American International University-Bangladesh (AIUB)

Department of Computer Science

Faculty of Science &Technology (FST)

Spring 22 23

Section: C

Software Quality Assurance and Testing

Doctor Appointment System
A Report submitted By

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Software Test Plan

for

<Doctor Appointment System>

Version 1.0 approved

Prepared by <Sayeem,Urbee,Ashiqul,Jannat>

< American International University-Bangladesh >

<28-4-2023>

Checked By Industry Personnel

Name:

Designation:

Company:

Sign:

Date:

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Revision History

Revision	Date	Updated by	Update Comments
0.1	17-4-2023	Sayeem	First Draft
0.2	19-4-2023	Ashiqul	Second Draft
0.3	20-4-2023	Sayeem	Third Draft
0.4	21-4-2023	Urbee	Fourth Draft
0.5	22-4-2023	Jannat	Fifth Draft
0.6	23-4-2023	Ashiqul	Sixth Draft
0.7	24-4-2023	Urbee	Seventh Draft
0.8	25-4-2023	Jannat	Eighth Draft
0.9	26-4-2013	Sayeem	Final Draft

1. TEST PLAN IDENTIFIER: Doctor Appointment System RS-MTP01.3

2. REFERENCES

1.Software Requirement Specification (SRS) Document

2. www.qmatic.com

3. INTRODUCTION

3.1 Background to the Problem

It is commonly found that people suffer from the dilemma of whether they will go to hospital & take appointment of 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. People suffer in daily to taking serial of a doctor. Doctors also don't know how many people are taking appointment. A web based system can solve these problems will save time & hassle.

Solution to the Problem

Today's generation can use the internet. Even most of the senior citizens of cities are familiar to use internet. Our application can help people to save their time. This application will also help to remove the fear of peoples of taking doctor appointments. People also can see available doctors. They also can see their medicines. This application will also help people to get track of how many people are taking appointments.

- Can see available Doctor.
- Easy to make appointments.
- Record all data of patients.
- Doctors can see how many patients have taken appointment.
- Reduce time to make appointment.

4. REQUEIREMNT SPECIFICATION

4.1 System Features

4.1.1. Patient Signup

- New Patient will require valid personal information such as phone number, email, Specialist, Age, Gender, Birth Date, Username and password.
- If the registration process in successful, the User will see a pop up confirming such and will be redirected to patient dashboard page.
- Priority level: High
- Precondition: User must have valid information's

4.1.2. Patient Login

- Patient will log into the system with their own Phone Number 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 the wrong credentials message.
- Priority Level: High
- Precondition: Patient must have a valid Username and password.

4.1.3. Medicine List:

- A Patient can see medicine list.
- If all data entered Successfully, the user will see all medicine list.
- Priority level: low
- Precondition: Patient login Required

4.1.4. Doctor List:

- A Patient can see Doctor list.
- If all data entered Successfully, the user would see all Doctor list.
- Priority level: Medium
- Precondition: Patient login Required

4.1.5. Take Appointment:

- A Patient can take appointment form doctor list section. User required name, Doctor name, Phone Number to take appointment.
- If all data entered Successfully, the user would see all Doctor list.
- Priority level: Medium
- Precondition: User must fill form with valid information.

4.1.6. 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 patient dash page. Otherwise the Update profile page will be shown again with specific error massage.
- Priority Level: Medium
- Patient must log into the system in order update their profile.

4.1.7. Doctor Signup

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

4.1.8. Doctor Login:

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

4.1.9. Appointment List:

- A Doctor can see the Appointment list.
- If all data entered Successfully, the user will see all Appointment list.
- Priority level: Medium
- Precondition: Patient login Required

4.1.10. Doctor Profile:

- A Doctor can see his own profile.
- If all data entered Successfully, the user will see his own profile.
- Priority level: Medium
- Precondition: Patient login Required

4.1.11. Admin Login:

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

4.1.12. Patient List:

- Admin can see the Patient list.
- If all data entered Successfully, the admin will see all Patient list.
- Priority level: Medium
- Precondition: admin login Required.

4.1.13. Doctor List:

- Admin can see the Doctor list.
- If all data entered Successfully, the admin will see all Doctor list.
- Priority level: Medium
- Precondition: admin login Required.

4.1.14. 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.
- Priority Level: Medium
- Precondition: An Admin must log into the system in order delete Patient or doctor.

4.1.15. Update User

- An admin can update Patient or Doctor from admin page.
- If admin selects update option, it redirects to a new page, admin can re write user profile information's.
- Priority Level: Medium
- Precondition: An Admin must log into the system in order Update Patient or doctor.

4.1.16. Appointment List:

- A Admin can see all the Appointment list.
- If all data entered Successfully, the user will see all Appointment list.
- Priority level: Medium
- Precondition: Admin login Required

4.1.17. Admin Profile:

- An Admin can see all admin profile.
- If all data entered Successfully, the user will see all admin profile.
- Priority level: Medium
- Precondition: Admin login Required

4.2 System Quality Attributes

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

Usability: The system must be user-friendly. The system should be intuitive and simple to navigate.

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

Efficiency: The system should maximize the capacity and memory of the processor. Any task should be completed with optimal efficiency.

Security: System security should be sufficient to prevent unauthorized access to system functions to prevent information loss, protect data privacy, and safeguard the system against viruses.

Testability: The system should be simple to test and identify flaws.

Flexibility: The system should be flexible enough to be modified.

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

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

Reusability: Code library classes should be general enough to be utilized on multiple versions of an application or new projects.

Installation: There won't be any time-consuming downloads or installations because it is web-based.

System Interface

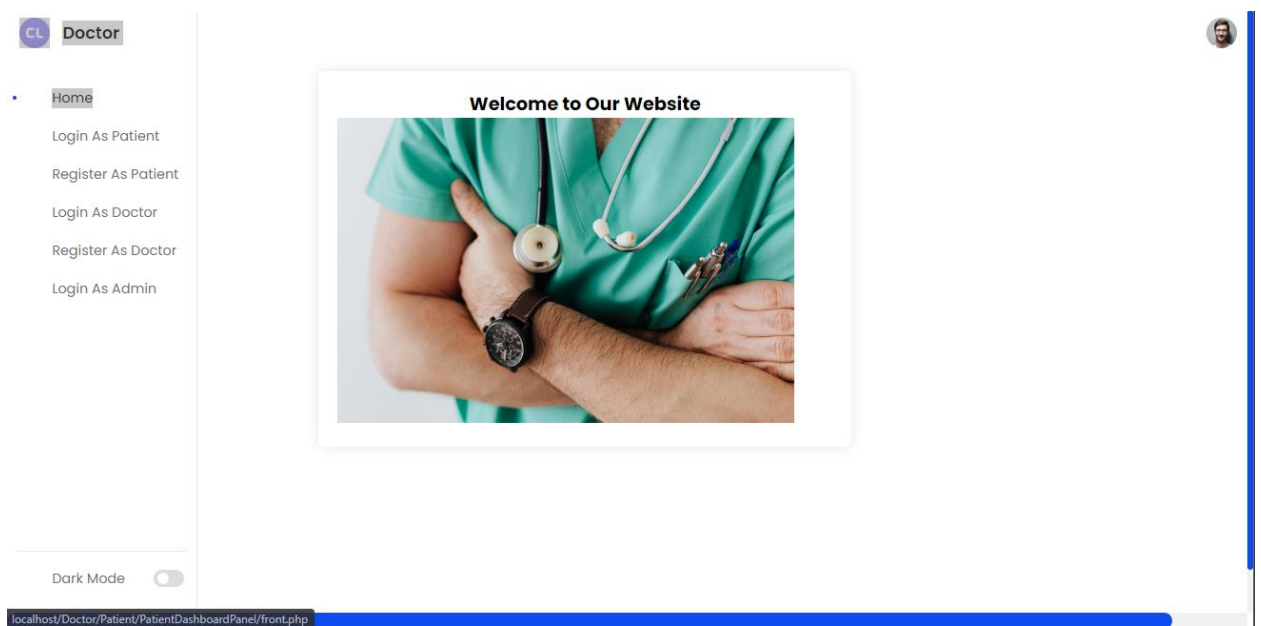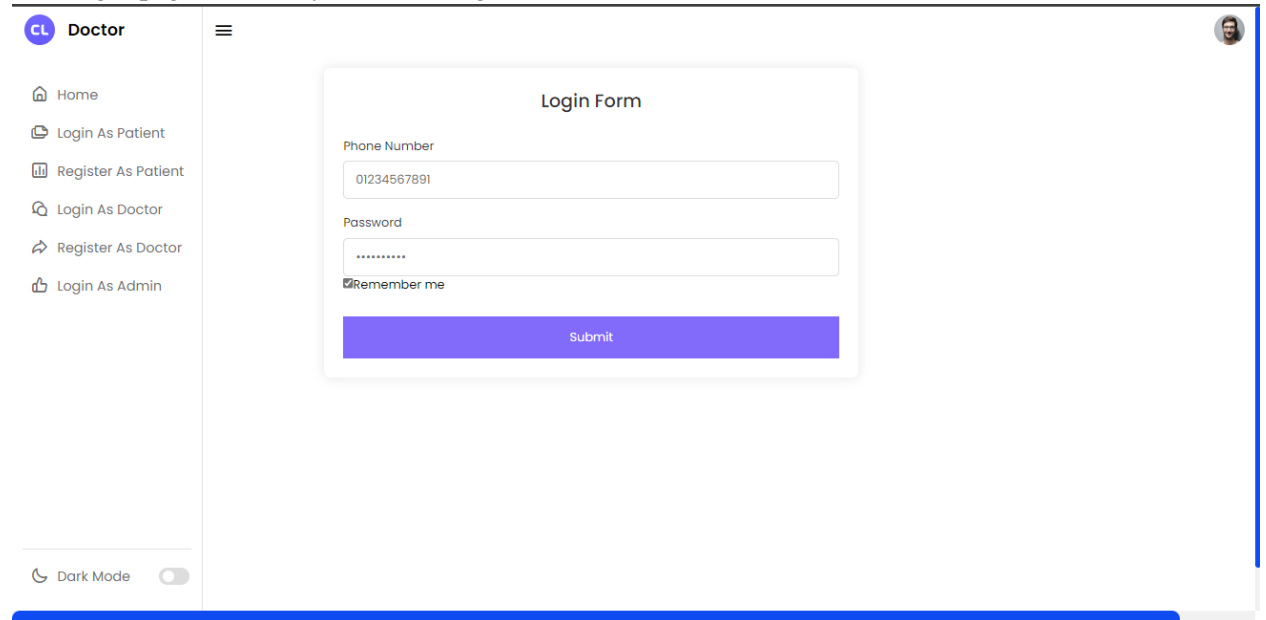This is the Home interface of Doctor appointment System. All types of users will first see this home page .

Fig 1: System Home Page

This login page is Used by admin to login admin dashboard.

Fig 2: Admin Login Page

This page is admin dashboard page.
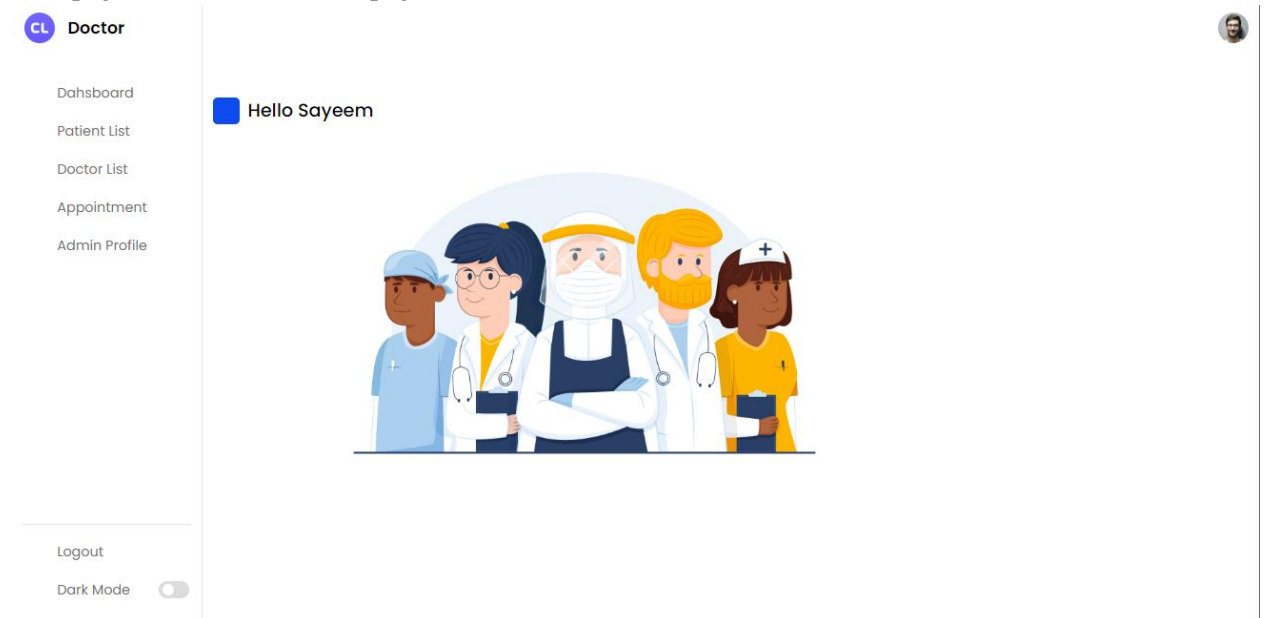
Fig 3: Admin Dashboard

This page is Patient List where admin can edit or delete Patient.

Fig 4: Patient list Admin Dash

This page is Doctor List where admin can edit or delete Patient.

Fig 5: Doctor List Admin Dash

This page is Appointment List from where admin can see all appointments.

Fig 6: Appointment List

This page is profile. Admin can see his profile information form here.

Fig 7: Admin Profile

This Page is for Patient profile creation form. Patient can fill data & create his profile.

Fig 8: Patient Register

This is Patient Dashboard page. Patient can access all his features from here.
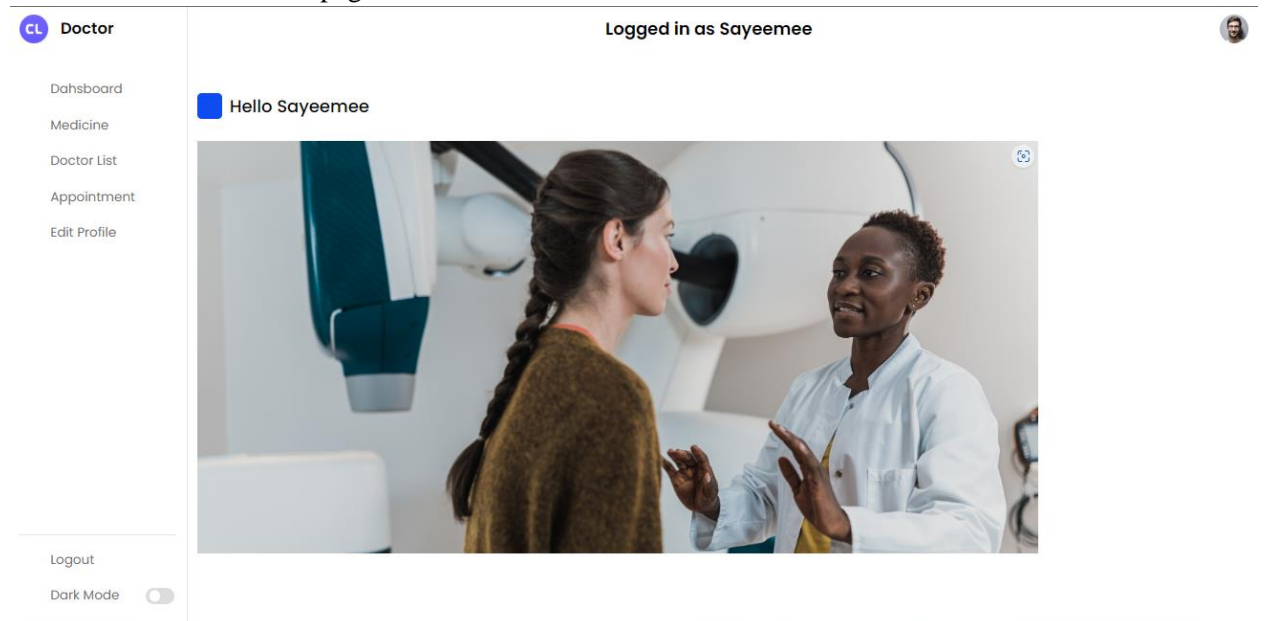
Fig 9: Patient Dashboard

This is the Doctor List Page. Patient can see all Doctor List from this page & he can make appointment from this page.

Name	Email	Mobile	Age	Gender	Date Of birth	Speciality
sayeem	sayeem@gmail.com	01234567891	26	male	1993-02-03	Neck Specialist
urbee	sayeem@gmail.com	01234567891	22	male	2022-12-05	Nose Specialist
Atif	atif@gmail.com	01234567891	21		2020-03-15	Heart
Rafin	Rafin@gmail.com	01234567891	21		2020-03-15	Liver
Rafins	Rafin@gmail.com	01234567891	21		2020-03-15	Liver
Rafins	Rafin@gmail.com	01234567891	21		2020-03-15	Liver
sayeem	sayeem629@gmail.com	01234567812	30	male	2023-04-17	Heart

Fig 10: Doctor List Patient Dash

This is patient profile Update page. Patient can update his profile.
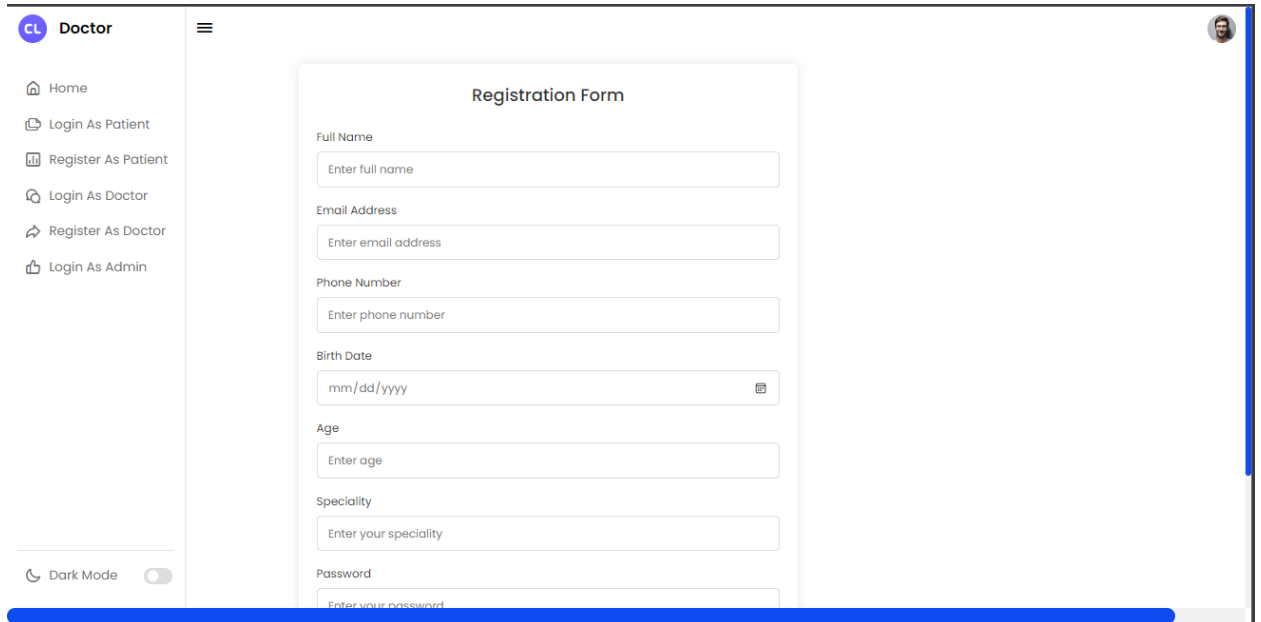
Fig 11: Update Profile Patient List
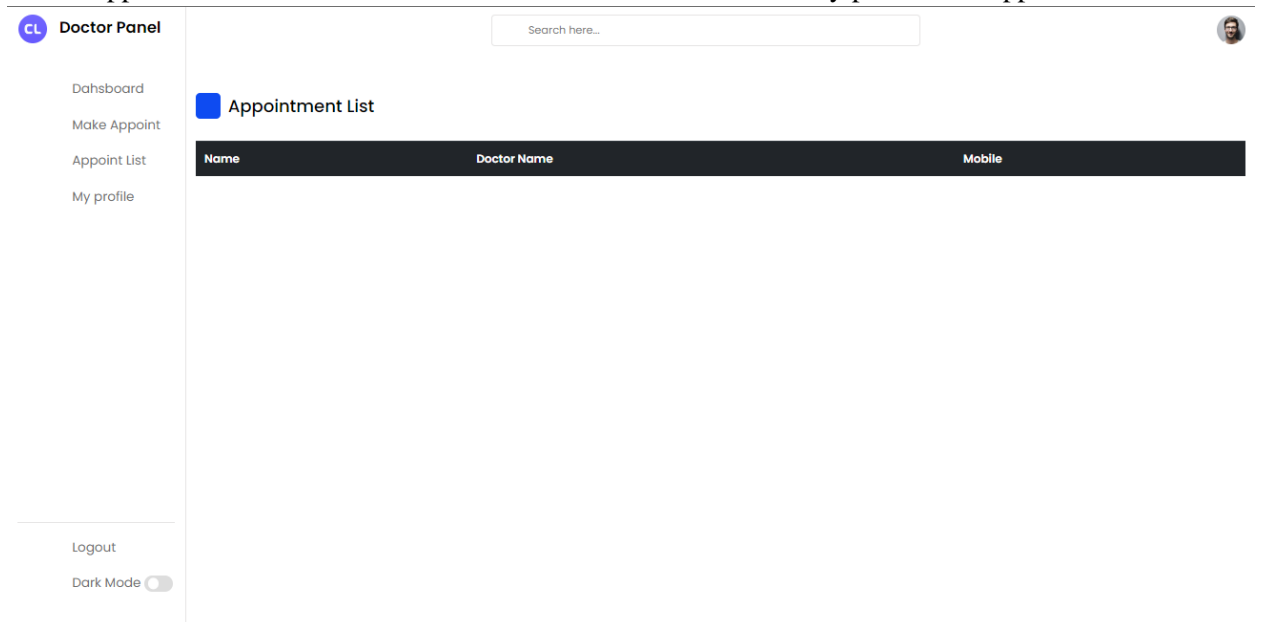
This Page is For Doctor registration. Doctor can register and create his profile

Fig 12: Registration Doctor

This is appointment list of doctor dashboard. Doctor can see how many patent took appointment.

Fig 13: Appointment List Doctor

This is Doctor Dashboard page
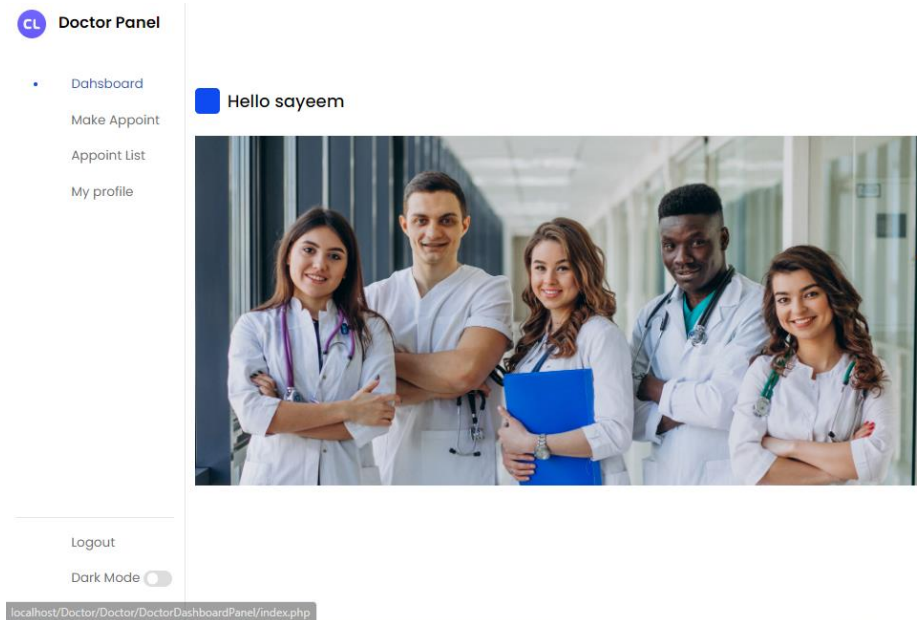
Fig 14: Doctor Dashboard

This is Doctor profile page. Form this page doctor can access all the features.
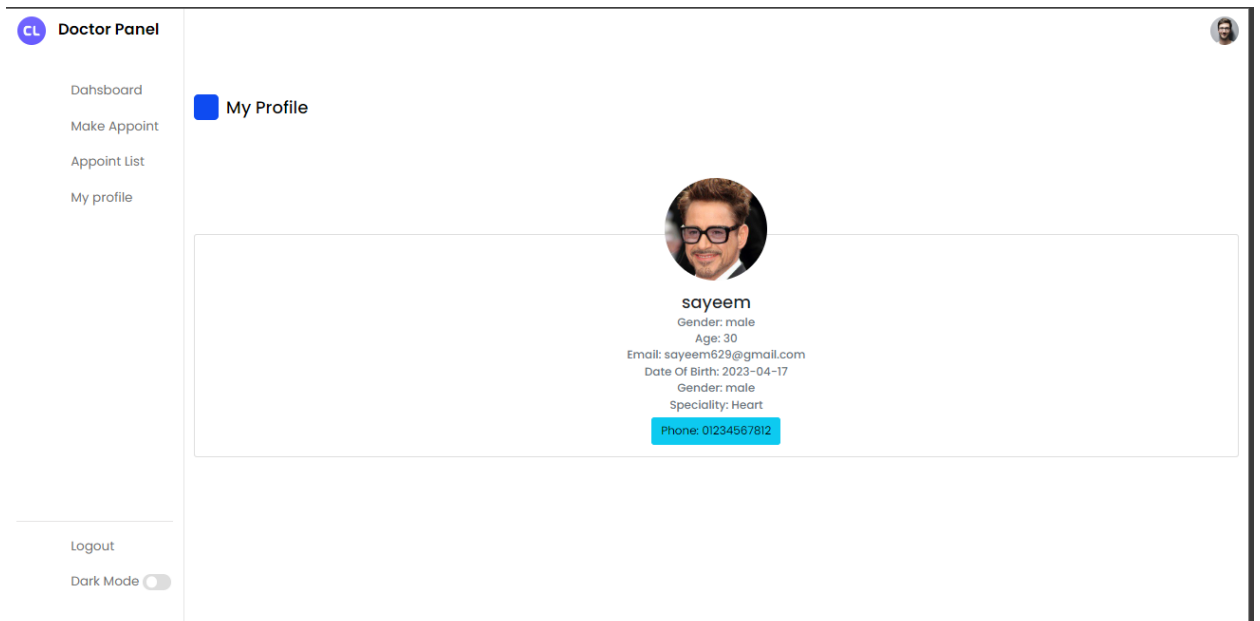
Fig 15: Doctor Profile

4.3 Project Requirements

- o Time: This web-based application may take about 3 months (90 days) to complete.
- o Number of Developer :4
- o Size: The final size of this web-based application will not be more than 500-600 MB.
- o HTML, CSS, PHP, JavaScript, JQuery and Ajax will be used to build this web-based application.

4.3.1. **Budget estimation**

Developer Salary :
Employee Salary per month=100000 Taka
Total Salary for4 person 1 month=4*100000= 400000 Taka
Total salary during project=400000*3= **1200000Taka**

Requirement analysis:
Salary of 1 requirement engineer 1 month=60000 Taka
Total salary 60000*3=**180000 Taka**

Transport Cost: **50000 Taka**(Approximately)
Hardware Expense :**30000 Taka**(Approximately)

Project manager:
Salary of 1 Project Manager per month 120000 Taka
Total salary during the project 120000*3 =**360000 Taka**

Accountant's salary:
Salary of 1 Accountants salary per month 40000 Taka
Total salary during the project 3*40000=**120000 Taka**

Total expense = 1200000 + 180000 + 50000 + 30000 + 360000 +120000=**1,940,000 Taka**
Profit: 30% of total expense = 1,940,000*30%= **582,000 Taka**

Total Budget of Project will be:1,940,000 + 582,000= **2,522,000 Taka**

5. FEATURES NOT TO BE TESTED

- ⇨ Registration Form was taken from the previous project. So this feature was tested previously. This feature does not need to be tested.
- ⇨ Spelling Mistakes

6. TESTING APPROACH

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

SYSTEM/INTEGRATION Testing: Then, in the second section, we will do the integration. During this testing, we will ensure that all software components are logically integrated, tested as a group, and functioning properly. This level of testing seeks to identify weaknesses in how different software components interact when they are combined. In this step, we will implement "bottom-up integration.

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 intellij Idea with the Java programming language.

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 ITEMS

Test Case 1:

Project Name: Doctor Appointment System			Test Designed by:		
Test Case ID: FR_1			Test Designed date:20-04-2023		
Test Priority (Low, Medium, High): High			Test Executed by: Sayeem		
Module Name: Patient Login			Test Execution date:21-04-2023		
Test Title: Patient login with valid Phone Number and password					
Description: Check If Patient signup works perfectly with valid information.					
Precondition (If any): N/A					
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	
1.Go to the website 2. Then Click Patient Login 3. Put valid Information 4. Click Signup button	Username: Sayeem Password: Sayeem1234	User should login into the application	Signup Successfully	Pass	
Post Condition: Redirected to Patient Dashboard in page					

Test Case 2:

Project Name: Doctor Appointment System	Test Designed by:
Test Case ID: FR_1	Test Designed date:20-04-2023
Test Priority (Low, Medium, High): High	Test Executed by: Sayeem
Module Name: Doctor Login	Test Execution date:21-04-2023
Test Title: Doctor login with valid Phone Number and password	
Description: Check If Patient signup works perfectly with valid information.	
Precondition (If any): N/A	

Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1.Go to the website 2. Then Click Doctor Login 3. Put valid Information 4. Click Signup button	Username: Sayeem Password: Sayeem1234	User should login into the application	Signup Successfully	Pass
Post Condition: Redirected to Doctor Dashboard in page				

Test Case 3:

Project Name: Doctor Appointment System			Tested By: Urbee		
Test Case ID: FR_1			Test Designed date:20-04-2023		
Test Priority (Low, Medium, High): High			Test Executed by: Urbee		
Module Name: Admin Login			Test Execution date:21-04-2023		
Test Title: Admin login with valid Phone Number and password					
Description: Check If Patient signup works perfectly with valid information.					
Precondition (If any): N/A					
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	
1.Go to the website 2. Then Click Doctor Login 3. Put valid Information 4. Click Signup button	Username: Sayeem Password: Sayeem1234	User should login into the application	Signup Successfully	Pass	
Post Condition: Redirected to Admin Dashboard in page					

Test Case 4:

Project Name: Doctor Appointment System			Tested By: Ashiqul	
Test Case ID: FR_1			Test Designed date:20-04-2023	
Test Priority (Low, Medium, High): High			Test Executed by: Ashiqul	
Module Name: Search at patient List			Test Execution date:21-04-2023	
Test Title: Search patient with username at admin panel				
Description: If name matches it will show				
Precondition (If any): Admin have to login first & patients have to be inserted first				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1.Go to the website 2. Then Click admin Login 3.Click on patient List 4. Put name in search	Username: sayeem	Name will appear	Name found successfully	Pass
Post Condition: N/A				

Test Case 5:

Project Name: Doctor Appointment System				Tested By: Jannat	
Test Case ID: FR_1				Test Designed date:20-04-2023	
Test Priority (Low, Medium, High): High				Test Executed by: Jannat	
Module Name: Search at Doctor List				Test Execution date:21-04-2023	
Test Title: Search Doctor with username at admin panel					
Description: If name matches it will show					
Precondition (If any): Admin have to login first & patients have to be inserted first					
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	
1.Go to the website 2. Then Click admin Login 3.Click on Doctor List 4. Put name in search	Username: Sayeem	Name will appear	Name found successfully	Pass	
Post Condition: N/A					

Test Case 6:

Project Name: Doctor Appointment System			Tested By: Urbee	
Test Case ID: FR_1			Test Designed date:20-04-2023	
Test Priority (Low, Medium, High): High			Test Executed by: Urbee	
Module Name: Search at Appointment List			Test Execution date:21-04-2023	
Test Title: Search Appointment list with username at admin panel				
Description: If name matches it will show				
Precondition (If any): Admin have to login first & patients have to be inserted first				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1.Go to the website 2. Then Click admin Login 3.Click on Appointment List 4. Put name in search	Username: Sayeem	Name will appear	Name found successfully	Pass
Post Condition: N/A				

Test Case 7:

Project Name: Doctor Appointment System				Test Designed by:	
Test Case ID: FR_1				Test Designed date:20-04-2023	
Test Priority (Low, Medium, High): High				Test Executed by: Sayeem	
Module Name: Patient Registration				Test Execution date:21-04-2023	
Test Title: Patient Registration with valid name, Email, Phone Number, Date of birth, Age, Password, Gender.					
Description: Check If Patient Registration fields works perfectly with valid information.					
Precondition (If any): N/A					
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	
1.Go to the website 2. Then Click Patient Registration 3. Put valid Information 4. Click Submit button	Username: Sayeem Email: Sayeem629@gmail.com Phone: 01783233362 DBO:2/04/2001 Age :21 Password: Sayeem1234 Gender: Male	User should login into the application	Signup Successfully	Pass	
Post Condition: Redirected to Patient Login in page					

Test Case 8:

Project Name: Doctor Appointment System			Test Designed by:	
Test Case ID: FR_1			Test Designed date:20-04-2023	
Test Priority (Low, Medium, High): High			Test Executed by: Sayeem	
Module Name: Doctor Registration			Test Execution date:21-04-2023	
Test Title: Patient Registration with valid name, Email, Phone Number, Date of birth, Age, Specialty, Password, Gender.				
Description: Check If Doctor Registration fields works perfectly with valid information.				
Precondition (If any): N/A				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1.Go to the website 2.Then Click Doctor Registration 3. Put valid Information 4. Click Submit button	Username: Sayeem Email: Sayeem629@gmail.com Phone: 01783233362 DBO:2/04/2001 Age :21 Specialty: Heart Password: Sayeem1234 Gender: Male	User should login into the application	Signup Successfully	Pass
Post Condition: Redirected to Doctor Login in 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 each of the testing phase the details report will be generated containing the test results.

10. 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 fulltime 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.

11. 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

12. TESTING SCHEDULE
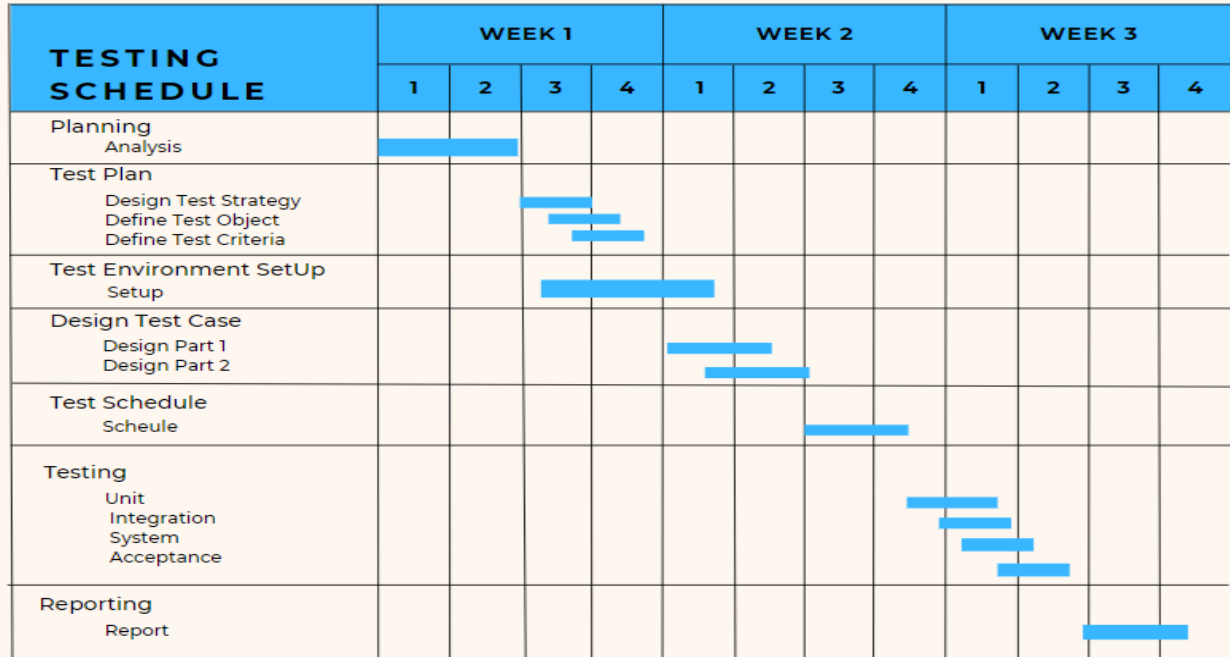
13. PLANNING RISKS AND CONTINGENCIES

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 uncertain situations. It is very important to have this sort of system and to maintain it appropriately.

14. APROVALS

Project Sponsor -	N/A
Development Management -	RiseUp Labs
EDI Project Manager -	Urbee
RS Test Manager -	Sayeem
RS Development Team Manager -	Ashiqul
Reassigned Sales -	Jannat
Order Entity EDI Team Manager-	Ashiqul