American International University-Bangladesh (AIUB)
Department of Computer Science
Faculty of Science &Technology (FST)
Fall 22-23

Section: B

SOFTWARE QUALITY AND TESTING

HEALTH CARE SYSTEM

A Report submitted By

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Software Test Plan

For

< HEALTH CARE SYSTEM >

Version 7.0 approved

Prepared by < Joy Matubber, Md.Jawadul Hasan >

<American International University-Bangladesh (AIUB)>

< 14 December, 2022>

Checked By Industry Personnel

Name: Wasif Zaman

Designation: Sr. SQA Engineer

Company: Riseup Labs

Sign:

Date:

Table of Content

Revision History

Revision	Date	Updated by	Update Comments
0.1	02/12/2022	Joy	Version_1
0.2	03/12/2022	Jawad	Version_2
0.3	04/12/2022	Joy	Version_3
0.4	07/12/2022	Jawad	Version_4
0.5	09/12/2022	Jawad	Version_5
0.6	11/12/2022	Joy	Version_6
0.7	13/12/2022	Jawad	Version_7

1. **TEST PLAN IDENTIFIER:** Health Care System -MTP01.3

2. **REFERENCES**

F. Anjum, A. S. M. Shoaib, A. I. Hossain and M. M. Khan, "Online health care," *2018 IEEE 8th Annual Computing and Communication Workshop and Conference (CCWC)*, 2018, pp. 580-583,

3. INTRODUCTION:

3. 1 Background to the Problem

It is commonly found that people suffer from the dilemma of whether they will go to the hospital or not when they thought about the hassle of visiting a doctor. The process of getting a serial in a government hospital is very tough nowadays. People have to stand in a queue for more than an hour. Then after Obtaining the serial, some people engage in some political maneuvering in order to meet the doctor sooner. Again Test-taking and other stuff are tough as well. And the patient has to suffer a lot if he lost his previous document. Sometimes some doctors and hospital authorities overcharge patients in terms of prescriptions, medicine, operations, etc. Standardization of these rates can resolve these issues. A digital web-based system that can erase these complexities simultaneously will save money and time.

3. 2 Solution to the Problem

The advantage of using the Internet is the ability to access a global source of information and save our most valuable resource: time. Our application helps people save their time. This application will help the citizens to perform their tasks more efficiently and remove the fear of taking treatment. Simultaneously, it will also reduce discrimination in terms of treatment rates meeting doctors, etc. Our aim is to build a web-based application to

- Store and manage citizen's medical records properly.
- Find and meet doctors without wasting time
- Reduce the time for a doctor to search for the patient/citizen's previous medical reports.
- Keeping the patient/citizen's records for their entire life.
- Store exercise routine depending on his activity.

4. REQUEIREMNT SPECIFICATION

2.1. System Features

2.1.1. User Signup

- New Patients/Doctor will require valid personal information such as phone number, email, Username and password.
- If the registration process in successful, the User will see a pop up confirming such and will be redirected to sign in page.
- Priority level: High
- Precondition: User must have valid information's.

2.1.2. Patient Login

- Patient will log into the system with their own Username and password.
- If the login is successful, the Patient will be redirected to the website homepage. Otherwise it will load the login page again with wrong credentials massage.
- Priority Level: High
- Precondition: Patient must have valid Username and password.

2.1.3. Set Appointment:

- A patient can set an appointment based on their symptoms and date of counseling.
- The appointment will require the patient to specify the category of their disease.
- Priority Level: Medium
- Precondition: Patient must have valid Username and password.

2.1.4. Regular Exercise:

- The system will collect regular exercises the patient is prescribed from the doctor.
- The patient can keep track of the exercise and maintain a record of exercise performed.
- Priority Level: Medium
- Precondition: Patient must have valid Username and password.

2.1.5. Covid Test:

- Patient will be able to log their symptoms in the Covid Test section.
- The system will register their symptoms and based on that give a verdict.
- Priority Level: Medium
- Precondition: Patient must have valid Username and password.

2.1.6. Medicine Reminder:

- The system will collect the regular medicine the patient is prescribed from the doctor.
- The patient can keep track of the medicine and maintain a record of medicine taken.
- Priority Level: Medium

- Precondition: Patient must have valid Username and password.

2.1.7. Emergency Ambulance Service:

- A patient can access the emergency ambulance service and call for an ambulance.
- After clicking the emergency ambulance service, the patient will be required to put their current location space given below.
- Priority Level: Medium
- Precondition: Patient must have valid Username and password.

2.1.8 Admin Login

- Admin will log into the system with admin Username and password.
- If login is successful, admin homepage will be shown. Otherwise it will redirect to the admin login page with wrong credential massage.
- Priority Level: High
- Precondition: admin must have valid Username and password.

2.1.9 Patient Update Profile

- Patient has to Login with valid Patient name and password in order to do Update Patient profile.
- If a patient wishes to update their profile, they have to login with correct username and password. If the operation is successful, the patient will be redirected to their profile page. Otherwise the Update profile page will be shown again with specific error massage.
- Priority Level: Medium
- Precondition: Patient must log into the system in order update their profile.
-

2.1.10. Delete User

- An admin can delete Patient or doctor from admin page.
- If admin selects delete option and confirms the pop up to delete the patient /doctor, the patient /doctor profile will be deleted.
- Priority Level: Medium
- Precondition: An Admin must log into the system in order delete Patient or doctor.

2. 1.11 Donor List:

- Admin can add a donor in the system.
- Donor will be sorted based on blood group.
- Priority Level: low
- Precondition: Admin login required.

2.1.12 Doctor Login

- The doctor login the account with a valid Username and password.
- After login, the doctor gets a notification if any patient sets an appointment under that doctor.
- The doctor then gives a prescription or treatment to the patient, based on measuring the BMI.

- Priority Level: Medium
- Precondition: Valid Username and password.

2.1.13 Give Prescription

- After a doctor logs into the system, they can see the information's of the patient who require their counseling.
- The doctor can then see the information of the patient and calculate their BMI based on weight and height.
- The doctor can then prescribe some medicine to the patient.
- Priority Level: Medium
- Precondition: Valid Username and password.

2.1.14 User Logout

- A user will be able to log out of the system from his valid account.
- Logout will be successful if after pressing logout it redirects to the login page.
- Priority Level: High
- Precondition: User needs to successfully log in first.

2.2 System Quality Attributes

There are some software quality attributes as per ISO/ IEC 9126 that are very important to ensure the quality of software.

Functionality: A valid Patient can see all services or functionality after login into the system. Invalid Patients cannot access the system.

Security: System security should be sufficient to prevent unauthorized access to the system operations

Reliability: All features will work as intended across a range of working environments or devices.

Usability: The health care system is a system that is easy to understand for everyone. Any patient should be able to register and access the system easily

Efficiency: Our system size is small and efficient so that it can be handled by any device.

Maintainability: If a bug or problem is found in the system, it will be solved as soon as possible.

Portability: Switching the host or environment can be done in a short time. Reinstallation of the software can be done easily as well.

Accessibility: As it is web-based software, it can be accessed from anywhere through Internet.

Installation: There won't be any time-consuming downloads or installations because it is web-based. It is based on web addresses. It is very easy for anyone to access.

2.3 System Interface

This the system home user interface. All types of users will first see this home page when then visit this EkSheba Web application

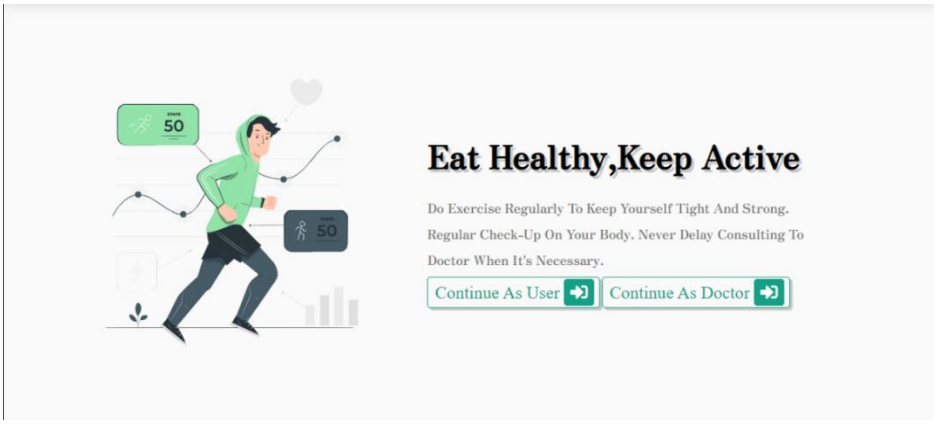


Fig 1: System Home Page

This the login page for user (Doctor and Patient). User will provide their credentials to login to the systema

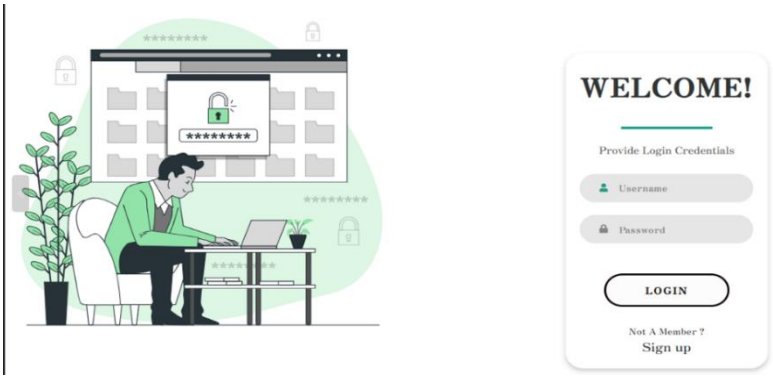


Fig 2 : User Login Page

This is the Dashboard of the Patient. After successfully login into the system, Patient will redirect to this page

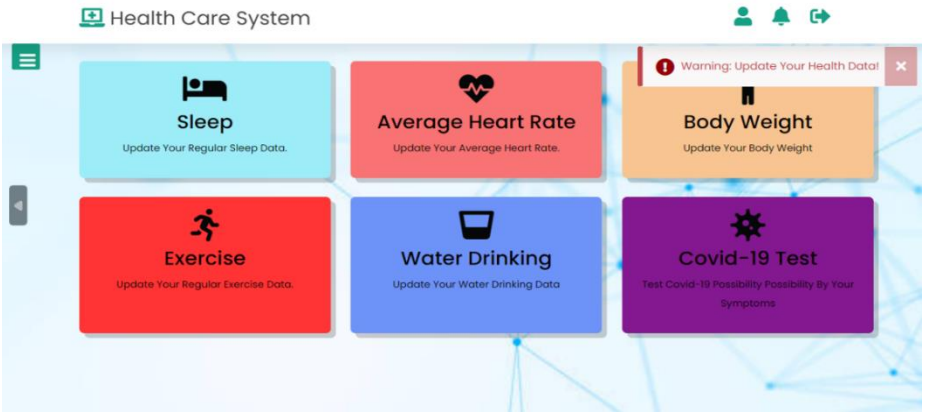


Fig 3: Patient Home Page

This is the patient profile page. Patient can view and update his/her personal information from here.

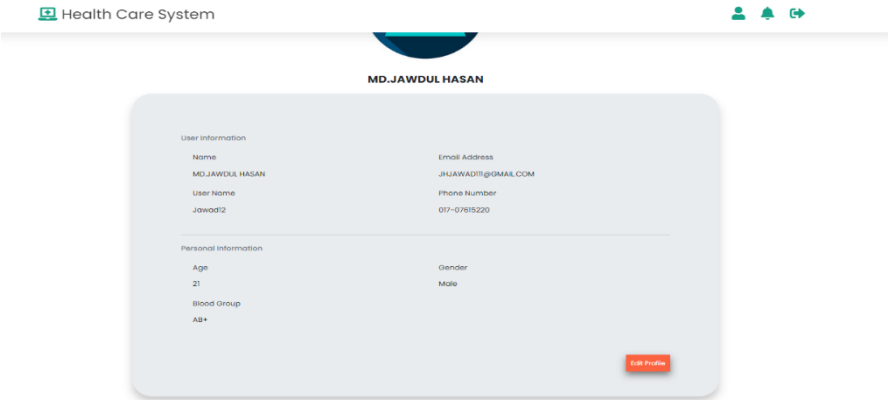


Fig 4: User Profile Page

This page is for updating patient health data. From here, the patient can enter his regular health data.

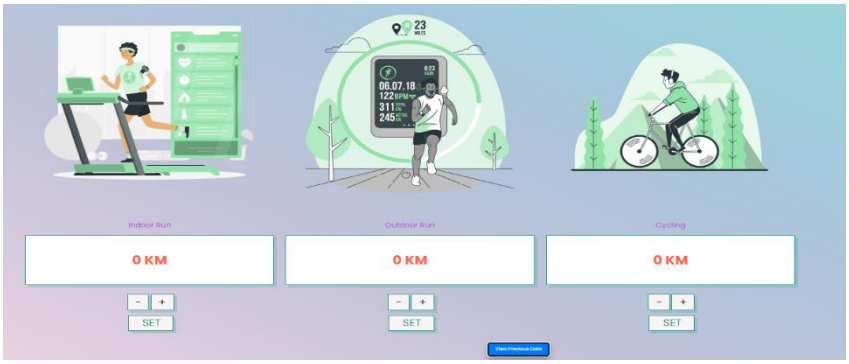


Fig 5: User Exercise Data Page

This page is for viewing the patient's previous data. The patient can view his previous health data on this page.

Fig 6: User Previous Exercise Data Page

This page is for viewing the donor's information. Patients can also use this page to look for donors based on their blood group.

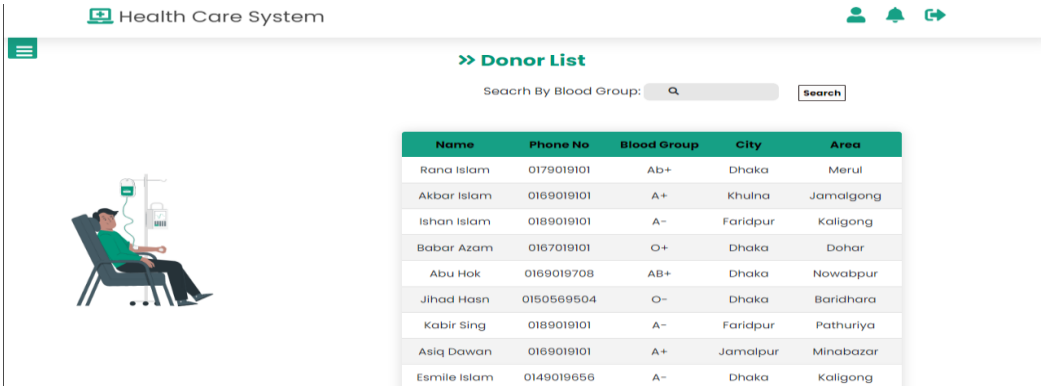


Fig 7: Donor List Page

This page is for calling the ambulance. Patient will be able to call ambulances by giving their address.

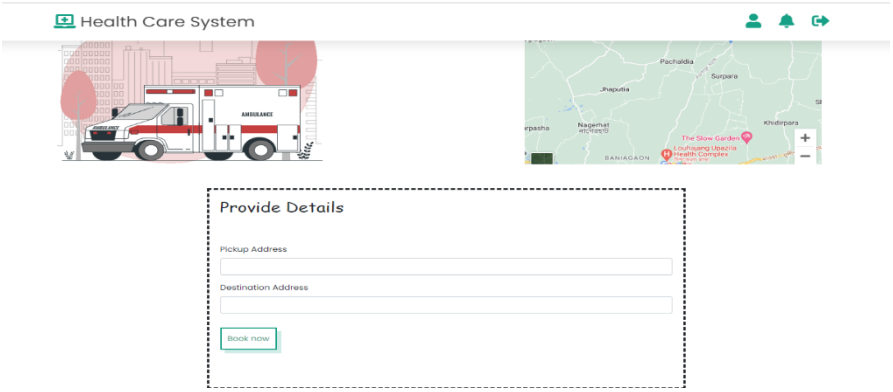


Fig 8: Ambulance Call Page

This page is for the medicine reminder page. The patient can set up medication reminders from here.

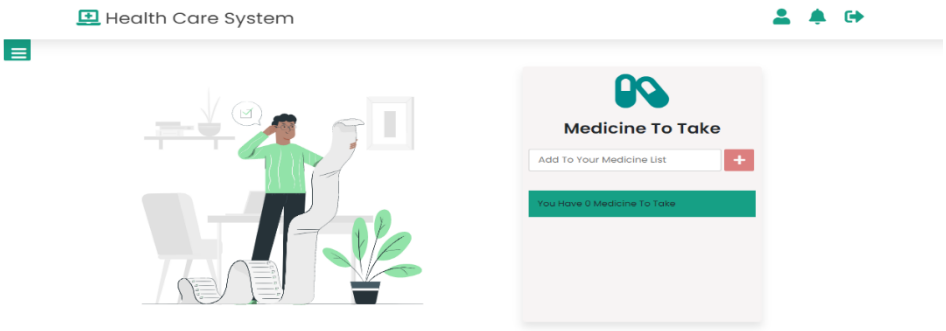


Fig 9: Medicine Reminder Page

This page is for prescription giving. Here, the doctor can give prescriptions and also calculate the BMI of the users by inputting their data.

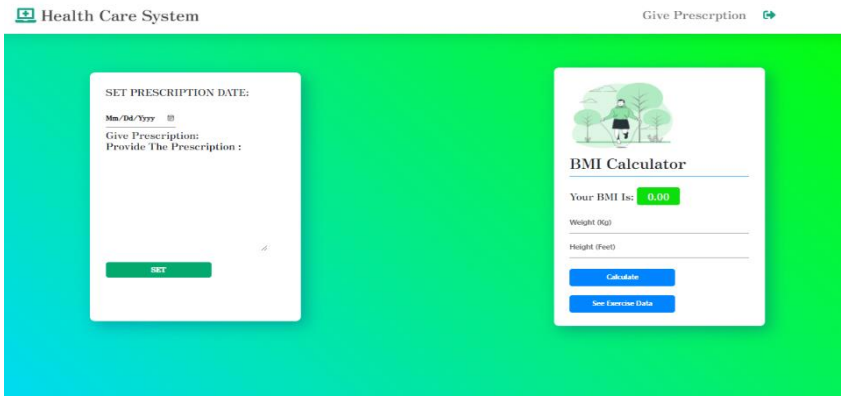


Fig 10: Prescription giving Page

This page is for the admin dashboard. The user can view the statistics of the registered patient, doctor, and donor.

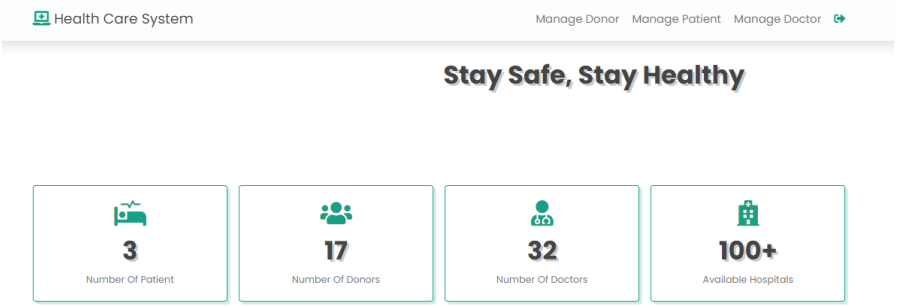


Fig 11: Admin Dashboard Page

This page is for the patient's vaccination history. The user can add vaccination details and take a printout of them.

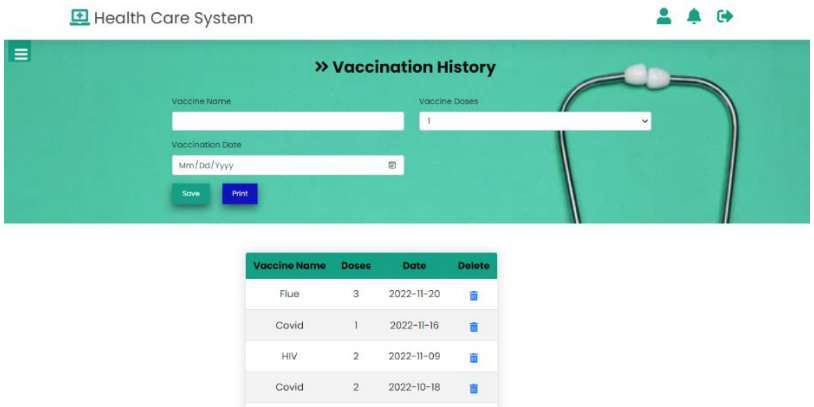


Fig 12: Vaccination History Page

2.4 System Flow Diagram

PATIENT

The patient will first enter his credentials into the system. After logging into the system, the patient will be redirected to the patient dashboard. Here, he can get several services from the system. The patient can call an ambulance by providing addresses. Patients can book an appointment after selecting a doctor and providing a valid date. He cannot schedule another appointment if one is already scheduled. The patient can be tested for COVID-19 by providing all necessary information. The patient can also update his regular health data. The patient can also update his vaccination history by entering a valid date. The patient can browse the donors and search for them by blood group. Lastly, patients can set any medicine reminder.

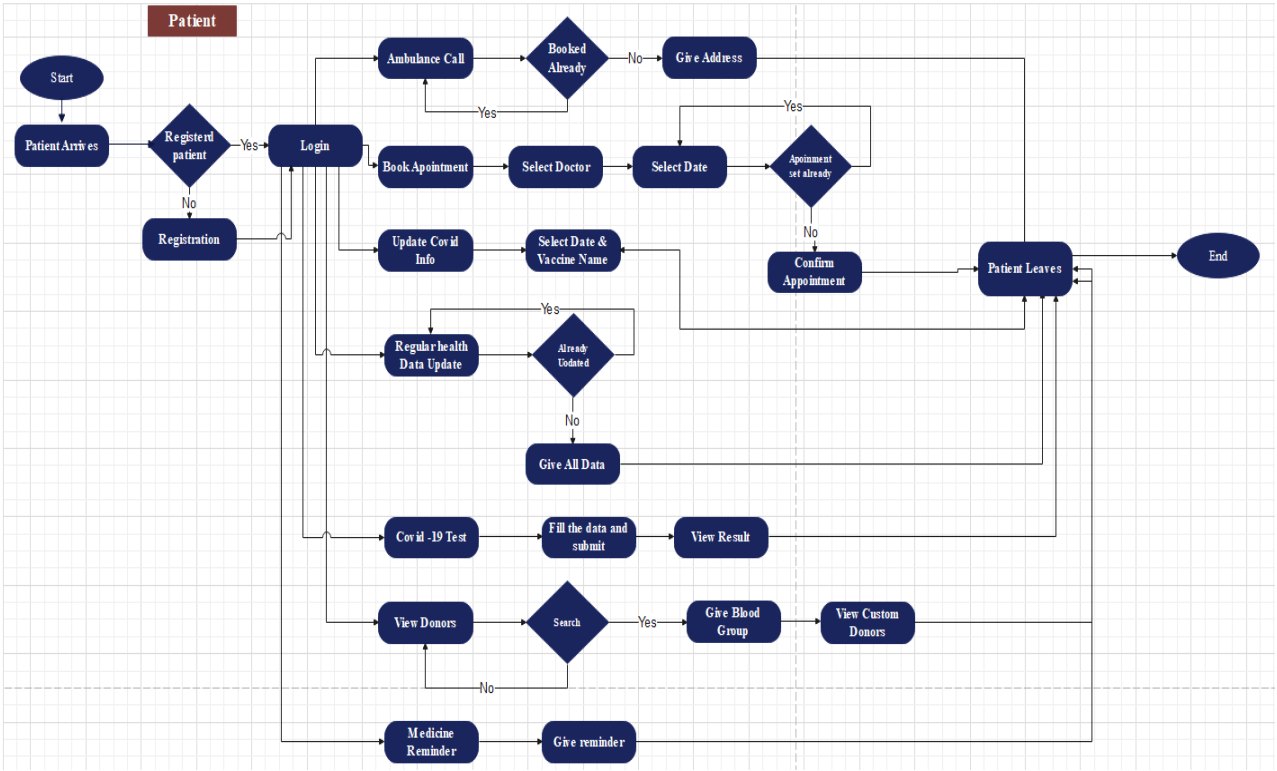


Fig 13: System Flow Diagram (Patient)

ADMIN:

Admin will first enter his credentials into the system. After logging into the system, the admin will be redirected to the dashboard. Here he can modify the users. Admin can view all the available doctors and patients. He can add new donors to the system and also modify them.

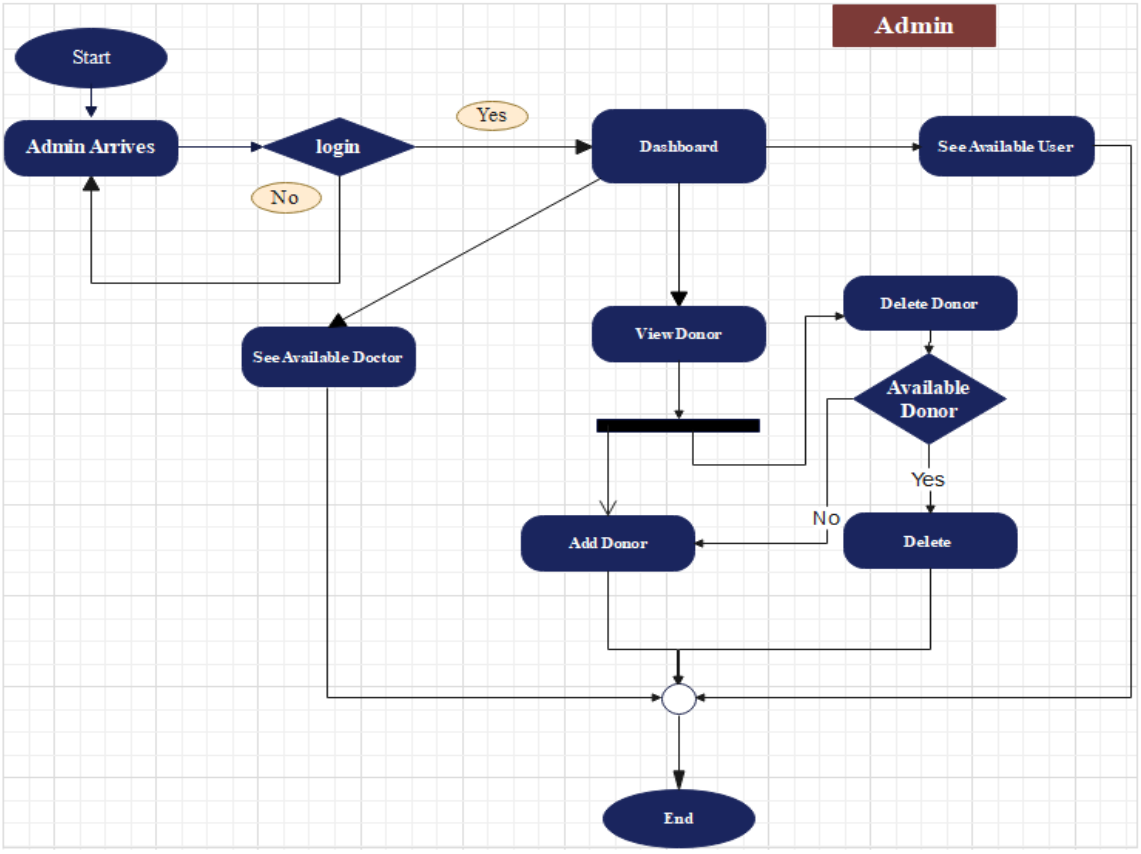


Fig 14: System Flow Diagram (Admin)

DOCTOR

The doctor will first enter his credentials into the system. After logging into the system, the doctor will be redirected to the doctor profile page. If a doctor is not already registered in the system, he can do so. The doctor will be able to see all the appointments. Then he has to select a specific patient. After selecting the patient, he can give medicine to that specific patient.

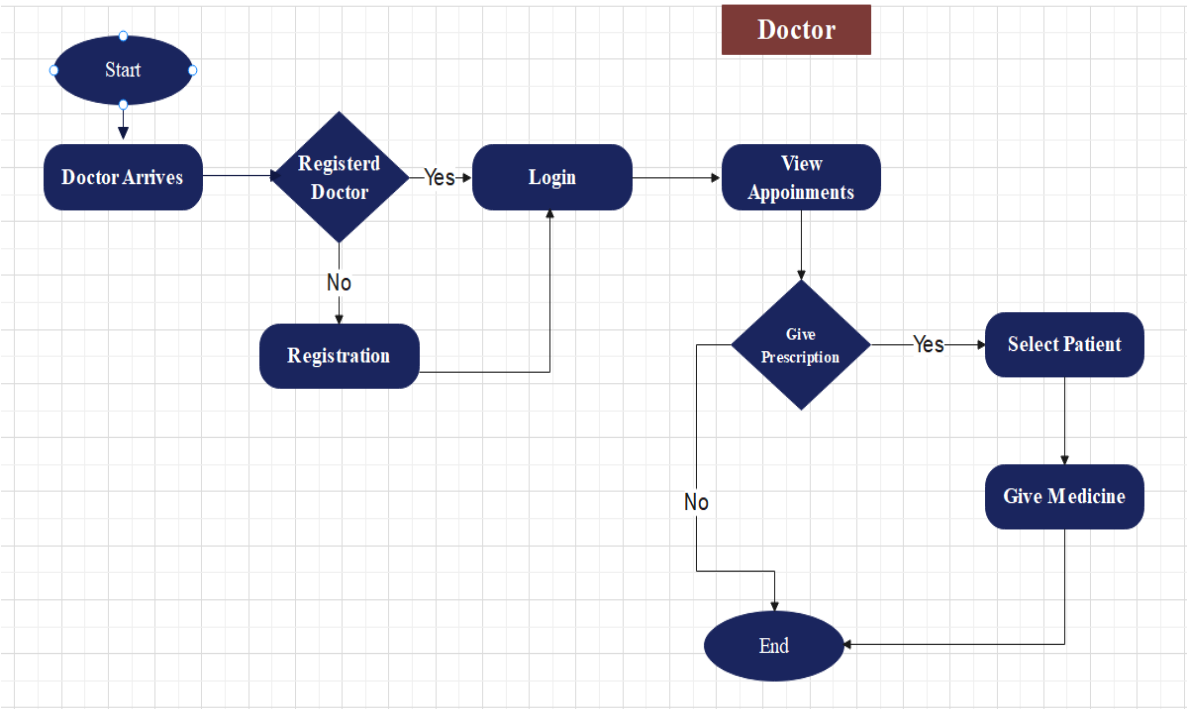


Fig 15: System Flow Diagram (Doctor)

2.5 Project Requirements

- Time: This web-based application may take about 2.5 months (90 days) to complete.
- Budget: 4,50,000 BDT
- Size: The final size of this web-based application will not be more than 500-600 MB.
- HTML, CSS, PHP, JavaScript, JQuery and Ajax will be used to build this web-based application.

5. FEATURES NOT TO BE TESTED

Some of our system features are implemented using APIs and Iframes. The COVID-19 test module is fetching the iframe from the Bangladesh government's COVID-19 website. The COVID-19 test module is embedded in an Iframe within our system, which pulls information from the Bangladesh government's website and interacts with it. So, we can skip this component for testing. We do not need to worry about any security concerns with this module as it is hosted and maintained by the Bangladesh government. The only concern is that the website may be unavailable due to the Bangladesh government's regular maintenance and updates, but we will monitor this closely and ensure that our testing process remains uninterrupted.

6. TESTING APPROACH

The testing for this health care project will consist of unit, system, integration, and acceptance test levels. It is hoped that there will be at least one full time independent tester for system and integration testing. However, with the budget constraints and timeline established, most testing will be done by the test manager with the development teams' participation.

6.1 Testing Levels

UNIT TESTING: Unit testing is the first phase of testing, which is done by the developer himself. During the development of the software, after completing the code of a small unit, the developer tests whether it is working perfectly or not. It will be approved by the development team leader. A progress report for the unit testing is provided to the test person to let them know the current situation of the software.

INTEGRATION TESTING: Integration testing comes after unit testing, and it will be done by a team of testers who are only responsible for testing. The smaller units will be assembled together. And after assembling a smaller part, the whole system will be tested to check whether the new module is integrated perfectly with the existing system.

SYSTEM TESTING: After integration testing is complete, system testing should be performed to ensure that all modules work properly together after they have been connected as a whole software. It is a black box test. Depending on the requirement and specification, a test case is generated to test the system as a whole without knowing the inside of the module.

ACCEPTANCE TESTING: The final stage of software testing is acceptance testing. It is done by the real-time users of that particular software. A beta version of the software is released in the market. Users use the software, and based on their experience, they submit a review. Bugs are resolved as quickly as possible. Acceptance testing validates the effort of both the testing and developer teams and reflects the quality of the software overall.

6.2 Test Tools

For the project required testing tools are described below –

Selenium: The only test tool to be used is Selenium WebDriver. Selenium automates browser-based web applications, allowing an agile tester to automate repeated test scripts so they can come up with more critical test scenarios.

The testing will be done in the Eclipse IDE with the Java programming language. C#, Ruby, and Python can be used to script tests as well. Selenium supports a multitude of frameworks like Maven, Junit, and TestNG to make it easier to automate testing. We will be using the TestNG framework in this project. It helps generate the test report more efficiently.

6.3 Meetings

The test team will meet once in every week to evaluate progress to date and to identify error trends and problems as early as possible. The test team leader will meet with development and the project manager once every two weeks as well. These two meetings will be scheduled on different weeks. Additional meetings can be called as required for emergency situations.

7. TEST CASES:

Test case 1:

Project Name: Health Care System			**Test Designed By: Joy**	
Test Case ID: FR_1			Test Designed Date: 12-11-22	
Test Priority: High			Test Executed By: Jawad	
Module name : Patient Signup			Test Execution Date: 13-11-22	
Test Title: Patient Signup With valid Information.				
Description: Check If Patient signup works perfectly with valid information.				
Precondition: N/A				
Test Steps	Test Data	Expected Results	Actual Results	Status
1. Go to the website 2. Then Click Patient Signup 3. Put valid Information 4. Click Signup button	Put valid Information and fill up all input level	Sign up must be successful	Signup successful	Pass
Post Condition: Redirected to Patient sign in page				

Test Case 2:

Project Name: Health Care System			**Test Designed By: Joy**	
Test Case ID: FR_2			Test Designed Date: 12-11-22	
Test Priority: High			Test Executed By: Jawad	
Module name : Patient Login			Test Execution Date: 13-11-22	
Test Title: Patient login With valid Username and password				
Description: Check If Patient login works perfectly with valid Username and password.				
Precondition: Patient Must be registered into the system.				
Test Steps	Test Data	Expected Results	Actual Results	Status
1. Go to the website 2. Then Patient Login 3. Put valid Username and password 4. Click Sign In button	Username:Jawad123 Password:Jawad123	Login must be successful	Login successful	Pass
Post Condition: Redirected to Patient login page				

Test case 3:

Project Name: Health Care System			**Test Designed By: Joy**	
Test Case ID: FR_3			Test Designed Date: 12-11-22	
Test Priority: High			Test Executed By: Jawad	
Module name : Admin Login			Test Execution Date: 13-11-22	
Test Title: Admin login With valid Username and password				
Description: Check If admin login works perfectly with valid Username and password.				
Precondition: Admin Must have valid Username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status
1. Go to the website 2. Then admin Login 3. Put valid Username and password 4. Click Sign In button	Username:admin Password:admin	Login must be successful	Login successful	Pass
Post Condition: Redirected to admin dashboard				

Test case 4:

Project Name: Health Care System			**Test Designed By: Jawad**	
Test Case ID: FR_4			Test Designed Date: 12-11-22	
Test Priority: Medium			Test Executed By: Joy	
Module name : Patient modification			Test Execution Date: 13-11-22	
Test Title: Patient update profile				
Description: Check If Patient can update profile perfectly with valid Username and password.				
Precondition: Patient must be logged into this system				
Test Steps	Test Data	Expected Results	Actual Results	Status
1. Go to the website 2. Then Patient profile update 3. Put new valid data 4. Click update button	Username:Jawad123 Password:Jawad123 NewAddress: Kuratoli	Update must be successful	update successful	Pass
Post Condition: Redirected to Patient profile				

Test case 5:

Project Name: Health Care System			**Test Designed By: Joy**	
Test Case ID: FR_5			Test Designed Date: 12-11-22	
Test Priority: Medium			Test Executed By: Jawad	
Module name : Patient modification			Test Execution Date: 13-11-22	
Test Title: Patient delete				
Description: Check If Patient delete by admin works perfectly				
Precondition: Admin Must be logged into the system				
Test Steps	Test Data	Expected Results	Actual Results	Status
1. Go to the website 2.Go to patient Dashboard 3. Then select Patient to delete 4. Click delete button	N/A	Delete must be successful	delete successful	Pass
Post Condition: Redirected to Patient page				

Test case 6:

Project Name: Health Care System			Test Designed By: Jawad	
Test Case ID: FR_6			Test Designed Date: 12-11-22	
Test Priority: Medium			Test Executed By: Joy	
Module name : Appointment			Test Execution Date: 13-11-22	
Test Title: Set Appointment				
Description: Check If Patient can Set Appointment perfectly				
Precondition: Patient must be logged into the system				
Test Steps	Test Data	Expected Results	Actual Results	Status
1. Go to the website 2. Then click set appointment 3. Put valid Visiting date and time 4. Click button	Visiting date: Any valid upcoming date	must be successful	successful	Pass
Post Condition: Redirected to services page				

Test case 7:

Project Name: Health Care System			Test Designed By: Joy	
Test Case ID: FR_7			Test Designed Date: 12-11-22	
Test Priority: Medium			Test Executed By: Jawad	
Module name : Doctor Login			Test Execution Date: 13-11-22	
Test Title: Doctor login With valid Username and password				
Description: Check If doctor can login perfectly with valid Username and password.				
Precondition: Must be registered into the system				
Test Steps	Test Data	Expected Results	Actual Results	Status
1. Go to the website 2. Then Doctor Login 3. Put valid Username and password 4. Click Sign In button	Username:joy123 Password:joy123	Login must be successful	Login successful	Pass
Post Condition: Redirected to Doctor home page				

Test case 8:

Project Name: Health Care System			Test Designed By: Jawad	
Test Case ID: FR_8			Test Designed Date: 12-11-22	
Test Priority: Medium			Test Executed By: Joy	
Module name : Prescription			Test Execution Date: 13-11-22	
Test Title: Prescription giving				
Description: Check If the doctor can give the prescription to the patient				
Precondition: Doctor must be logged into the system				
Test Steps	Test Data	Expected Results	Actual Results	Status
1. Go to the website 2. Then Give Prescription 3. Put data 4. Click add button	Medicine Name :a,b,c Test Name : a,b,c	Prescription giving must be successful	Prescription giving is successful	Pass
Post Condition: Redirected to Prescription page				

Test case 9:

Project Name: Health Care System			Test Designed By: Jawad	
Test Case ID: FR_9			Test Designed Date: 12-11-22	
Test Priority: Medium			Test Executed By: Joy	
Module name : Donor Modification			Test Execution Date: 13-11-22	
Test Title: Donor adding				
Description: Check If admin can add Donor perfectly with valid Information				
Precondition: Admin must be logged into the system				
Test Steps	Test Data	Expected Results	Actual Results	Status
1. Go to the website 2. Then add donor 3. Put valid Information 4. Click add button	Number :01123455 Blood Group : A+	add must be successful	add successful	Pass
Post Condition: Redirected to Donor home page				

Test case 10:

Project Name: Government Services			Test Designed By: Joy	
Test Case ID: FR_10			Test Designed Date: 12-11-22	
Test Priority: Medium			Test Executed By: Jawad	
Module name : Logout user			Test Execution Date: 13-11-22	
Test Title: Patient or admin logout Test				
Description: Check If Patient or admin can logout or not.				
Precondition: Patient or admin must be logged into the system				
Test Steps	Test Data	Expected Results	Actual Results	Status
1. Go to the website 2. Then click logout	N/A	Logout must be successful	Logout successful	Pass
Post Condition: Redirected to home page				

Test case: 11

Project Name: Health Care System			Test Designed By: Jawad	
Test Case ID: FR_11			Test Designed Date: 12-11-22	
Test Priority: Medium			Test Executed By: Joy	
Module name : Service			Test Execution Date: 13-11-22	
Test Title: Ambulance Calling Test				
Description: Check If the patient call the ambulance or not				
Precondition: Patient must be logged into the system				
Test Steps	Test Data	Expected Results	Actual Results	Status
1. Go to the service page 2. Then click Ambulance Call 3. Put Destination data 4. Click sent button	Pickup address: Banasree Destination address :Kuril	Ambulance booking must be successful	Ambulance booking is successful	Pass
Post Condition: Redirected to Service page				

Test case: 12

Project Name: Health Care System			Test Designed By: Jawad	
Test Case ID: FR_12			Test Designed Date: 12-11-22	
Test Priority: Low			Test Executed By: Joy	
Module name: Service			Test Execution Date: 13-11-22	
Test Title: Regular Exercise Test				
Description: Check If the patient can update regular exercise data or not				
Precondition: Patient must be logged into the system				
Test Steps	Test Data	Expected Results	Actual Results	Status
1. Go to the service page 2. Then click regular exercise 3. Put data 4. Click add button	Indoor run : 5 Outdoor run :5 Cycling :3	Data must be updated	Data is updated	Pass
Post Condition: Redirected to Service page				

Test Case: 13

Project Name: Health Care System			Test Designed By: Jawad	
Test Case ID: FR_13			Test Designed Date: 12-11-22	
Test Priority: Low			Test Executed By: Joy	
Module name : Service			Test Execution Date: 13-11-22	
Test Title: Medicine Reminder Test				
Description: Check If the patient can create a medicine reminder or not				
Precondition: Patient must be logged into the system				
Test Steps	Test Data	Expected Results	Actual Results	Status
1. Go to the service page 2. Then click Medicine reminder 3. Put medicine names 4. Click add button	Medicine name : Fexo-fast	Medicine name must be added to the list.	Medicine Name is added to the list.	Pass
Post Condition: Redirected to Service page				

8. ITEM PASS/FAIL CRITERIA

The main objective of this section is to describe the PASS/FAIL criteria for the tests that are a part of this project. Any system or unit receiving a score of less than 90% will be subject to the failure criteria, and any component, unit, system, or integrated test item receiving a score of 90% to 95% will be considered to meet the pass criterion.

9. TEST DELIVERABLES

Test Deliverables are documents that are given to the stakeholders when the software is being developed. It contains a list of documents, tools, and other equipment that must be created, provided, and maintained to support testing activities in a project.

- Unit testing findings and results will be properly documented. To stay on track, a continuous progress report is required.
- Audience for acceptance tests will be carefully selected, as wrong users can lead to incorrect results and feedback. It is similar to a contract for development team release and software delivery.
- During the time of integration testing, new modules are integrated into the system. And these records needed to be kept for further checking.
- Project management tools such as Jira, Trello, and others can be used to keep track of the progress report.
- After completing the each of the testing phase the details report will be generated containing the test results.

10. FUTURE SCOPES

- Emergency Oxygen Supply Service: Patients will be able to request oxygen in an emergency. Some specific vendors will be registered in the system to provide these facilities.
- Video Consultancy: A registered doctor will schedule a video consultation for the patient at their convenience.
- 24/7 Support: A dedicated support team will be on hand to answer patient's basic questions. These teams will not require any higher degrees.
- Purchasing Medicine Equipment: Adding medicine products to the system so that the user can get all necessary medicine from this system.

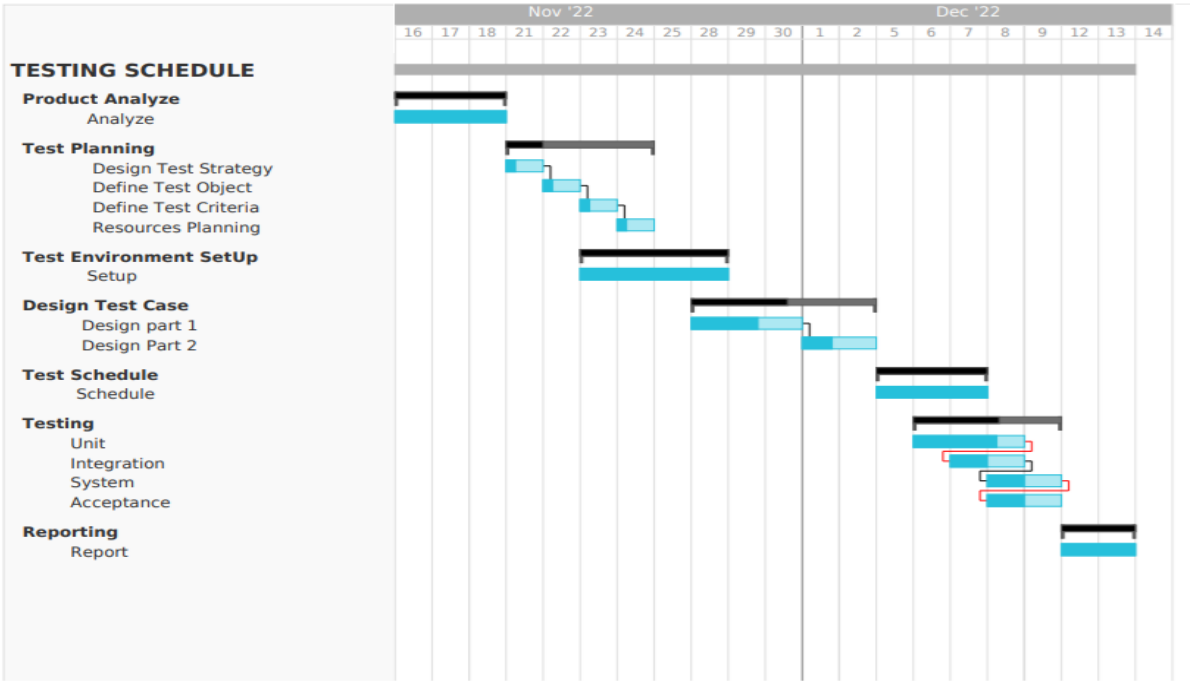
11. STAFFING AND TRAINING NEEDS

The goal of this staffing strategy is to maximize the likelihood that enough qualified people will be assigned to the project to ensure its successful completion. Proper training and staffing enable employees to think outside the box and also increase efficiency, which is very important for product development. We need at least one full-time tester during the system/integration and acceptance testing phases of our project. A dedicated tester will work on the project full-time for the first four months. When there isn't enough time for a dedicated tester, the test manager steps in. Developers and testers will need training on the basics of our project's user interface. Operations staff must also undergo comprehensive training in this project communication procedure before the project is greenlit. As we will be using Selenium, we have to bring all necessary tools to support the testing team, and necessary training is also needed to be provided if it's necessary

12. RESPONSIBILITIES

	TM	PM	Dev. Team	Test Team	Client
Acceptance test Documentation & Execution	X	X		X	X
System/Integration test Documentation & Exec.	X		X	X	
Unit test documentation & execution	X		X	X	
System Design Reviews	X	X	X	X	X
Detail Design Reviews	X	X	X	X	
Test Procedures and rules	X	X	X	X	
Screen & Report Prototype reviews			X	X	X
Change control and Regression testing	X	X	X	X	X

13. TESTING SCHEDULE



14. PLANNING RISKS AND CONTINGENCIES

Effective risk and emergency planning is extremely important to a project's success. It is employed within a project to manage the risk of exceptions. The designed product has to be aligned with the service areas, ethics, and etiquette; otherwise, it will not be able to reach its own goal. Also, there are some rules and regulations for the organization to cope with the uncertain situations. It is very important to have this sort of system and to maintain it appropriately.

15. APROVALS

Project Sponsor	N/A
Development Management	Riseup Labs
EDI Project Manager	Md. Jawadul Hasan
RS Test Manager	Joy Matubber
RS Development Team Manager	Md. Jawadul Hasan
Reassigned Sales	Joy Matubber
Order Entry EDI Team Manager	Md. Jawadul Hasan