



Covid Medi Care(CMC)

Submitted By:

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A project has been submitted in partial fulfillment of the requirement for the degree of Bachelor of Science in Software Engineering

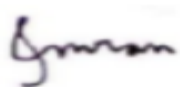
Department of Software Engineering

Daffodil International University

APPROVAL

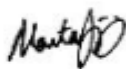
This Project titled on “Covid Medi Care”, submitted by Jakia Sultana (ID: 171-35-1967) to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the wants for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents.

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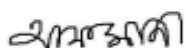
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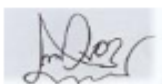
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DECLARATION

It hereby announces that this project has been finished by me under the supervision of **Ms. Mahmuda Rawnak Jahan, Lecturer**, Department of Software Engineering, Daffodil International University. It is also announced that neither this work nor any piece of this has been submitted somewhere else for grant of any degree by me.

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Chapter 1: Introduction

1.1 Project Overview

In this web application's patient can get better treatment from doctor by staying their home and doctor can prescribed patient by their health query, patient can meet with their expecting doctor by meet link. patient can also donate plasma and get plasma easily . Admin also manage patient/doctor information, manage plasma, add plasma donar, edit donar list etc.

1.2 Project Purpose

1.2.1 Background

In this pandemic year patient of Covid-19 suffering from get admitted into hospital and do not get proper treatment. People of our country face this problem mostly because our hospital management system is not so good. In this time, I realized that I wanted to develop a web application and this application will provide us some features and functions for users as patient and doctor. Patient could choose their doctor and get free appointment also get plasma and donate plasma. Other side the features and functions are managed by an admin. Admin could manage user, manage plasma, manage donate and collect plasma etc.

1.2.2 Benefits of this project

This system will provide full facilities for internet users who wants to get treatment by staying home and maintain their safety. "Covid Medi Care" system benefits are given below:

- This system can save our time.
- User can choose their doctor.
- User get free appointment .
- User can collect plasma.
- User can also donate plasma.

1.2.3 Goal

Time and security is a valuable thing for us all. Whenever life is lost, it is not. So in this situation we should focus on our safety first.

The goal of this system is to allow the user to easily get treatment also get plasma by remaining at home . This will help to save their life and the user can easily get treatment and plasma.

In this pandemic situation of Covid-19 all over the world is suffer this virus. So this will help to all to get safe treatment and maintain the distance from others by staying home safely.

1.3 Stakeholders

Admin: Admin has all the right to manage the “Covid Medi care”. For this admin must be log in with a valid username and password. Then admin can view user’s (Patient and Doctor) information. Admin can managed plasma, collect plasma, donate plasma and manage whole web site activities.

Patient: Patient can view doctor profile. Patient can get free appointment by any doctor. patient get prescription and get over the problem. Patient can also donate plasma when they get over Covid-19 also can collect plasma from others. Patient cannot find details of plasma before registration and login.

Doctor: Doctor can view patient profile. Doctor can also view plasma list and donate or collect plasma but doctor cannot find in details of plasma before registration and login.

1.4 Project Schedule

1.4.1 Gantt Chart

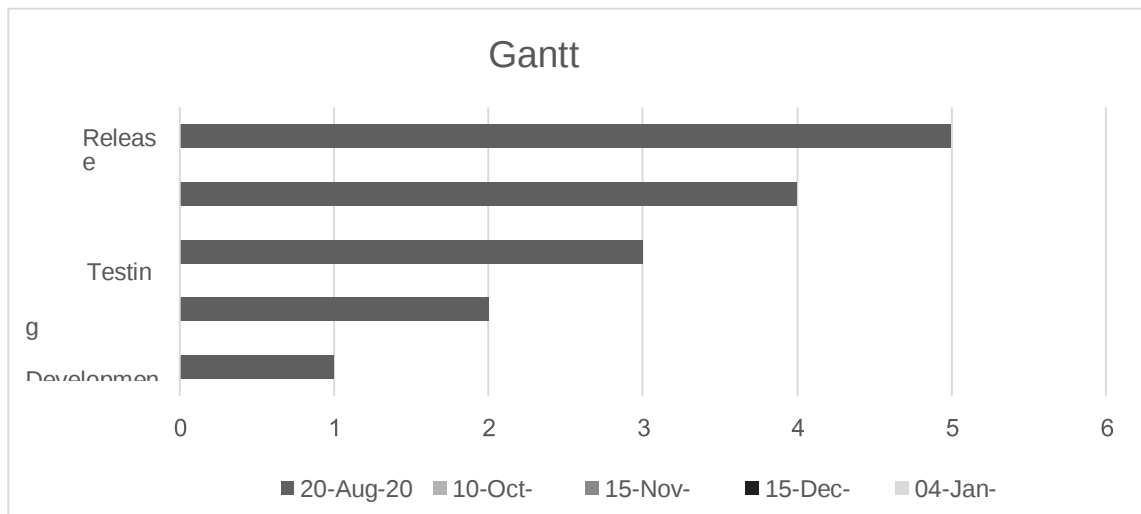


Figure: 1

1.4.2 Release Plan/Milestone

Task No	Task Name	Time
1	Requirement analysis	3 week
2	Project proposal	3 week
3	Database design	2 week
4	User interface design	3 week
5	Implementation	3 week
6	Testing	3week
7	Evaluating the project	3week

Table: 1

Chapter 2: Software Requirement Specification

2.1 Functional Requirements

FR-01	Patient Registration
Description	Without register patient do not able to see this website. To view doctor and get free treatment, collect or donate plasma patient must need to register in this system. This module will help the patient to register in this system.
Stakeholders	Patient

Table: 2

FR-02	Doctor Registration
Description	Without register doctor do not able to see this website. To view appointments, collect or donate plasma doctor must need to register in this system. This module will help the doctor to register in this system.
Stakeholders	Doctor

Table: 3

FR-03	Edit Profile
Description	After login to system user must be edit their profile. Update their name, address, phone, gender, blood group in to the system. User and admin can view the details of doctor and patient. This module will help the user to get details in this system.
Stakeholders	Patient, Doctor, Admin

Table: 4

FR-04	View Doctor
Description	After login to the system patient can view all doctor details in their home page and get free appointment from the doctor by submitting the appointment letter.
Stakeholders	Patient

Table: 5

FR-05	Change Password
Description	After registration if user want to change their password they can update their password. They must submit their previous password and create new password. This module will help the user to change password in this system.
Stakeholders	Patient, Doctor, Admin

Table: 6

FR-06	Donate Plasma
Description	After login to the system patient who are getting health status covid negative by doctor they can donate plasma by submitting donate letter.
Stakeholders	Patient

Table: 7

FR-07	Collect Plasma
Description	After login to the system patient and doctor can collect plasma from others if they needed. For collecting plasma they need to submit collect plasma letter.
Stakeholders	Patient, Doctor

Table: 8

FR-08	Manage Plasma
Description	Admin will get the notification and view all plasma request. He/she can view all details of who want to donate or collect plasma and send request to admin. He/she will view their details and accept or reject their request.
Stakeholders	Admin

Table: 9

FR-09	Appointments
Description	Doctor will get notification of appointments. When doctor view the appointments he/she will see the problem of a patient and give the prescription. And also set the meet link and time for giving better treatment.
Stakeholders	Doctor

Table: 10

2.2 Nonfunctional Requirements

NFR-01	Privacy Policy
Description	Application should be secure so that no one can access users private information.
Stakeholders	Users

Table: 11

NFR-02	User Friendly
Description	Simple and easy interface because of users that they can easily browse the system.
Stakeholders	Users

Table: 12

2.3 Performance Requirements

It's vital to take care of the performance of the project. To ensure a good performance, this project have to meet some requirements which will ensure a good performance.

2.3.1 Speed and Latency Requirements

PR-01	Page Refresh Rate
Description	While the doctors and patients browsing this system the page will show within a moment. It also depends on doctors and patients internet connection.
Stakeholders	Doctors, Patients

Table: 13

2.3.2 Precision or Accuracy Requirements

There is nothing specific accuracy requirements.

2.3.3 Capacity Requirements

This system is able to manage all the information of doctors, patients and application.

PR-02	At first the system will contain all the registered patient and doctor information
Description	The information of registered doctor and patient will be stored in database.
Stakeholders	Patient, Doctor

Table: 14

2.4 Dependability Requirements

2.4.1. Reliability Requirements

1. Admin, patient and doctor should be login to the system using his/her valid email and password.
2. Admin can easily update plasma request.
3. Patient and doctor can view their appointments.

2.4.2 Availability Requirements

DR-01	Must be available the system at 24x7
Description	• Must be available the system at 24 hours in a day. • Must be updated the system regularly. • Need to know command for run properly and easily.
Stakeholders	Patient, Doctor, System Developer

Table: 15

2.4.3 Robustness And Fault Tolerance Requirements

DR-02	The system manages over access.
Description	Sometimes multiple users can over access to this system. The system can handle multiple user access. The system has almost ensured 0% crush.
Stakeholders	N/A

Table: 16

2.5 Maintainability and Supportability Requirements

2.5.1 Maintenance Requirements

MS-01	The system can support to browse this site in any time.
Description	• Patient can access the site and view doctors and get appointments any time. • Doctor can view appointments of patients and prescribe the patient through this system.
Stakeholders	Doctor, Patient

Table: 17

2.5.2 Supportability Requirements

MS-02	The system maintenance should be quick.
Description	System helps to update the accounts information and member info at any time.
Stakeholders	N/A

Table: 18

2.5.3 Adaptability Requirements

No visible adaptability requirements.

2.6 Security Requirements

This system has some security requirements. Like-

- Username/Password
- Validation
- Authentication

2.6.1 Access Requirements

SR-01	This system gives security policy.
Description	Without register patient and doctor in this system he/she will be not able to access the website. This mechanism provides security services.
Stakeholders	Doctor, Patient

Table: 19

2.6.2 Integrity Requirements

To protect credentials of user from being stolen, all password share stored in encrypted form.

The Requirements significantly reduces the value of stolen user credentials, it's not easy to decrypt the password.

2.6.3 Privacy Requirements

SR-02	All data will be protected
Description	All data are protected. All data are stored in database using encrypted form. It's not easy to decrypt.
Stakeholders	Doctor, Patient

Table: 20

2.7 Look and Feel Requirements

2.7.1 Appearance Requirement

1. The user interface must be attractive.
2. The user interface must be user friendly.
3. The user interface must be user interactive.

2.8 Usability and Human Integrity Requirements

2.8.1 Ease of Use Requirements

This system is very easy for use and also understandable.

2.8.2 Understand-ability and Politeness Requirements

This system is very easy for understand and also usable.

Chapter 3: System Analysis

3.1 Use Case Diagram

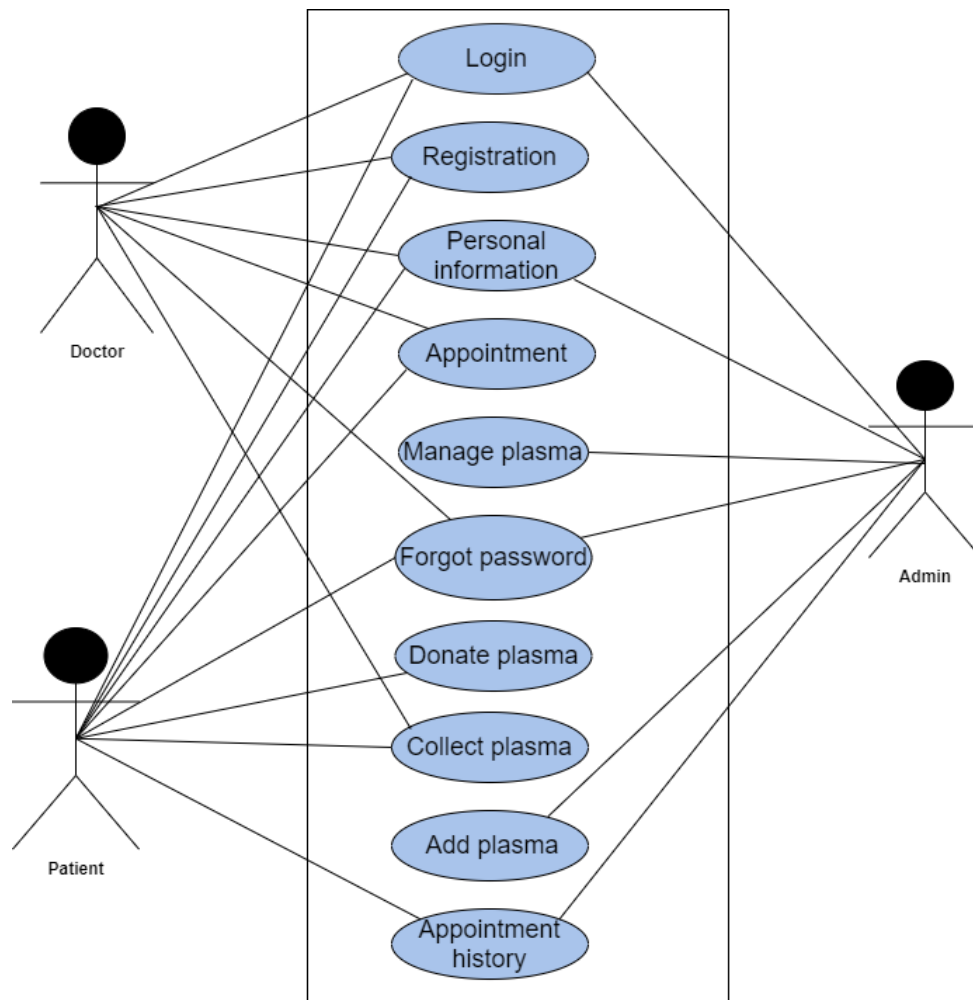


Figure: 2 (Use Case diagram for Covid Medi Care)

3.2 Use Case Description (for each usecase)

Use case description for Registration

Use Case Name: Register to system.

Actor: Patient, Doctor

Pre-condition: None

Primary Path:

- Enter name.
- Enter password.
- Enter Email.

Exceptional Path:

- Name field is empty. Go to step 1 and give a name.
- Password field is empty. Go to step 2 and give a password.
- Email field is empty go to step 3 and give email address.
- Given email is invalid go to step 3 and retype valid email.

Post condition: Successfully create account.

Use case description for Login

Use Case Name: Login to system.

Actor: Admin, Patient, Doctor.

Pre-condition: Registration.

Primary Path:

- Enter username.
- Enter password.
- Submit username and password.

Exceptional Path:

- If email and password invalid then submit a valid email and password.

Post condition: Successfully Login to the system.

Use case description for Personal Information

Use Case Name: personal Information

Actor: Patient, Doctor

Pre-condition: Login and select profile.

Primary Path:

- Select Profile.
- Enter Name.
- Enter Age.

- Enter Address.
- Enter Phone number.
- Enter Gender.
- Enter Blood group
- Submit.

Exceptional Path:

- Name field is empty. Go to step 1 and enter the name
- Age field is empty. Go to step 2 and enter the age.
- Address field is empty. Go to step 3 and enter the address.
- Phone number field is empty. Go to step 4 and enter the phone number.
- Gender field is empty. Go to step 5 and enter the gender
- Blood group field is empty. Go to step 6 enter blood group.

Post condition: Profile is update.

Use case description for Appointments

Use Case Name: Appointment.

Actor: Patient.

Pre-condition: Login and view doctor.

Primary Path:

- Select view doctor option
- View the doctor details.
- Select free appointment.
- Enter appointment letter.
- Submit appointment.

Exceptional Path:

- Email is invalid. Enter a valid email for login.
- Password is invalid. Enter valid password.
- Appointment letter field is empty. Enter the appointment letter.

Post condition: Appointment submission successful.

Use case description for Plasma

Use Case Name: Manage Plasma.

Actor: Admin.

Pre-condition: Login.

Primary Path:

- Enter email and password for login.
- Select plasma option.
- View plasma request.
- Edit plasma request.

Exceptional Path: None.

Post condition: Successfully manage plasma request.

Use case description for Forgot Password

Use Case Name: Forgot Password.

Actor: Admin, Patient, Doctor.

Pre-condition: Login.

Primary Path:

- Select login option.
- Enter Email
- Enter wrong password.
- Submit.

Exceptional Path:

- If password reset link not found then wait for admin's response.

Post condition: Create new password successfully.

Use case description for Donate Plasma

Use Case Name: Donate Plasma.

Actor: Patient.

Pre-condition: Login.

Primary Path:

- Select plasma option.
- Write donate plasma letter.
- Submit.

Exceptional Path:

- Donate plasma letter field is empty. Enter the donate plasma letter.

Post condition: Donate letter submit successfully.

Use case description for Collect Plasma

Use Case Name: Collect Plasma.

Actor: Patient, Doctor

Pre-condition: Login.

Primary Path:

- Select plasma option.
- Write collect plasma letter.

- Submit.

Exceptional Path:

- Collect plasma letter field is empty. Enter the letter.

Post condition: Collect plasma letter submit successfully.

Use case description for Add Plasma

Use Case Name: Add Plasma.

Actor: Admin

Pre-condition: Login.

Primary Path:

- Select plasma option.
- View plasma request.
- Set status accepted.
- Set time and hospital.
- Submit.

Exceptional Path: None

Post condition: Add plasma successfully.

Use case description for Appointment History

Use Case Name: Appointment History.

Actor: Admin, Patient

Pre-condition: Login.

Primary Path:

- Select profile .
- Select my appointment.
- View appointment history.

Exceptional Path: None.

Post condition: View appointment history successfully.

3.3 Activity Diagram

Login

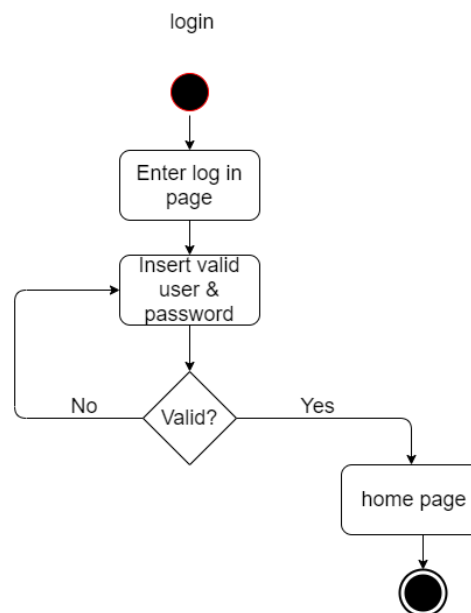


Figure: 3 (Activity Diagram for Login Where patient, doctor & Admin can login with valid information)

Registration

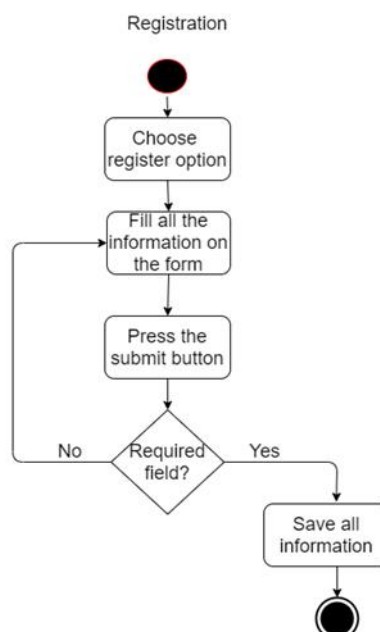


Figure: 4 (Activity Diagram for Registration Where patient & doctor can register with valid information)

Personal Information

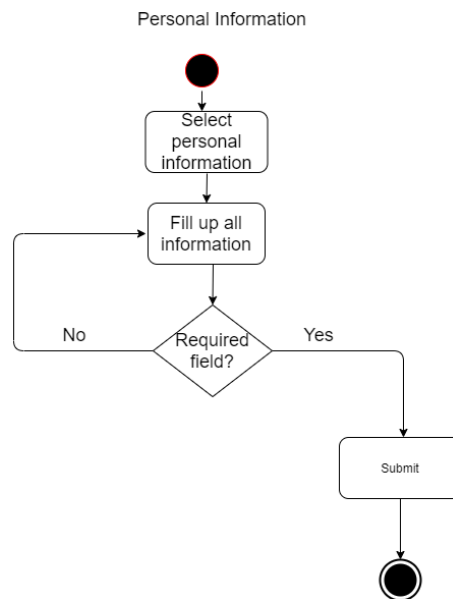


Figure: 5 (Activity Diagram for Personal Information Where patient & doctor can update their all information and Admin can view the information)

Appointment

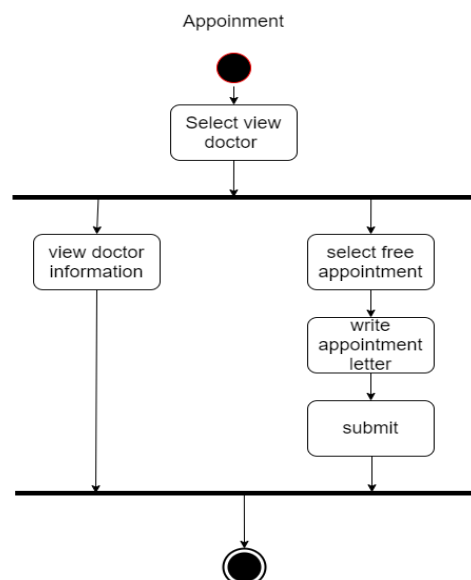


Figure: 6 (Activity Diagram for Appointment Where patient get free appointment from doctor)

Manage Plasma

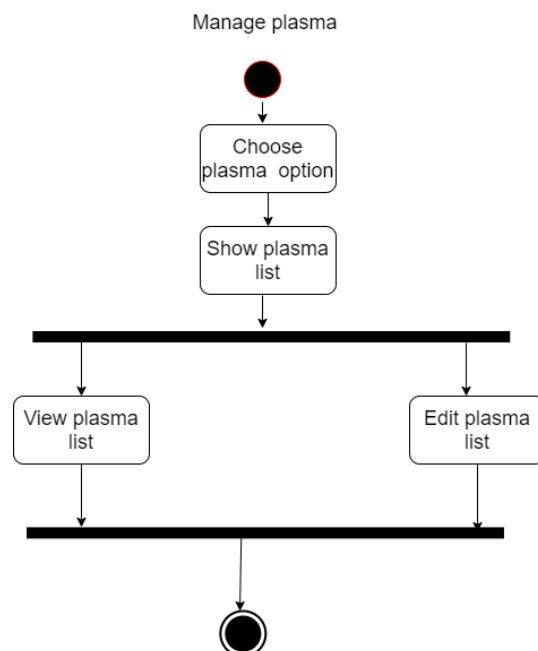


Figure: 7 (Activity Diagram for Manage plasma Where Admin can edit or update plasma)

Forgot Password

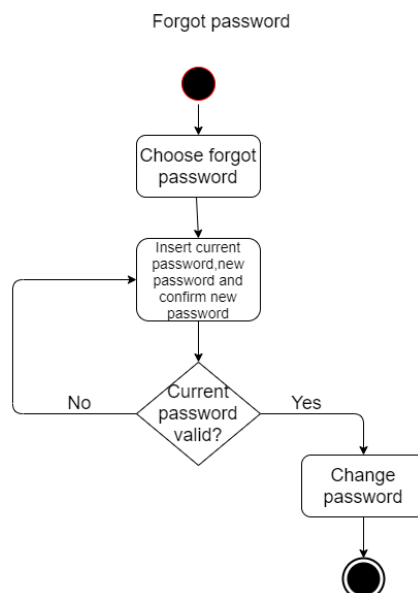


Figure: 8 (Activity Diagram for Forgot password Where patient & doctor can change password)

Donate Plasma

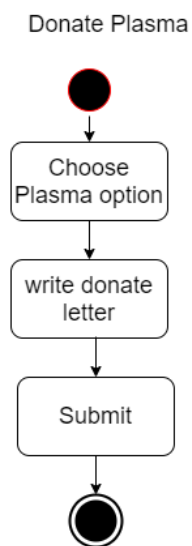


Figure: 9 (Activity Diagram for Donate plasma where patient can donate plasma for covid-19 patient)

Collect Plasma

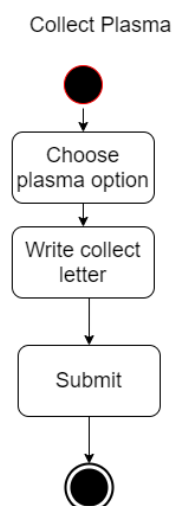


Figure: 10 (Activity Diagram for Collect Plasma where patient & doctor can collect plasma)

Add Plasma

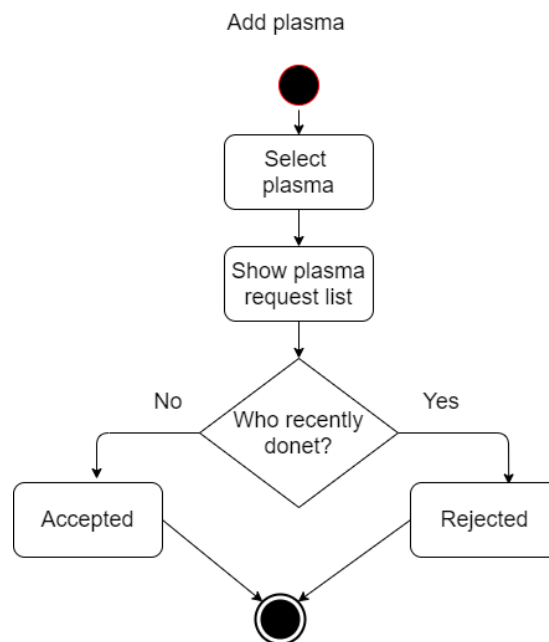


Figure: 11 (Activity Diagram for Add plasma where admin can add plasma donare by view their details)

Appointment History

Appointment History

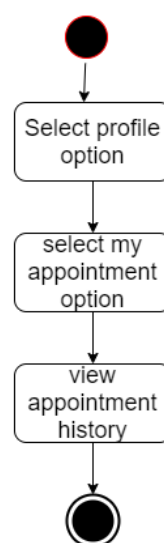


Figure: 12 (Activity Diagram for Appointment history where patient can view their appointment details)

3.4 System Sequence Diagram

Login

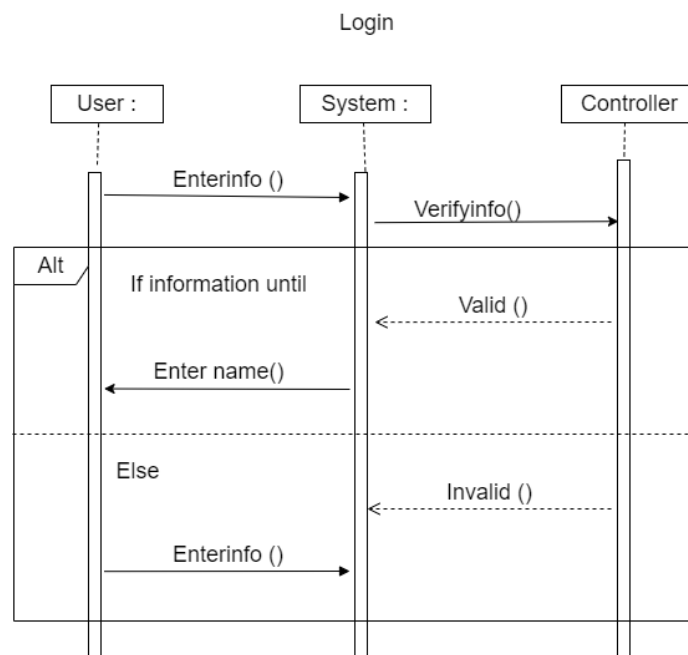


Figure: 13 (Sequence Diagram for login in CMC)

Registration

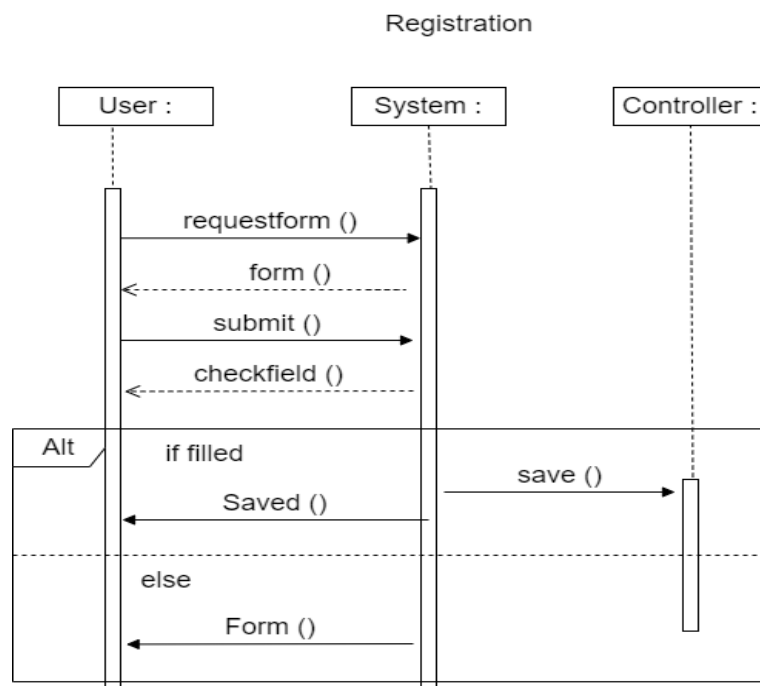


Figure: 14 (Sequence Diagram for Registration in CMC)

Personal Information

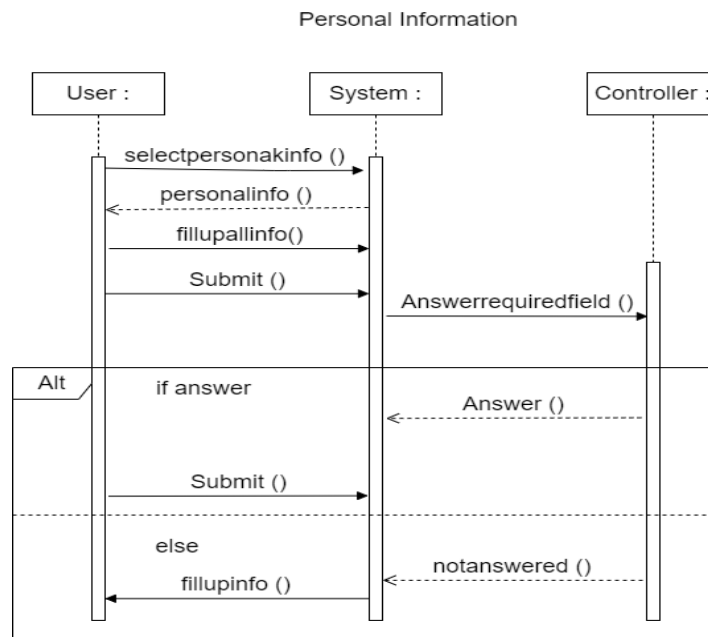


Figure: 15 (Sequence Diagram for Personal Information in CMC)

Appointment

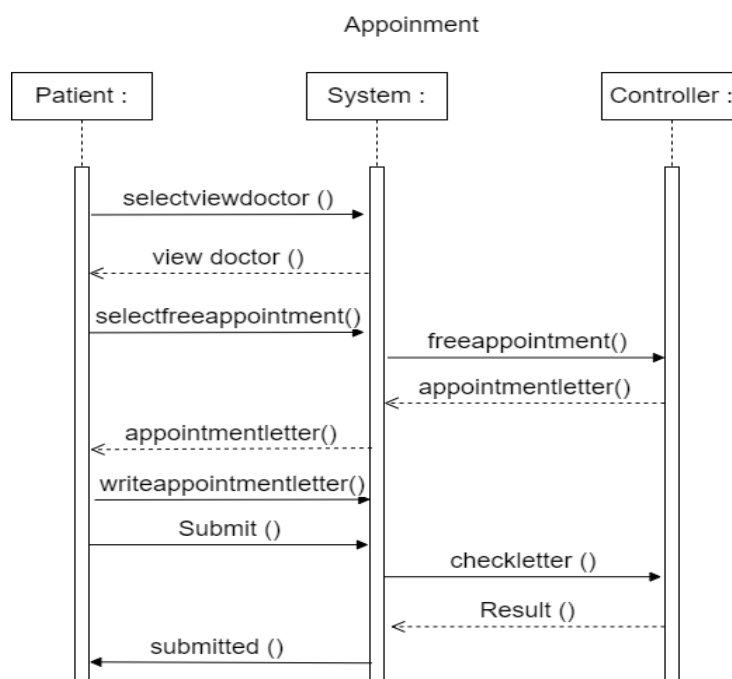


Figure: 16 (Sequence Diagram for Appointment in CMC)

Manage Plasma

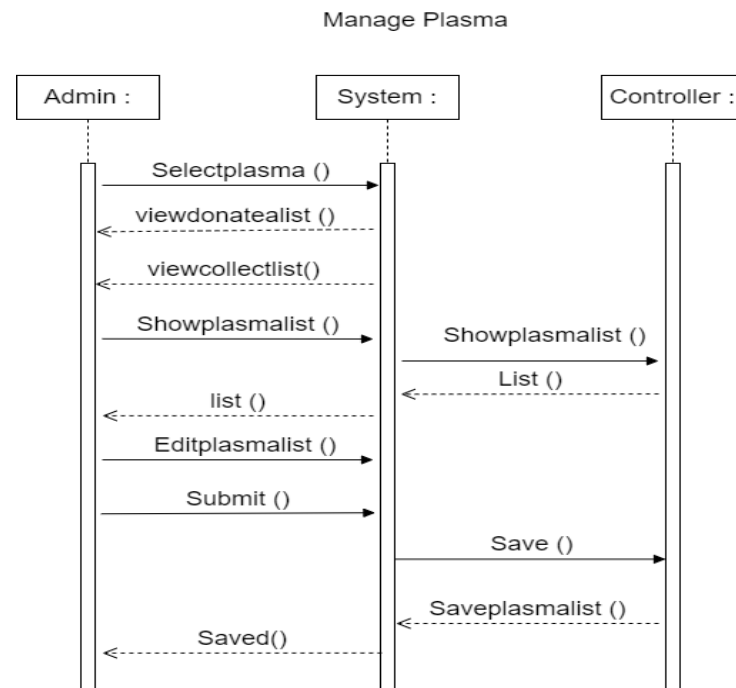


Figure: 17 (Sequence Diagram for Manage Plasma in CMC)

Forgot Password

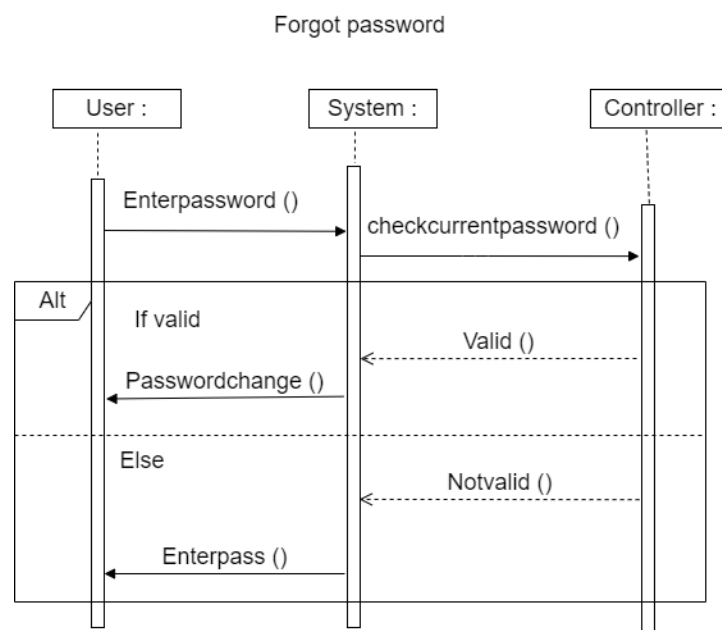


Figure: 18 (Sequence Diagram for Forgot password in CMC)

Donate Plasma

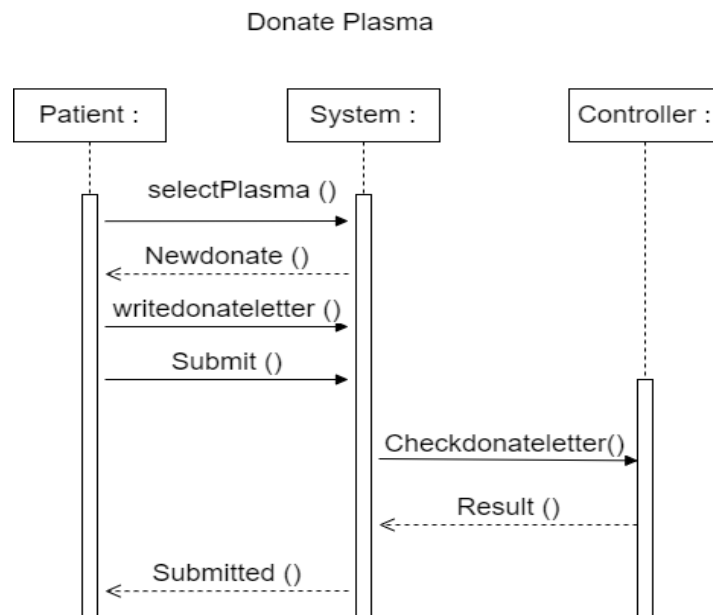


Figure: 19 (Sequence Diagram for Donate Plasma in CMC)

Collect Plasma

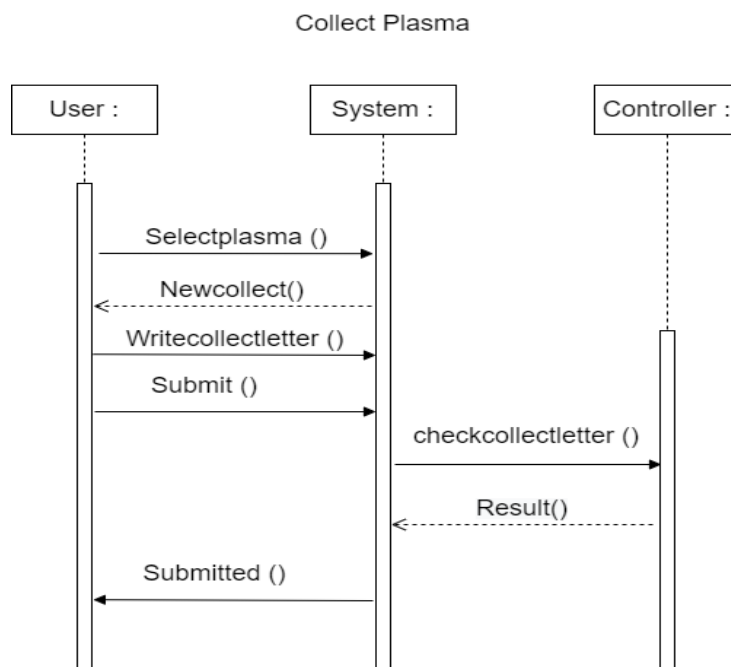


Figure: 20 (Sequence Diagram for Collect plasma in just go)

Add Plasma

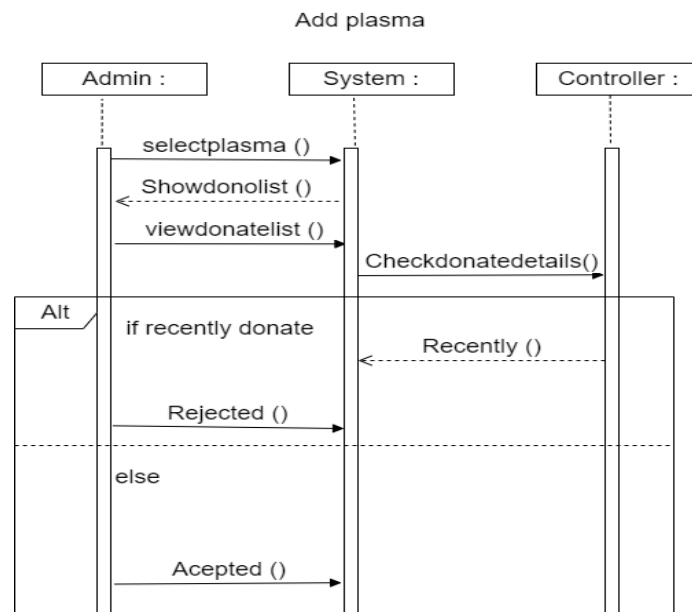


Figure: 21 (Sequence Diagram for Add plasma in CMC)

Appointment History

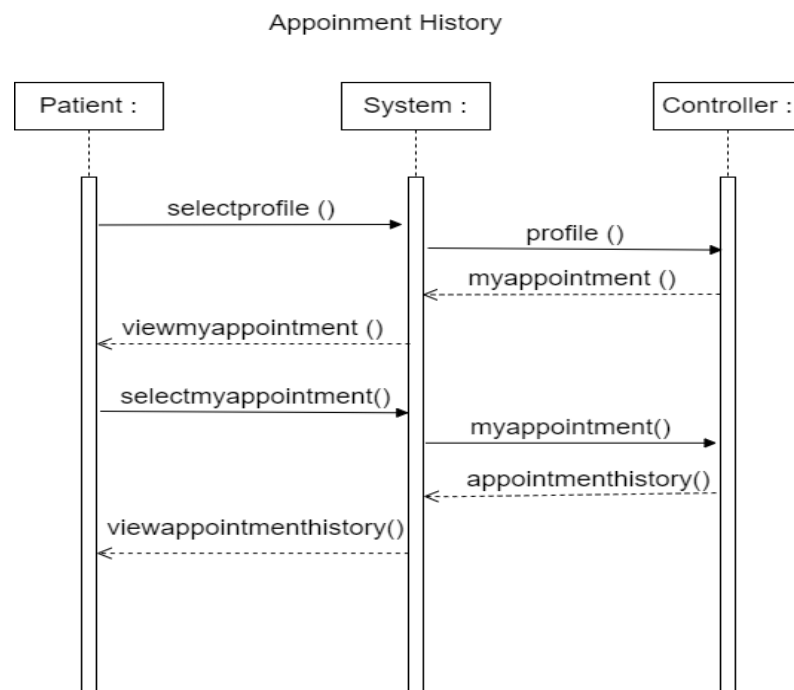


Figure: 22 (Sequence Diagram for Appointment History in CMC)

Chapter 4: System Design Specification

4.1 Class Diagram

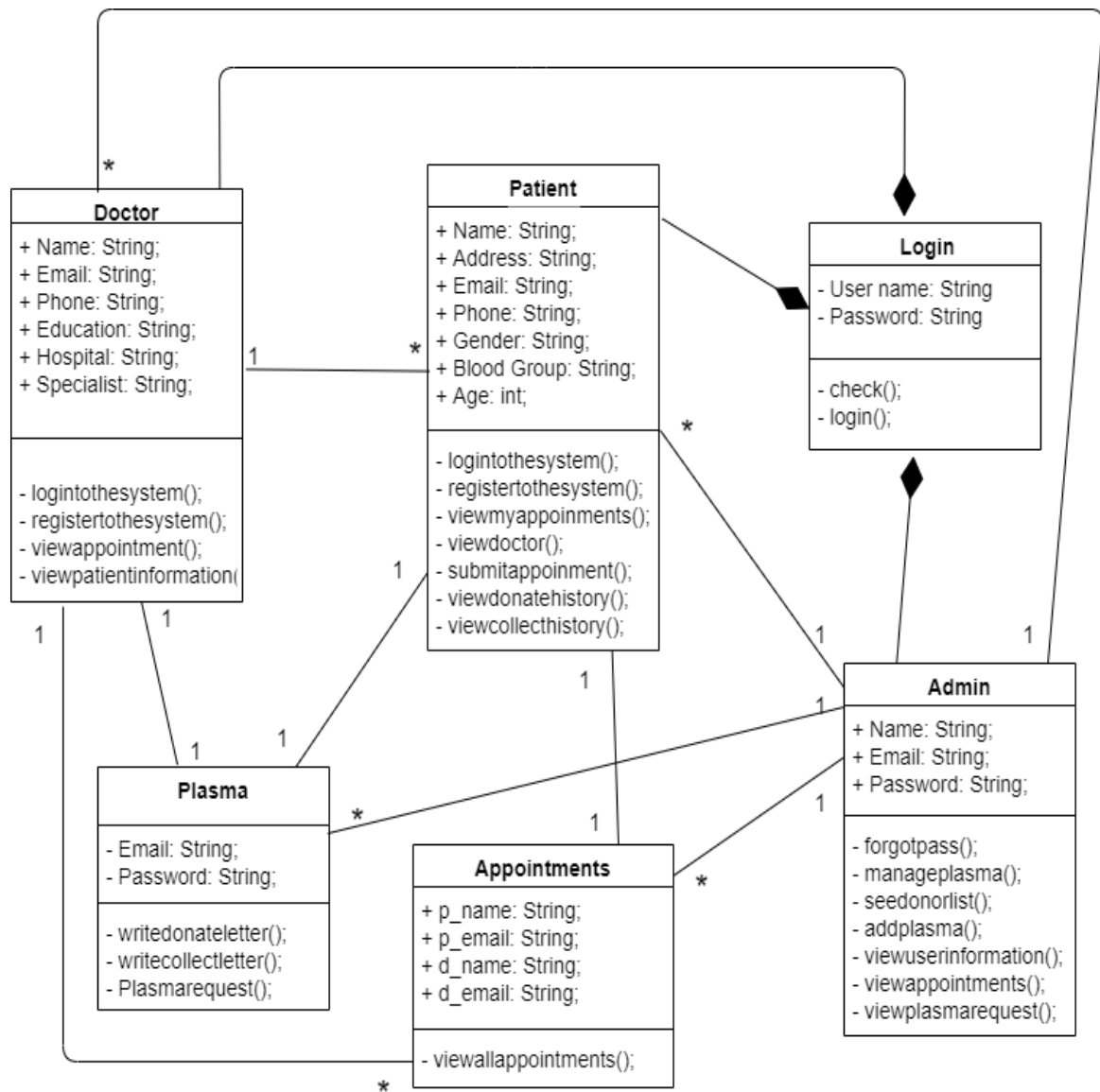


Figure: 23 (Class Diagram for Covid Medi Care)

4.2 Entity Relationship Diagram

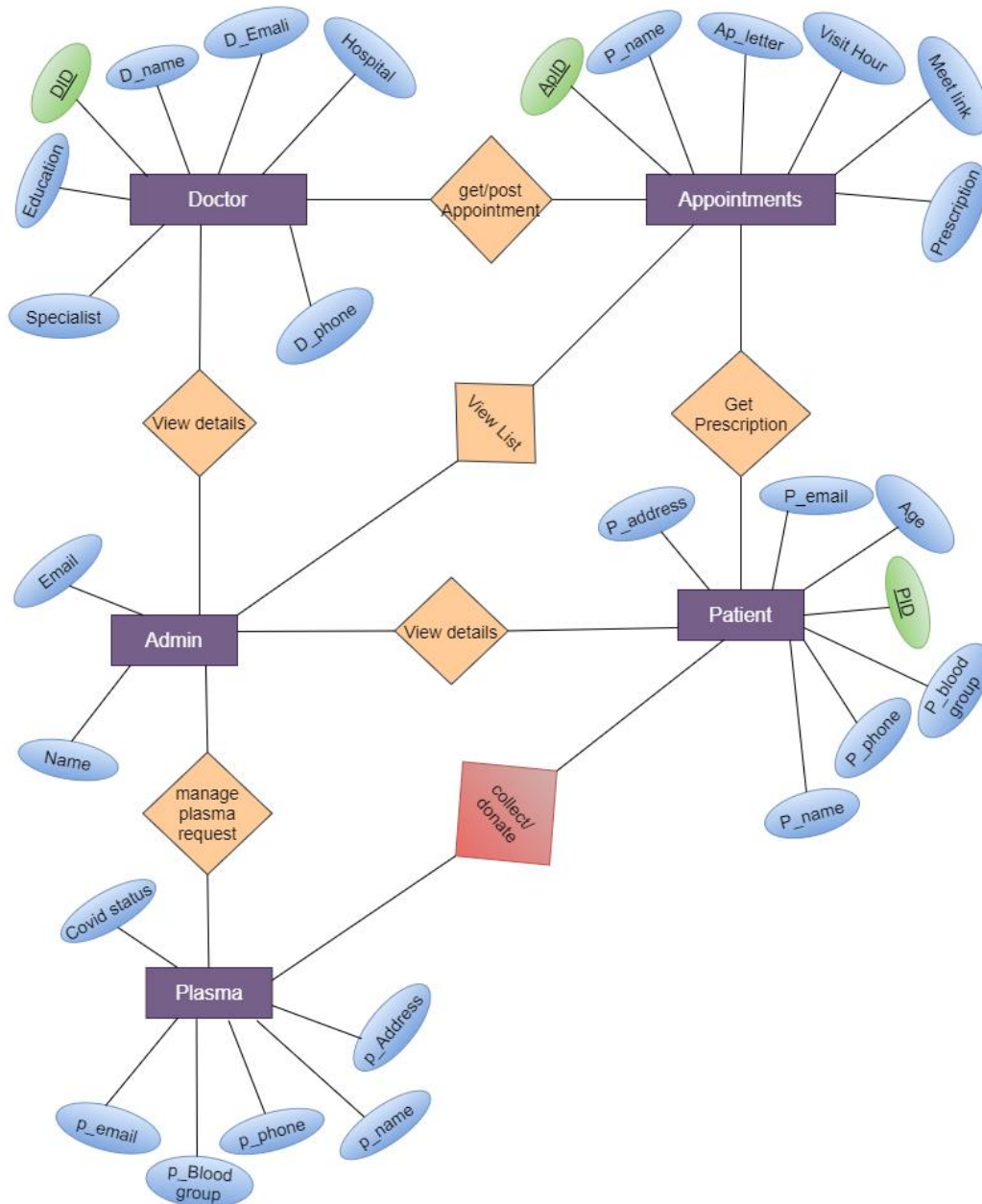


Figure: 24 (Entity Relationship Diagram in Covid Medi Care)

4.3 Development Tools & Technology

While there are number of software tools to develop and implement the web based, I have chosen those are open source, so that it will reduce the developing cost of the project. For designing the project HTML, CSS, JavaScript, Bootstraps, Apache server as web server,

PHP and Laravel Framework for making the system dynamic. MySQL as database server. All of the tools are open source.

4.3.1 HTML

In this project HTML used for define the structure. HTML is a markup language used to structure a web page and its content also stands for Hyper Text Markup Language. HTML consists of series of elements. Which you use to enclose or wrap. HTML documents are described by HTML tags. Each HTML tag describes different document content. HTML used because:

- Can make a word or image hyperlink.
- Can make the font bigger and smaller.
- Supported by all browser.
- Cost effective.

4.3.2 CSS

CSS (Cascading Style Sheets) is the language we used to style an HTML document. CSS used for describing how HTML elements should be displayed, including color, layout, and fonts. CSS saves a lot of works. It can control the layout of multiple sites all directly. Think of HTML because of the foundation, and CSS because the aesthetic choices.

4.3.3 PHP

In this project making the online page content dynamic and for interconnecting with database coding done by PHP. PHP stands for Hypertext Preprocessor. The reasons of using PHP are:

- PHP can generate dynamic page content.
- PHP can be used for implementing the business logical layers.

- PHP can collect form data.
- PHP can send and receive cookies.
- Anyone can use PHP to create a special area for any website members.
- PHP can encrypt data.
- PHP are often wont to control user access.

With PHP we cannot limited to output HTML. We will output images, PDF files, and even flash movies. We will also output any text, like XHTML and XML.

4.3.4 Laravel Framework

In this project making the web page content dynamic and for interconnecting with Laravel Framework the reason of using Laravel Framework, Laravel is a framework for creating web applications with an easy to use syntax. Laravel features a very rich set of features which can boost the speed of web development

4.3.5 MySQL

MySQL may be a database system used for the online application and it runs that runs on a server. The rational of using MySQL are:

- MySQL are often wont to stored anything from a single record.
- MySQL is extremely fast, reliable, and straightforward to use.
- MySQL uses standard SQL.
- MySQL compiles on variety of platforms.
- MySQL is liberal to download and use.

The data during a MySQL database are stored in tables. A table may be a collection of related data, and it consists of columns and rows.

4.3.6 XAMPP

XAMPP might be a free and open source cross-stage web worker arrangement stack bundle created by Apache Friends, comprising mainly of the Apache HTTP Server, Maria DB information base, and mediators for contents written in the PHP and Perl programming languages. XAMPP represents Cross-Platform (X), Apache (A), Maria DB (M), PHP

(P) and Perl (P). It is an easy, lightweight Apache distribution that creates it incredibly simple for developers to make a zone web server for testing purposes. All that expected to arrange a web server – server application (Apache), database (Maria DB),

and scripting language (PHP) – is included in an extractable document. XAMPP is furthermore cross-platform, which propose its functions admiraly on Linux, Mac and Windows.

Since most real web server arrangements utilize similar parts as XAMPP, it makes changing from a local test server to a live server very simple also.

4.3.7 JavaScript

JavaScript is an implementation of the ECMA Scripts language standard and is typically used to enable programmatic access to computational objects within a host environment. It can be characterized as a prototype-based object-oriented scripting language that is dynamic, weakly typed and has first-class functions. It is also considered a functional programming language like scheme because it has closures and supports higher-order functions. JavaScript is primarily used in the form of client-side JavaScript, implemented as part of a web browser in order to provide enhanced user interface and dynamic websites.

Chapter 5: System Testing

System Testing

A testing is chosen by most software teams falls between the two extremes. It takes an incremental view of testing, beginning with the testing of individual program units, moving to tests design to facilitate the integration of the units, and culmination with tests that exercise the constructed system.

5.1 Testing Features

Feature testing is the process of making changes in software system to add one or more new features or to make modifications in the already existing features. Each of these feature is said to have a characteristic that is designed to be useful, intuitive, and effective

5.2 Features not to be tested

Featured Id	Featured Name	Involved User
001	Edit profile	Patient, Doctor
002	Services	Patient, Doctor, Admin
003	View Doctor	Patient, Admin
004	View Patient	Admin, Doctor
005	View Appointments	Admin
006	Contact	Admin, Patient, Doctor
007	About	Patient, Doctor
008	Logout	Admin, Patient, Doctor

Table: 21

5.3 Test Cases

5.3.1 Test CaseTable-1

Test case #001		Test case name: Registration		
Test Priority: Medium		System : Covid Medi Care		
Designed By: Jakia Sultana		Designed Date: 15.10.20		
Executed by: Jakia Sultana		Executed date: 15.10.20		
Short Description: This section cover the functionalities of registration new user.				
Pre-conditions: Visit to Covid Medi Care				
Step	Action	Expected Result	Pass/ Fail	Actual Result
01	New user	Display successful message	pass	Pass
02	Enter empty value for any required field	Display error message	pass	Pass
03	All the input field is filled but confirm password is not match	Display Password Mismatch!	pass	Pass

Table: 22

5.3.2 Test Case Table-2

Test case #002			Test case name: Login	
Test Priority: High			system: Covid Medi Care	
Designed By: Jakia Sultana			Designed Date: 15.10.20	
Executed by: Jakia Sultana			Executed date: 15.10.20	
Short Description: The user is registered and trying to login to website when the system will check validity				
Pre-conditions:				
1. User must be registered.				
Step	Action	Expected Result	Pass/ Fail	Actual Result
01	Enter valid email and password then submit.	Successfully login	pass	Pass
02	Enter invalid email /password then submit.	Invalid email or password	pass	Pass
03	Empty email and password field then submit	Email field is required password field is required	pass	Pass

Table: 23

5.3.3 Test Case Table-3

Test case #03		Test case name: Patient profile		
Test Priority: High		system: Covid Medi Care		
Designed By: Jakia Sultana		Designed Date: 15.10.20		
Executed by: Jakia Sultana		Executed date: 15.10.20		
Short Description: Patient profile view only registered patient.				
Pre-conditions: 1. Registration must be completed. 2. Login.				
Step	Action	Expected Result	Pass/ Fail	Actual Result
01	[after login] Click the my profile option	Successfully view profile	pass	Pass
02	Enter name, age, blood group, address, phone and gender then submit.	Successfully updated profile.	pass	Pass
03	Click the logout Option	Successfully logout to the system.	Pass	Pass

Table: 24

5.3.4 Test Case Table-4

Test case #004		Test case name: My Appointments		
Test Priority: High		system: Covid Medi Care		
Designed By: Jakia Sultana		Designed Date: 15.10.20		
Executed by: Jakia Sultana		Executed date: 15.10.20		
Short Description: Patient and Admin can view the appointments.				
Pre-conditions: 1. Login.				
Step	Action	Expected Result	Pass/ Fail	Actual Result
01	[after login] Click the profile option	Show the profile	pass	Pass
02	Click the appointments option	Successfully view the appointment history	Pass	Pass
03	Click the logout Option	Successfully logout to the system.	Pass	Pass

Table: 25

5.3.5 Test Case Table-5

Test case #005		Test case name: Free Appointment		
Test Priority: High		system: Covid Medi Care		
Designed By: Jakia Sultana		Designed Date: 15.10.20		
Executed by: Jakia Sultana		Executed date: 15.10.20		
Short Description: when patient want to get appointment then must have login otherwise back in home.				
Pre-conditions: 1. Login 2. Select a doctor.				
Step	Action	Expected Result	Pass/ Fail	Actual Result
01	[after login] Click the view doctor option.	Show the doctor details	pass	Pass
02	Click the free appointment option	Show the appointment letter	pass	Pass
03	Click on appointment letter	Appointment letter field is required	pass	Pass

Table: 26

5.3.6 Test Case Table-6

Test case #006			Test case name: Doctor profile	
Test Priority: High			system: Covid Medi Care	
Designed By: Jakia Sultana			Designed Date: 15.10.20	
Executed by: Jakia Sultana			Executed date: 15.10.20	
Short Description: Doctor profile view only registered doctor.				
Pre-conditions: 1.login				
Step	Action	Expected Result	Pass/ Fail	Actual Result
01	[after login] Click the my profile option	Successfully view profile	pass	Pass
02	Enter name, hospital, phone, education, specialist, gender then submit	Successfully updated profile.	pass	Pass
03	Click the logout Option	Successfully logout to the system.	pass	Pass

Table: 27

5.3.7 Test Case Table-7

Test case #007			Test case name: Update Collect Plasma	
Test Priority: High			system: Covid Medi Care	
Designed By: Jakia Sultana			Designed Date: 15.10.20	
Executed by: Jakia Sultana			Executed date: 15.10.20	
Short Description: Admin can update collect plasma request.				
Pre-conditions: 1.Login				
Step	Action	Expected Result	Pass/ Fail	Actual Result
01	Click the plasma option	Show plasma request list	Pass	Pass
02	Click the collect view option	Show patient details	Pass	Pass
03	Click set status and choose accepted/rejected option then click update	Successfully update	Pass	Pass
04	Click set time option	Successfully set time	Pass	Pass
05	Click set hospital option	Successfully set hospital	Pass	Pass

Table: 28

5.3.8 Test Case Table-8

Test case #008			Test case name: Update Donate Plasma	
Test Priority: High			system: Covid Medi Care	
Designed By: Jakia Sultana			Designed Date: 15.10.20	
Executed by: Jakia Sultana			Executed date: 15.10.20	
Short Description: Admin can update donate plasma request.				
Pre-conditions: 1.Login				
Step	Action	Expected Result	Pass/ Fail	Actual Result
01	Click the plasma option	Show plasma request list	Pass	Pass
02	Click the donate view option	Show patient details	Pass	Pass
03	Click set status and choose accepted/rejected option then click update	Successfully update	Pass	Pass
04	Click set time option	Successfully set time	Pass	Pass
	Click set hospital option	Successfully set hospital	Pass	Pass

Table: 29

5.3.9 Test Case Table-9

Test case #009		Test case name: Donate Plasma		
Test Priority: High		system: Covid Medi Care		
Designed By: Jakia Sultana		Designed Date: 15.10.20		
Executed by: Jakia Sultana		Executed date: 15.10.20		
Short Description: Patient can donate plasma after recover covid-19.				
Pre-conditions: 1.Login				
Step	Action	Expected Result	Pass/ Fail	Actual Result
01	Click the plasma option	Show donate letter	Pass	Pass
02	Click the donate letter option and write letter for donate then submit.	Successfully submitted and show donate history	Pass	Pass
03	Click the logout Option	Successfully logout to the system.	Pass	Pass

Table: 30

5.3.10 Test Case Table-10

Test case #010		Test case name: Collect Plasma		
Test Priority: High		system: Covid Medi Care		
Designed By: Jakia Sultana		Designed Date: 15.10.20		
Executed by: Jakia Sultana		Executed date: 15.10.20		
Short Description: Patient and doctor can collect plasma if they covid positive.				
Pre-conditions: 1.Login				
Step	Action	Expected Result	Pass/ Fail	Actual Result
01	Click the plasma option	Show collect letter	Pass	Pass
02	Click the collect letter option and write letter for collect plasma then submit.	Successfully submitted and show collect history	Pass	Pass
03	Click the logout Option	Successfully logout to the system.	Pass	Pass

Table: 31

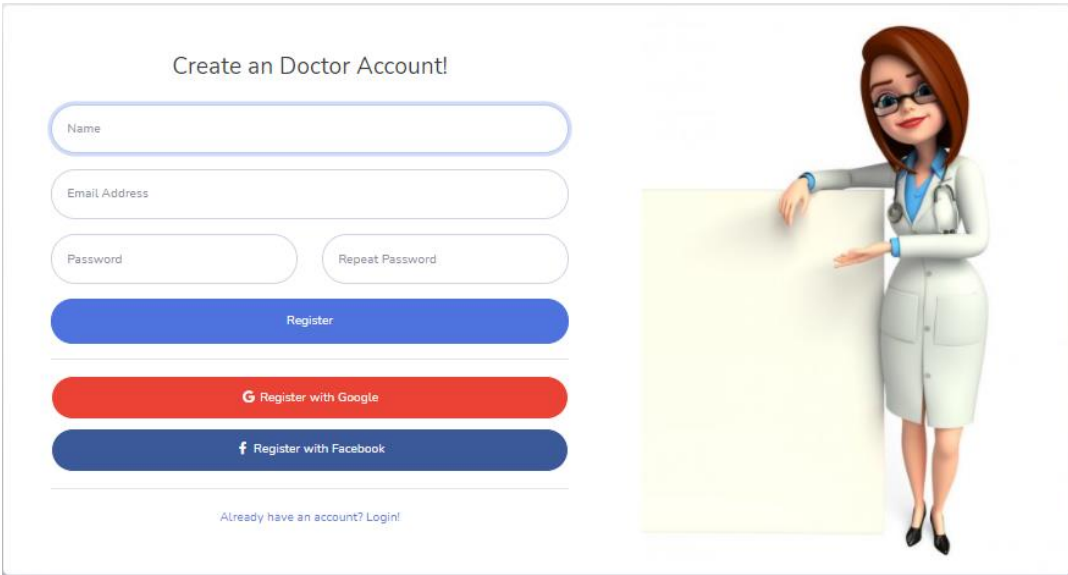
5.3.11 Test Case Table-11

Test case #011			Test case name: View Appointments	
Test Priority: High			system: Covid Medi Care	
Designed By: Jakia Sultana			Designed Date: 15.10.20	
Executed by: Jakia Sultana			Executed date: 15.10.20	
Short Description: Doctor can view appointment of patient .				
Pre-conditions: 1.Login				
Step	Action	Expected Result	Pass/ Fail	Actual Result
02	Click the appointments option.	Show the appointments list.	Pass	Pass
03	Click the view option.	Show patient details.	Pass	Pass
04	Click the prescription option and write prescription	Successfully added prescription.	Pass	Pass
05	Click the visit hour option and set the time	Successfully added time.	Pass	Pass
06	Click the meet link option and set link.	Successfully added meet link.	Pass	Pass
07	Click the health option and click good or bad option.	Successfully added health.	Pass	Pass
08	Click the covid option and click positive or negative option.	Successfully added covid.	Pass	Pass

Table: 32

Chapter 6: User Interface

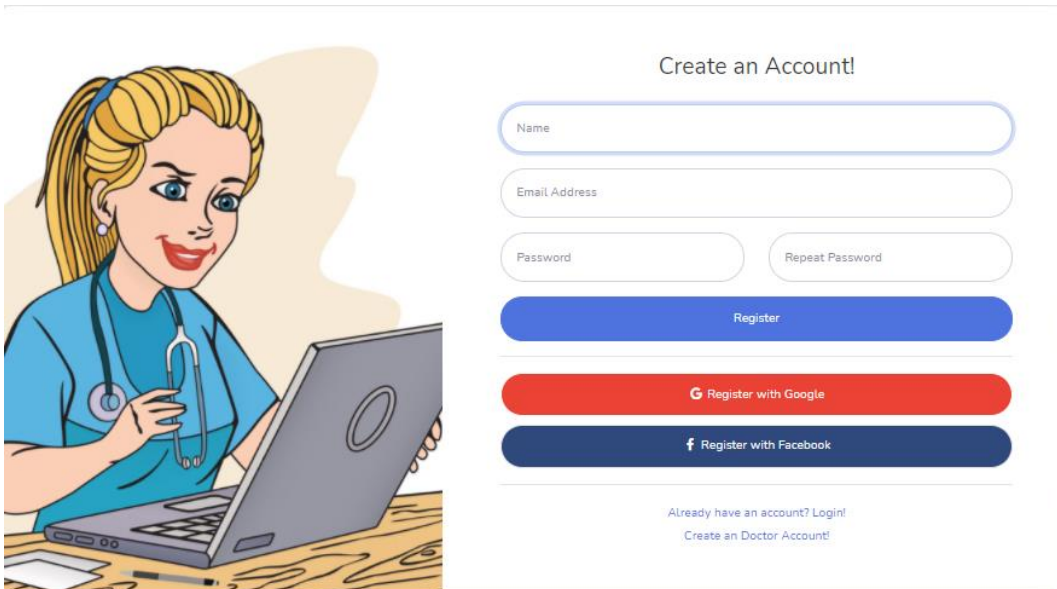
Doctor Registration



The image shows a web interface for doctor registration. On the left is a form titled "Create an Doctor Account!". It contains input fields for "Name", "Email Address", "Password", and "Repeat Password". Below these fields are three buttons: a blue "Register" button, a red "Register with Google" button, and a dark blue "Register with Facebook" button. At the bottom of the form is a link that says "Already have an account? Login!". On the right side of the form is a 3D illustration of a female doctor with brown hair and glasses, wearing a white lab coat and a stethoscope, standing next to a large, blank, light-yellow rectangular board.

Figure: 25 (Doctor Can Registration in Covid Medi Care with name, email, password, repeat password)

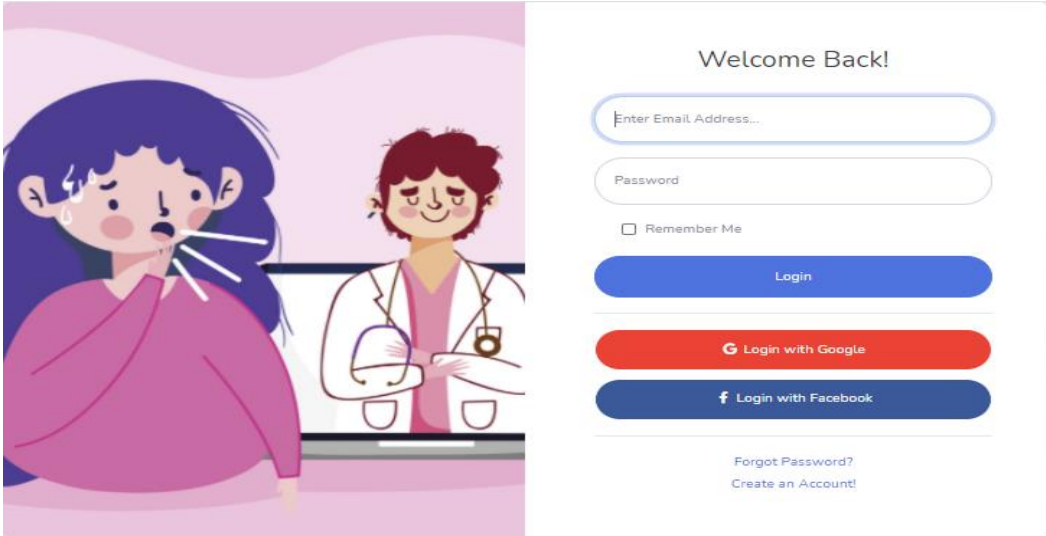
User Registration



The image shows a web interface for user registration. On the left is a cartoon illustration of a female doctor with blonde hair in a ponytail, wearing blue scrubs and a stethoscope, sitting at a desk and using a laptop. On the right is a form titled "Create an Account!". It contains input fields for "Name", "Email Address", "Password", and "Repeat Password". Below these fields are three buttons: a blue "Register" button, a red "Register with Google" button, and a dark blue "Register with Facebook" button. At the bottom of the form is a link that says "Already have an account? Login!". Below this link is another link that says "Create an Doctor Account!".

Figure: 26 (User Can Registration in Covid Medi Care with name, email, password, repeat password)

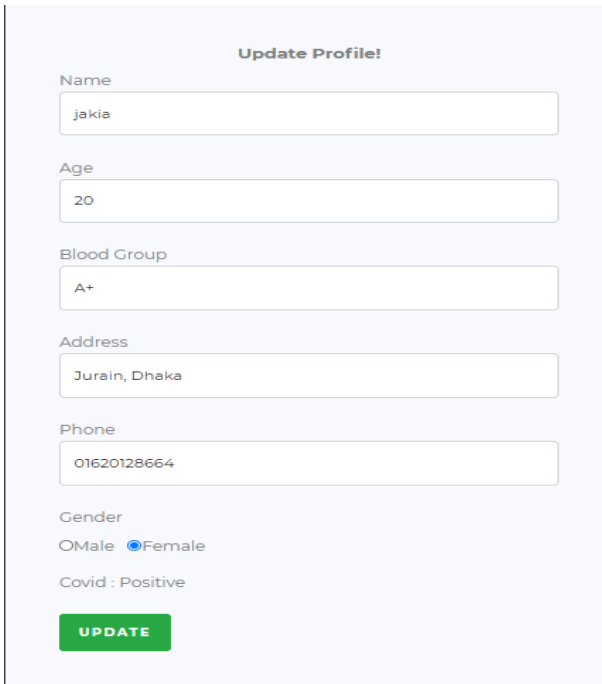
User Login



The login interface is divided into two main sections. On the left is an illustration of a woman with long dark hair, wearing a pink shirt, coughing into her elbow. Behind her, a doctor in a white lab coat with a stethoscope is visible. On the right is a white login form with the heading 'Welcome Back!'. It contains input fields for 'Enter Email Address...' and 'Password', a 'Remember Me' checkbox, and a blue 'Login' button. Below these are two social login buttons: a red one for 'Login with Google' and a dark blue one for 'Login with Facebook'. At the bottom of the form are two links: 'Forgot Password?' and 'Create an Account!'.

Figure: 27 (User Can login to Covid Medi Care with email and password)

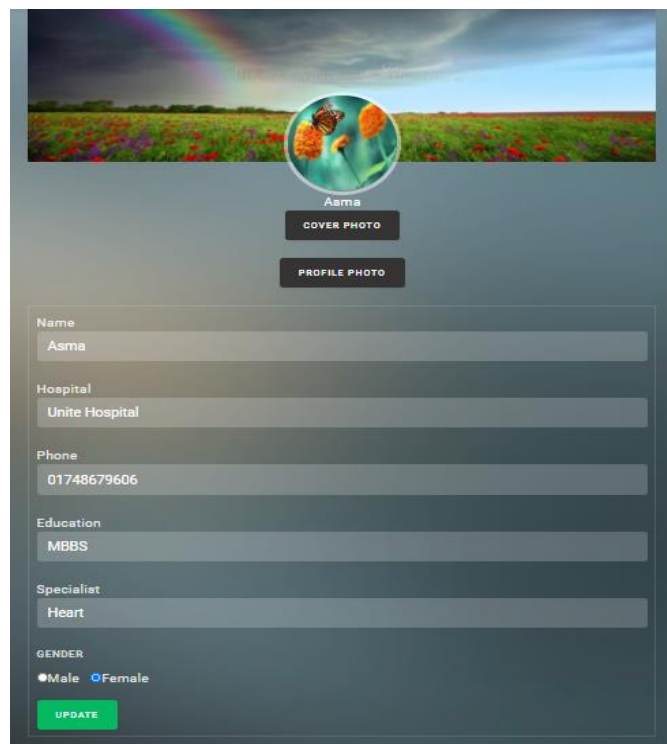
Patient Profile



The 'Update Profile!' form is set against a light blue background. It includes several input fields: 'Name' (containing 'jakia'), 'Age' (containing '20'), 'Blood Group' (containing 'A+'), 'Address' (containing 'Jurain, Dhaka'), and 'Phone' (containing '01620128664'). Below the phone field, there is a 'Gender' section with radio buttons for 'Male' and 'Female' (the 'Female' option is selected). Below the gender section is a label 'Covid : Positive'. At the bottom of the form is a green button with the text 'UPDATE' in white capital letters.

Figure: 28 (Patient Can update their personal information in Covid Medi Care)

Doctor Profile



The image shows a doctor's profile form for a user named Asma. At the top, there is a banner image of a field with a rainbow and a circular profile picture of a butterfly. Below the banner, there are two buttons: 'COVER PHOTO' and 'PROFILE PHOTO'. The form fields are as follows:

Name	Asma
Hospital	Unite Hospital
Phone	01748679606
Education	MBBS
Specialist	Heart
GENDER	☒ Male ☐ Female
UPDATE	

Figure: 29 (Doctor Can update their personal information in Covid Medi Care)

Doctor Dashboard

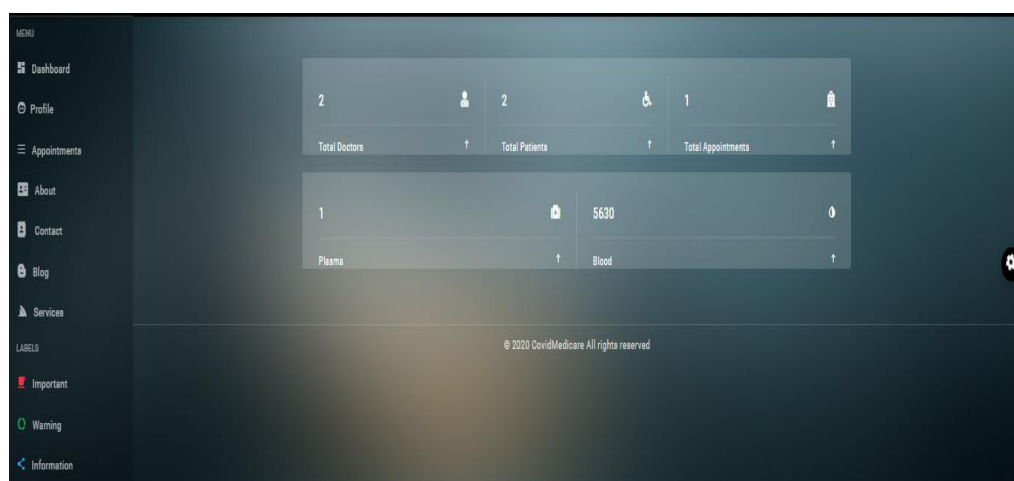


Figure: 30 (Doctor Can see all information in Covid Medi Care)

Doctor Appointments list

My Appoinments!							
PATIENT	EMAIL	PRESCRIPTION	VISIT	MEETLINK	HELTH	STATUS	ACTION
jakia	patient@gmail.com	jijyfyiy	Pending	Pending	Good	Accepted	VIEW
bindu	bindu@gmail.com	1. Tab Longpara 665mg 2+2+2= 7 days	Pending	Pending	Bad	Accepted	VIEW

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Figure: 31 (Doctor Can see all appointments list of patient in Covid Medi Care)

Doctor View Appointments

Name

Age

Blood Group

Phone

Address

Patient Letter

Appointment Status!

Write Prescription

Set visit Hour!

Meet Link

Helth

☒ Good
 ☒ Bad

Covid

☒ Positive
 ☒ Negative

[UPDATE](#)

Figure: 32 (Doctor view the patient details and prescribed the patient in Covid Medi Care)

Our Doctors

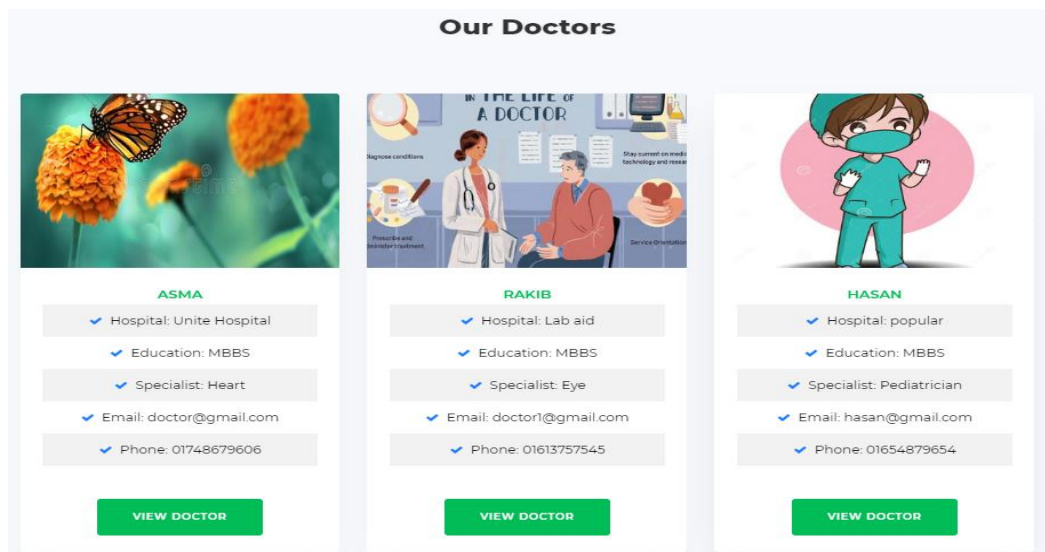


Figure: 33 (Patient can see all doctors details shortly in Covid Medi Care)

Appointment Letter

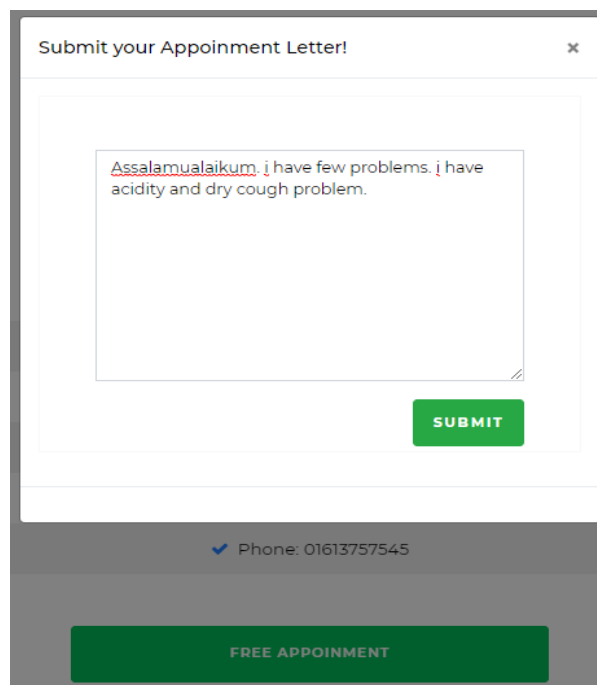


Figure: 34 (Patient can get free appointment by submit appointment letter in Covid Medi Care)

Appointments History

Appointment History!							
Doctor	Email	Phone	Prescription	Visit	MeetLink	Helth	Status
Keya	doctor@gmail.com	01748679606	jjyfyiy	Pending	Pending	Good	Accepted
Hasan	hasan@gmail.com	01654879654	1. Tab. Longpara 665mg (for fever) 2+2+2= 7 days 2. Syo. Lytex 2 spoon (for dry cough) 1+1+1 = 7 days 3. Cap. Esolok 20mg (for acidity) 1+0+1 - 7 days	12/17/2020 12:00 PM	MeetLink	Bad	Accepted

Figure: 35 (Patient can see all appointments list of him/her appointment history in Covid Medi Care)

Plasma

New Donate!

Write Donate Letter

DONATE

New Collect!

Write Collect Letter

COLLECT

Your Donate History!

Name	Covid	Time	Hospital	Status
jakia	Negative	Pending	Pending	Pending
jakia	Negative	Pending	Pending	Pending

Your Collect History!

Name	Covid	Time	Hospital	Status
jakia	Positive	Pending	Pending	Pending

Figure: 36 (User can donate or collect plasma and see the Donate and collect history in Covid Medi Care)

All Appointments

All Appoinments!							
PATIENT	PATIENT-EMAIL	DOCTOR	DOCTOR-EMAIL	TIME	MEET-LINK	PATIENT-HELTH	STATUS
jakia	patient@gmail.com	Keya	doctor@gmail.com	Pending	Pending	Good	Accepted
SkyFar	skyfar@gmail.com	rakib	doctor1@gmail.com	Pending	pending	pending	pending
bindu	bindu@gmail.com	Asma	doctor@gmail.com	Pending	Pending	Bad	Accepted
jakia	patient@gmail.com	Hasan	hasan@gmail.com	12/17/2020 12:00 PM	MeetLink	Bad	Accepted

Figure: 37 (Admin can view all appointments of doctor and patient shortly in Covid Medi Care)

All Plasma Request

Plasma Request!							
PATIENT	EMAIL	COVID	TIME	HOSPITAL	REQUEST	STATUS	
jakia	patient@gmail.com	Positive	Pending	Pending	Collect	Pending	VIEW
jakia	patient@gmail.com	Negative	Pending	Pending	Donate	Pending	VIEW
jakia	patient@gmail.com	Negative	Pending	Pending	Donate	Pending	VIEW

Figure: 38 (Admin can view all plasma request list in Covid Medi Care)

Collect Plasma Request

REQUEST FOR: Plasma Collect!

Name
jakia

Age
20

Blod Group
A+

Phone
01620128664

Address
Jurain, Dhaka

Request Letter
i need plasma emergency
blood group: A+

covid: Positive!

Set Status!
Accepted

Set Time!
12/18/2020 3:00 PM

Set Hospital!
Dhaka Medical

UPDATE

Figure: 39 (Admin can view patient information and set status, time, hospital in Covid Medi Care)

Donate Plasma Request

REQUEST FOR: Plasma Donate!

Name
jakia

Age
20

Blod Group
A+

Phone
01620128664

Address
Jurain, Dhaka

Request Letter
i recently recover covid .now i am prepared for donate
plasma

covid: Negative!

Set Status!
Accepted

Set Time!
12/16/2020 7:34 PM

Set Hospital!
Set Hospital!

UPDATE

Figure: 40 (Admin can view patient information and set status, time, hospital in Covid Medi Care)

View All Patients

All Patients!					
NAME	AGE	EMAIL	ADDRESS	GENDER	PHONE
jakia	20	patient@gmail.com	Jurain, Dhaka	Female	01620128664
bindu	23	bindu@gmail.com	Dhanmondi-32, Dhaka	Female	01622547845
SkyFar	25	skyfar@gmail.com	Rajbari	Male	01734567894

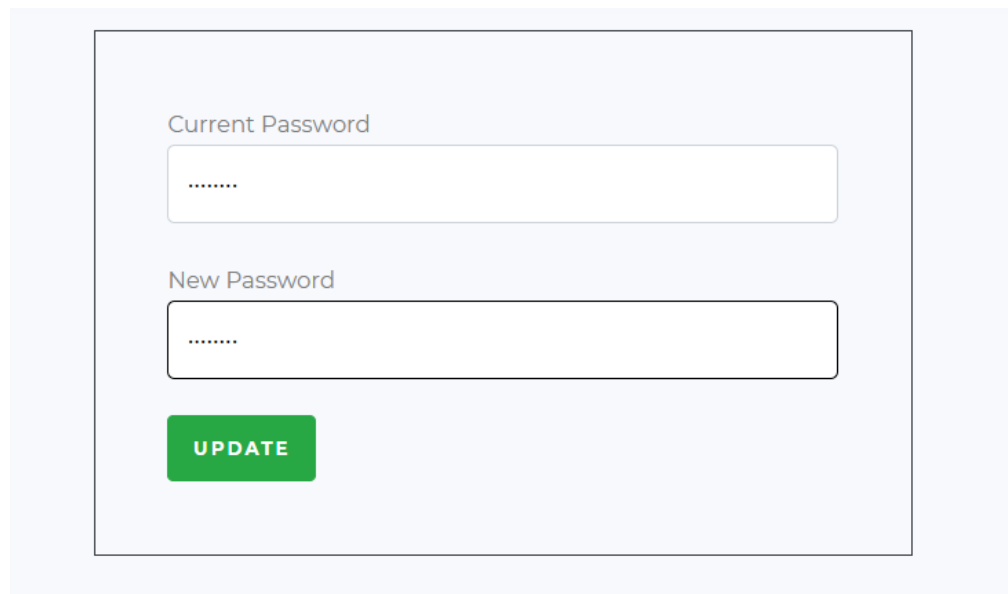
Figure: 41 (Admin can view all patient list in Covid Medi Care)

View All Doctors

All Doctors!						
NAME	HOSPITAL	EMAIL	PHONE	GENDER	EDUCATION	SPECIALIST
Asma	Unite Hospital	doctor@gmail.com	01748679606	Female	MBBS	Heart
rakib	Lab aid	doctor1@gmail.com	01613757545	Male	MBBS	Eye
Hasan	popular	hasan@gmail.com	01654879654	Male	MBBS	Pediatrician

Figure: 42 (Admin can view all doctors list in Covid Medi Care)

Change Password



A screenshot of a web form titled "Change Password". The form is contained within a light blue rectangular box. Inside this box, there are two text input fields. The first field is labeled "Current Password" and contains seven dots. The second field is labeled "New Password" and also contains seven dots. Below these two fields is a green rectangular button with the word "UPDATE" in white capital letters.

Figure: 43 (Admin,Patient and Doctor can change password in Covid Medi Care)

Chapter 7: Project Summary

7.1 Summary

This project has been started from August. From that beginning time I gather many requirement, I studied some websites about Covid-19 then I give my proposal.

First of all I am gathering the all-important requirement for this project. After gathering requirement, I done analysis all requirement and I done system's design. In this step, I done testing of all functional features and some non-functional features.

7.2 Limitations

It is very hard to develop something without any limitations. This project has some limitations. Limitation area's follows: -

7.2.1 Not fully responsive.

7.2.2 Not highly secure.

7.3 Obstacles and Achievements

To walk in the good way, one's have to face many obstacles. By facing obstacles one will get some achievements. To search data after joining an obstacle formed. Al though I have done it by taking help from my supervisor, friends and by searching the solution from Google. I achieve my confident to develop this project alone.

7.4 Future Scope

By working with this project, I have learnt many things. This project will give me some opportunity to work with this type of similar project.

7.5 References

To complete audit application, I have taken help from many places. Some references are given bellow:-

- <https://www.youtube.com/channel/UCVSvNQjV5gwKIP9ZgaXSU1w>
- <https://stackoverflow.com/>
- <https://getbootstrap.com/>
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ii [APPROVAL This Project](#) titled on "Covid Medi Care", submitted by Jakia Sultana (ID: 171-35-1967) to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the wants for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents. iii

DECLARATION It hereby announces that this project has been finished by me under the supervision of Ms. Mahmuda Rawnak Jahan, Lecturer, Department of Software Engineering, Daffodil International University. It is also announced that neither this work nor any piece of this has been submitted somewhere else for grant of any degree by me. Jakia Sultana Student ID: 171-35-1967 Batch: 22 Department of Software Engineering Faculty of Science & Information Technology Daffodil International University Certified by: Mahmuda Rawnak Jahan Lecture, Department of Software Engineering Faculty of Science & Information Technology Daffodil International University iv [ACKNOWLEDGEMENT](#) Most importantly,

thanks to ALLAH, ALHAMDULILLAH because I am a lot of favored as I have effectively reached towards the final semester. From the very earliest starting point of my university life, I have learned a lot about software engineering as well as core computer science related knowledge from my course teachers. Moreover, they shows us morals, ethical quality and amiability. Besides, I am such a great amount of grateful to my parents that, I was constantly supported by them. They always prioritize my opinion and inspired me also. I am additionally so many grateful to my supervisor Ms. Mahmuda Rawnak Jahan for permitting me to work with this project. She generally supports me to make this projects successful. Specially, I am extremely grateful to my friend, senior and younger brothers of our university who always appreciate me to my studies and my every day works for learning new ones. v Content Contents

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Chapter 1: Introduction 1.1 Project Overview In this web application's patient can get better treatment from doctor by staying their home and doctor can prescribed patient by their	

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health query, patient can meet with their expecting doctor by meet link. patient can also donate plasma and get plasma easily . Admin also manage patient/doctor information, manage plasma, add plasma donar, edit donar list etc. [1.2 Project Purpose 1.2.1 Background](#) In this pandemic year patient of Covid-19 suffering from get admitted into hospital and do not get proper treatment. People of our country face this problem mostly because our hospital management system is not so good. In this time, I realized that I wanted to develop a web application and this application will provide us some features and functions for users as patient and doctor. Patient could choose their doctor and get free appointment also get plasma and donate plasma. Other side the features and functions are managed by an admin. Admin could manage user, manage plasma, manage donate and collect plasma etc. 1.2.2 Benefits of this project This system will provide full facilities for internet users who wants to get treatment by staying home and maintain their safety. "Covid Medi Care" system benefits are given below: ? This system can save our time. ? User can choose their doctor. ? User get free appointment . ? User can collect plasma. ? User can also donate plasma. 1.2.3 Goal Time and security is a valuable thing for us all. Whenever life is lost, it is not. So in this situation we should focus on our safety first. The goal of this system is to allow the user to easily get treatment also get plasma by remaining at home . This will help to save their life and the user can easily get treatment and plasma. In this pandemic situation of Covid-19 all over the world is suffer this virus. So this will help to all to get safe treatment and maintain the distance from others by staying home safely. 1.3 Stakeholders Admin: Admin has all the right to manage the "Covid Medi care". For this admin must be log in with a valid username and password. Then admin can view user's (Patient and Doctor) information. Admin can managed plasma, collect plasma, donate plasma and manage whole web site activities. Patient: Patient can view doctor profile. Patient can get free appointment by any doctor. patient get prescription and get over the problem. Patient can also donate plasma when they get over Covid-19 also can collect plasma from others. Patient cannot find details of plasma before registration and login. Doctor: Doctor can view patient profile. Doctor can also view plasma list and donate or collect plasma but doctor cannot find in details of plasma before registration and login. [1.4 Project Schedule 1.4.1 Gantt Chart Gantt Chart](#) Release Testin g Developmen 20-Aug-20 10-Oct- 15-Nov- 15-Dec- 04-Jan- 20 20 20 20 Figure: 1 1.4.2 Release Plan/Milestone Task No Task Name Time 1 Requirement analysis 3 week 2 Project proposal 3 [week 3 Database design 2 week 4 User interface design 3 week 5 Implementation 3 week 6 Testing 3week 7 Evaluating the project 3week](#) Table: 1 [Chapter 2: Software Requirement Specification 2.1 Functional Requirements](#) FR-01 Patient Registration Description Without register patient do not able to see this website. To view doctor and get free treatment, collect or donate plasma patient must need to register in this system. This module will help the patient to register in this system. Stakeholders Patient Table: 2 FR-02 Doctor Registration Description Without register doctor do not able to see this website. To view appointments, collect or donate plasma doctor must need to register in this system. This module will help the doctor to register in this system. Stakeholders Doctor Table: 3 FR-03 Edit Profile Description After login to system user must be edit their profile. Update their name, address, phone, gender, blood group in to the system. User and admin can view the details of doctor and patient. [This module will help the user to get](#) details in this system. Stakeholders Patient, Doctor, Admin Table: 4 FR-04 View Doctor Description After login to the system patient can view all doctor details in their home page and get free appointment from the doctor by submitting the appointment letter. Stakeholders Patient Table: 5 FR-05 Change Password Description After registration if user want to change their password they can update their password. They must submit their previous password and create new password. This module will help the user to change password in this system. Stakeholders Patient, Doctor, Admin Table: 6 FR-06 Donate Plasma Description After login to the system patient who are getting health status covid negative by doctor they can donate plasma by submitting donate letter. Stakeholders Patient Table: 7 FR-07 Collect Plasma Description After login to the system patient and doctor can collect plasma from others if they needed. For collecting plasma they need to submit collect plasma letter. Stakeholders Patient, Doctor Table: 8 FR-08 Manage Plasma Description Admin will get the notification and view all plasma request. He/she can view all details of who want to donate or collect plasma and send request to admin. He/she will view their details and accept or reject their request. Stakeholders Admin Table: 9 FR-09 Appointments Description Doctor will get notification of appointments. When doctor view the appointments he/she will see the problem of a patient and give the prescription. And also set the meet link and time for giving better treatment. Stakeholders Doctor Table: 10 2.2 Nonfunctional Requirements NFR-01 Privacy Policy Description Application should be secure so that no one can access users private information. Stakeholders Users Table: 11 NFR-02 User Friendly Description Simple and easy interface because of users that they can easily browse the system. Stakeholders Users Table: 12 [2.3 Performance Requirements It's vital to take care of the performance of the project. To ensure a good performance, this project](#)

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have [to meet some requirements which will](#) ensure a good [performance. 2.3.1 Speed and Latency Requirements](#) PR-01 Page Refresh Rate Description While the doctors and patients browsing this system the page will show within a moment. It also depends on doctors and patients internet connection. Stakeholders Doctors, Patients Table: 13 2.3.2 Precision or Accuracy Requirements There is nothing specific accuracy requirements. 2.3.3 Capacity Requirements This system is able to manage all the information of doctors, patients and application. PR-02 At first the system will contain all the registered patient and doctor information Description The information of registered doctor and patient will be stored in database. Stakeholders Patient, Doctor Table: 14 [2.4 Dependability Requirements 2.4.1. Reliability Requirements](#) 1. Admin, patient and doctor should be login to the system using his/her valid email and password. 2. Admin can easily update plasma request. 3. Patient and doctor can view their appointments. 2.4.2 Availability Requirements DR-01 Must be available the system at 24x7 Description ? ? ? Must be available the system at 24 hours in a day. Must be updated the system regularly. Need to know command for run properly and easily. Stakeholders Patient, Doctor, System Developer Table: 15 2.4.3 Robustness And Fault Tolerance Requirements DR-02 The system manages over access. Description Sometimes multiple users can over access to this system. The system can handle multiple user access. The system has almost ensured 0% crash. Stakeholders N/A Table: 16 [2.5 Maintainability and Supportability Requirements 2.5.1 Maintenance Requirements](#) MS-01 [The system can support to browse this site in any time.](#) Description ? ? Patient can access the site and view doctors and get appointments any time. Doctor can view appointments of patients and prescribe the patient through this system. Stakeholders Doctor, Patient Table: 17 2.5.2 Supportability Requirements MS-02 The system maintenance should be quick. Description System helps to update the accounts information and member info at any time. Stakeholders N/A Table: 18 [2.5. 3 Adaptability Requirements No visible adaptability requirements. 2. 6Security Requirements](#) This system has some security requirements. Like- ? Username/Password ? Validation ? Authentication 2.6.1Access Requirements SR-01 This system gives security policy. Description Without register patient and doctor in this system he/she will be not able to access the website. This mechanism provides security services. Stakeholders Doctor, Patient Table: 19 2.6.2Integrity Requirements To protect credentials of user from being stolen, all password share stored in encrypted form. [The Requirements significantly reduces the value of stolen user credentials, it's not easy to decrypt the password. 2.6.3 Privacy Requirements](#) SR-02 [All data will be protected](#) Description All data are protected. All data are stored in database using encrypted form. It's not easy to decrypt. Stakeholders Doctor, Patient Table: 20 2.7Look and Feel Requirements 2.7.1 Appearance Requirement 1. The user interface must be attractive. 2. The user interface must be user friendly. 3. The user interface must be user interactive. 2.8 Usability and Human Integrity Requirements 2.8.1Ease [of Use Requirements](#) This [system is very easy](#) for [use and](#) also [understandable](#). 2.8.2Understand-ability and Politeness Requirements This system is very easy for understand and also usable. Chapter 3: System Analysis 3. [1 Use Case Diagram Figure: 2 \(Use Case diagram for Covid Medi Care\)](#) 3. [2 Use Case](#) Description (for each usecase) Use case description for Registration [Use Case Name: Register](#) to system. [Actor: Patient, Doctor](#) [Pre- condition: None Primary Path: ? ? Enter name. Enter password. ? Enter Email. Exceptional Path: ? Name field is empty. Go to step 1 and give a name. ? Password field is empty. Go to step 2 and give a password. ? Email field is empty go to step 3 and give email address. ? Given email is invalid go to step 3 and retype valid email. Post condition: Successfully create account. Use case description for Login Use Case Name: \[Login to system.\]\(#\) \[Actor: Admin, Patient, Doctor.\]\(#\) \[Pre-condition: Registration.\]\(#\) \[Primary Path: ? Enter username. ? Enter password. ? Submit username and password. Exceptional Path: ? If email and password invalid then submit a valid email and password. Post condition: Successfully Login to the system.\]\(#\) Use case description for Personal Information Use Case Name: personal Information Actor: Patient, Doctor Pre-condition: Login and select profile. \[Primary Path: ? Select Profile. ? Enter Name. ? Enter Age. ? Enter Address. ? Enter Phone number. ? Enter Gender. ? Enter Blood group ? Submit. Exceptional Path: ? Name field is empty. Go to step 1 and enter the name ? Age field is empty. Go to step 2 and enter the age. ? Address field is empty. Go to step 3 and enter the address. ? Phone number field is empty. Go to step 4 and enter the phone number. ? Gender field is empty. Go to step 5 and enter the gender ? Blood group field is empty. Go to step 6 enter blood group. Post condition: Profile is update.\]\(#\) Use case description for Appointments Use Case Name: Appointment. \[Actor: Patient.\]\(#\) \[Pre-condition: Login and view doctor.\]\(#\) \[Primary Path: ? ? ? Select view doctor option View the doctor details. Select free appointment. ? ? Enter appointment letter. Submit appointment. Exceptional Path: ? Email is invalid. Enter a valid email for login. ? Password is invalid. Enter valid password. ? Appointment letter field is empty. Enter the appointment letter. Post condition: Appointment submission successful.\]\(#\) Use case description for Plasma \[Use Case Name: Manage Plasma.\]\(#\) \[Actor: Admin.\]\(#\) \[Pre-condition: Login.\]\(#\) \[Primary Path: ? Enter email and password for login. ? Select plasma\]\(#\)](#)

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option. ? View plasma request. ? Edit plasma request. Exceptional Path: None. Post condition: Successfully manage plasma request. Use case description for Forgot Password Use Case Name: Forgot Password. Actor: Admin, Patient, Doctor. Pre- condition: Login. Primary Path: ? Select login option. ? Enter Email ? Enter wrong password. ? Submit. Exceptional Path: ? If password reset link not found then wait for admin's response. Post condition: Create new password successfully. Use case description for Donate Plasma Use Case Name: Donate Plasma. Actor: Patient. Pre- condition: Login. Primary Path: ? Select plasma option. ? Write donate plasma letter. ? Submit. Exceptional Path: ? Donate plasma letter field is empty. Enter the donate plasma letter. Post condition: Donate letter submit successfully. Use case description for Collect Plasma Use Case Name: Collect Plasma. Actor: Patient, Doctor Pre-condition: Login. Primary Path: ? Select plasma option. ? Write collect plasma letter. ? Submit. Exceptional Path: ? Collect plasma letter field is empty. Enter the letter. Post condition: Collect plasma letter submit successfully. Use case description for Add Plasma Use Case Name: Add Plasma. Actor: Admin Pre-condition: Login. Primary Path: ? Select plasma option. ? View plasma request. ? Set status accepted. ? Set time and hospital. ? Submit. Exceptional Path: None Post condition: Add plasma successfully. Use case description for Appointment History Use Case Name: Appointment History. Actor: Admin, Patient Pre- condition: Login. Primary Path: ? Select profile . ? Select my appointment. ? View appointment history. Exceptional Path: None. Post condition: View appointment history successfully. 3.3 Activity Diagram Login Figure: 3 (Activity Diagram for Login Where patient, doctor & Admin can login with valid information) Registration Figure: 4 (Activity Diagram for Registration Where patient & doctor can register with valid information) Personal Information Figure: 5 (Activity Diagram for Personal Information Where patient & doctor can update their all information and Admin can view the information) Appointment Figure: 6 (Activity Diagram for Appointment Where patient get free appointment from doctor) Manage Plasma Figure: 7 (Activity Diagram for Manage plasma Where Admin can edit or update plasma) Forgot Password Figure: 8 (Activity Diagram for Forgot password Where patient & doctor can change password) Donate Plasma Figure: 9 (Activity Diagram for Donate plasma where patient can donate plasma for covid-19 patient) Collect Plasma Figure: 10 (Activity Diagram for Collect Plasma where patient & doctor can collect plasma) Add Plasma Figure: 11 (Activity Diagram for Add plasma where admin can add plasma donare by view their details) Appointment History Figure: 12 (Activity Diagram for Appointment history where patient can view their appointment details) ©Daffodil International University 3.4 System Sequence Diagram Login Figure: 13 (Sequence Diagram for login in CMC) Registration Figure: 14 (Sequence Diagram for Registration in CMC) Personal Information Figure: 15 (Sequence Diagram for Personal Information in CMC) Appointment Figure: 16 (Sequence Diagram for Appointment in CMC) Manage Plasma Figure: 17 (Sequence Diagram for Manage Plasma in CMC) Forgot Password Figure: 18 (Sequence Diagram for Forgot password in CMC) Donate Plasma Figure: 19 (Sequence Diagram for Donate Plasma in CMC) Collect Plasma Figure: 20 (Sequence Diagram for Collect plasma in just go) Add Plasma Figure: 21 (Sequence Diagram for Add plasma in CMC) Appointment History Figure: 22 (Sequence Diagram for Appointment History in CMC) ©Daffodil International University Chapter 4: System Design Specification 4.1 Class Diagram Figure: 23 (Class Diagram for Covid Medi Care) 4.2 Entity Relationship Diagram Figure: 24 (Entity Relationship Diagram in Covid Medi Care) 4.3 Development Tools & Technology While there are number of software tools to develop and implement the web based, I have chosen those are open source, so that it will reduce the developing cost of the project. For designing the project HTML, CSS, JavaScript, Bootstraps, Apache server as web server, PHP and Laravel Framework for making the system dynamic. MySQL as database server. All of the tools are open source. 4.3 .1 HTML In this project HTML used for define the structure. HTML is a markup language used to structure a web page and its content also stands for Hyper Text Markup Language.HTML consists of series of elements. Which you use to enclose or wrap. HTML documents are described by HTML tags. Each HTML tag describes different document content. HTML used because: ? Can make a word or image hyperlink. ? Can make the font bigger and smaller. ? Supported by all browser. ? Cost effective. 4.3.2 CSS CSS (Cascading Style Sheets) is the language we used to style an HTML document. CSS used for describing how HTML elements should be displayed, including color, layout, and fonts. CSS saves a lot of works. It can control the layout of multiple sites all directly. Think of HTML because of the foundation, and CSS because of the aesthetic choices. 4.3 .3 PHP In this project making the online page content dynamic and for interconnecting with database coding done by PHP. PHP stats for Hypertext Preprocessor. The retional of using PHP are: ? PHP can generate dynamic page content. ? PHP can be used for implement the business logical layers. ? PHP can collect form data. ? PHP can send and receive cookies. ? Anyone can use PHP to create a special area for any website members. ? PHP can encrypt data. ? PHP are often wont to control user access. With PHP we cannot limited to output HTML. We will output images, PDF files, and even

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flash movies. We will also output any text, like XHTML and XML. 4. 3.4 Laravel Framework In this project making the web page content dynamic and for interconnecting with Laravel Framework the reason of using Laravel Framework, Laravel is a framework for creating web applications with an easy to use syntax. Laravel features a very rich set of features which can boost the speed of web development 4.3.5 MySQL MySQL may be a database system used for the online application and it runs that runs on a server. The rational of using MySQL are: ? MySQL are often wont to stored anything from a single record. ? MySQL is extremely fast, reliable, and straightforward to use. ? MySQL uses standard SQL. ? MySQL compiles on variety of platforms. ? MySQL is liberal to download and use. The data during a MySQL database are stored in tables. A table may be a collection of related data, and it consists of columns and rows. 4. 3. 6 XAMPP XAMPP might be a free and open source cross-stage web worker arrangement stack bundle created by Apache Friends, comprising mainly of the Apache HTTP Server, Maria DB information base, and mediators for contents written in the PHP and Perl programming languages. XAMPP represents Cross-Platform (X), Apache (A), Maria DB (M), PHP (P) and Perl (P). It is an easy, lightweight Apache distribution that creates it incredibly simple for developers to make a zone web server for testing purposes. All that expected to arrange a web server – server application (Apache), database (Maria DB), ©Daffodil International University and scripting language (PHP) – is included in an extractable document. XAMPP is furthermore cross-platform, which propose its functions admirably on Linux, Mac and Windows. Since most real web server arrangements utilize similar parts as XAMPP, it makes changing from a local test server to a live server very simple also. 4.3.7 JavaScript JavaScript is an implementation of the ECMA Scripts language standard and is typically used to enable programmatic access to computational objects within a host environment. It can be characterized as a prototype-based object-oriented scripting language that is dynamic, weakly typed and has first-class functions. It is also considered a functional programming language like scheme because it has closures and supports higher-order functions. JavaScript is primarily used in the form of client-side JavaScript, implemented as part of a web browser in order to provide enhanced user interface and dynamic websites. Chapter 5: System Testing System Testing A testing is chosen by most software teams falls between the two extremes. It takes an incremental view of testing, beginning with the testing of individual program units, moving to tests design to facilitate the integration of the units, and culmination with tests that exercise the constructed system. 5.1 Testing Features Feature testing is the process of making changes in software system to add one or more new features or to make modifications in the already existing features. Each of these feature is said to have a characteristic that is designed to be useful, intuitive, and effective 5. 2 Features not to be tested Featured Id Featured Name Involved User 001 Edit profile Patient, Doctor 002 Services Patient, Doctor, Admin 003 View Doctor Patient, Admin 004 View Patient Admin, Doctor 005 View Appointments Admin 006 Contact Admin, Patient, Doctor 007 About Patient, Doctor 008 Logout Admin, Patient, Doctor Table: 21 5.3 Test Cases 5.3.1 Test CaseTable -1 Test case #001 Test case name: Registration Test Priority: Medium System : Covid Medi Care Designed By: Jakia Sultana Designed Date: 15.10.20 Executed by: Jakia Sultana Executed date: 15.10.20 Short Description: This section cover the functionalities of registration new user. Pre-conditions: Visit to Covid Medi Care Step Action Expected Result Pass/ Fail Actual Result 01 New user Display successful message pass Pass 02 Enter empty value for any required field Display error message pass Pass 03 All the input field is filled but confirm password is not match Display Password Mismatch! pass Pass Table: 22 5.3.2 Test Case Table-2 Test case #002 Test case name: Login Test Priority: High system: Covid Medi Care Designed By: Jakia Sultana Designed Date: 15.10.20 Executed by: Jakia Sultana Executed date: 15.10.20 Short Description: The user is registered and trying to login to website when the system will check validity Pre-conditions: 1. User must be registered. Step Action Expected Result Pass/ Fail Actual Result 01 Enter valid email and password then submit. Successfully login pass Pass 02 Enter invalid email /password then submit. Invalid email or password pass Pass 03 Empty email and password field then submit Email field is required password field is required pass Pass Table: 23 5.3.3 Test Case Table-3 Test case #03 Test case name: Patient profile Test Priority: High system: Covid Medi Care Designed By: Jakia Sultana Designed Date: 15.10.20 Executed by: Jakia Sultana Executed date: 15.10.20 Short Description: Patient profile view only registered patient. Pre-conditions: 1. Registration must be completed. 2. Login. Step Action Expected Result Pass/ Fail Actual Result 01 [after login] Click the my profile option Successfully view profile pass Pass 02 Enter name, age, blood group, address, phone and gender then submit. Successfully updated profile. pass Pass 03 Click the logout Option Successfully logout to the system. Pass Pass Table: 24 5.3.4 Test Case Table-4 Test case #004 Test case name: My Appointments Test Priority: High system: Covid Medi Care Designed By: Jakia Sultana Designed Date: 15.10.20 Executed by: Jakia Sultana Executed date: 15.10.20 Short Description: Patient and Admin can view the appointments. Pre-conditions: 1. Login. Step Action Expected Result Pass/ Fail Actual Result

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01 [after login] Click the profile option Show the profile pass Pass 02 Click the appointments option Successfully view the appointment history Pass Pass 03 Click the logout Option Successfully logout to the system. Pass Pass Table: 25 5.3.5 Test Case Table-5 Test case #005 Test case name: Free Appointment Test Priority: High system: Covid Medi Care Designed By: Jakia Sultana Designed Date: 15.10.20 Executed by: Jakia Sultana Executed date: 15.10.20 Short Description: when patient want to get appointment then must have login otherwise back in home. Pre-conditions: 1. Login 2. Select a doctor. Step Action Expected Result Pass/ Fail Actual Result 01 [after login] Click the view doctor option. Show the doctor details pass Pass 02 Click the free appointment option Show the appointment letter pass Pass 03 Click on appointment letter Appointment letter field is required pass Pass Table: 26 5.3.6 Test Case Table-6 Test case #006 Test case name: Doctor profile Test Priority: High system: Covid Medi Care Designed By: Jakia Sultana Designed Date: 15.10.20 Executed by: Jakia Sultana Executed date: 15.10.20 Short Description: Doctor profile view only registered doctor. Pre-conditions: 1.login Step Action Expected Result Pass/ Fail Actual Result 01 [after login] Click the my profile option Successfully view profile pass Pass 02 Enter name, hospital, phone, education, specialist, gender then submit Successfully updated profile. pass Pass 03 Click the logout Option Successfully logout to the system. pass Pass Table: 27 5.3.7 Test Case Table-7 Test case #007 Test case name: Update Collect Plasma Test Priority: High system: Covid Medi Care Designed By: Jakia Sultana Designed Date: 15.10.20 Executed by: Jakia Sultana Executed date: 15.10.20 Short Description: Admin can update collect plasma request. Pre-conditions: 1.Login Step Action Expected Result Pass/ Fail Actual Result 01 Click the plasma option Show plasma request list Pass Pass 02 Click the collect view option Show patient details Pass Pass 03 Click set status and choose accepted/rejected option then click update Successfully update Pass Pass 04 Click set time option Successfully set time Pass Pass 05 Click set hospital option Successfully set hospital Pass Pass Table: 28 5.3.8 Test Case Table-8 Test case #008 Test case name: Update Donate Plasma Test Priority: High system: Covid Medi Care Designed By: Jakia Sultana Designed Date: 15.10.20 Executed by: Jakia Sultana Executed date: 15.10.20 Short Description: Admin can update donate plasma request. Pre-conditions: 1.Login Step Action Expected Result Pass/ Fail Actual Result 01 Click the plasma option Show plasma request list Pass Pass 02 Click the donate view option Show patient details Pass Pass 03 Click set status and choose accepted/rejected option then click update Successfully update Pass Pass 04 Click set time option Successfully set time Pass Pass Click set hospital option Successfully set hospital Pass Pass Table: 29 5.3.9 Test Case Table-9 Test case #009 Test case name: Donate Plasma Test Priority: High system: Covid Medi Care Designed By: Jakia Sultana Designed Date: 15.10.20 Executed by: Jakia Sultana Executed date: 15.10.20 Short Description: Patient can donate plasma after recover covid-19. Pre-conditions: 1.Login Step Action Expected Result Pass/ Fail Actual Result 01 Click the plasma option Show donate letter Pass Pass 02 Click the donate letter option and write letter for donate then submit. Successfully submitted and show donate history Pass Pass 03 Click the logout Option Successfully logout to the system. Pass Pass Table: 30 5.3.10 Test Case Table-10 Test case #010 Test case name: Collect Plasma Test Priority: High system: Covid Medi Care Designed By: Jakia Sultana Designed Date: 15.10.20 Executed by: Jakia Sultana Executed date: 15.10.20 Short Description: Patient and doctor can collect plasma if they covid positive. Pre-conditions: 1.Login Step Action Expected Result Pass/ Fail Actual Result 01 Click the plasma option Show collect letter Pass Pass 02 Click the collect letter option and write letter for collect plasma then submit. Successfully submitted and show collect history Pass Pass 03 Click the logout Option Successfully logout to the system. Pass Pass Table: 31 5.3.11 Test Case Table-11 Test case #011 Test case name: View Appointments Test Priority: High system: Covid Medi Care Designed By: Jakia Sultana Designed Date: 15.10.20 Executed by: Jakia Sultana Executed date: 15.10.20 Short Description: Doctor can view appointment of patient. Pre-conditions: 1.Login Step Action Expected Result Pass/ Fail Actual Result 02 Click the appointments option. Show the appointments list. Pass Pass 03 Click the view option. Show patient details. Pass Pass 04 Click the prescription option and write prescription Successfully added prescription. Pass Pass 05 Click the visit hour option and set the time Successfully added time. Pass Pass 06 Click the meet link option and set link. Successfully added meet link. Pass Pass 07 Click the health option and click good or bad option. Successfully added health. Pass Pass 08 Click the covid option and click positive or negative option. Successfully added covid. Pass Pass Table: 32 Chapter 6: User Interface Doctor Registration Figure: 25 (Doctor Can Registration in Covid Medi Care with name, email, password, repeat password) User Registration Figure: 26 (User Can Registration in Covid Medi Care with name, email, password, repeat password) User Login Figure: 27 (User Can login to Covid Medi Care with email and password) Patient Profile Figure: 28 (Patient Can update their personal information in Covid Medi Care) Doctor Profile Figure: 29 (Doctor Can update their personal information in Covid Medi Care) Doctor Dashboard Figure: 30 (Doctor Can see all information in Covid Medi Care) Doctor Appointments list Figure: 31

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