search Doctor	32
3.4.8 Sequence diagram of Treatment	33
Figure 3.20: Sequence Diagram of Treatment.....	33
3.4.8 Sequence diagram of Treatment	33
Figure 3.21: Sequence Diagram of Search primary treatment	33
Chapter 4.....	34
Design & Development of Online Medical Support.....	34
4.1 Application Interface Design.....	34
4.1.1 Multiple Features.....	34
4.2 Design & Implementation Constraints	34
4.2.1 Software language of framework	35
4.2.2 File management	35
4.2.3 Data Entry (tools or aggregate backlog data)	35
4.3 Development tools And Technology.....	35
4.3.1 User Interface Technology.....	36
4.3.2 Implementation Tools & Platforms	36
4.4 Proposed Software Architecture	36
4.5 Class Diagram.....	37
Figure 4.1: Class Diagram.....	37
4.6 Database Design Diagram.....	38
Figure 4.2: Database Design Diagram.....	38
Chapter 5.....	39
Test Plan of Online Medical Support	39
5.1 Testing feature.....	39
5.1.1 Feature to be tested	39
5.1.2 The Features not to be tested	39
5.2 Testing Strategies	39
5.2.1 Test approach	40
5.3 Testing Environment (hardware/software requirements)	40
5.4 Test Case	41
5.4.1 Test case for Registration	41
5.4.2 Test case for login	41
5.4.3 Test case for Chat with doctor.....	42
5.4.4 Test case for Search doctor	42
Chapter 6.....	43

User Manual of Online Medical Support	43
6.1 User Login	43
Figure 6.1: User Login	43
6.2 Admin Login	44
Figure 6.2: Admin Login	44
6.3 Register Doctor	44
Figure 6.3: Register Doctor	44
6.4 Register Patient	45
Figure 6.4: Register Patient	45
6.5 Doctor and patient details	45
Figure 6.5: Doctor and patient details	45
6.6 View chat in database.....	46
Figure 6.6: View chat in database.....	46
6.6 Doctor Search	46
Figure 6.6: Doctor Search	46
Chapter 7.....	47
Final Synopsis of Online Medical Support	47
7.1 Critical evolution and team attainment.....	47
7.2 Limitations	47
7.3 Obstacles & Achievements	47
7.4 Future scope	48
GLOSSARY	49
References	50

List of Figures:

1. Figure 1. 1: Gantt chart	3
2. Figure 3. 1: Use Case Diagram	10
3. Figure 3.2: Activity Diagram	18
4. Figure 3.3: Activity diagram: Registration	19
5. Figure 3.4: Login Activity	20
6. Figure 3.5: Logout Activity	21
7. Figure 3.6: Add Doctor Activity	22
8. Figure 3.7: Add Patient Activity	23
9. Figure 3.8: Treatment	24
10. Figure 3.9: Generate Report	25
11. Figure 3.10: Search Doctor	26
12. Figure 3.11: Suggestion of Medical Center	27
13. Figure 3.12: Primary Disease Treatment help	28
14. Figure 3.13: Sequence Diagram	29
15. Figure 3.14: Sequence Diagram of Login	30
16. Figure 3.15: Sequence Diagram of Appointment	30
17. Figure 3.16: Sequence Diagram of Doctor add	31
18. Figure 3.17: Sequence Diagram of Report	31
19. Figure 3.18: Sequence Diagram of Medical center	32
20. Figure 3.19: Sequence Diagram of search Doctor	32
21. Figure 3.20: Sequence Diagram of Treatment	33
22. Figure 3.21: Sequence Diagram of Search primary treatment	33
23. Figure 4.1: Class Diagram	37
24. Figure 4.2: Database Design Diagram	38
25. Figure 4.3: Entity Relationship diagram	38
26. Figure 6.1: User Login	44
27. Figure 6.2: Admin Login	45
28. Figure 6.3: Register Doctor	45
29. Figure 6.4: Register Patient	46
30. Figure 6.5: Doctor and patient details	46
31. Figure 6.6: View chat in database	47
32. Figure 6.7: Doctor Search	47

List of Tables:

1. Table 1.1: Project Schedule	2
2. Table 2.1: Functional Requirement	5
3. Table 2.2: Non-functional Requirements	6
4. Table 3.1: Registration	11
5. Table 3.2: Make an appointment	12
6. Table 3.3: Treatment	13
7. Table 3.4: Generate report	14
8. Table 3.5: Search doctor	15
9. Table 3.6: Suggestion of Medical Center	16
10. Table 3.7: Suggestion of Disease Treatment Help	17
11. Table 5.1: Test Case for Registration	41
12. Table 5.2: Test Case for Login	41
13. Table 5.3: Test Case Chat with Doctor	42
14. Table 5.4: Test Case Search doctor	43

Chapter 1

Introduction

1.1 Overview

- The remainder of this document includes seven chapters and appendices.
- The second and third chapters introduce different types of stakeholders and their interaction to the system. The chapters also provide the requirements specification in detail and provide a description of the different system interfaces.
- The fourth one provides an overview of design & development based on the scenario of the Traffic Control System (TCS).
- The fifth and fifth chapters show the interaction of data within the system using various functionalities. Different testing techniques are used in order to specify the requirements more precisely for different audiences.
- The sixth chapter shows the user manual of this system.
- The seventh chapter describes the limitations and Obstacles & Achievements of the software.

1.2 Project Purpose

1.2.1 Background

The purpose of this document is to describe all the requirements for the targeted system- Online Medical support(OMS) the patient by which a patient can take medical support by sitting at home or an emergency. The intended audience includes all the stakeholders in the potential system. These include, but are not necessarily limited to, the following: Doctors, patient (User) and the admin (Super user).

Developers should consult this document and its revisions as the only source of requirements for the project.

1.2.2 Benefits & Beneficiaries

The general user (patient), doctor, admin Owner should use this document and its revisions as the primary means to communicate confirmed requirements by the users of this software. The development expects many face-to-face conversations that will undoubtedly be about requirements and ideas for requirements. Please note that only the requirements that appear in this document or a future revision, however, will be used to define the scope of the system.

1.3 Identifying Stakeholders

Stakeholder is any person or a group of people who can clout or can be clouted by this system precisely. Stakeholders carry end-users who cooperate with the system and everyone else in an institution that may be influenced by its installation. Stakeholder pinpointing is the process used to identify all stakeholders for a project. It is vital to understand that not all stakeholders have the same clout or effect on a project, nor will they be clouted in the same manner. The following questions help us to identify stakeholders:

- Who are uses this system?
- Who is damaged by the outputs of the project?
- Who is appraise/accept the system?
- Who control the system?
- Who has knowledge (specialist) about the system?
- Whose work will clout out project?

1.4 Project Schedule

Software plan and working time are given below:

Table 1.1: Project Schedule

Phase	Start Date	Planed Submission Date	Working Days
Proposal	2 August 2018	22 August 2018	20
Requirements Collection	24 August 2018	20 September 2018	25
Requirements Analysis	23 September 2018	10 October 2018	17
Software Requirements Specification	12 October 2018	25 October 2018	13
Project Plan	26 October 2018	6 November 2018	10
Prototype Implementations	7 November 2018	17 November 2018	10
Testing & Results	18 November 2018	28 November 2018	10
Total Working Days =103			

1.5 Gantt Chart

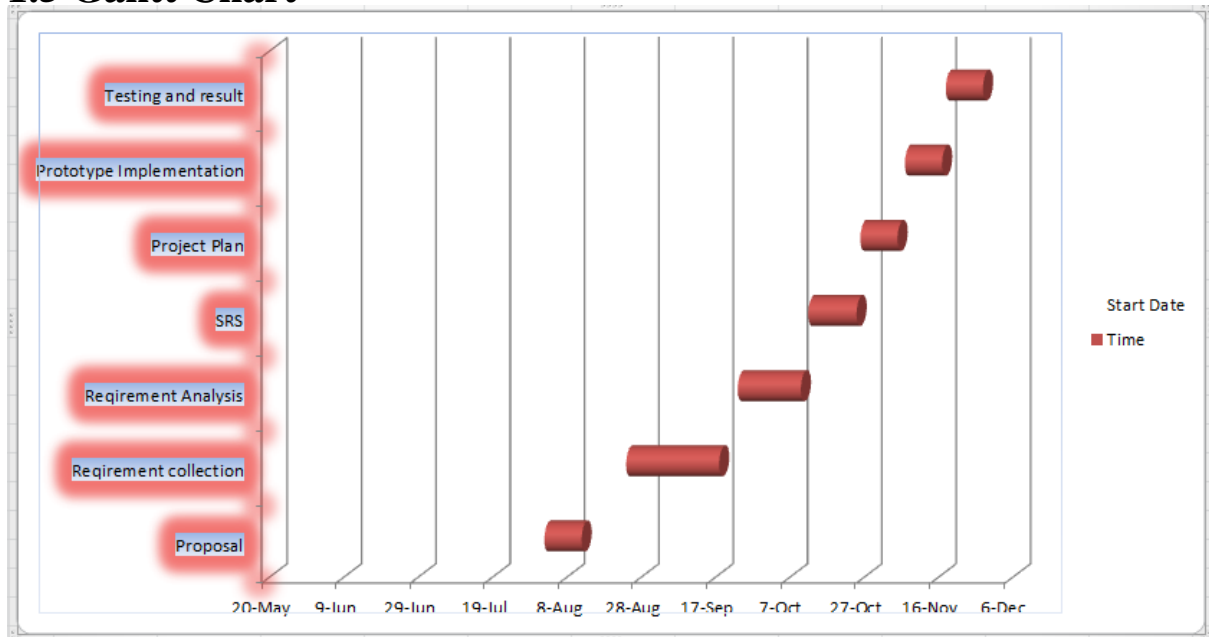


Figure 1.1: Gantt chart

Chapter 2

Software Requirement Specification of Online Medical Support

2.1 Product Perspective

Online Medical Support (OMS) mainly developed for patients who want to take medical support on emergency case and who want to get support at home. It helps him/her to get support immediately and easily. This application provides time consume and efficient service. Patient does not need to wait and can saves time through this project. Because doctors are available here to give service and suggestion through online. This service ensures that doctors are not fake and fully define as the patient demand. The most important part is the record of patient and doctor's chat will be store at database. For the further time doctor and patient can get the report for review anytime they want. Here admin available for correction of doctors mainly. Patient should be verified by their own identity.

Actually here admin manage the whole thing like add doctor and patient. Doctor verification is also done by admin who actually ensure the doctors identity by their registration both BMDC and BDS.

2.2 Functional Requirement

The following requirements are the functional requirements of the proposed system:

Table 2.1: Functional Requirement

ID	Requirement Name	Requirement Description	Requirement Type	Priority
FR001	Login	Registration and login of Admin account or manually account creation for super admin	Functional	High
FR002	Registration Doctor and Patient	Registration of patient to the system requirement	Functional	High
FR003	Primary Treatment	Get primary treatment by own	Functional	High
FR004	Conversation	Contact with doctors directly and get the treatment	Functional	High
FR005	Suggestion	Get nearby medical service	Functional	High
FR006	Report	Report delivery to patient and keep a record on database	Functional	High

2.3 Non-functional Requirements

The non-functional requirements are shown in following

Table 2.1: Non-functional Requirements

N0	Module	Requirement Title	Priority
NF001	Security Issues	Database Connection close: After data use, the database connection will close	High
NF002	Reliability Issues	If the system has been crashed, it should not be more than 20 minutes and 24 hours	Medium
NF003	Performance	The system must have a high speed of manipulation, data and reply to the user request	Medium
NF004	OS and Browser	Support all OS and all browser Windows 7, 8, 8.1, 10, Vista, Linux, MAC etc.	Low
NF005	Usability	Usable any environments	Low
NF006	User Interface	Eye set able user interface for this Web Application	Low

2.3.1 Performance Requirements

Server software are not required any special hardware other than the minimum hardware required for running activity OS, PHP7.x and MySQL 5.x database. I need some extra disk storage for archives and electronic documents. Many of memory need capable query processing, which is needed for quick bibliographic search. Also need one backup server with same configuration as in main server. Isolated storage (with backup) for database, digital document. Multiple computing nodes with the storage are required for high availability and to build up the performance of the application. Again, after a certain period the exploratory files and other files related with that can be deleted manually from the database to gain the performance.

2.3.2 Safety Requirements

In the system my main concern about my data because the all date are so important. That's why should put my server in the secure place. Like patient report.

2.3.3 Security Requirements

The TCS security model is based on the approach of roles. The validation method is used for ensuring security in cooperation between the client browser and the web server. It maintain login and logout request and deliver so man useful function for security and validation related problems. The validation method is uses mean of access the features. The efficacy of user requests is checked both at the user interface. For example, if a user is not allowed to click on a specific button, it will be disabled in html by the nonpayment template. If the user try to mislead this and submits the button click anyway, the Page class receiving the former request will ensure that it is ignored.

2.4 User Characteristics

In my system the characteristics of the user all type of Ptients. In this system there are some characteristics, doctor, patients and admin. The user uses this system. The all user are use this system to get a great service. My system is design for user friendly.

2.4.1 Admin

The Admin is responsible for installing the web site, configuring the system options, and managing the user accounts. This system does not involve any advanced technical skills but requires content out of web-based forms. Rather than, if the username and password addresses of possibility for achievement users are already exist in the database. They can easily find the database. He can manage the users of this system also.

2.4.2 Doctor

Doctors need to register the system and be verified by the admin. Doctors here to give treatment by direct conversation through chat with patients. He also gives suggestions about the better doctor or nearby doctor by their location. In emergency cases he/she can give suggestions for better treatment.

2.4.3 Patients

Here patients can get appointments by their own time. In another case he can get emergency medical services through the system. Patients can also get the suggestion of exact doctor categories at their nearby.

2.5 Planning meeting

At an early stage in the project, I arranged a planning meeting. The meeting members are B. M. Kamruzzaman Shovon and supervisor Tapushe Rabaya Toma. First I discuss what I want to make actually. I am trying to make new for my country people. I was so excited to make this project. I was trying to give service to the people in the easiest way in their daily life. Though I was confused about this matter but my supervisor helped me to make some decisions properly. Then I made several meetings with her.

2.6 Assumption and Dependencies

An assumption is something that you assume to be the case, even without proof. For example, people might make the assumption that you're a nerd if you wear glasses, even though that's not true. Or, very nice.

2.6.1 Data Entry

The data entry operation is out of the project. For some reason I did not add my date by hand. I use the government website for verification. If need, I can make the date into the server.

2.6.2 Server/Hardware Performance

I am not responsible for providing the server or any kind of hardware. Though, all the system hardware and necessary things are collected by me.

2.6.3 Browser Dependency

This system is run any kind of browser. Because in 2018 I made it so much update include my using browser.

Chapter 3

System Analysis of Online medical support

3.1 Use Case Diagram

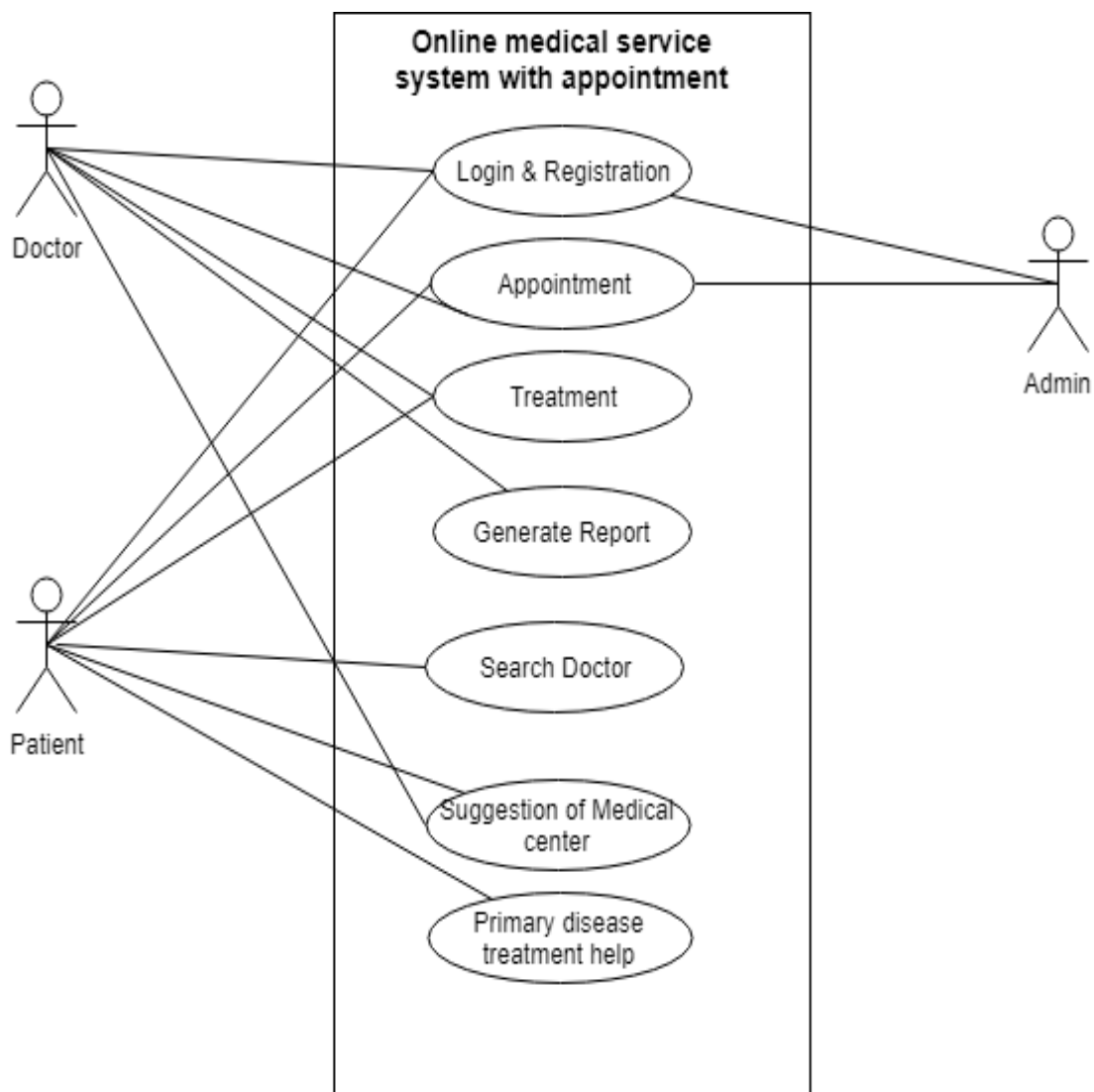


Figure 3.1: Use Case Diagram

3.1.2 Use Case Description (Detailed)

Use case description details are given below.

3.1.3 Registration

Table 3.1: Registration

Use Case ID	UC01	
Name	Register Doctor admin and patient	
Primary Actor	Admin	
Secondary Actor	Doctor, Patient	
Description	Here the patient and doctors are registered with their information.	
Goal	Register Accounts for different users of court.	
Precondition	Relevant data to enter in database for registration is available. E.g. Name, Service ,Treatment etc	
Post Condition	Register sergeant accounts for all the users of court.	
Main Success Scenario	Actor	System
	<ol style="list-style-type: none"> 1. Admin selects register option to register an account for user. 2. Admin will enter the relevant data about user e.g. user basic information. 3. Admin will enter the date for registration of user account. 4. Admin will assign roles to the account that what a user do in the system respective to user designation. 5. Admin submits the required description about user to the system. 6. System will save the record in the database and will show the success message. 	<ol style="list-style-type: none"> 2.1 System create registration form 4.1 system will show a roles category list 6.1 submit data to server and return Success message
Main fail Scenario	If the registration is not possible then no one can register the system. Here only the admin can access because he has the super access.	
Scenario Extensions	<ol style="list-style-type: none"> 1. When admin tries to enter data for an already register user the system will generate an error message. 2. System will not register an account unless an admin register the account. 	

3.1.4 Make an appointment

Table 3.2: Make an appointment

Use Case ID	UC02	
Name	Appointment	
Primary Actor	Patient	
Secondary Actor	Admin	
Goal	Make a payment	
Description	Here patient search and take doctor appointment.	
Precondition	Select doctor for new appointment.	
Post Condition	Make a appointment for patient.	
Main Success Scenario	Actor	System
	<ol style="list-style-type: none"> 1 Find the doctor 2 Find out the proper time 3 Take a schedule 4 Submit for an appointment 	<ol style="list-style-type: none"> 3.1 Select the user date, time and doctor. 4.1 Submit the appointment 4.2 server generate fine 4.3 confirm appointment 5.1 system store invoice
Main fail Scenario	If a patient's problem is not match with doctor requirement then the appointment cannot processed.	
Scenario Extensions	<ol style="list-style-type: none"> 1 Exact time does not match with patient time. 2 System disable 	

3.1.5 Treatment

Table 3.3: Treatment

Use Case ID	UC03	
Name	Give Treatment	
Primary Actor	Doctor	
Secondary Actor	Patient	
Goal	Online support	
Description	Here doctor give treatment or solution by online and make a report for it.	
Precondition	Check the patient details and give support.	
Post Condition	Give the treatment and make a prescription.	
Main Success Scenario	Actor	System
	<ol style="list-style-type: none"> 1. Patient knock the doctor 2. Then patient give the information about the problem. 3. Doctor gives the support about the problem. 4. Sometimes doctor gives suggestion of better treatment of nearby hospital. 5. Make a prescription. 	<ol style="list-style-type: none"> 2.1 accounted check date 4.1 accounted match the doctor and patient 6.1 submit all information of live chat 6.2 confirm the treatment has over. 7.1 Save a copy in database
Main Fail Scenario	If treatment will complete then it becomes fail to use.	
Scenario Extensions	<ol style="list-style-type: none"> 1. Sometimes treatment is not completed 2. Treatment not given 3. Refer to better doctor 	

3.1.6 Generate Report

Table 3.4: Generate report

Use Case ID	UC04	
Name	Generate Report	
Primary Actor	Admin	
Secondary Actor	Doctor	
Goal	Online database store facility	
Description	Here system take report of patient with patient id. So that in future it can be used.	
Precondition	Make a report by a doctor.	
Post Condition	Give the treatment and save it in database.	
Main Success Scenario	Actor	System
	<ol style="list-style-type: none"> 1. Patient knock the doctor 2. Then patient give the information about the problem. 3. Doctor give the support about the problem. 4. Then make report for it. 5. Make a prescription. 	<ol style="list-style-type: none"> 2.1 accounted check date 4.1 accounted conversation done 6.1 submit all information of live chat 6.2 confirm generate database. 7.1 Save a copy in database
Main Fail Scenario	If it will fail then the document will not save in database. If the database will not work then there will not be any value of this project.	
Scenario Extensions	<ol style="list-style-type: none"> 1. Sometimes treatment is not completed 2. Treatment not given 3. Refer to better doctor 	

3.1.7 Search Doctor

Table 3.5: Search doctor

Use Case ID	UC05	
Name	Search Doctor	
Primary Actor	Patient	
Secondary Actor	Doctor	
Goal	Search doctor	
Description	Here system give information about doctor and patient search doctor according to the information.	
Precondition	Availability of doctor here	
Post Condition	Search doctor for patient demand	
Main Success Scenario	Actor	System
	1. Patient search doctor 2. Select category with doctor.	2.System take a search 4. Give a result for doctor. 6.Submit to patient the doctor list
Main Fail Scenario	If it will fail then the patient cannot find the doctors. Then the doctor database will un useful.	
Scenario Extensions	1. Sometimes search doesn't match. 2. System don't give the proper search.	

3.1.8 Suggestion of Medical Center

Table 3.6: Suggestion of Medical Center

Use Case ID	UC06	
Name	Suggestion of medical center	
Primary Actor	Doctor	
Secondary Actor	Patient	
Goal	Give suggestion to patient	
Description	Sometimes patient cannot identify the proper doctor. In this case doctor give suggestion of medical center with doctor..	
Precondition	Patient need to ask for medical center	
Post Condition	Doctor give the suggestion of doctor.	
Main Success Scenario	Actor	System
	<ol style="list-style-type: none"> 1. Patient give his information 2. Then he want to get a suggestion of medical center for proper treatment 	<ol style="list-style-type: none"> 1. Doctor ask system for near location. 2.System take a search 4. Give a result for doctor. 6.Submit to patient the suggestion.
Main Fail Scenario	If it will fail then the system cannot find the best solution for better medical center. It may become use less.	
Scenario Extensions	<ol style="list-style-type: none"> 1. Sometimes search doesn't match. 2. System don't give the proper search. 	

3.1.9 Primary Disease Treatment Help

Table 3.7: Suggestion of Disease Treatment Help

Use Case ID	UC07	
Name	Primary Disease Treatment	
Primary Actor	Patient	
Secondary Actor	System	
Goal	Can get some information without use the system	
Description	User login to the system and get some general view of disease with primary treatment.	
Precondition	Patient need to log into the system	
Post Condition	He can view the required file.	
Main Success Scenario	Actor	System
	<ol style="list-style-type: none"> 1. Patient login to the system. 2. Get a view of the treatment with disease manually. 	<ol style="list-style-type: none"> 1. Show the treatment. 2. Give primarily treatment by own.
Main Fail Scenario	If it will fail then it cannot give the treatment.	
Scenario Extensions	<ol style="list-style-type: none"> 1. Sometimes search doesn't work according database. 2. System doesn't give the proper search. 	

3.3 Activity Diagram

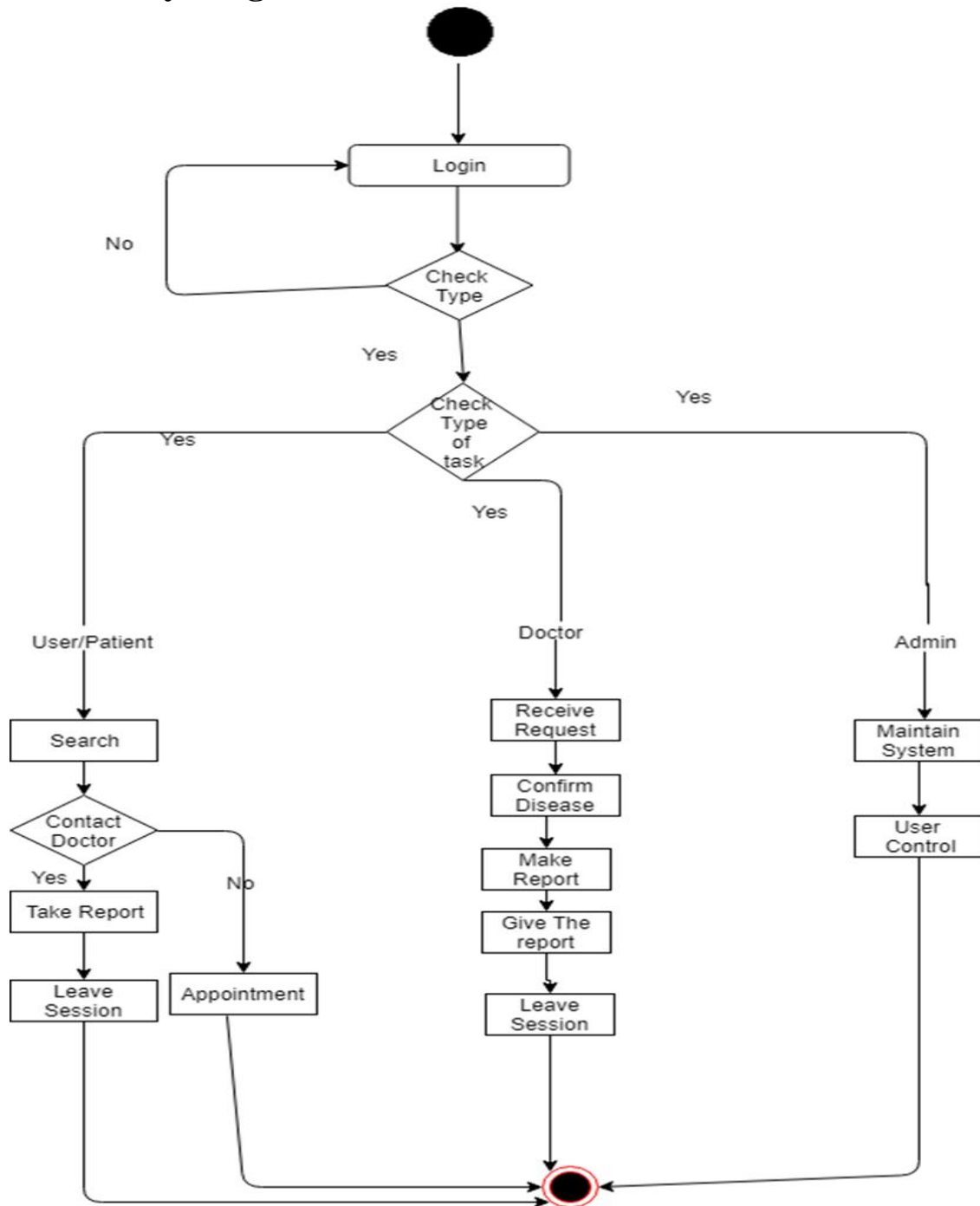


Figure 3.2: Activity Diagram

3.3.1 Registration Activity

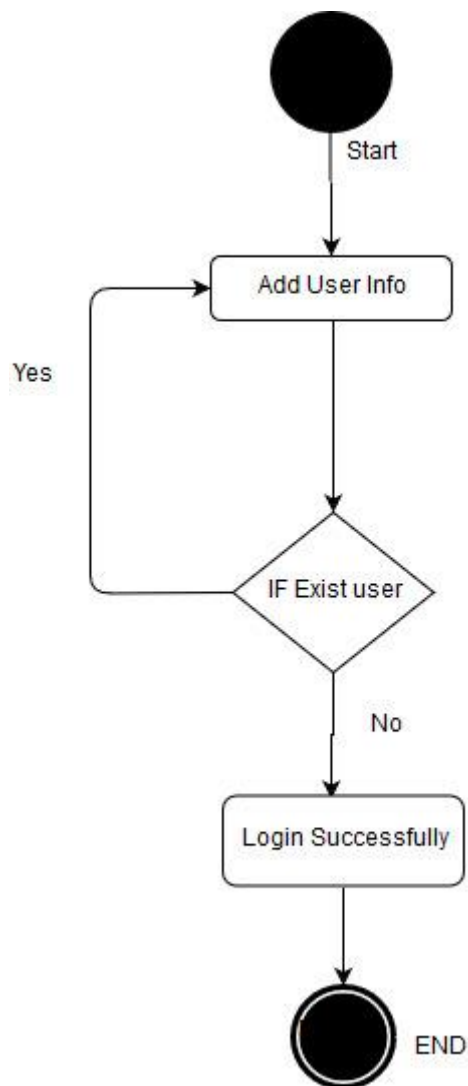


Figure 3.3: Activity diagram: Registration

3.3.2 Login Activity

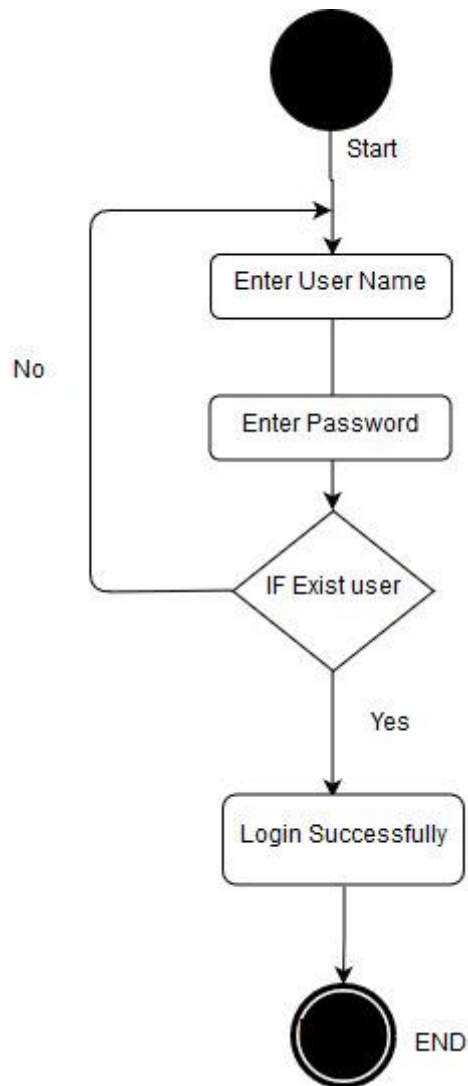


Figure 3.4: Login Activity

3.3.3 Logout Activity

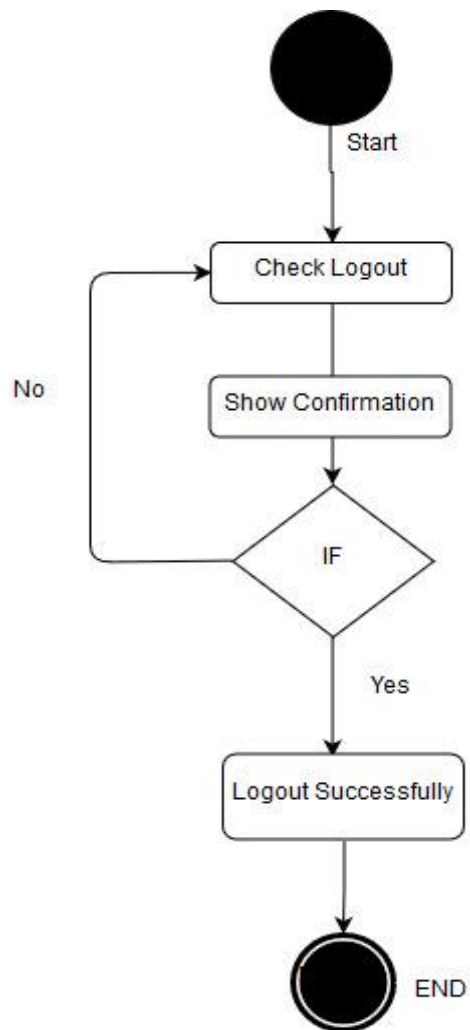


Figure 3.5: Logout Activity

3.3.4 Add Doctor Activity

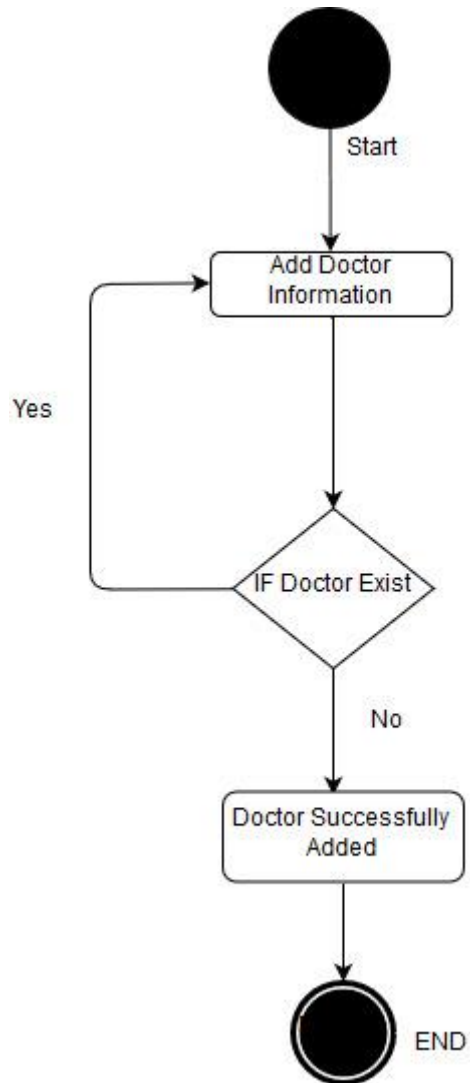


Figure 3.6: Add Doctor Activity

3.3.5 Add Patient Activity

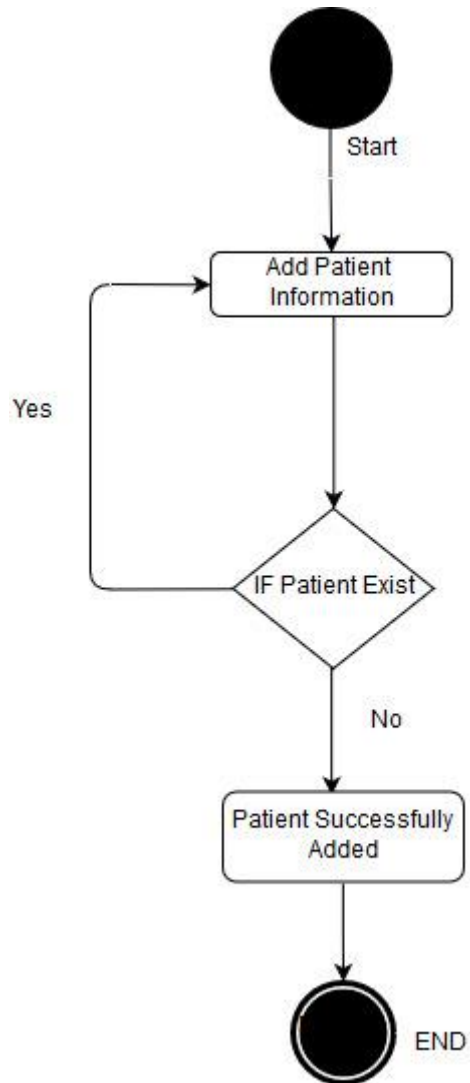


Figure 3.7: Add Patient Activity

3.3.6 Treatment

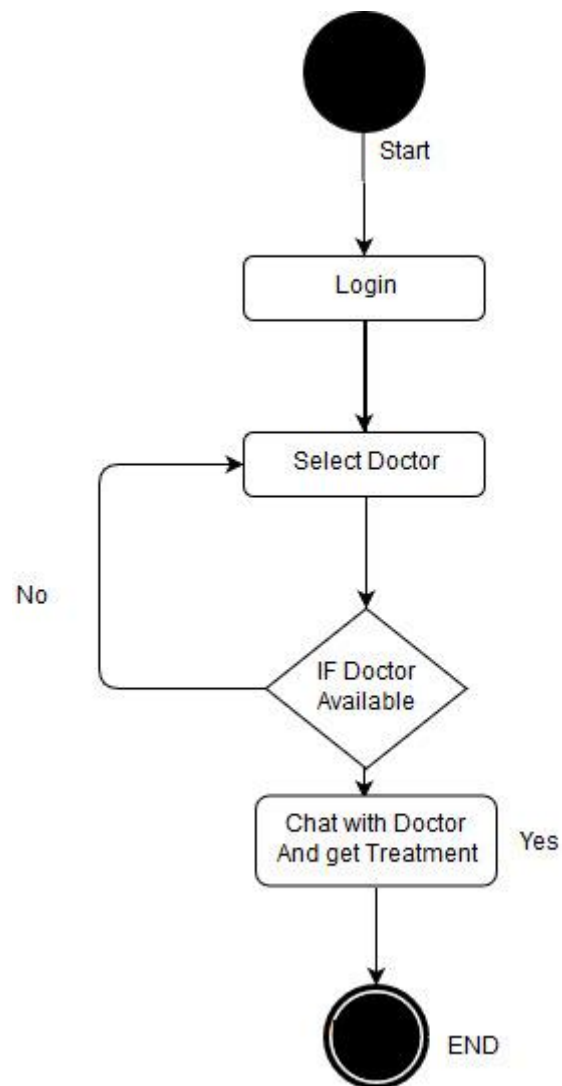


Figure 3.8: Treatment

3.3.7 Generate report

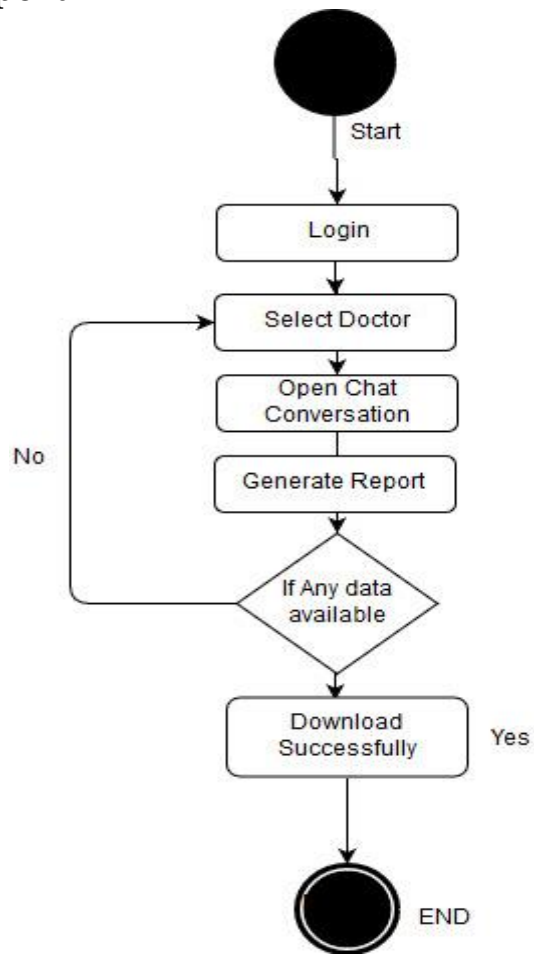


Figure 3.9: Generate Report

3.3.8 Search Doctor

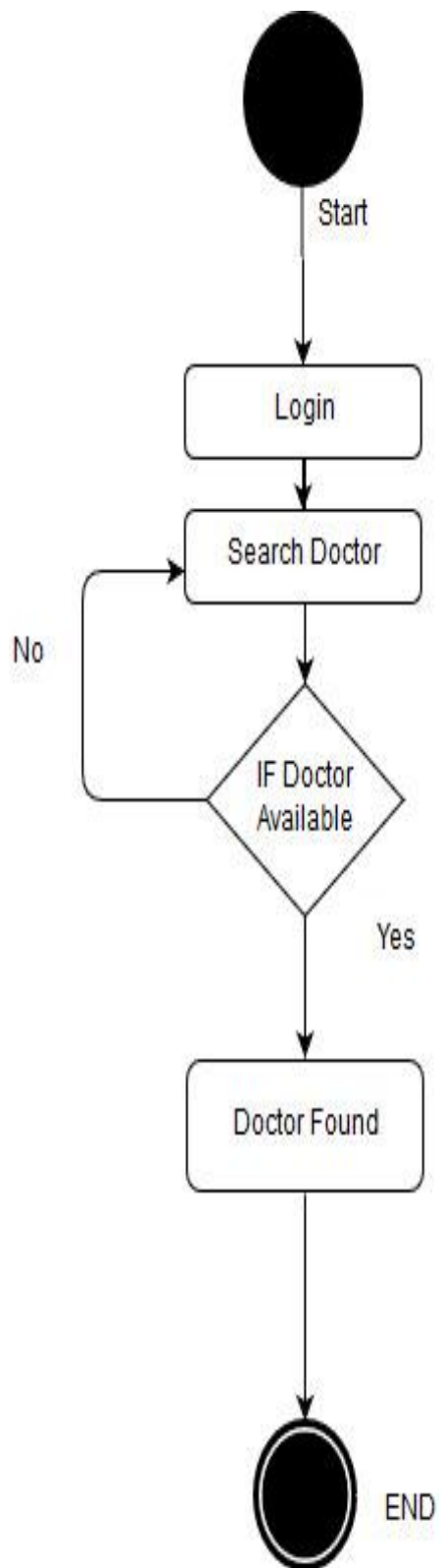


Figure 3.10: Search Doctor

3.3.9 Suggestion of medical

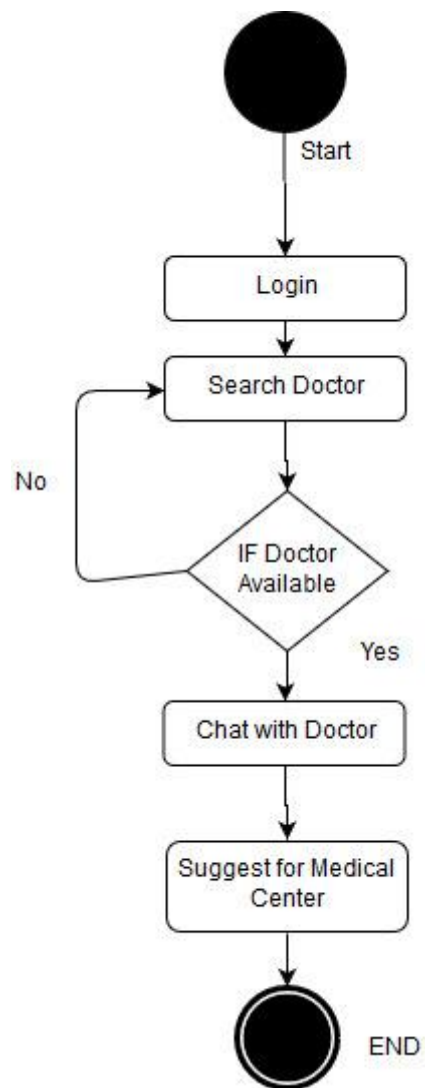


Figure 3.11: Suggestion of Medical Center

3.3.10 Primary disease treatment help

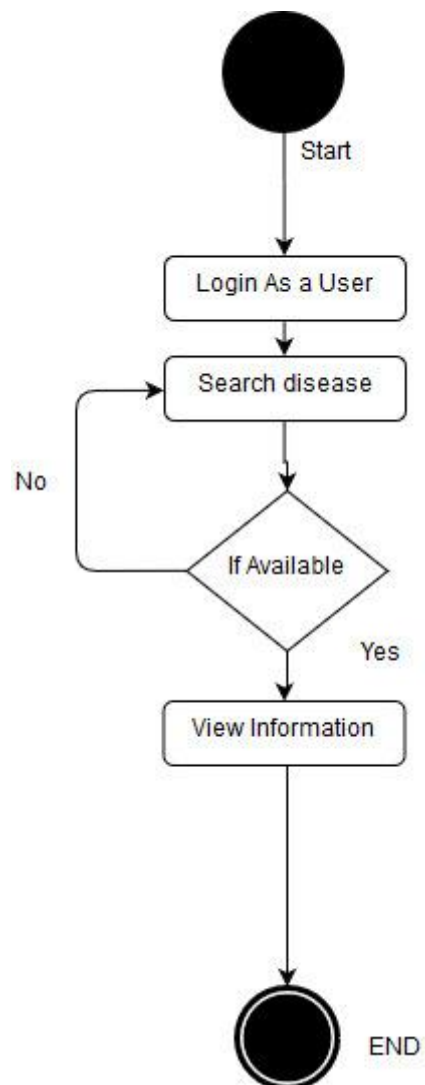


Figure 3.12: Primary Disease Treatment help

3.4 Sequence Diagram

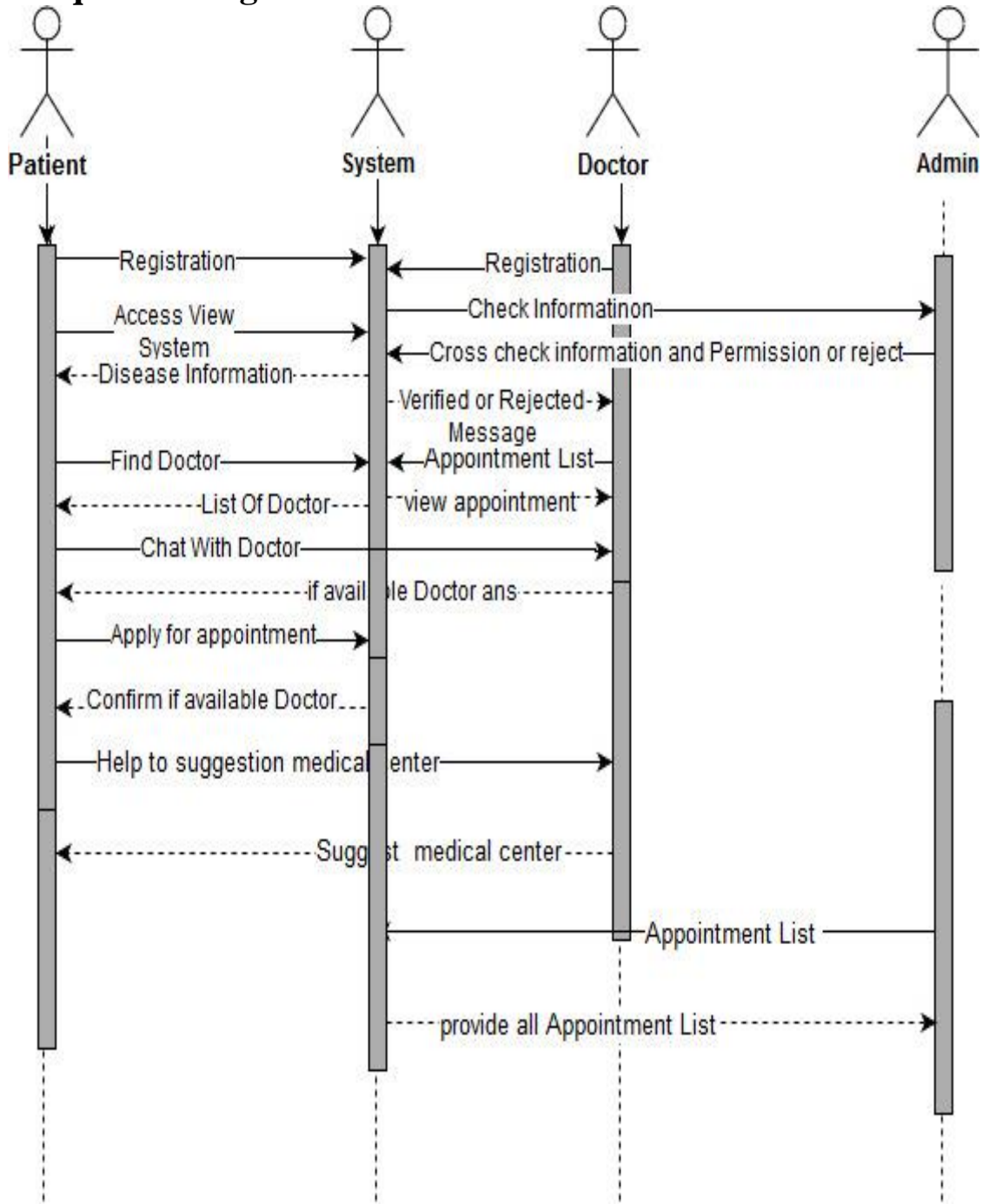


Figure 3.13: Sequence Diagram

3.4.2 Sequence diagram of Login

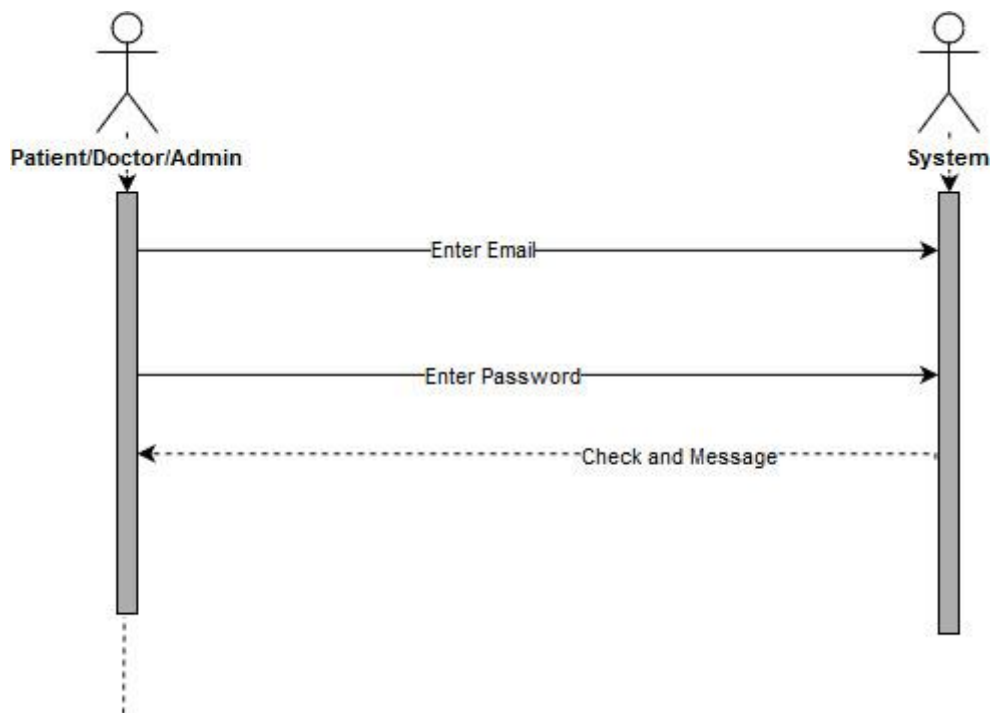


Figure 3.14: Sequence Diagram of Login

3.4.3 Sequence diagram of appointment

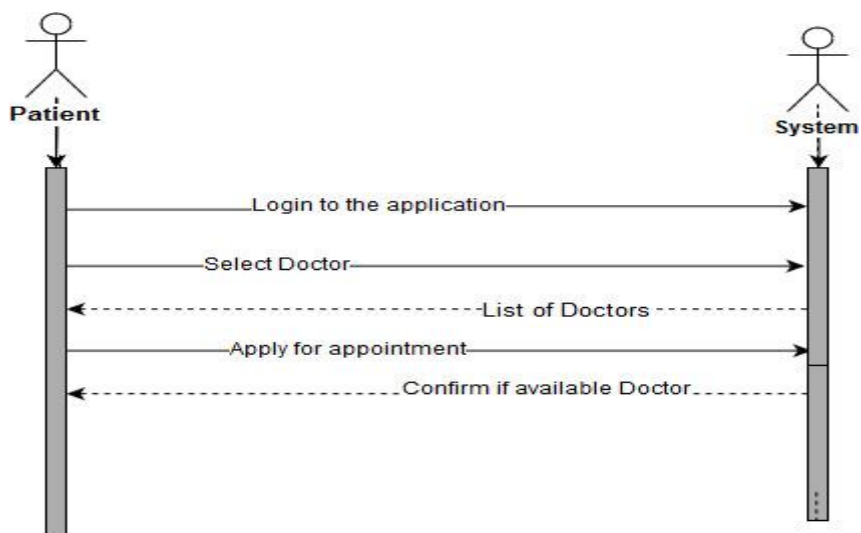


Figure 3.15: Sequence Diagram of Appointment

3.4.4 Sequence diagram of Doctor Add

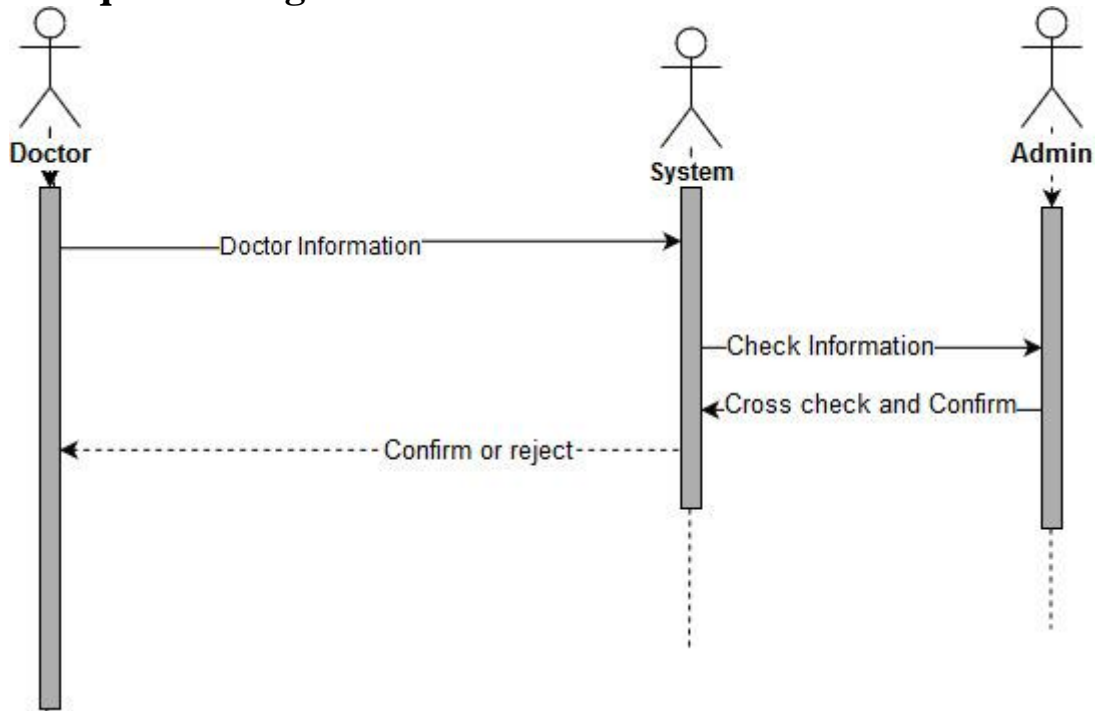


Figure 3.16: Sequence Diagram of Doctor add

3.4.4 Sequence diagram of Report

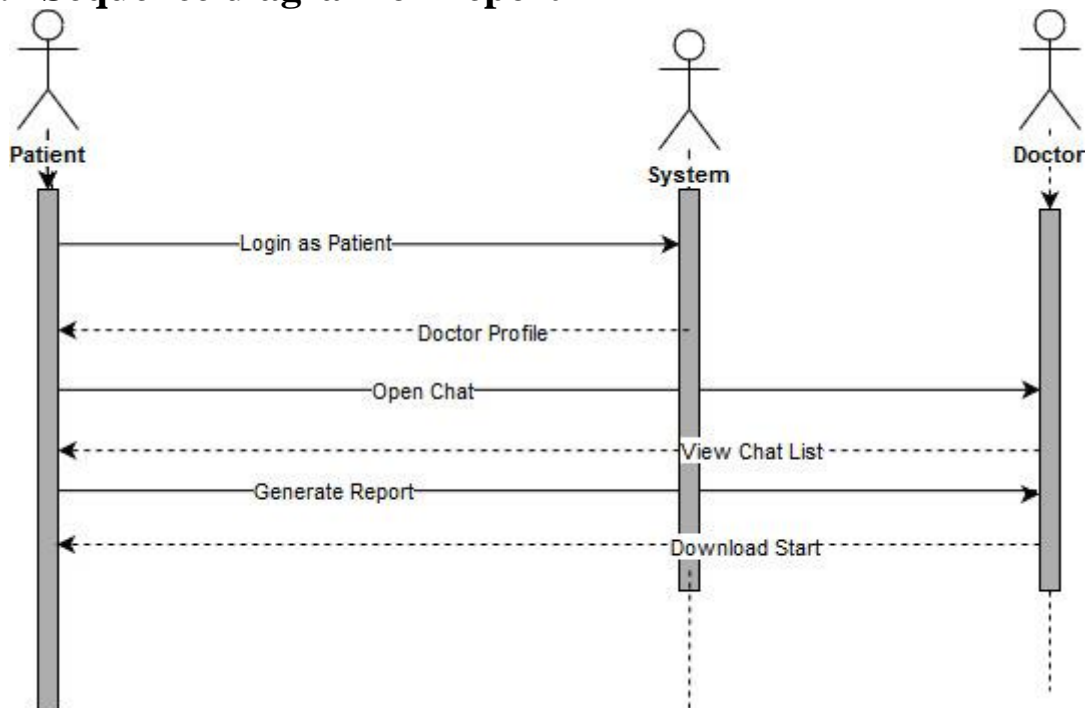


Figure 3.17: Sequence Diagram of Report

3.4.6 Sequence diagram of Suggestion of medical center

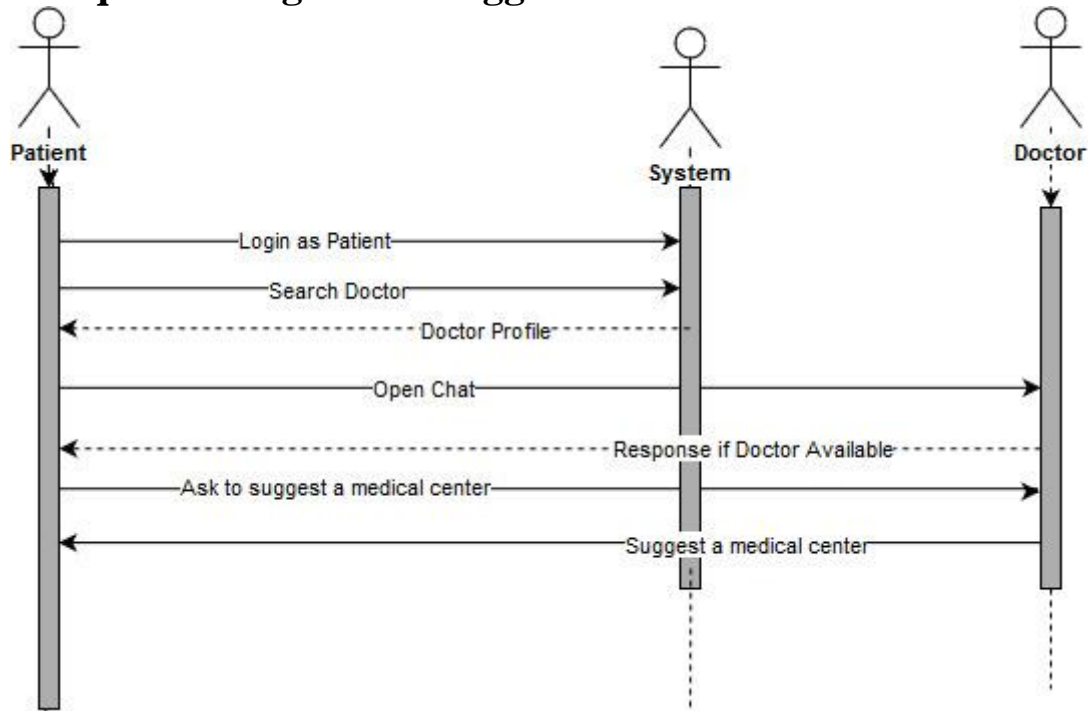


Figure 3.18: Sequence Diagram of Medical center

3.4.7 Sequence diagram of Search Doctor

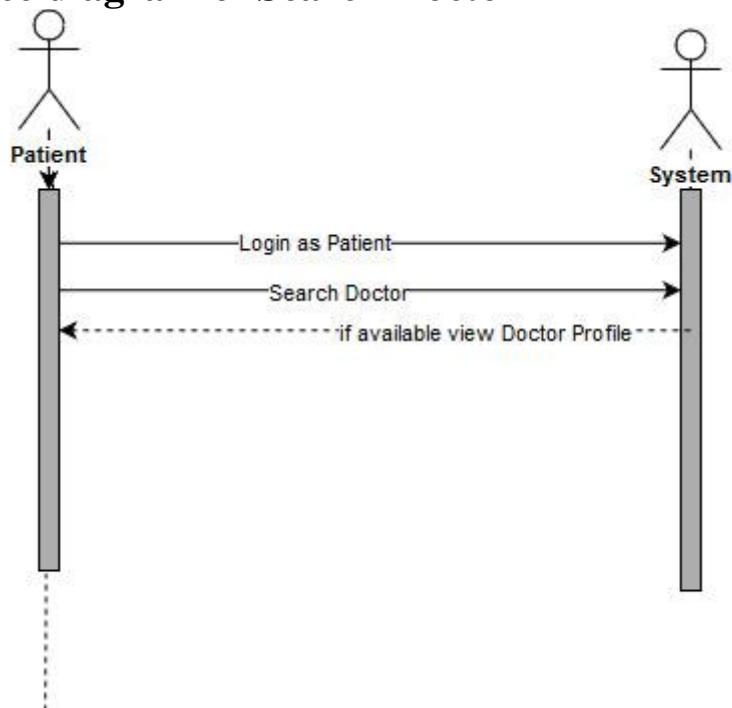


Figure 3.19: Sequence Diagram of Search Doctor

3.4.8 Sequence diagram of Treatment

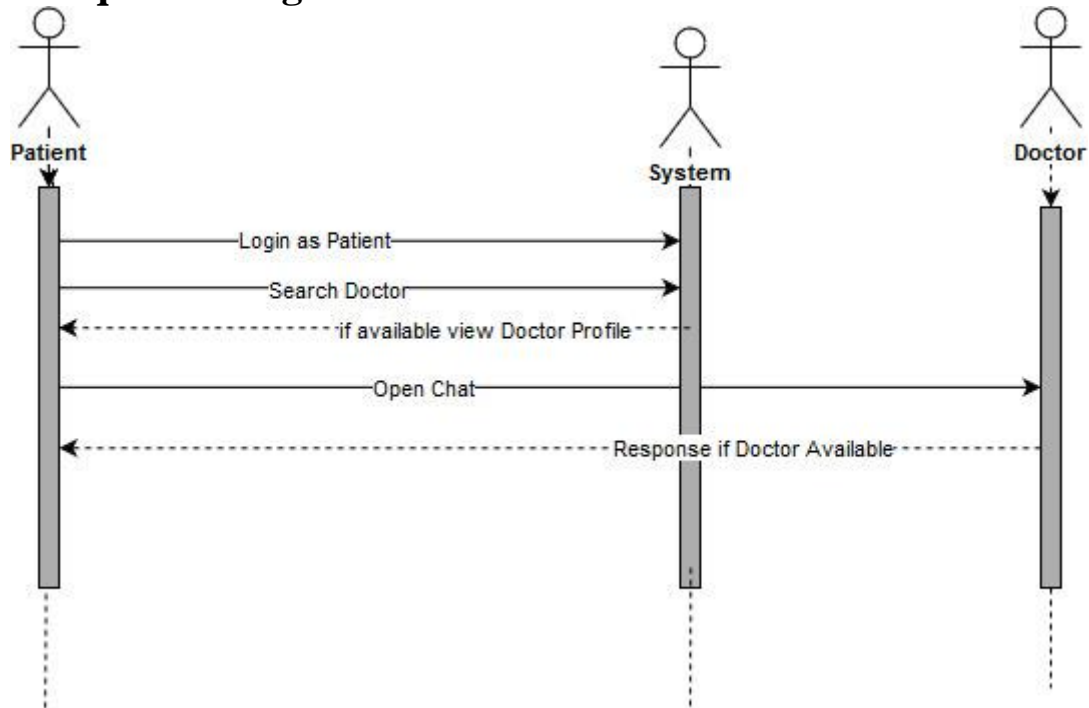


Figure 3.20: Sequence Diagram of Treatment

3.4.8 Sequence diagram of Treatment

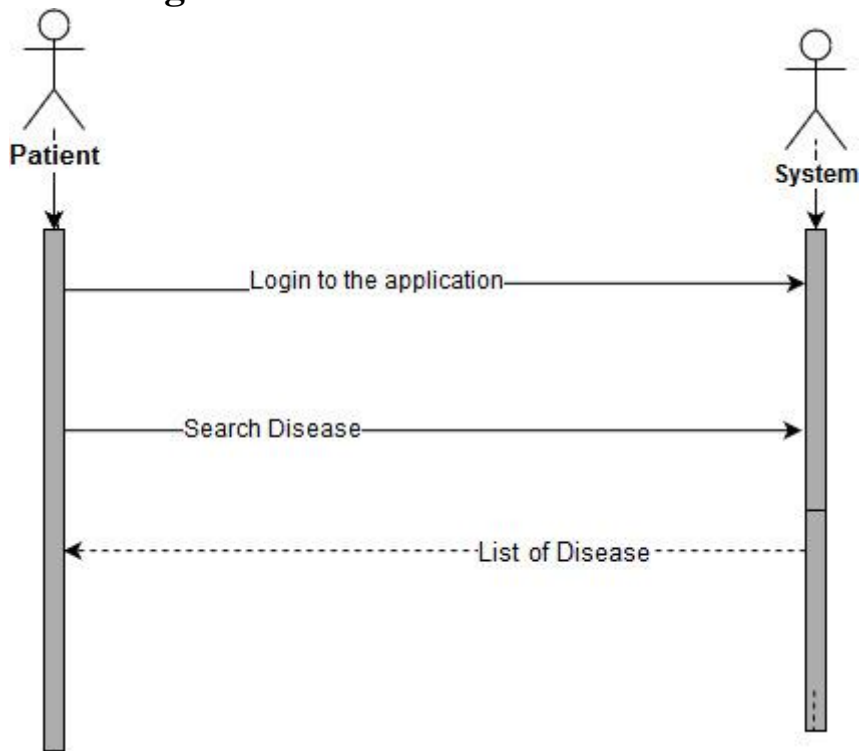


Figure 3.21: Sequence Diagram of Search primary treatment

Chapter 4

Design & Development of Online Medical Support

4.1 Application Interface Design

Websites used to be the only offspring of the World Wide Web, but now they give birth to more and more applications. This new generation does not have the platform constraints or installation requirements, of the former, making web apps quite an attractive option for businesses. Web application interface design is a form of web design, but its focus is on function. These applications offer simple, intuitive interfaces that are user-responsive, which allows users to get things done with less time and effort. To achieve this, below are some points to consider and include in your web application interface design.

4.1.1 Multiple Features

My project is complete solutions handle medical cases. It help to the patients and doctors, so one can keep things organized and get the detailed report of your System while you concentrate on other important things. In this system, the doctor can easily get information about the patient and can give treatment easily. Doctor can easily handle a patient by live chat. Doctor easily see the patient previous cases and give support according to the last treatment.

4.2 Design & Implementation Constraints

Realization of a concept or idea into a configuration, drawing, model, module, pattern, plan or specification (on which the actual or commercial production of an item is based) and which helps achieve the item's designated objective(s).

Implementation constraints control placement and routing. They are not directly useful to XST, and are simply propagated and made available to the implementation tools. The constraints are written in the output NGC file. In addition, the object that an implementation constraint is attached to will be preserved.

4.2.1 Software language of framework

For front-end I use HTML, CSS, Bootstrap, JavaScript. My design looks like a premium template.

And for back-end I use PHP and a PHP framework named CodeIgniter.

- I used CodeIgniter framework for my project.
- It's a server-side language.
- It follows the MVC pattern.

4.2.2 File management

It manages all kinds of files. The files are stored in the database server. My system maintains all of the data classes. The file manager manages all kinds of necessary files.

4.2.3 Data Entry (tools or aggregate backlog data)

For data entry purposes I used some tools. Tools are given below:

- Microsoft Office
- Draw.io
- Workbench

4.3 Development tools And Technology

A programming tool or software development tool is a computer program that software developers use to create, debug, maintain, or otherwise support other programs and applications.

The branch of knowledge that deals with the creation and use of technical means and their interrelation with life, society, and the environment, drawing upon such subjects as industrial arts, engineering, applied science, and pure science.

4.3.1 User Interface Technology

My project is made in Codeigniter framework using HTML, CSS, Bootstrap and JavaScript and all data are stored in the database.

4.3.2 Implementation Tools & Platforms

Recommended server configurations:

- PHP support (Codeigniter)
- MySQL (5.6.20 or later)
- Apache (1.3.2x or later) or Apache 2 (2.0.4x or later)

Other versions or platforms may work but are not supported and may not have been tested. I welcome feedback from users who have successfully run the system on platforms not listed above

4.4 Proposed Software Architecture

A process model is an abstract representation of a software process. Each process model represents a process from a particular perspective, and thus provides only partial information about that process. The proposed software is designed using prototype Model but, allows minimal overlapping between phases. As the proposed system is developed using waterfall model, during the development I moved phases that are following:

4.5 Class Diagram

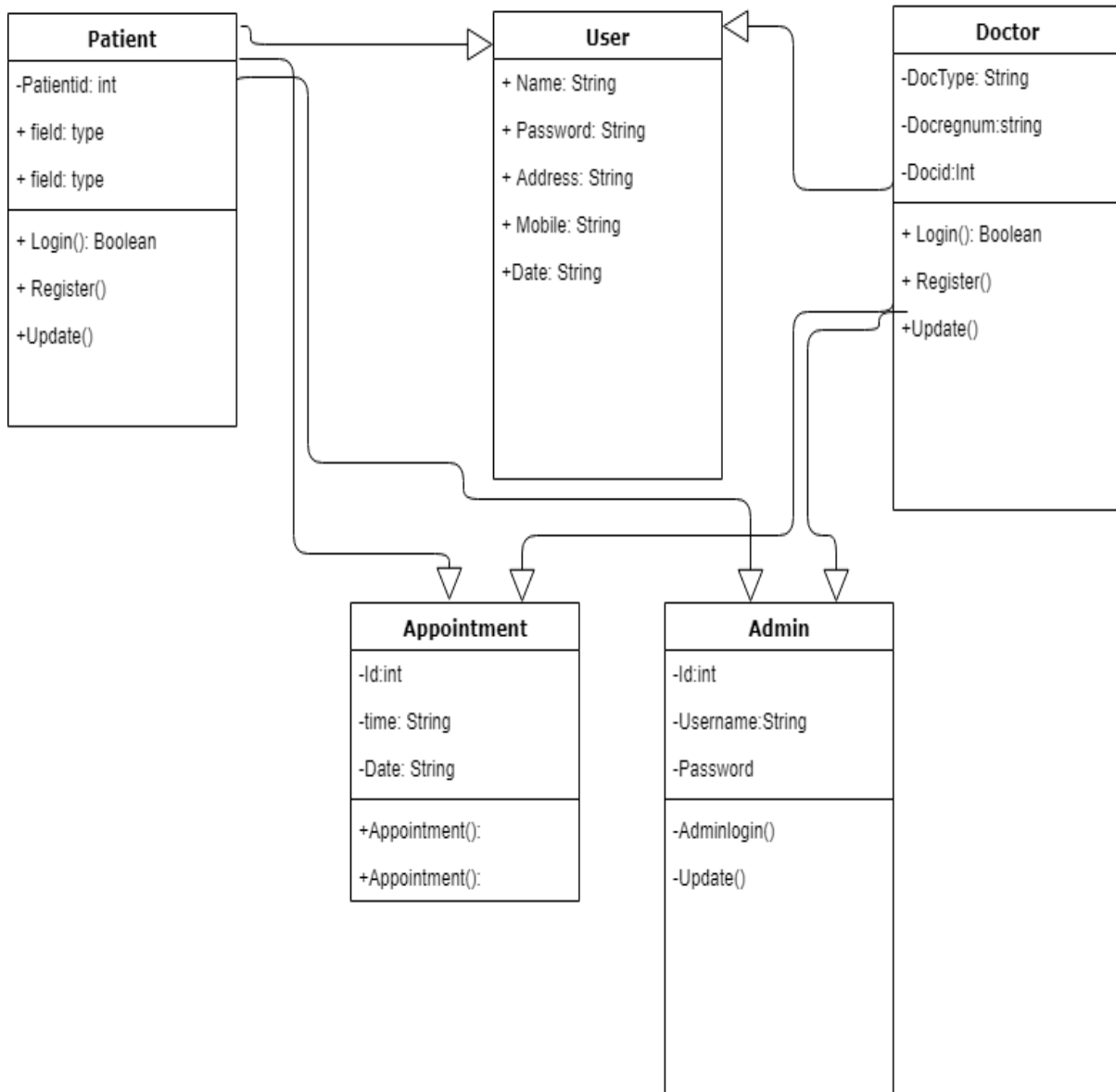


Figure 4.1: Class Diagram

4.6 Database Design Diagram

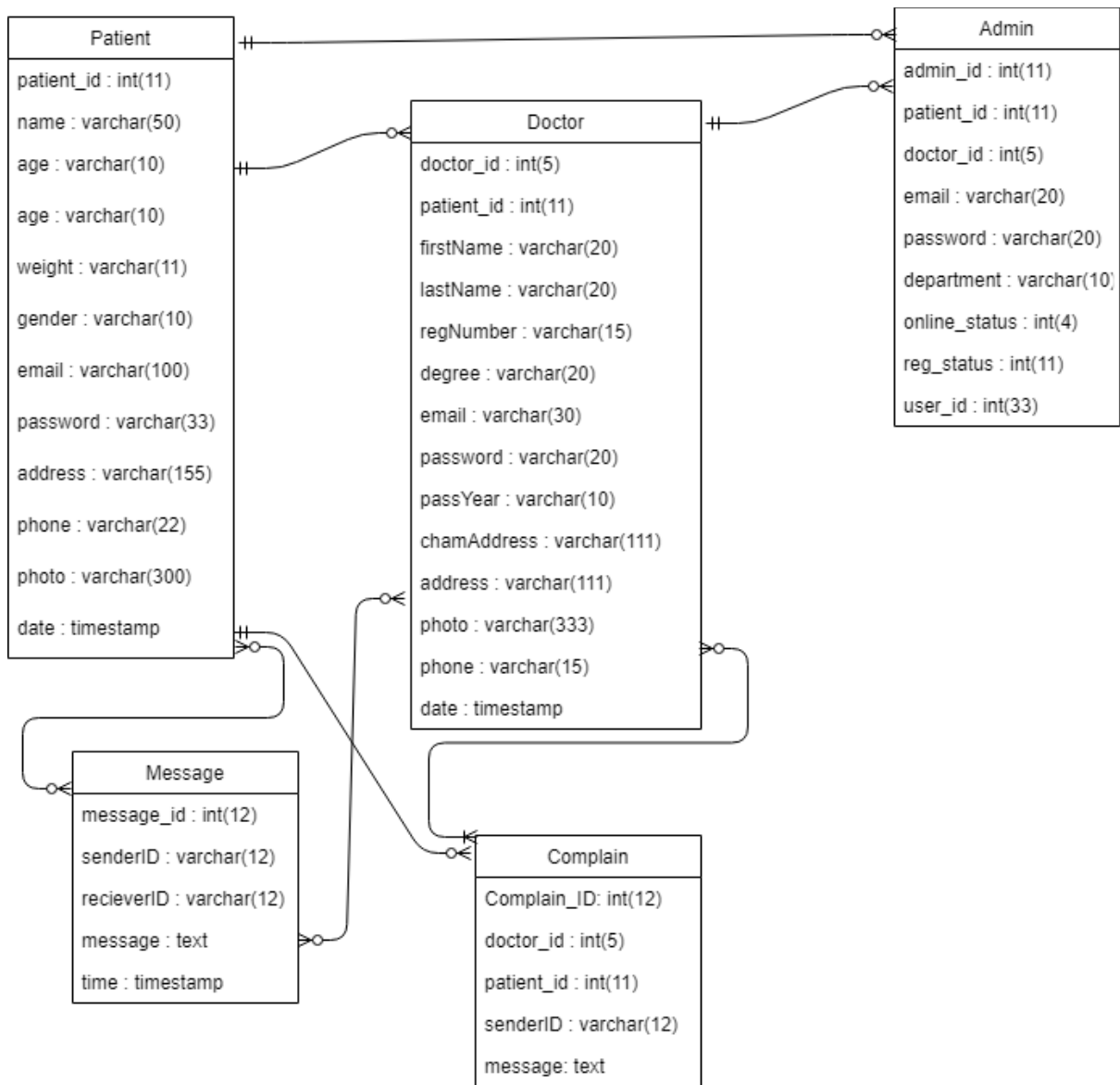


Figure 4.2: Database Design Diagram

Chapter 5

Test Plan of Online Medical Support

5.1 Testing feature

A test plan is a document detailing the objectives, target market, internal beta team, and processes for a specific beta test for a software or hardware product. The plan typically contains a detailed understanding of the eventual work flow.

Feature Testing: Features are changes that add new functionality or modify existing functionality. Functional Testing: Functional Testing is a testing technique that is used to test the functionality of the Software, should cover all the scenarios.

5.1.1 Feature to be tested

The list of the feature to be tested

1. Registration
2. Login
3. Logout
4. Feedback the problem
5. Receive the appointment properly
6. Chat are record in database
7. Treatment record are stored
8. Patient choose the right doctor

5.1.2 The Features not to be tested

All of the features are tested on localhost. No features not are tested.

5.2 Testing Strategies

A test strategy is an outline that describes the testing approach of the software development cycle. It is created to inform project managers, testers, and developers about some key issues of the testing process.

5.2.1 Test approach

A test approach is the test strategy implementation of a project, defines how testing would be carried out. Test approach has two techniques: Proactive – An approach in which the test design process is initiated as early as possible in order to find and fix the defects before the build is created.

Test plan is one of the standard documents that should be produced in most software engineering project. If the project does not have any test plan this means that the software produced is low quality. This may not be acceptable to the user since it will not satisfy their needs. The test plan should be written as soon as you have identified there requirements. The system will be tested with sample data to see how it would handle input and output functions as well as extreme data to see how it would handle input and output as well as extreme data or conditions to determine the system behavior in over loaded situation which will directly show the system that behaves in failure or extreme situations.

- Unit testing
- Module testing
- System testing
- Integration testing

5.3 Testing Environment (hardware/software requirements)

A testing environment is a setup of software and hardware for the testing teams to execute test cases. In other words, it supports test execution with hardware, software and network configured. Test bed or test environment is configured as per the need of the Application under Test.

For test environment, key area to set up includes

- System and applications
- Font end running environment
- Client operation system
- Browser
- Hardware includes Server Operating system
- Network

5.4 Test Case

A test case is a set of conditions or variables under which a tester will determine whether a system under test satisfies requirements or works correctly. The process of developing test cases can also help find problems in the requirements or design of an application.

5.4.1 Test case for Registration

Table 5.1: Test Case for Registration

<u>TCID</u>	TC001
<u>Procedure</u>	1. Enter to the application 2. Click on Registration Button
<u>Test Data</u>	Fill all input filed with right information
<u>Expected</u>	Successfully Registration
<u>Actual</u>	Work successfully
<u>Remarks</u>	Pass

5.4.2 Test case for login

Table 5.2: Test Case for Login

<u>TCID</u>	TC002
<u>Procedure</u>	1. Go to Application 2. Click on Login 3. Fill input field
<u>Test Data</u>	Name : admin Password : admin
<u>Expected</u>	Successfully Login
<u>Actual</u>	Work successfully and Login
<u>Remarks</u>	Pass

5.4.3 Test case for Chat with doctor

Table 5.3: Test Case for Chat with doctor

<u>TCID</u>	TC003
<u>Procedure</u>	1. Enter the application 2. In view page here select doctor and chat start
<u>Test Data</u>	Doctor
<u>Expected</u>	Successfully go to next stage and chat with doctor.
<u>Actual</u>	Work successfully
<u>Remarks</u>	Pass

5.4.4 Test case for Search doctor

Table 5.4: Test Case for Search Doctor

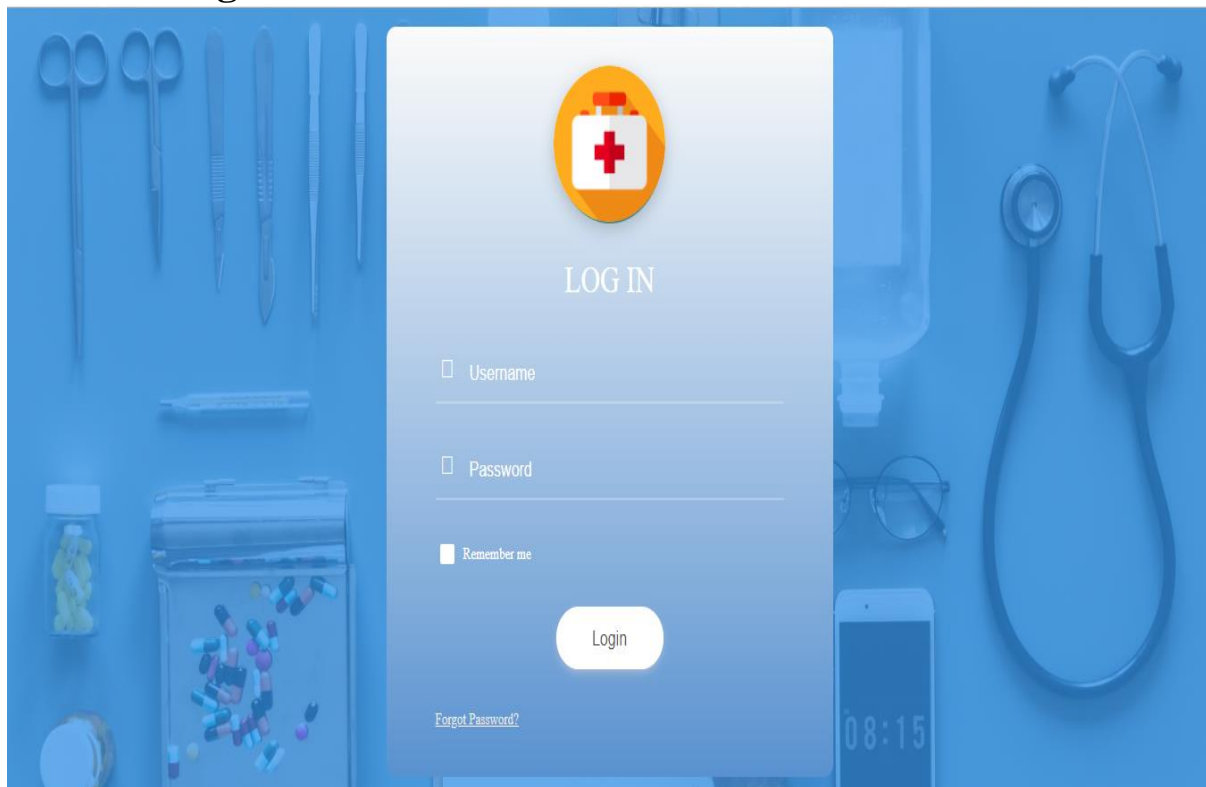
<u>TCID</u>	TC005
<u>Procedure</u>	1. Enter the application 2. Search doctor.
<u>Test Data</u>	Show doctor
<u>Expected</u>	Successfully go to next stage and make an appointment.
<u>Actual</u>	Work successfully
<u>Remarks</u>	Pass

Chapter 6

User Manual of Online Medical Support

A user guide or user's guide, also commonly known as a manual, is a technical communication document intended to give assistance to people using a particular system.

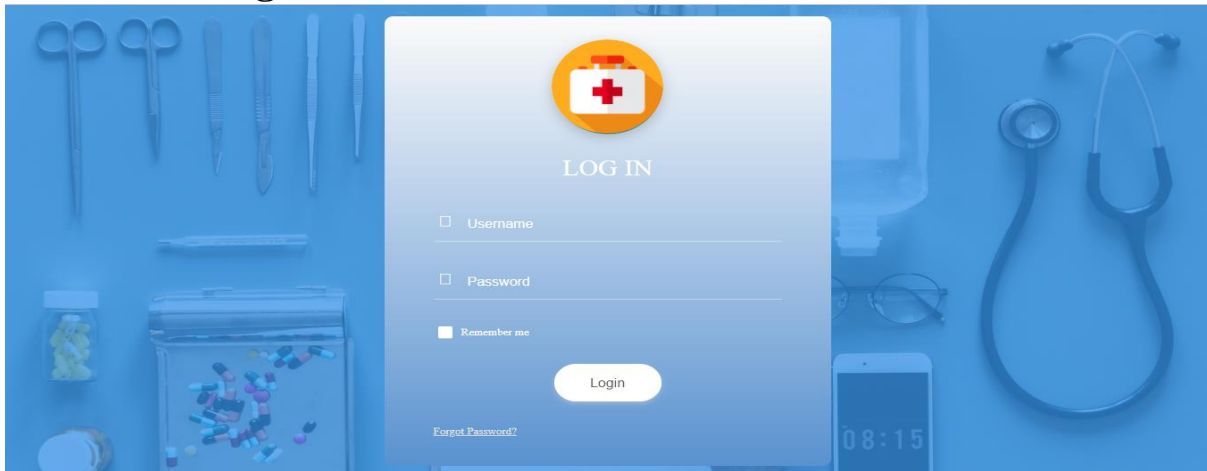
6.1 User Login



To login as a user of my user need to fill all the re required and clicks the “Login” button.

Figure 6.1: User Login

6.2 Admin Login



To login as a user of my system user need to fill all the re required and click the “Login” button.

Figure 6.2: Admin Login

6.3 Register Doctor

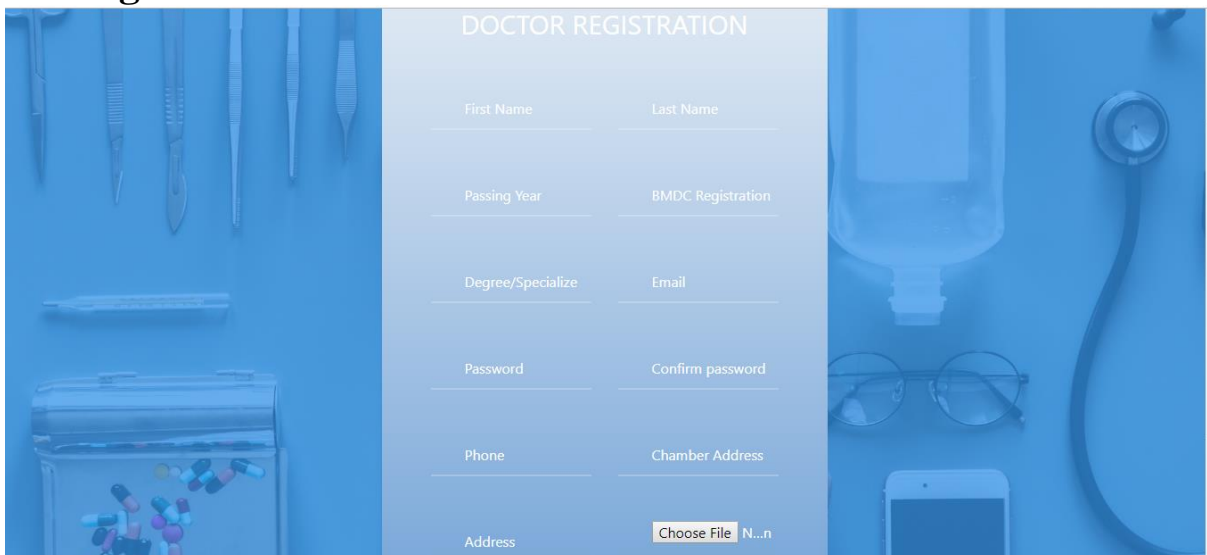
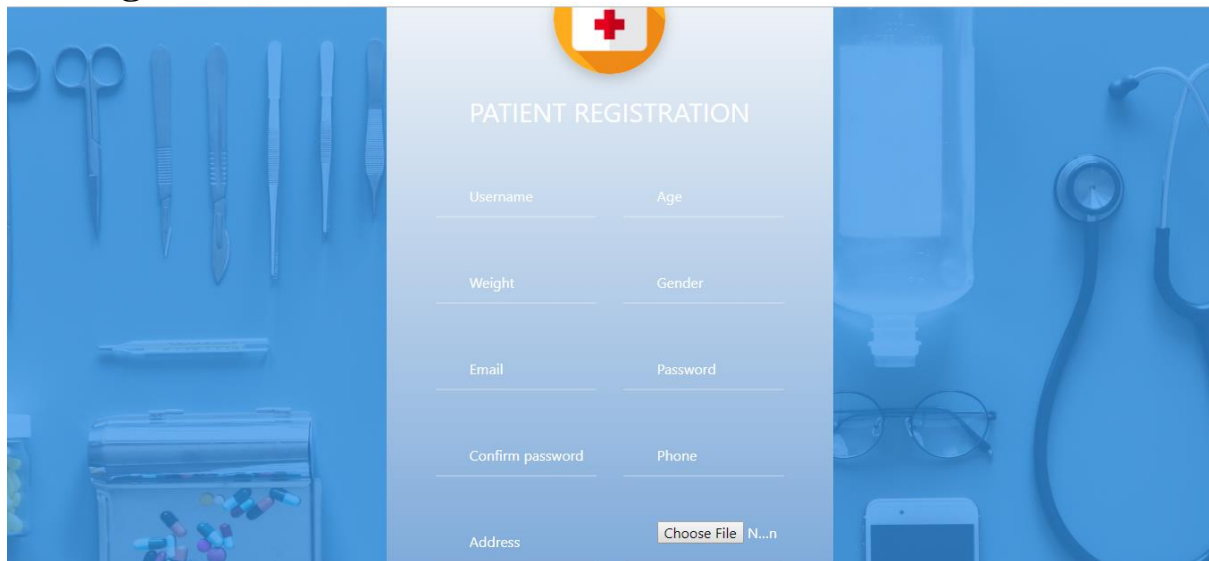


Figure 6.3: Register Doctor

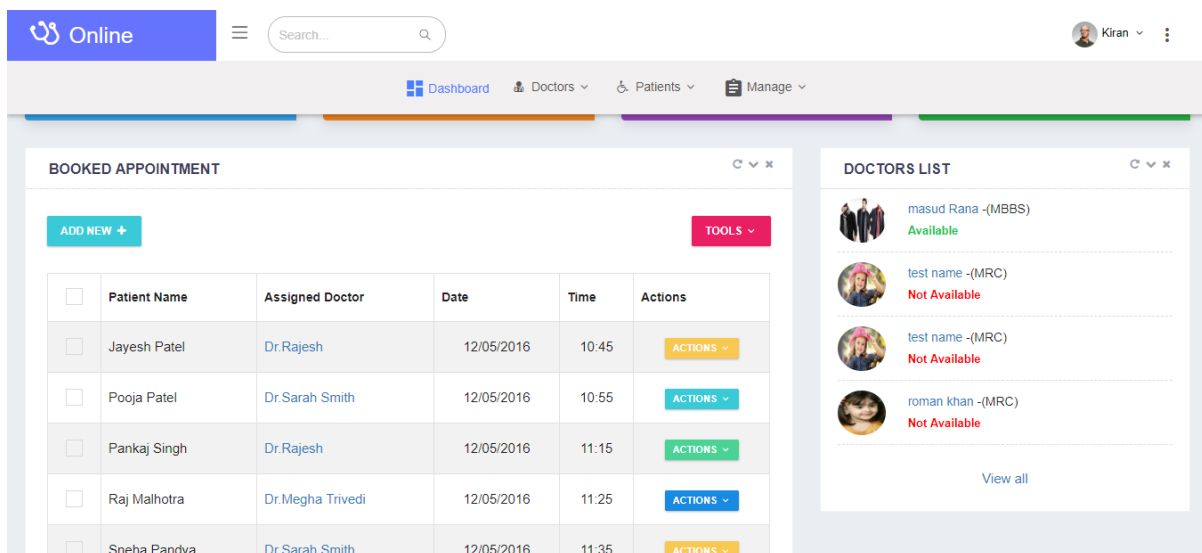
6.4 Register Patient



A patient registration form titled "PATIENT REGISTRATION" with a medical cross icon. The form is set against a blue background with medical equipment. It includes input fields for Username, Age, Weight, Gender, Email, Password, Confirm password, Phone, and Address. There is also a "Choose File" button for profile picture upload.

Figure 6.4: Register Patient

6.5 Doctor and patient details



A dashboard interface showing "BOOKED APPOINTMENT" and "DOCTORS LIST". The appointment table lists patient names, assigned doctors, dates, and times. The doctors list shows names and availability status.

<input type="checkbox"/>	Patient Name	Assigned Doctor	Date	Time	Actions
<input type="checkbox"/>	Jayesh Patel	Dr.Rajesh	12/05/2016	10:45	ACTIONS
<input type="checkbox"/>	Pooja Patel	Dr.Sarah Smith	12/05/2016	10:55	ACTIONS
<input type="checkbox"/>	Pankaj Singh	Dr.Rajesh	12/05/2016	11:15	ACTIONS
<input type="checkbox"/>	Raj Malhotra	Dr.Megha Trivedi	12/05/2016	11:25	ACTIONS
<input type="checkbox"/>	Sneha Pandya	Dr.Sarah Smith	12/05/2016	11:35	ACTIONS

Profile	Name	Qualification	Status
	masud Rana	-(MBBS)	Available
	test name	-(MRC)	Not Available
	test name	-(MRC)	Not Available
	roman khan	-(MRC)	Not Available

Figure 6.5: Doctor and patient details

6.6 View chat in database

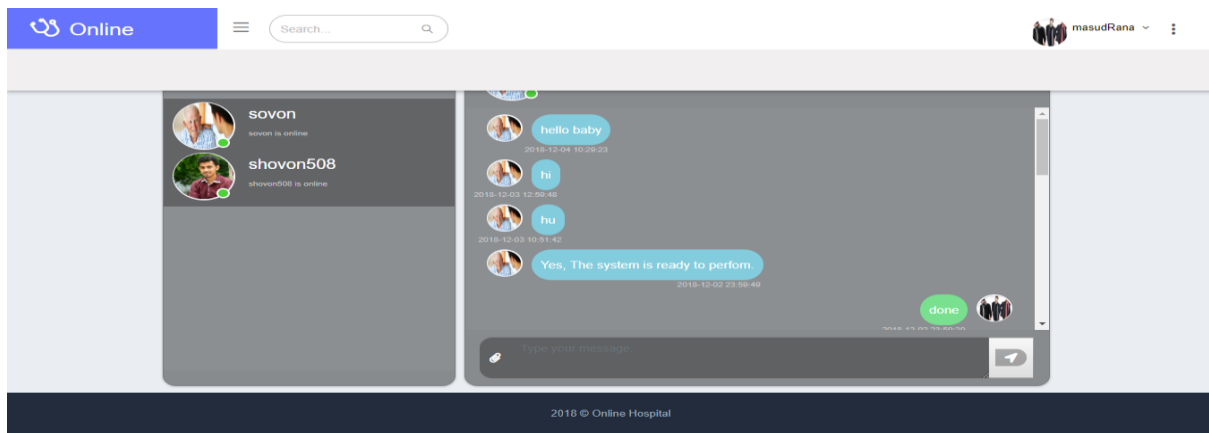


Figure 6.6: View chat in database

6.6 Doctor Search

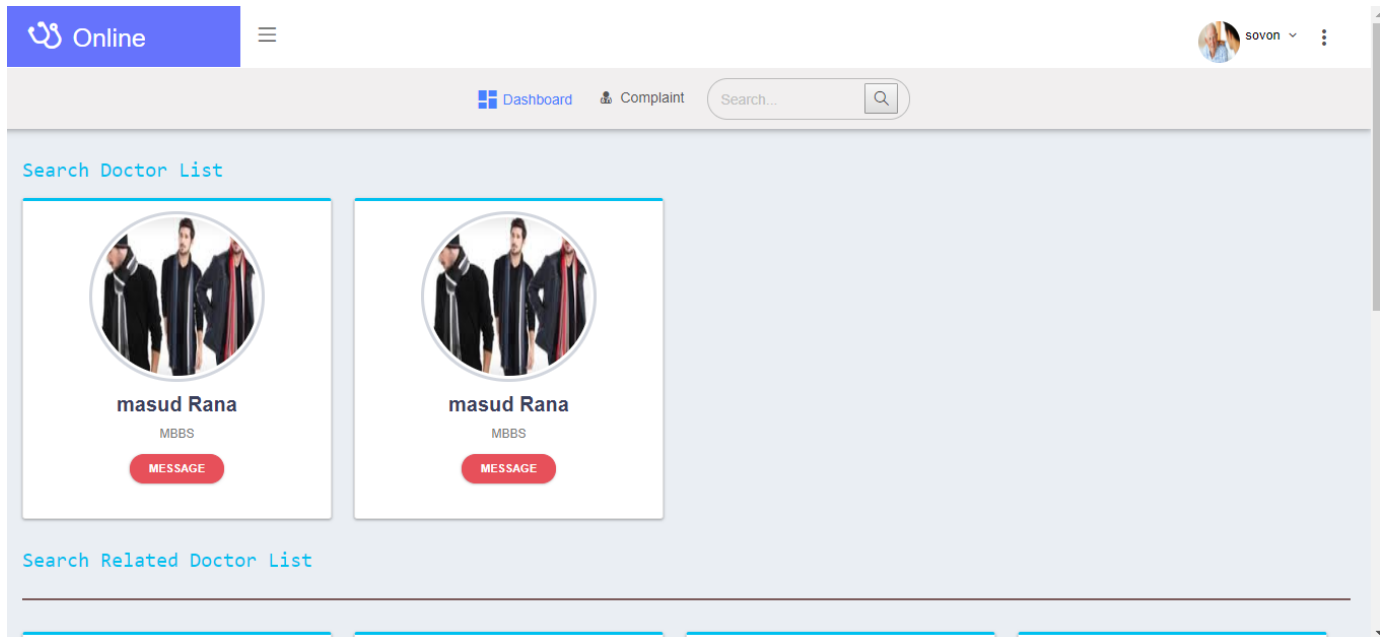


Figure 6.6: Doctor Search

Chapter 7

Final Synopsis of Online Medical Support

7.1 Critical evolution and team attainment

My project is ready to use. If I can make a publicity of this project then I can get more benefit. I can make a better solution. I also tried to prevent some unexpected problem in this system. I always try to do something for my country people who are not able to go far for treatment. This is the actual reason of my project. Though I am not so much skillful but I tried my best.

7.2 Limitations

There is some Limitation also here like live chat sometimes not appropriate for the doctor and patient. For this, they need to meet one with other. In this situation I will try to make video call for both. An extra documentation of prescription will help to make proper treatment. I will also try to add the function in later.

7.3 Obstacles & Achievements

For this project development I faced some obstacles.

1. Lack of agreement on initial goals and objectives
2. Lack of stakeholder support or understanding
3. Lack of required resources
4. Unclear project definition or expectations
5. Lack of use of final outcome
6. Personality conflicts
7. Inadequate controls and monitoring

I also gained achievement throughout the project.

1. Learned how to make a project properly
2. Learned how to deal pressure situation
3. Manage big amount of pressure
4. Manage Personal conflicts
5. Manage own skill

7.4 Future scope

Here the future scope is huge. Patient and doctor database help to find them easily. It will more flexible to use in future.

GLOSSARY

Term	Definition
Database	I used car data from government BMDC registration office for doctor.
Field	Any cell
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 kind of people who use this system.
User	Doctor, patient and admin

References

I. Software language or Framework; PHP Coding Guidelines & Best Practices. Available: <https://flowframework.readthedocs.io/en/stable/TheDefinitiveGuide/PartV/CodingGuidelines/PHP.html> [Accessed: September 15 2018]

II. Identifying Stakeholders; Quora. Available: <https://www.quora.com/Who-are-stakeholders/> [Accessed: September 15 2018]

III. Test approach; tutorialspoint. Available: https://www.tutorialspoint.com/software_testing_dictionary/test_approach.htm [Accessed: September 15 2018]

IV. Testing Environment (hardware/software requirements); Guru99. Available: <https://www.guru99.com/test-environment-software-testing.html> [Accessed: September 15 2018]

V. Assumption and Dependencies; Inloox. Available: <https://www.inloox.com/company/blog/articles/a-guide-to-dependencies-constraints-and-assumptions-part-3-project-assumptions/> [Accessed: September 15 2018]