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Project Title: SaveYouthBD

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This document has been submitted in fulfillment of the requirements for the Degree of Bachelor of Science in Software Engineering.

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APPROVAL

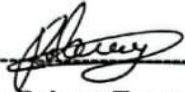
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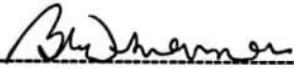
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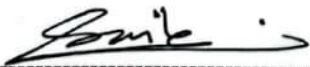
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ABSTRACT

SaveYouthBD is a web-based application which can be called a virtual rehabilitation care center for the drug addicted patient. Patient can make appointment to consultant a doctor for treatment and doctor can create schedule and meet patient virtually. Moreover, patient can book appointment for a rehab as well as emergency pick up request. All the requests including appointment for doctor and rehab as well as emergency pickup request will be handled by registered staff on the application. Staff can add rehab and approve or delete requests based on the availability of doctor and rehab. This system can be used in any medical organization and hospital to enhance their services virtually although this is targeted for the drug addicted people and considered as a virtual rehab. This project will be a great help for the medical sector.

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CHAPTER-1: INTRODUCTION

1.1 Project Overview

SaveYouthBD is a web application system which provides online rehabilitation care facilities with real doctors. Here people can connect with their favorable doctors and can get treatment virtually. Specially this application is made targeting the drug addicted patient but it can be used in any medical purpose. Here, doctor will upload schedule and patient will send appointment request which will be approved by Staff based on the fulfilled formalities. After approving staff will provide a meet link which will be a connector between doctor and patient. Doctor can update meet record as a proof and record of prescribed stuffs. Staff can add rehab and patient can request for booking in any rehab as well as emergency pickup request which will be further managed by staff.

1.2 Project Purpose

To boost the medical care service and reduce the sufferings of travelling distance to consult doctors. And to reduce the suffering for the privacy lack of drug addicted patient's family while consulting in rehab.

1.2.1 Background

A family suffers a lot for having drug addicted member among them. But for not having available rehab centers in every area, most family ignored the matter to consultant doctor. They think the problem will be solved unprofessionally. Some family fears about sharing with others for suggestions and some feels uncomfortable about the thoughts of others on their conditions for which most families don't consultant doctors. This system is a connector bridge between the patients and doctors as well as drug addicted and rehabs over all the gap and problems.

1.2.2 Benefits & Beneficiaries

Benefits:

- Easy to Create an Account for all users (Doctor, Associate Doctor, Patient, Staff).
- Easy to Add Profile.
- Easy to Find doctor and rehab by patient.
- Easy to check doctor and rehab profile by patients and vice versa.
- Easy to update schedule by doctor.
- Easy to connect with doctor for patient through meet.
- Easy to send appointment request by patient.
- Easy to send emergency pickup request by patient.
- Easy to accept appointment request by staff.
- Easy to add rehab by staff.
- Easy to use everything.

Beneficiaries

- General People (Patient)
- Expert People (Staff, Doctor, Associate Doctor)

1.2.3 Goal

The goal of SaveYouthBD is quite simple. This project Goals are:

- ✓ To reduce the sufferings to consult doctors and rehabs of the families including drug addicted members.
- ✓ To enhance the medical care from distance to distance.
- ✓ To help patient on emergencies.

1.2.4 Stakeholders

- Patient
- Doctor
- Associate Doctor
- Staff

CHAPTER-2: SOFTWARE REQUIREMENT SPECIFICATION

2.1 Functional Requirements

FR-1: Local user can send emergency help request.

FR-2: User can create account as their role.

FR-3: Registered user can log into the system.

FR-4: Users can update profile.

FR-5: Users can view profile.

FR-6: Patient can see all the doctors

FR-7: Patient can see all the rehabs.

FR-8: Patient can view doctor profile.

FR-9: Patient can view rehab profile.

FR-10: Patient can make request for an appointment to consultant doctor if logged in.

FR-11: Patient can make request for booking a seat in rehab if logged in.

FR-12: Patient can make request for emergency pick up.

FR-13: Patient can view all appointment requests are made.

FR-14: Patient can meet doctor with provided meet link.

FR-15: Doctor can update schedule.

FR-16: Doctor can set profile active and inactive.

FR-17: Doctor can view approved appointment requests.

FR-18: Doctor can meet patient with provided meet link.

FR-19: Doctor can update record of meeting as a proof.

FR-20: Staff can add rehab.

FR-21: Staff can view rehab profile.

FR-22 Staff can update rehab profile.

FR-23: Staff can view doctor profile.

FR-24: Staff can view patient profile.

FR-25: Staff can view all appointment requests.

FR-26: Staff can view all emergency pickup requests.

FR-27: Staff can view all rehab booking requests.

FR-28: Staff can approve or reject all requests.

FR-29: Staff can provide meet link while approving request.

2.2 Non-Functional Requirements

- User should be authenticated by the System for specific features based on their roles.
- It should have password recover option,
- This system should have supporting system where user can get support.
- This system should have session for doctors, associate doctors, patients and staffs from sign in to sign out.
- This system should have the process to create session for verified users.
- Every user will have password retrieve option by providing their pre-registered email.
- To make this Web Application user friendly and reduce the page number it should some modals (popup).
- User password must be encrypted storing it in Database.

2.3 Data Requirement

- Sign in information must be email and password for all users.
- In Sign up and recovery page new password and confirm password must be same.
- Forgotten email address must be pre-registered email.

- Forgotten account verify code must be matched with sent code to user email.
- When client send the request for an appointment then the problem should be specified.

2.4 Performance Requirements

2.4.1 Speed and Latency Requirements

- Every request should take maximum 1 second.
- Schedule and Request management should be smooth.

2.4.2 Precision or Accuracy Requirements

- Everything must be in its own color.
- Booked slot must be in hidden mode.

2.4.3 Capacity Requirements

- Doctor should modify schedule with respect to their availability.
- Doctor should schedule daily availability not more than 8 hours.

2.5 Speed and Latency Requirements

2.5.1 Reliability Requirements

- Appoint booking system must be reliable for patient.
- Appointment management system should be reliable or staff.
- Checking doctor and rehab profile before placing an appointment must be reliable for patient.
- Checking doctor and rehab profile before approving an appointment must be reliable for staff.

2.5.2 Availability Requirements

- Doctor schedule must be available for every patient.
- Appointment request should be available staff.
- Approved appointment request should be available for doctor.
- Meet link should be available as a connector between doctor and patient.
- Emergency pickup responses should be available on time from staff.

2.5.3 Robustness or Fault-Tolerance Requirements

- Patient can delete appointment request if there has any mistake.
- Staff can reject appointment request if required formalities are not filled up.

2.5.4 Safety-Critical Requirements

- Before placing an appointment, patient can gather information about doctor and rehab from their profile.
- Before approving an appointment, staff can gather information about patient, doctor and rehab from their profile.

2.6 Maintainability and Supportability Requirements

2.6.1 Maintenance Requirements

- Primarily the Admin will have the responsibility for maintaining the system as well as the server speed status.
- Secondly Admin will maintain the data flow.

2.6.2 Supportability Requirements

- The system must be supported in any device like android, windows, Mac, Linux, etc.
- Every link in the system must be valid.

2.6.3 Adaptability Requirements

- The system should maintain several users at the same time.
- It should contain authentic and genuine user profile.

2.6.4 Scalability or Extensibility Requirements

- Password can be changed via email or phone in case of forgetting the password.
- User can message with staff.

2.7 Security Requirements

2.7.1 Access Requirements

- Every user can add profile.
- Doctor can only update schedule, join meet and upload meet record.
- Patient can only view doctor and rehab profile and send request for appointment and emergency request.
- Staff can add rehab, view doctor, patient and rehab profile, view all requests made by patient, approve or reject request.
- Overall Staff can manage the connectivity between doctor, rehab and patient.

2.7.2 Integrity Requirements

- Password must be encrypted.
- Email must be valid otherwise user cannot retrieve forgotten account.

2.7.3 Privacy Requirements

- One user cannot see another user's accessibility.
- Password must be stored in Database.

2.8 Usability and Human-Interaction Requirements

2.8.1 Ease of Use Requirements

- If patient want to get appointment from their favorite doctor, they can.
- If staff want to add rehab information where the available status is active, they can.
- If staff want to contact with doctor and patient, they can.

2.8.2 Personalization and Internationalization Requirements

- Doctor can personalize their information for patients.
- Any patient in the world will have the ability to send the request for appointment.

2.8.3 Understandability and Politeness Requirements

- The design of the user interface is user friendly to understand.

2.8.4 Accessibility Requirements

- Every feature will be specified for specific users.

- Patient, Doctor and Staff can check appointment request and schedule information.

2.8.5 User Documentation Requirements

- User will have different user manuals for use.

2.8.6 Training Requirements

- Basic mobile or computer skill is enough.
- No training is required.

2.9 Look and Feel Requirements

2.9.1 Appearance Requirements

- Some popup will be appeared in order to increase usability.
- Modals will be appeared in most cases to reduce confusion of page loading.
- Schedule will appear in each doctor's profile based on their update.

2.9.2 Style Requirements

- Styles should be user friendly and standard.
- Color selection must be eye satisfied.

2.10 Operational and Environmental Requirements

2.10.1 Expected Physical Environment

- Android 5v+ will better perform.
- Windows 7+ will perform better.
- Mac 8+ will perform best.

- Linux 10+ will not have any issues.

2.10.2 Requirements for Interfacing with Adjacent Systems

- The system will look good in desktop computer screen.
- Website are completed with responsive features.

2.10.3 Projectization Requirements

- Random number of users are need to test the system and check out every specific feature for specific user.

2.10.4 Release Requirements

- For the first release a primary test can be executed.
- Further release will start with real life users.

2.11 Functional Requirements Mapping

F.R.ID	Finalized Functional Requirement
FR-1	Emergency request (Local User)
FR-2	Create Account
FR-3	Login
FR-4	Update
FR-15	
FR-16	
FR-22	
FR-5	View
FR-6	
FR-7	
FR-8	
FR-9	
FR-13	
FR-17	
FR-21	
FR-23	
FR-24	
FR-25	
FR-26	
FR-27	
FR-10	Make Appointment by patient
FR-11	Book Rehab by patient
FR-12	Emergency Rehab Request by patient
FR-14	Meet
FR-18	
FR-19	Meeting Record uploaded by doctor
FR-20	Rehab add by staff
FR-28	Request approved by staff
FR-29	Meet link provided by staff

CHAPTER-3: USE CASE

3.1 Use Case Diagram

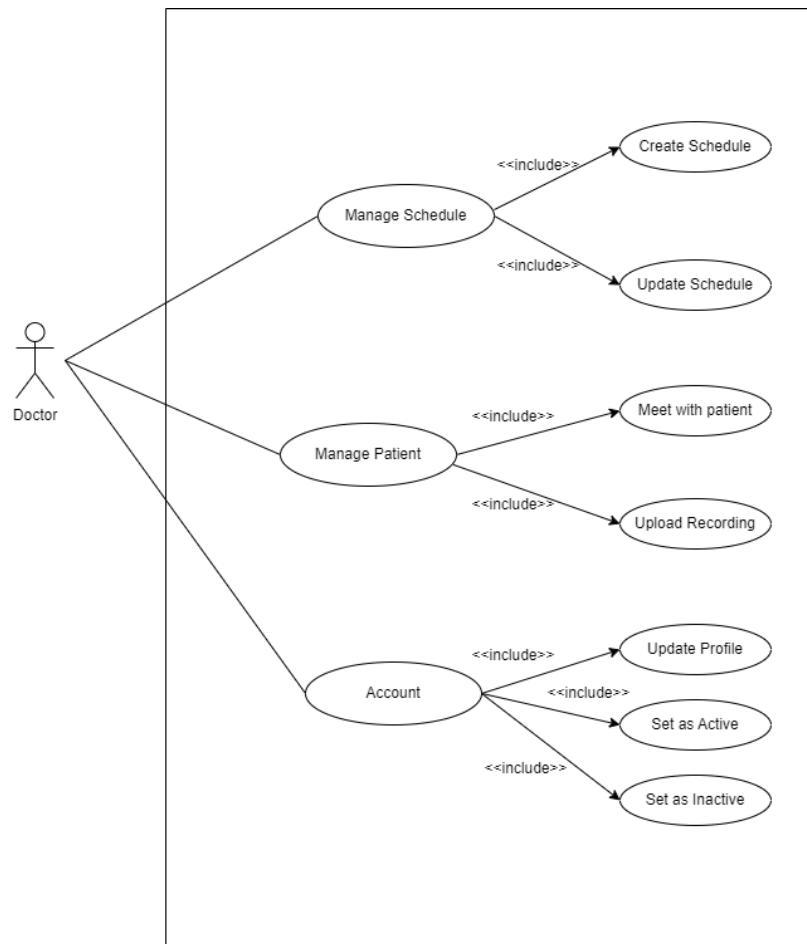


Figure 3.1.1: Use Case Diagram Doctor

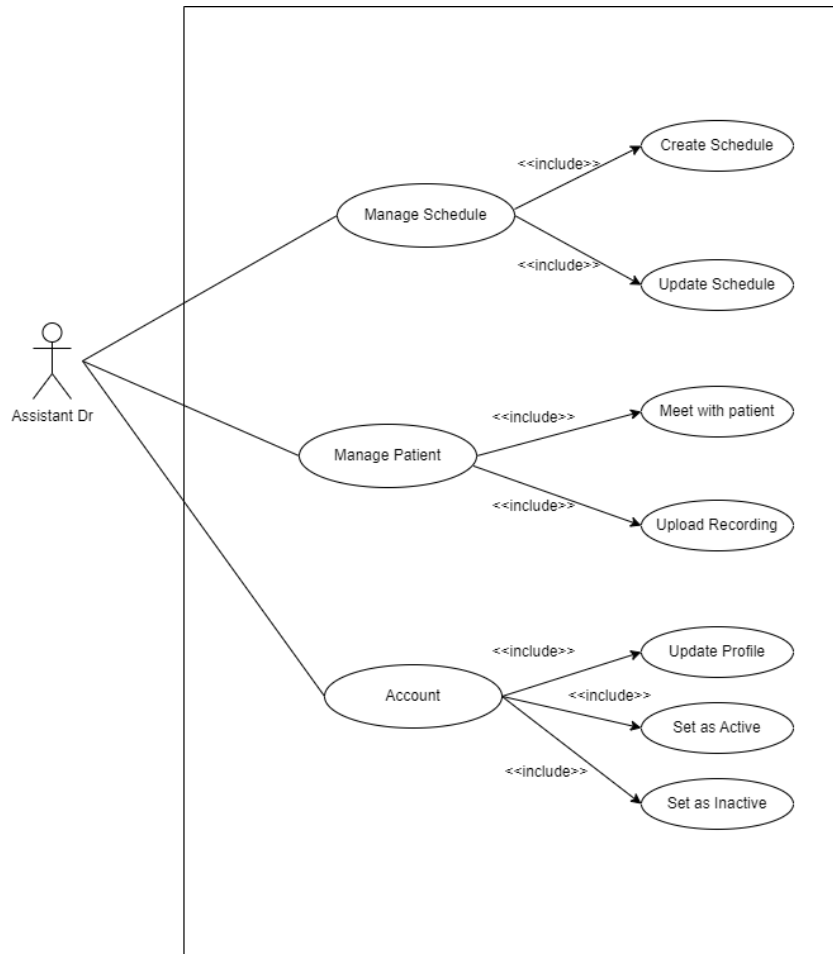


Figure 3.1.2: Use Case Diagram Assistant Doctor

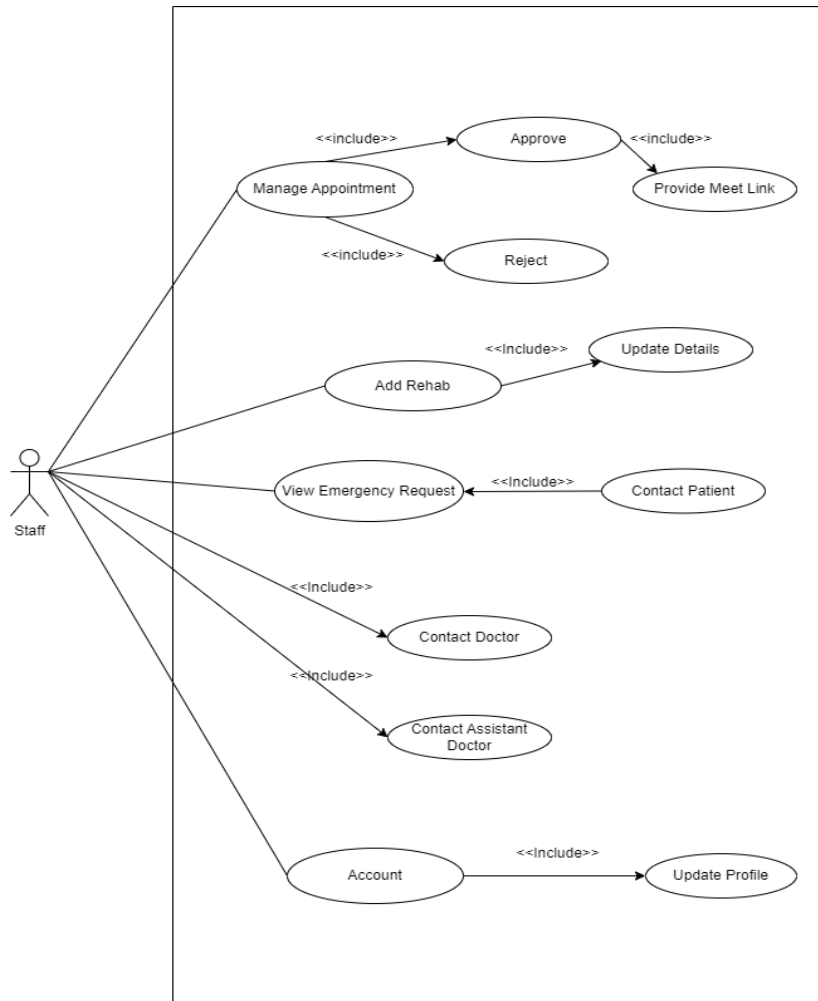


Figure 3.1.3: Use Case Diagram Staff

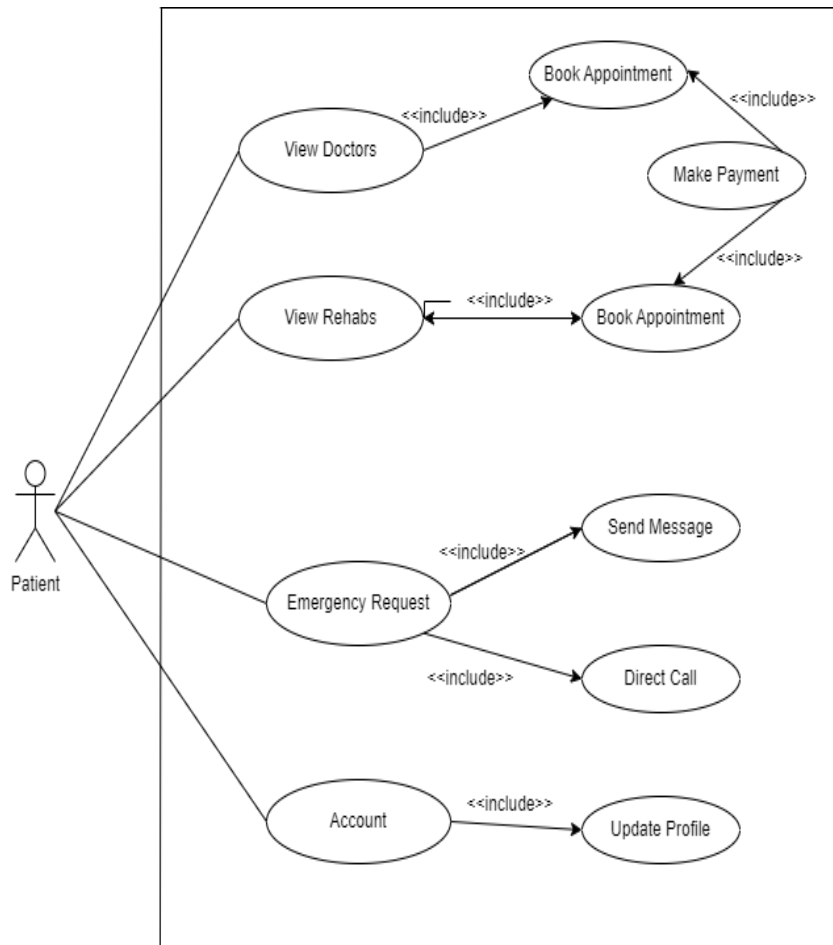


Figure 3.1.4: Use Case Diagram Patient

3.2 Identifying Use Cases

UC - 1: Registration.

UC - 2: Login.

UC - 3: Retrieve Password.

UC - 4: Edit Profile.

UC - 5: Update Schedule.

UC - 6: Appointment Request.

UC - 7: Join Meet.

UC - 8: All Doctors (“See More”).

UC - 9: Book Appointment.

UC - 10: Manage Appointment (for Patient) by cancelling Appointment.

UC - 11: Manage Appointment (for Patient) by adding another Appointment.

UC - 12: Manage Appointment (for Staff) by approving Appointment.

UC - 13: Manage Appointment (for Staff) by rejecting Appointment.

UC - 14: Check Upcoming Appointment Request.

3.3 Identifying Use Case Description

Use Case ID	UC - 1
Use Case Name	Create Account
Scenario	User can do Registration to create a new account
Triggering Event	If any user wants to create a new account and click Register Now button registration modal will be appeared
Brief Description	User will create an account. Some basic information must be given to be registered in the system about user according to their role such as Name, Email ID, Phone, Select Role, Password, Rewrite Password.
Actors	Staff, Doctor, Associate Doctor, Patient
Extending Use Case	None
Included Use Case	None
Stakeholders	Staff, Doctor, Associate Doctor, Patient
Pre-Condition	User must have a new email address to create a new account
Basic Path	<ol style="list-style-type: none"> 1. Click "Register Now" button in Homepage 2. Get Registration Modal 3. Enter Name 4. Enter Email Address 5. Select Role 6. Enter Password 7. Rewrite the Password 8. Click on "Submit" button
Alternative Path	None
Exceptional Path	None
Post-Condition	All the input values must be validated

Table – 3.3.1: Use Case Description Registration

Use Case ID	UC - 2
Use Case Name	Login
Scenario	User can log into the system if they have account
Triggering Event	If any user wants to log into the system and click Login button or use any features that required authentication then the login modal will be appeared
Brief Description	User will click on login button to log into the system. The login required email id and password. Entering the valid email and password and clicking on login button user can log into the system
Actors	Staff, Doctor, Associate Doctor, Patient
Extending Use Case	UC-2: Registration (Don't have account?) UC -3: Retrieve Password ("Forgotten Account?")
Included Use Case	None
Stakeholders	Staff, Doctor, Associate Doctor, Patient
Pre-Condition	User must have an account and remember the password for log in to the system
Basic Path	<ol style="list-style-type: none"> 1. Click "Login" button 2. Get Login Modal 3. Enter Email Address 4. Enter Password 5. Click on "Login" button
Alternative Path	None
Exceptional Path	None
Post-Condition	All the input must be matched with the account details

Table – 3.3.2: Use Case Description Login

Use Case ID	UC - 3
Use Case Name	Retrieve Password
Scenario	If users forget their account then they can Retrieve Password or account
Triggering Event	If any user forgets his or her account and click on “Forgotten Password?” button forgot password modal will be appeared
Brief Description	Clicking on “Forgotten Password?” button a modal will be appeared and user will enter pre-registered email of the forgotten account and a one-time code will verify the account and then user can set new password.
Actors	Staff, Doctor, Associate Doctor, Patient
Extending Use Case	None
Included Use Case	None
Stakeholders	Staff, Doctor, Associate Doctor, Patient
Pre-Condition	User must enter pre-registered email address
Basic Path	<ol style="list-style-type: none"> 1. Click “Forgotten Password?” button 2. Get Forgotten Account Modal 3. Enter the forgotten account’s Email Address 4. Get the one-time code on email 5. Enter the code to verify the account 6. Click “Verify” button 7. Get new password setup modal 8. Enter new password 9. Re-enter new password 10. Click “Confirm” button 11. Directed to the sign in page
Alternative Path	None
Exceptional Path	None
Post-Condition	New password should be different than previous

Table – 3.3.3: Use Case Description Retrieve Password

Use Case ID	UC - 4
Use Case Name	Edit Profile
Scenario	If user want to update details of their profile user can update it
Triggering Event	If any user wants to change personal information will click on “Edit Profile” button and a information editable modal will be appeared
Brief Description	Clicking on “Edit Profile” button a modal will be appeared and user will modify what he or she want to change.
Actors	Staff, Doctor, Associate Doctor, Patient
Extending Use Case	None
Included Use Case	None
Stakeholders	Staff, Doctor, Associate Doctor, Patient
Pre-Condition	User must be logged into the system.
Basic Path	<ol style="list-style-type: none"> 1. Click “Edit Profile” button 2. Modify required changes 3. Click “Submit” button
Alternative Path	None
Exceptional Path	None
Post-Condition	Must click on “submit” button

Table – 3.3.4: Use Case Description Edit Profile

Use Case ID	UC - 5
Use Case Name	Update Schedule
Scenario	If a doctor wants to add or modify his or her schedules in a day, he or she can update it
Triggering Event	If any doctor clicks on “Update Schedule”, a modal will be appeared for update the schedules
Brief Description	Clicking on “Update Schedule”, a modal will be appeared where he or she will select day and time from start to end of his or her availability on that day and set the schedule.
Actors	Doctor, Associate Doctor
Extending Use Case	None
Included Use Case	None
Stakeholders	Doctor, Associate Doctor
Pre-Condition	User must be logged into his doctor account
Basic Path	<ol style="list-style-type: none"> 1. Click “Update Schedule” button 2. Get Update Schedule Modal 3. Select Day of work 4. Select Start time of availability 5. Select End time of availability 6. Click “Submit” button
Alternative Path	None
Exceptional Path	None
Post-Condition	Must set the account as active

Table – 3.3.5: Use Case Description Update Schedule

Use Case ID	UC - 6
Use Case Name	Appointment Request
Scenario	User can see appointment request list here
Triggering Event	If any user wants to see the appointment requests are made, he or she can view it clicking on “Appointment Request” button
Brief Description	User will click on “Appointment Request” button all the requests are made by patient will be appeared in a page.
Actors	Staff, Patient
Extending Use Case	UC - 12: Manage Appointment (for Staff) (“Approve”). UC - 13: Manage Appointment (for Staff) (“Reject”).
Included Use Case	UC - 10: Manage Appointment (for patient) (“Cancel”) UC - 11: Manage Appointment (for Patient) (“add”)
Stakeholders	Staff, Patient
Pre-Condition	Must be logged into the system
Basic Path	<ol style="list-style-type: none"> 1. Click “Appointment Request” button in Homepage 2. Redirect to Appointment Request Page
Alternative Path	None
Exceptional Path	None
Post-Condition	None

Table – 3.3.6: Use Case Appointment Request

Use Case ID	UC - 7
Use Case Name	Join Meet
Scenario	When it is time to consultant doctor and vice versa, doctor and patients can meet here
Triggering Event	If the time is to checkup a patient, clicking on the “Join Now” button will be redirected to the meeting both doctor and patient
Brief Description	Clicking on “Join Now” button doctor and patient will be redirected to the meeting and this is the core factor of this system
Actors	Doctor, Associate Doctor, Patient
Extending Use Case	None
Included Use Case	UC - 12: Manage Appointment (for Staff) (“Approve”). UC - 13: Manage Appointment (for Staff) (“Reject”).
Stakeholders	Doctor, Associate Doctor, Patient
Pre-Condition	Must be logged in, appointment must be approved by user and meet link must be provided
Basic Path	<ol style="list-style-type: none"> 1. Click “Join Meet” button 2. Redirect to Meet 3. Record Meet
Alternative Path	None
Exceptional Path	None
Post-Condition	Recording of meet must be uploaded to finish the checkup completely

Table – 3.3.7: Use Case Description Join Meet

Use Case ID	UC - 8
Use Case Name	All Doctors (“See More”)
Scenario	When a patient sees a doctor in homepage and want to view his or her profile, he or she can do it
Triggering Event	If a patient clicks on the “See More” button of a doctor card, he or she will be redirected to the doctor’s profile
Brief Description	Clicking on “See More” button patient will be redirected to doctor’s profile page and can view his or her schedule and can book appointment from there.
Actors	Patient
Extending Use Case	UC - 9: Book Appointment.
Included Use Case	None
Stakeholders	Patient
Pre-Condition	Must be logged into patient account
Basic Path	<ol style="list-style-type: none"> 1. Click “See More” button 2. Redirect to the doctor’s profile page
Alternative Path	None
Exceptional Path	None
Post-Condition	None

Table – 3.3.8: Use Case Description All Doctors (“See More”)

Use Case ID	UC - 9
Use Case Name	Book Appointment
Scenario	If patient wants to book an appointment for doctor or rehab, he or she can do it
Triggering Event	If any patient clicks “Book Appointment” button on a doctor profile or rehab profile page, a appointment booking modal will be appeared
Brief Description	Clicking on “Book Appointment” button a modal will be appeared and user will select the schedule in case of doctor and user will write a message in case of rehab to take appointment.
Actors	Patient
Extending Use Case	UC - 6: Appointment Request UC - 12: Manage Appointment (for Staff) by approving Appointment. UC - 13: Manage Appointment (for Staff) by rejecting Appointment.
Included Use Case	UC - 10: Manage Appointment (for Patient) by cancelling Appointment. UC - 11: Manage Appointment (for Patient) by adding another Appointment.
Stakeholders	Patient
Pre-Condition	Must be logged into patient account
Basic Path	<ol style="list-style-type: none"> 1. Click “Book Appointment” button 2. Enter Subject 3. Enter Gender 4. Enter Age 5. Select Day 6. Click “Create” Button
Alternative Path	None
Exceptional Path	None
Post-Condition	None

Table – 3.3.9: Use Case Description Book Appointment

Use Case ID	UC - 10
Use Case Name	Manage Appointment (for Patient) by cancelling Appointment
Scenario	If patient wants to cancel an appointment, he or she can do it
Triggering Event	If any patient clicks “Cancel Appointment” button of an appointment, the appointment will be deleted from the appointment request list
Brief Description	Clicking on “Cancel Appointment” button, the related request for appointment will be disappeared from the appointment request list
Actors	Patient
Extending Use Case	UC - 6: Appointment Request
Included Use Case	UC - 13: Manage Appointment (for Patient) by adding another Appointment.
Stakeholders	Patient
Pre-Condition	Must be logged into patient account
Basic Path	1. Click “Cancel Appointment” button
Alternative Path	None
Exceptional Path	None
Post-Condition	None

Table – 3.3.10: Use Case Description Manage Appointment (for Patient) by cancelling Appointment

Use Case ID	UC - 11
Use Case Name	Manage Appointment (for Patient) by adding another Appointment
Scenario	If patient wants to add another appointment, he or she can do it
Triggering Event	If any patient clicks “Add another Appointment” button the modal of appointment booking will be appeared
Brief Description	Clicking on “Add another Appointment” button will make the appointment booking modal appear and patient will create another appointment request
Actors	Patient
Extending Use Case	UC - 6: Appointment Request UC - 12: Manage Appointment (for Staff) by approving Appointment. UC - 13: Manage Appointment (for Staff) by rejecting Appointment.
Included Use Case	UC - 11: Manage Appointment (for Patient) by cancelling Appointment.
Stakeholders	Patient
Pre-Condition	Must be logged into patient account
Basic Path	<ol style="list-style-type: none"> 1. Click “Add another Appointment” button 2. Get Appointment Booking Modal 3. Enter Subject 4. Enter Gender 5. Select Day 6. Click “Create” Button
Alternative Path	None
Exceptional Path	None
Post-Condition	None

Table – 3.3.11: Use Case Description Manage Appointment (for Patient) by adding another Appointment

Use Case ID	UC - 12
Use Case Name	Manage Appointment (for Staff) by approving Appointment
Scenario	If staff wants to approve appointment request, he or she can do it
Triggering Event	If any staff clicks “Approve” button the related appointment will be confirmed
Brief Description	Clicking on “Approve” button will make the appointment confirm
Actors	Staff
Extending Use Case	UC - 6: Appointment Request UC - 14: Check Upcoming Request.
Included Use Case	UC - 13: Manage Appointment (for Staff) by rejecting Appointment.
Stakeholders	Staff
Pre-Condition	Must be logged into Staff account
Basic Path	<ol style="list-style-type: none"> 1. Click “Approve” button 2. Provide Meet Link 3. Select Time 4. Click “Submit” Button
Alternative Path	None
Exceptional Path	None
Post-Condition	Must provide meet link

Table – 3.3.12: Use Case Description Manage Appointment (for Staff) by approving Appointment

Use Case ID	UC - 13
Use Case Name	Manage Appointment (for Staff) by rejecting Appointment
Scenario	If staff wants to reject appointment, he or she can do it
Triggering Event	If any staff clicks “Reject” button the appointment will be stated as rejected.
Brief Description	Clicking on “Reject” button will make the appointment rejected.
Actors	Staff
Extending Use Case	UC - 6: Appointment Request UC - 14: Check Upcoming Request.
Included Use Case	UC - 12: Manage Appointment (for Staff) by approving Appointment.
Stakeholders	Staff
Pre-Condition	Must be logged into patient account
Basic Path	1. Click “Reject” button
Alternative Path	None
Exceptional Path	None
Post-Condition	None

Table – 3.3.13: Use Case Description Manage Appointment (for Staff) by rejecting Appointment

Use Case ID	UC - 14
Use Case Name	Upcoming Request
Scenario	Staff can see all the upcoming request including appointment and emergency requests and doctor can see only the approved requests
Triggering Event	If any doctor or staff click on “Upcoming Request” button, they will be redirected to the request list’s page
Brief Description	Clicking on “Upcoming Request” button staff will see the emergency pickup requests, appointment request and rehab booking requests and doctors can see the approved request with available meet link
Actors	Staff, Doctor, Associate Doctor
Extending Use Case	UC - 7: Join Meet. UC - 12: Manage Appointment (for Staff) (“Approve”). UC - 13: Manage Appointment (for Staff) (“Reject”).
Included Use Case	None
Stakeholders	Staff, Doctor, Associate Doctor
Pre-Condition	Must be logged into the system
Basic Path	<ol style="list-style-type: none"> 1. Click “Upcoming Request” button 2. Redirect to Request list Page
Alternative Path	None
Exceptional Path	None
Post-Condition	None

Table – 3.3.14: Use Case Upcoming Request

3.4 Activity Diagram

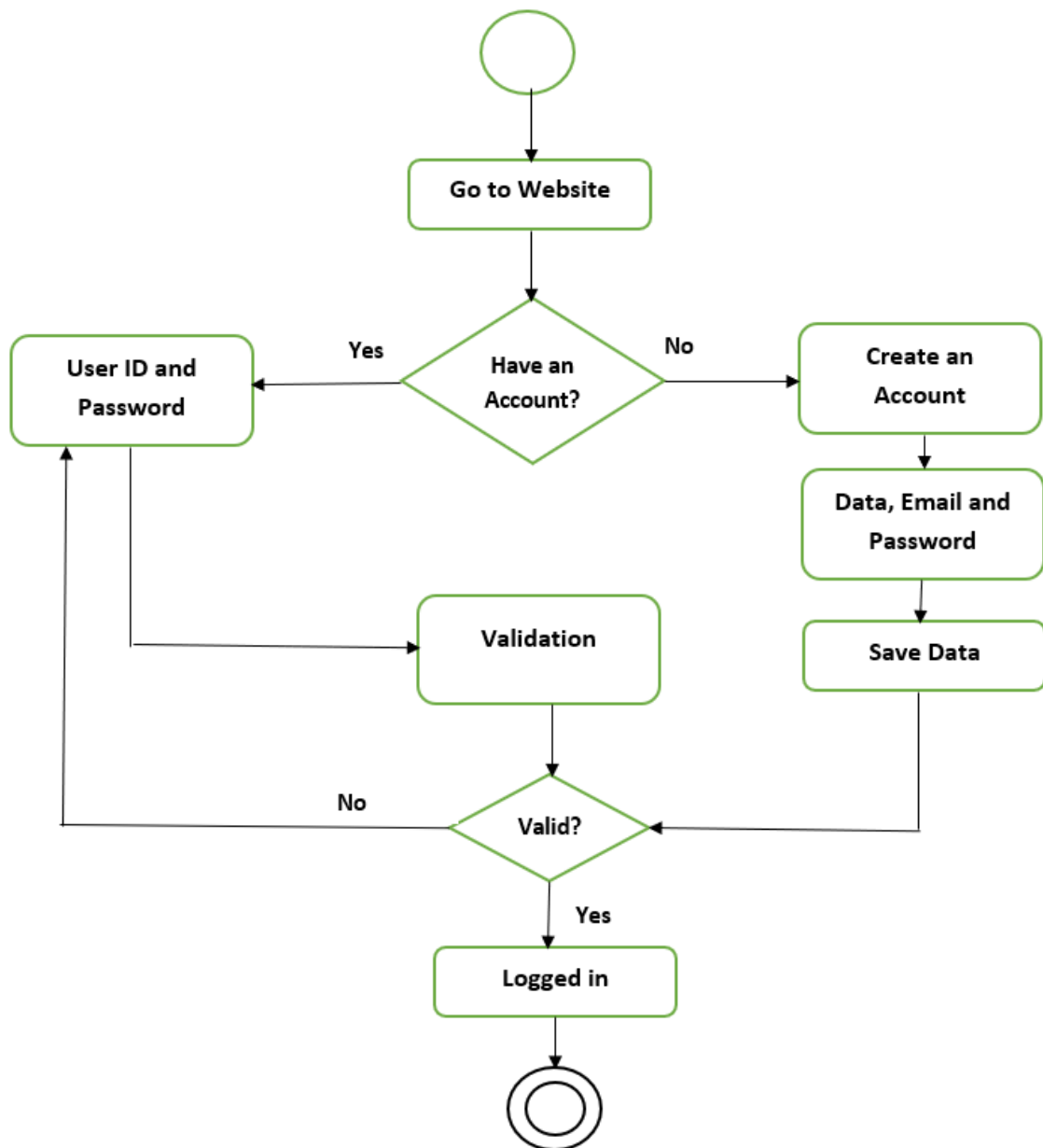


Figure 3.4.1: Activity Diagram Login and Registration System

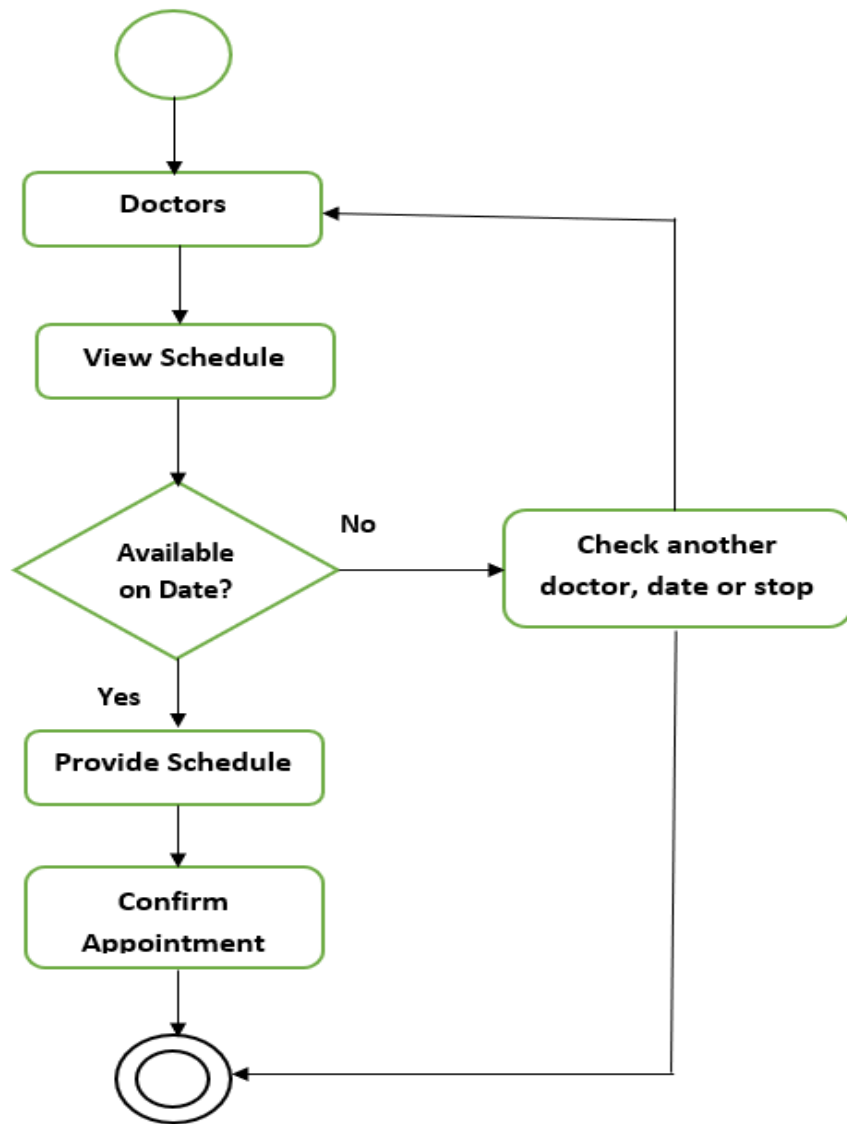


Figure 3.4.2: Activity Diagram Appointment Booking System

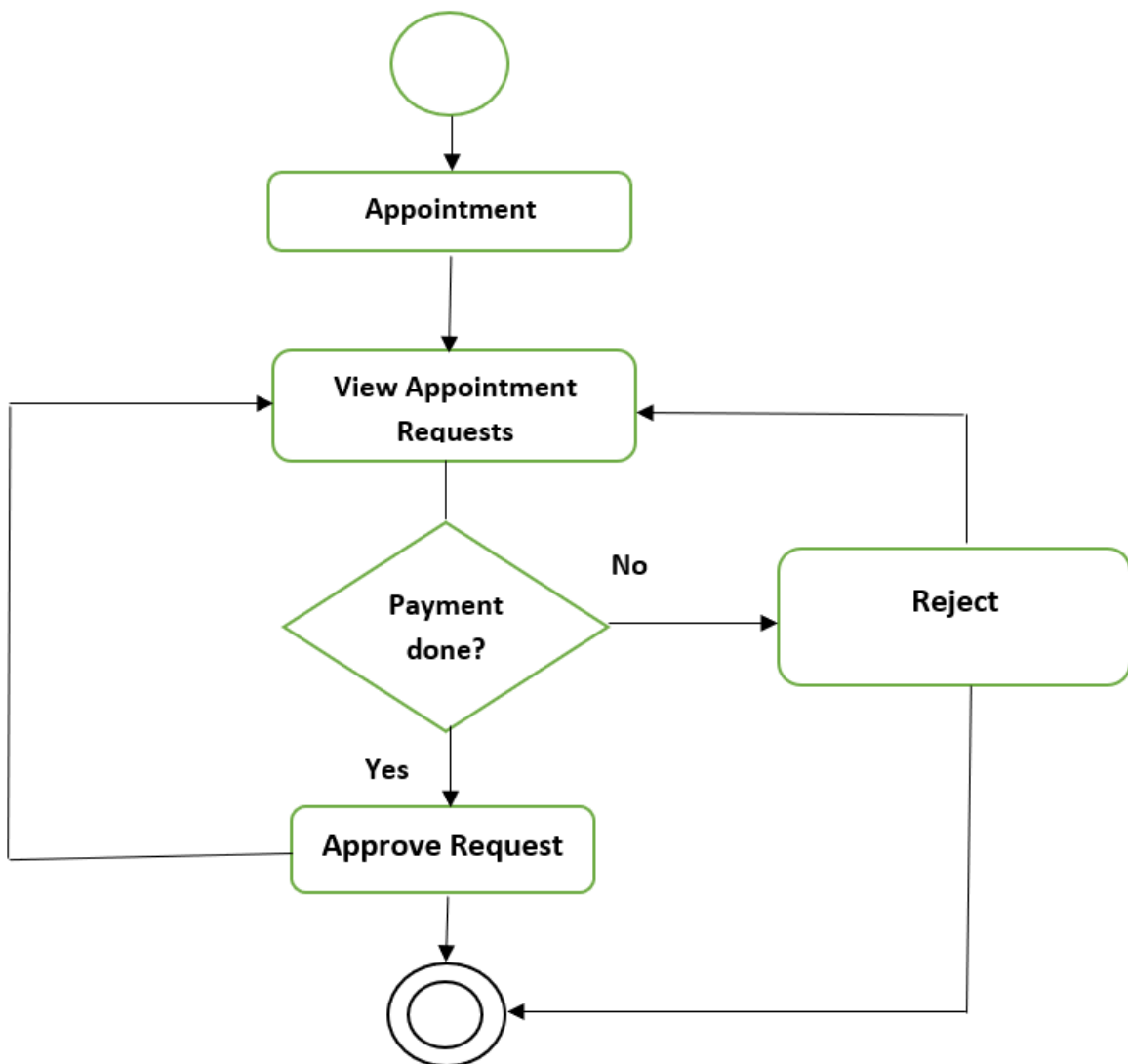


Figure 3.4.3: Activity Diagram Appointment Tracking System

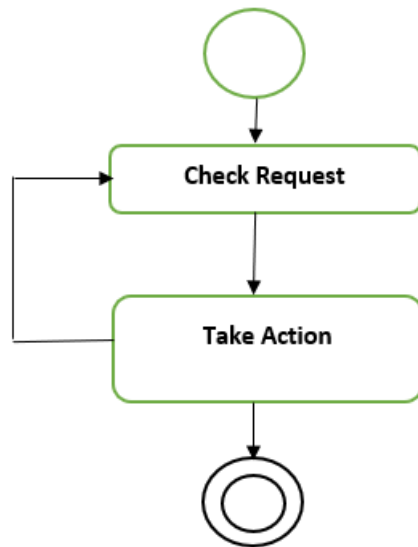


Figure 3.4.4: Activity Diagram Request Handling

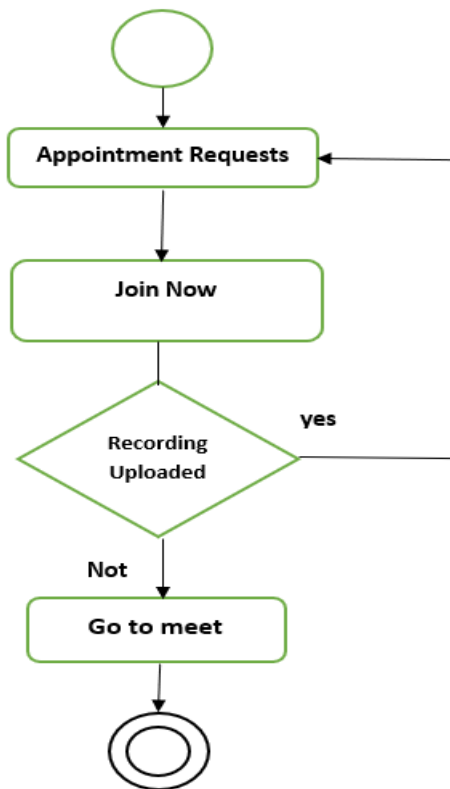


Figure 3.4.2: Activity Diagram Patient Monitoring System

CHAPTER-4: SYSTEM DESIGN SPECIFICATION

4.1 Entity Relationship Diagram

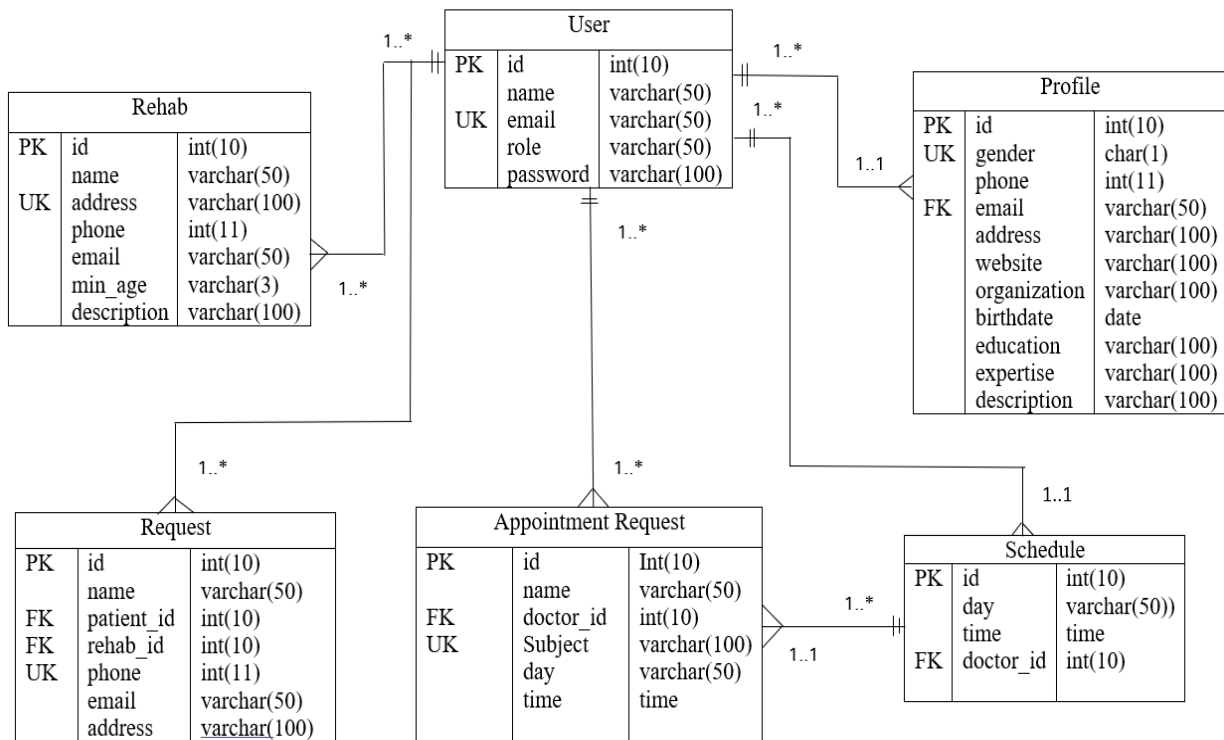


Figure 4.1.1: ER Diagram

4.2 Sequence Diagram

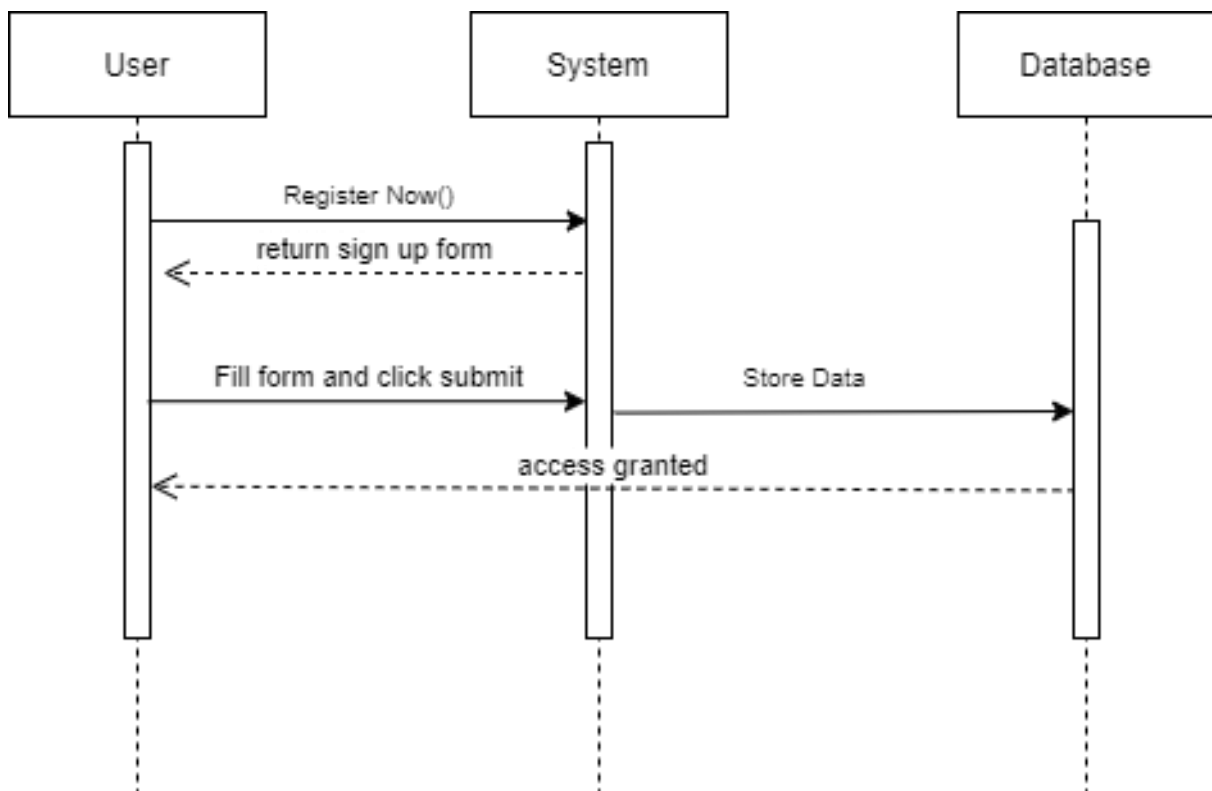


Figure 4.2.1 Registration System Sequence Diagram

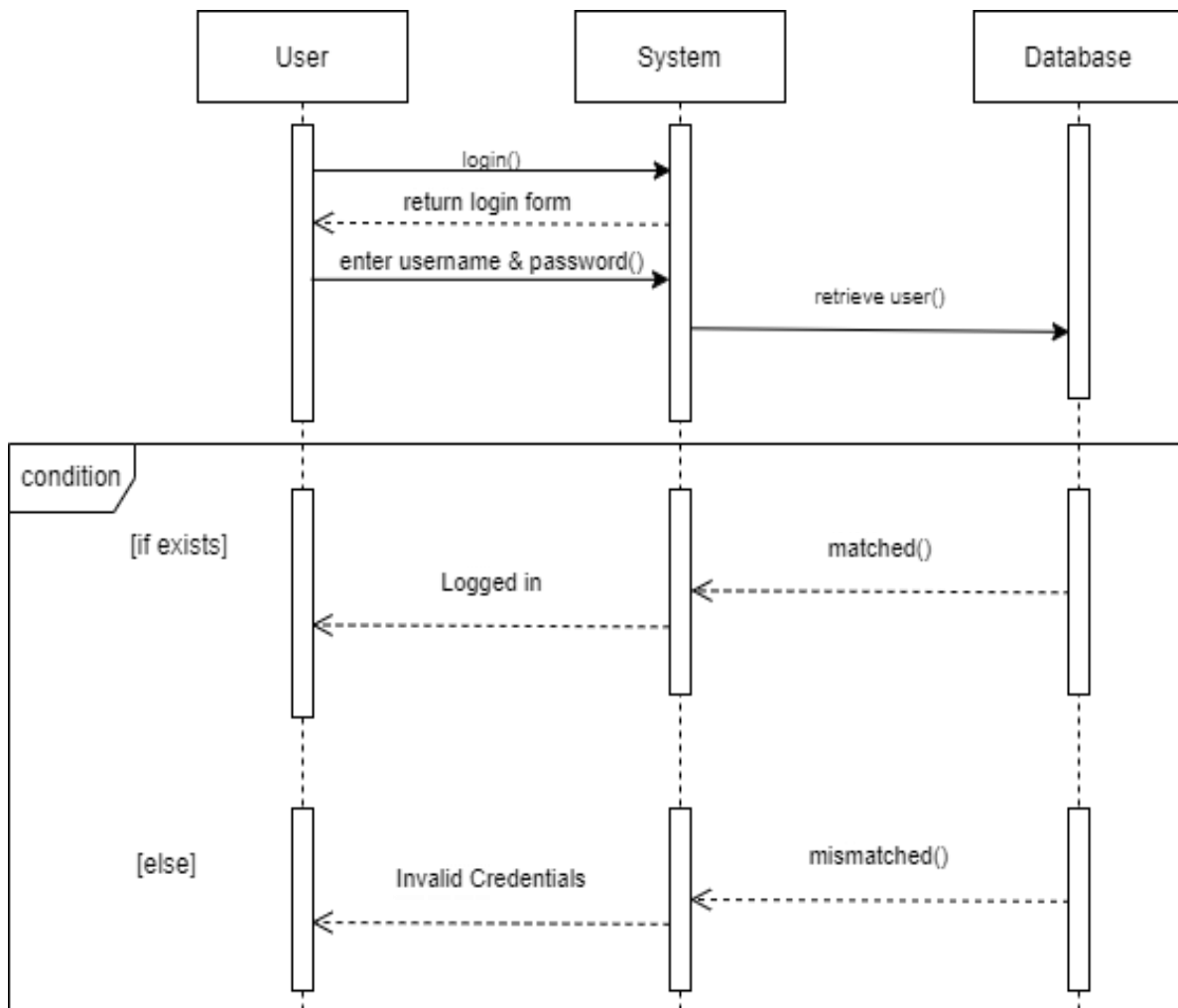


Figure 4.2.2 Login System Sequence Diagram

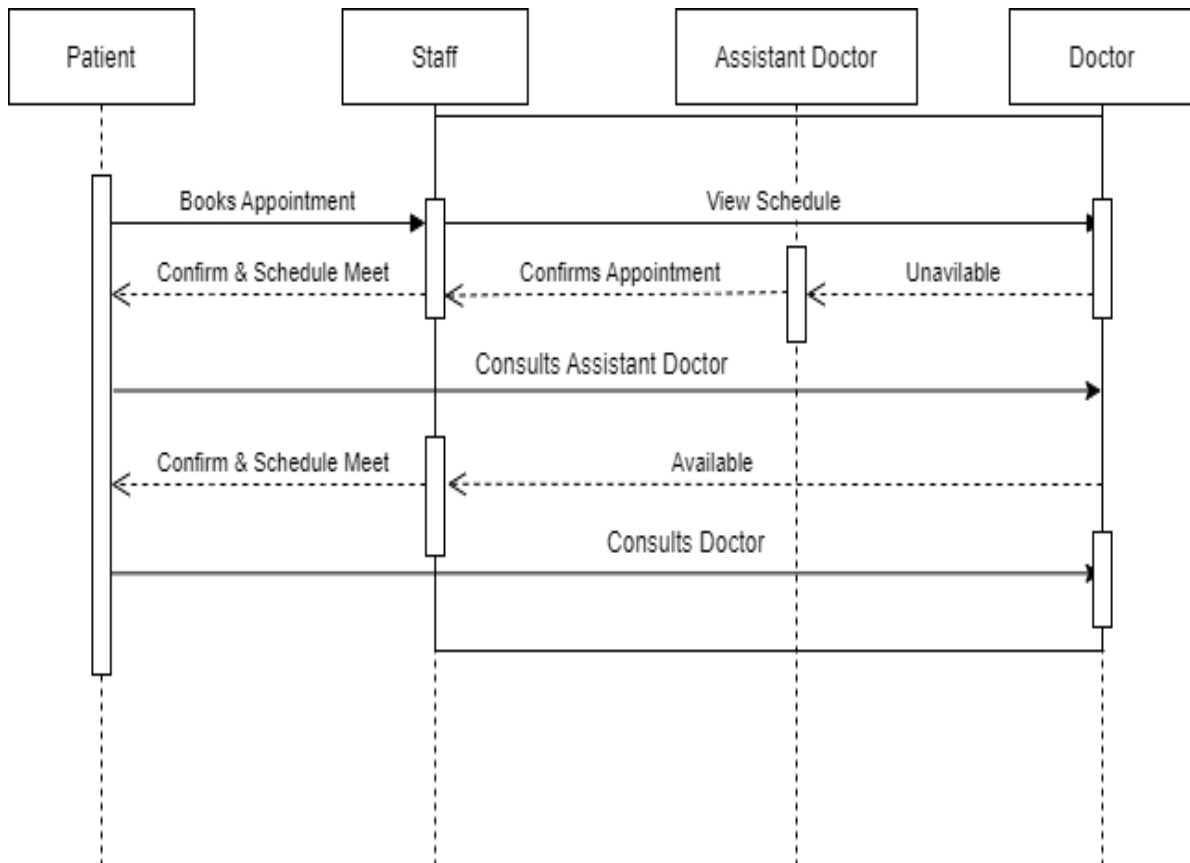


Figure 4.2.3 Appointment Booking System Sequence Diagram

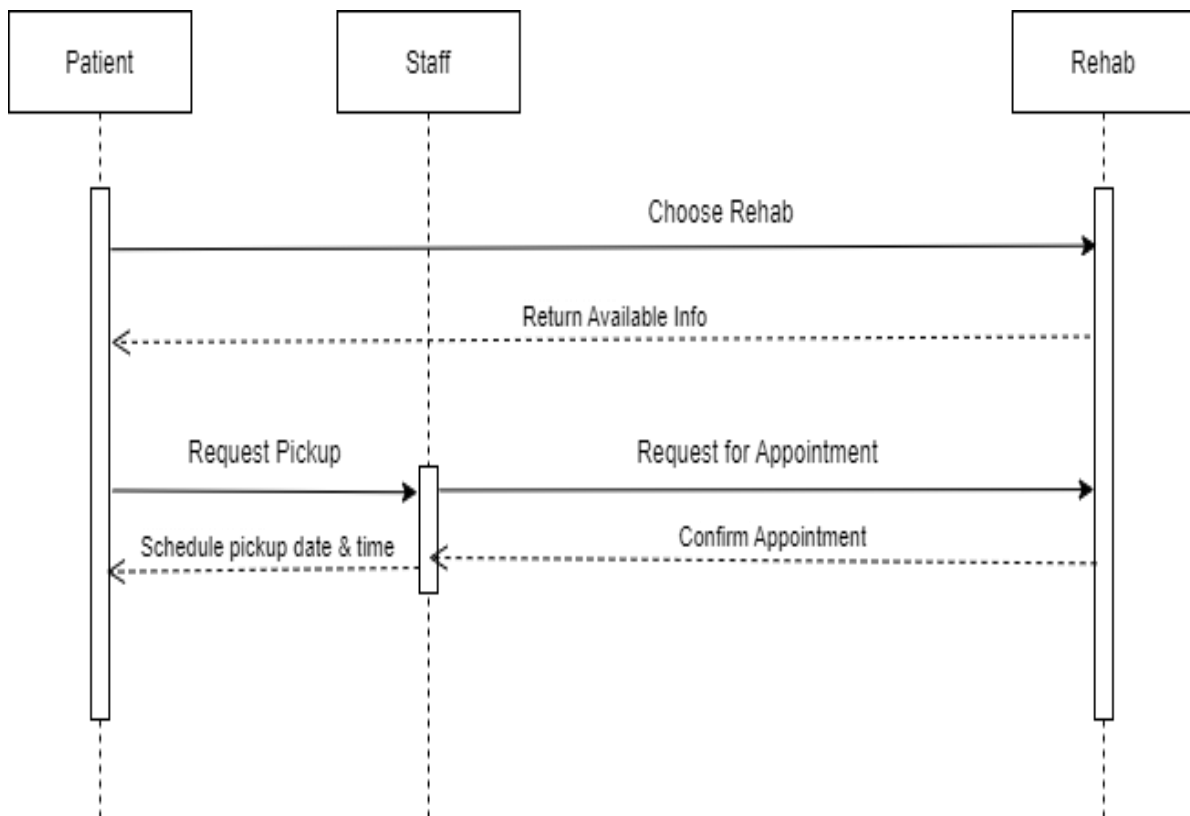


Figure 4.2.4 Rehab booking system Sequence Diagram

4.3 Class Diagram

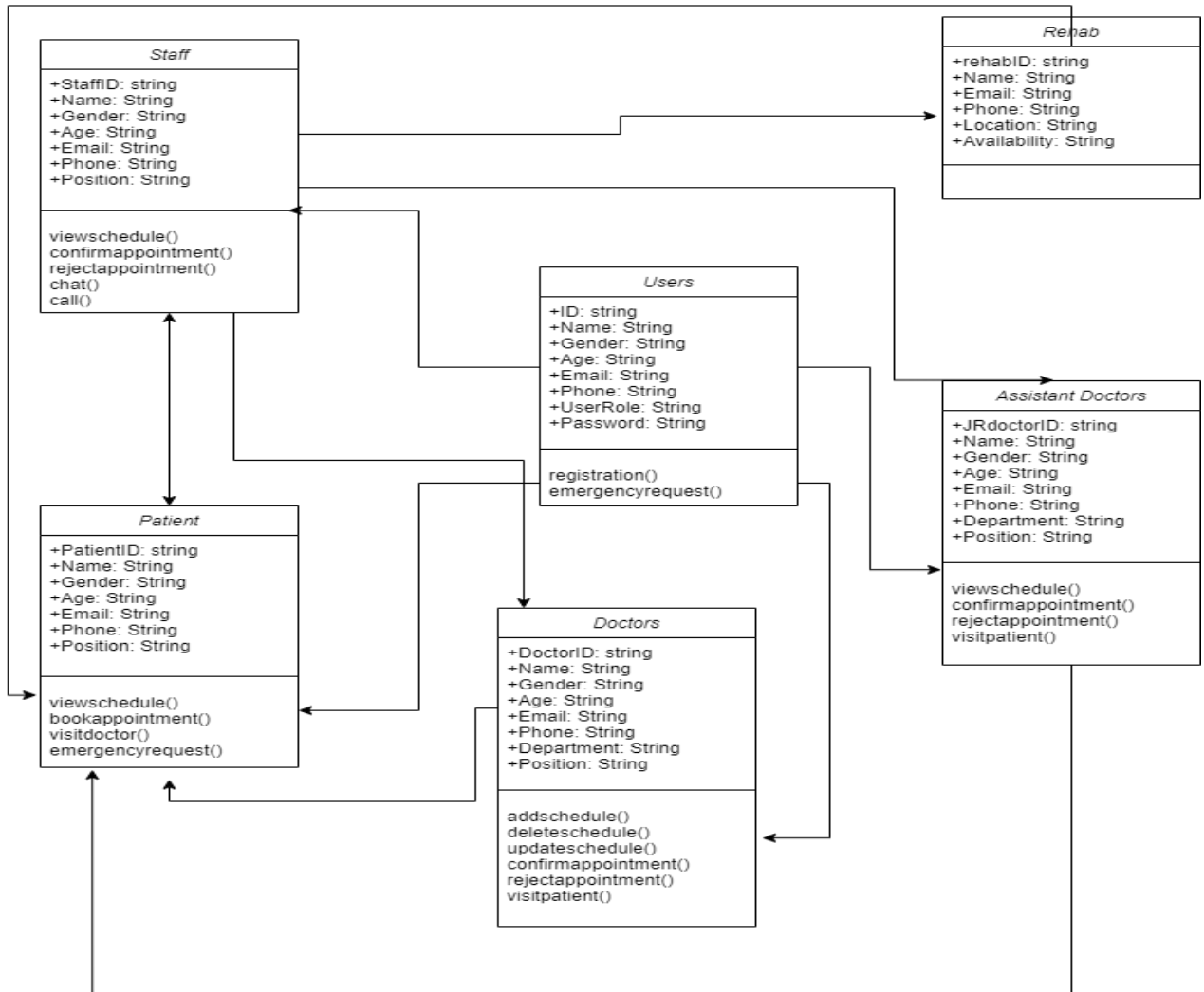


Figure 4.3.1: Class Diagram

CHAPTER-5: SYSTEM TESTING

5.1 Testing Features

5.1.1 Features to be tested

1. Registration
2. Login
3. Update Schedule
4. Create Appointment
5. Approve Appointment Request

5.1.2 Features to be tested

1. Check Doctor's Scheduling
2. Send Appointment Request by Patient
3. Approve Request by Staff

5.2 Testing Strategies

5.2.1 Testing Approach

1. Manually testing will be implied sequentially to test the whole system.
2. User acceptance will be checked for the system.
3. All user activities will be tested for the whole system.

5.2.2 Pass/Fail Criteria

1. Component Pass/Fail criteria – The testing will pass if the cases meet the requirements.
2. Integration Pass/Fail criteria – The testing will pass if the cases meet the architecture requirement.

5.2.3 Suspension and Resumption

1. Regression Testing – The system will work fluently after each change on the system.
2. Database Change: The system will not work properly if there made change in database name.
3. Build Acceptance Test – The system will pass the test if every build is successful.
4. System Design Changes – The system should work properly after each change in the design.

5.2.4 Test Schedule

Test Phase	Time
Test Planning	1 weeks
Test Specifications	1 weeks
Test Specification Review	3 weeks
Component Testing	3 weeks
Integration Testing	4 weeks
System Testing	5 weeks

Table 5.1.1: Test Scheduling

5.3 Test Case

5.3.1 Test case 1

Test case: 01	Test Case Name: Registration
System: Registration	Subsystem: N/A
Designed by: Sabiha Khan Tuli (191-35-2644)	Design Date: 05-11-2022
Executed by: Sabiha Khan Tuli	Execution Date: 07-11-2022

Table 5.1.2: Test Case 1 (Registration)

Step	Action	status	Comment
1	Fill up name field only and click signup	Pass	Other fields are required
2	Click signup with empty form	Pass	Form is required to be filled up
3	Enter emails following no format. Example: xyz.net and click sign up	Pass	Follow the format of an email address
4	Enter all information correctly and click signup	Pass	Registered Successfully

Table 5.1.3: Output of Test Case 1 (Registration)

5.3.2 Test case 2

Test case: 02	Test Case Name: Login
System: User login	Subsystem: N/A
Designed by: Sabiha Khan Tuli (191-35-2644)	Design Date: 08-11-2022
Executed by: Sabiha Khan Tuli	Execution Date: 09-11-2022

Table 5.1.4: Test Case 2 (Login)

Step	Action	status	Comment
1	Click login entering only email but not password	Pass	Invalid Credentials
2	Click login without feeling login form	Pass	Invalid Credentials
3	Enter emails following no format. Example: xyz.net and click login	Pass	Email should be written following the format
4	Enter email and password correctly and click login	Pass	Logged in successfully

Table 5.1.5: Output of Test Case 2 (Login)

5.3.3 Test case 3

Test case: 03	Test Case Name: Update Schedule
System: Update Schedule by Doctor	Subsystem: N/A
Designed by: Sabiha Khan Tuli (191-35-2644)	Design Date: 10-11-2022
Executed by: Sabiha Khan Tuli	Execution Date: 15-11-2022

Table 5.1.6: Test Case 3 (Update Schedule)

Step	Action	status	Comment
1	Doctor clicks on update schedule button and update schedule modal will be appeared	Pass	3 schedules will be available
2	Click update schedule without defining day and time will give an alert	Pass	Define the day and time
3	Enter day but not time and click update schedule will show a message	Pass	Select the time
4	Enter day and time and click update schedule	Pass	Schedule updated successfully

Table 5.1.7: Output of Test Case 3 (Update Schedule)

5.3.4 Test case 4

Test case: 04	Test Case Name: Create Appointment
System: Create Appointment by patient	Subsystem: N/A
Designed by: Sabiha Khan Tuli (191-35-2644)	Design Date: 16-11-2022
Executed by: Sabiha Khan Tuli	Execution Date: 20-11-2022

Table 5.1.8: Test Case 4 (Create Appointment)

Step	Action	status	Comment
1	Patient click on create appointment button and an appointment booking modal will be appeared	Pass	Cancel or create appointment
2	Click create appointment button without filling the required fields	Pass	Form is required to be filled up
3	Enter every information correctly and click create appointment button	Pass	Appointment request placed successfully

Table 5.1.9: Output of Test Case 4 (Create Appointment)

5.3.5 Test case 5

Test case: 05	Test Case Name: Approve Request
System: Approve Request by Staff	Subsystem: N/A
Designed by: Sabiha Khan Tuli (191-35-2644)	Design Date: 21-11-2022
Executed by: Sabiha Khan Tuli	Execution Date: 30-11-2022

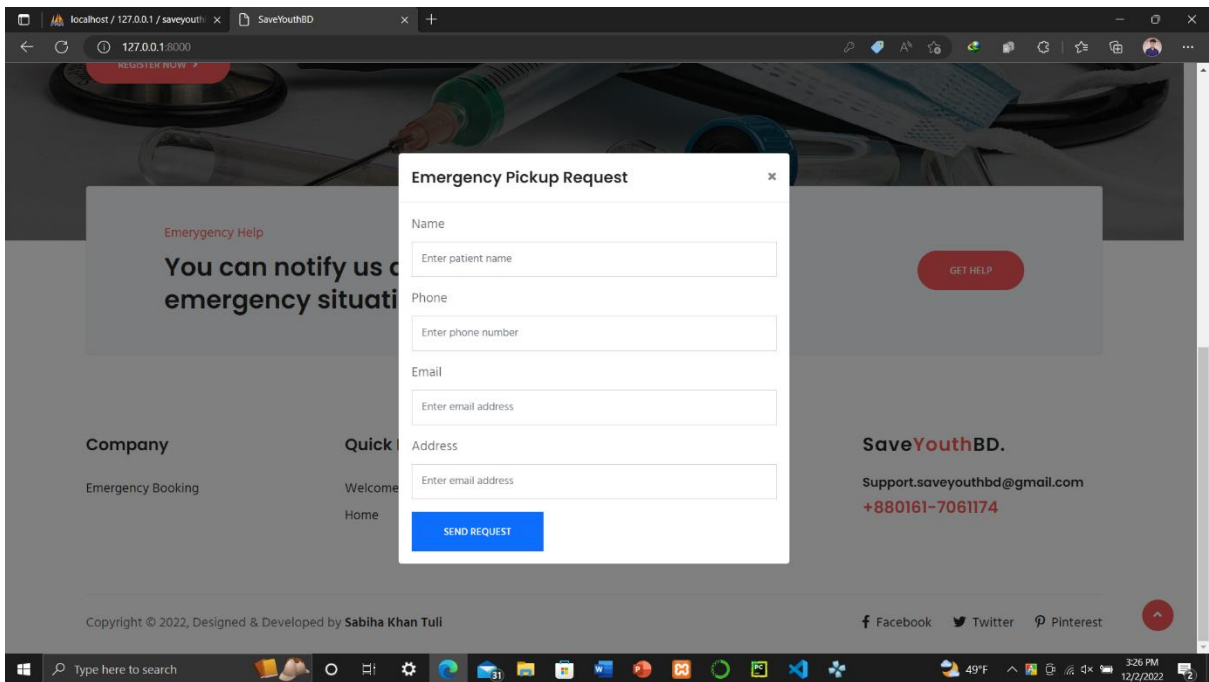
Table 5.1.10: Test Case 5 (Approve Request)

Step	Action	status	Comment
1	Staff clicks on approve button and a modal of setting time and meet link will be appeared	Pass	Provide time and meet link
2	Clicking on approve button without providing meet link or time will give an error message	Pass	All fields are required
3	Place link and time correctly and click approve button	Pass	Appointment is approved successfully

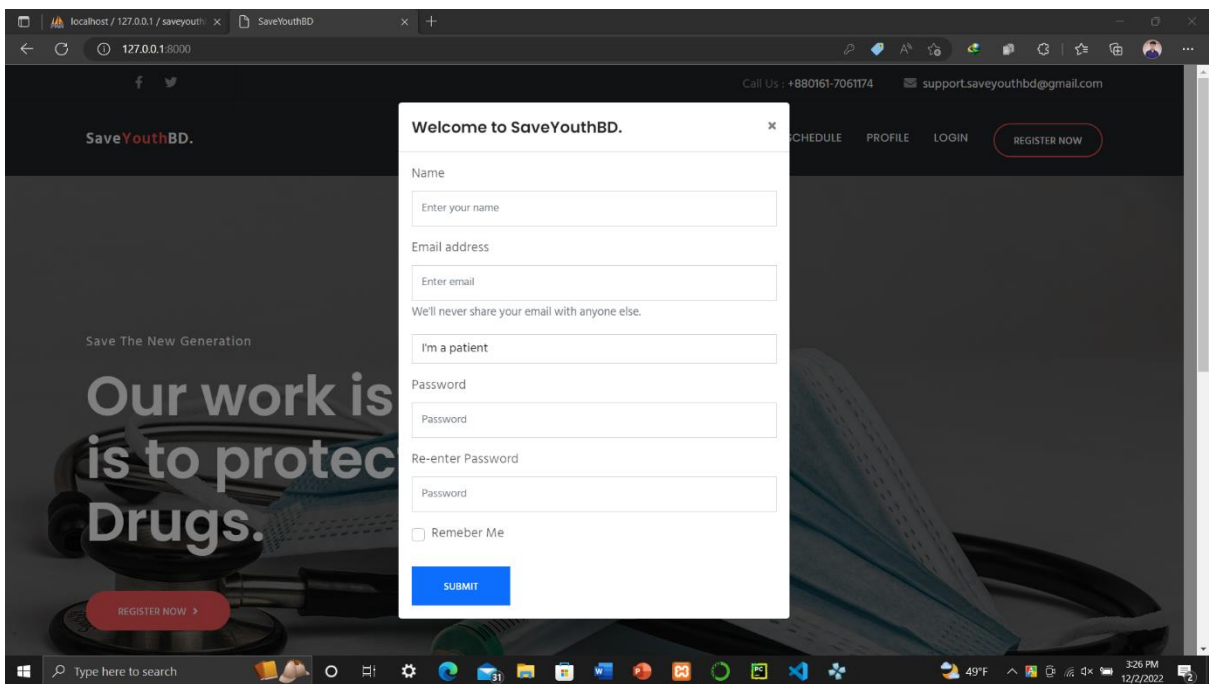
Table 5.11: Output of Test Case 5 (Approve Request)

CHAPTER-6: USER MANUAL

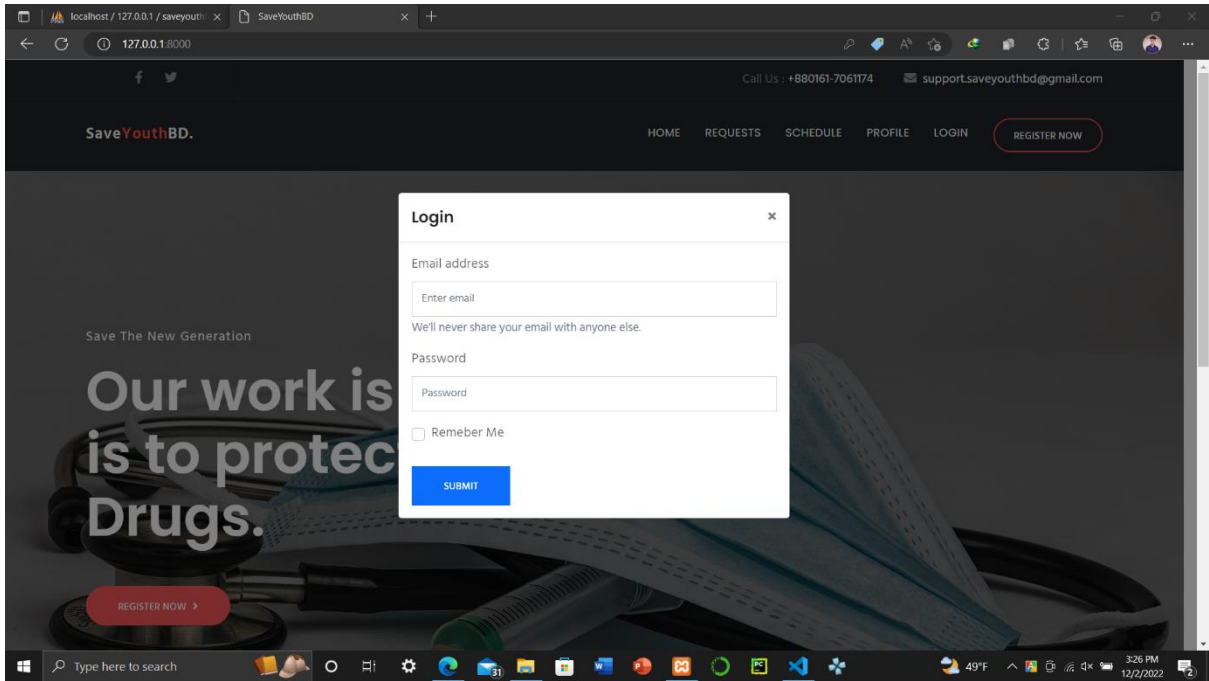
6.1 User Manual (Local User)



User Manual 6.1.1: Emergency Help Request Modal

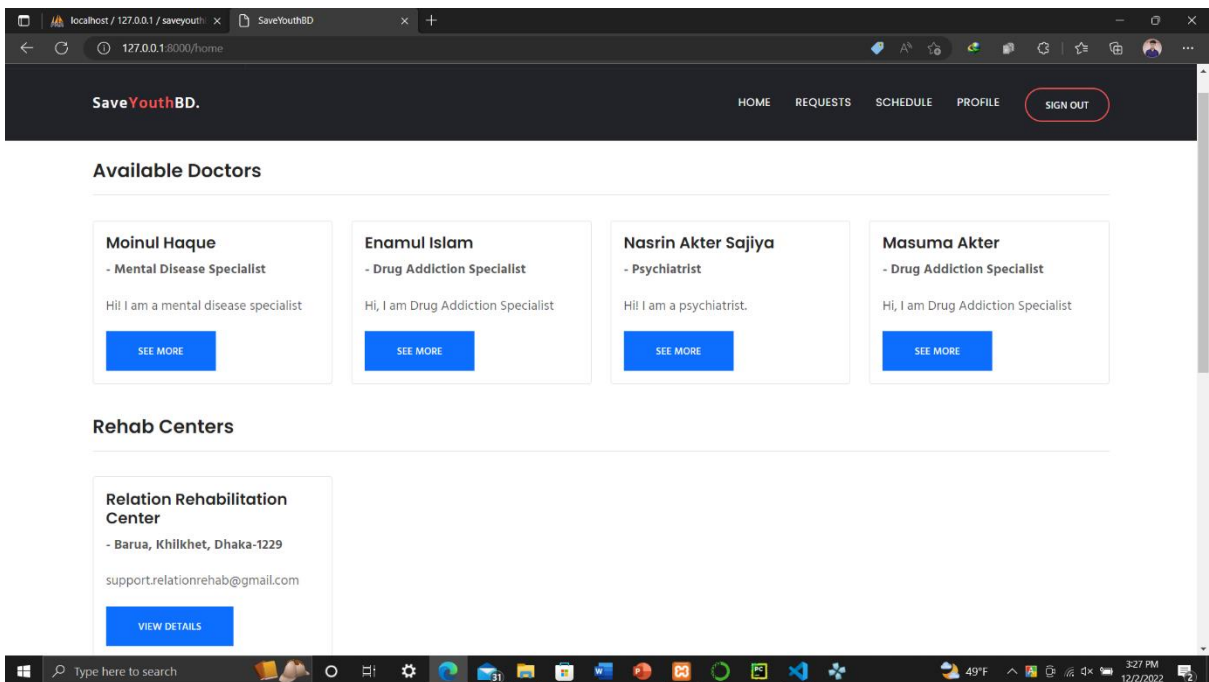


User Manual 6.1.2: Registration Modal

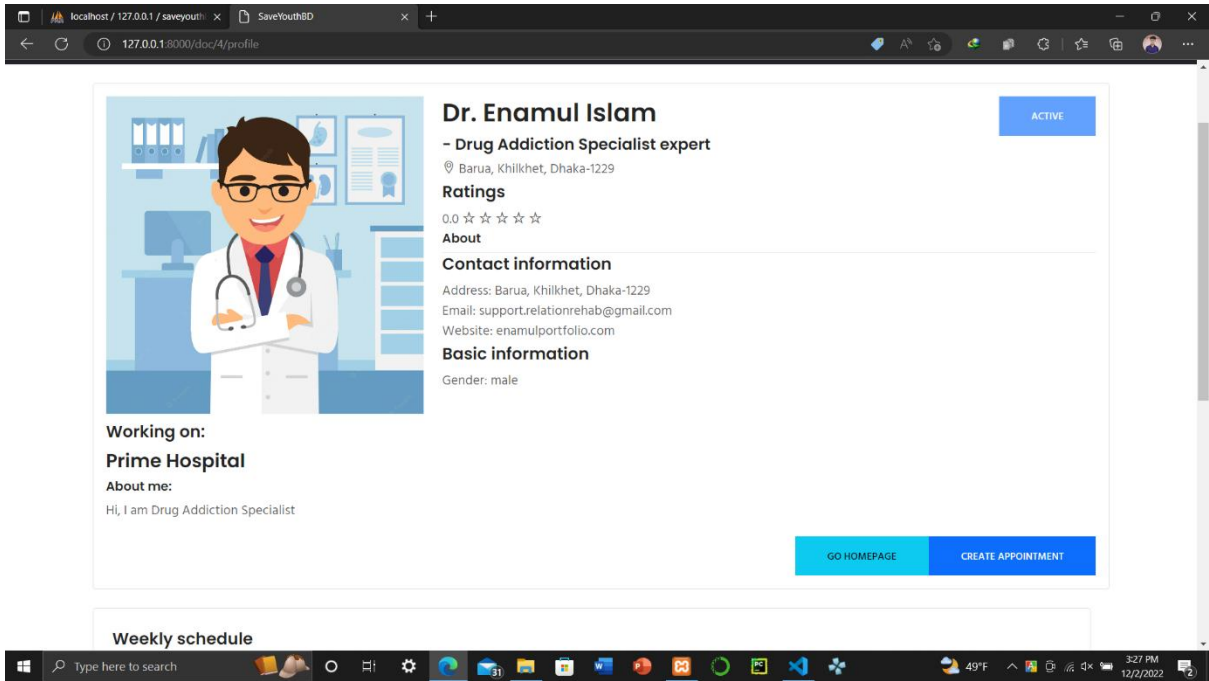


User Manual 6.1.3: Login Modal

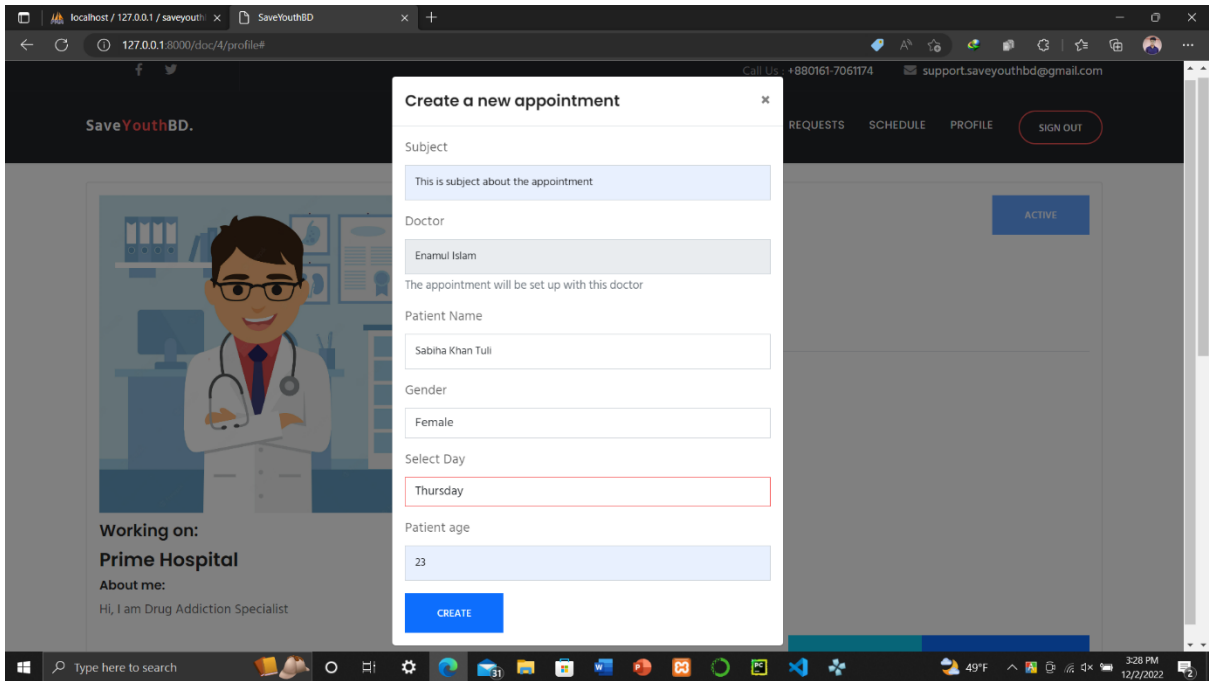
6.2 User Manual (Patient)



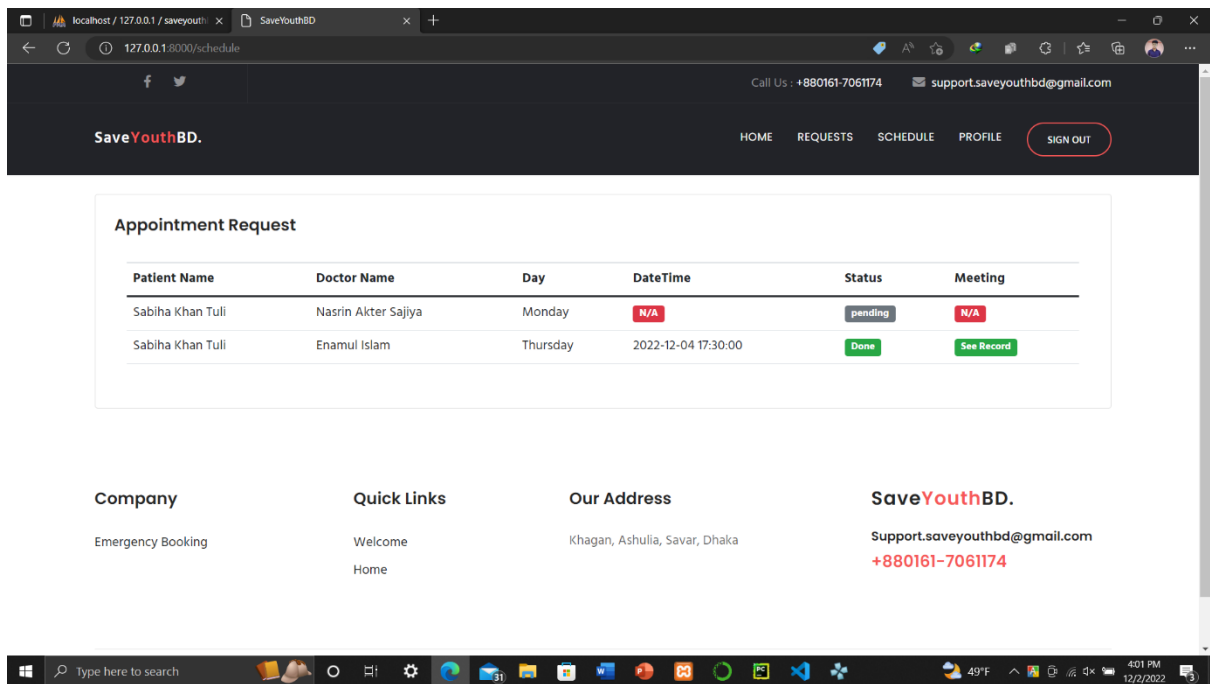
User Manual 6.2.1: Patient Home Page



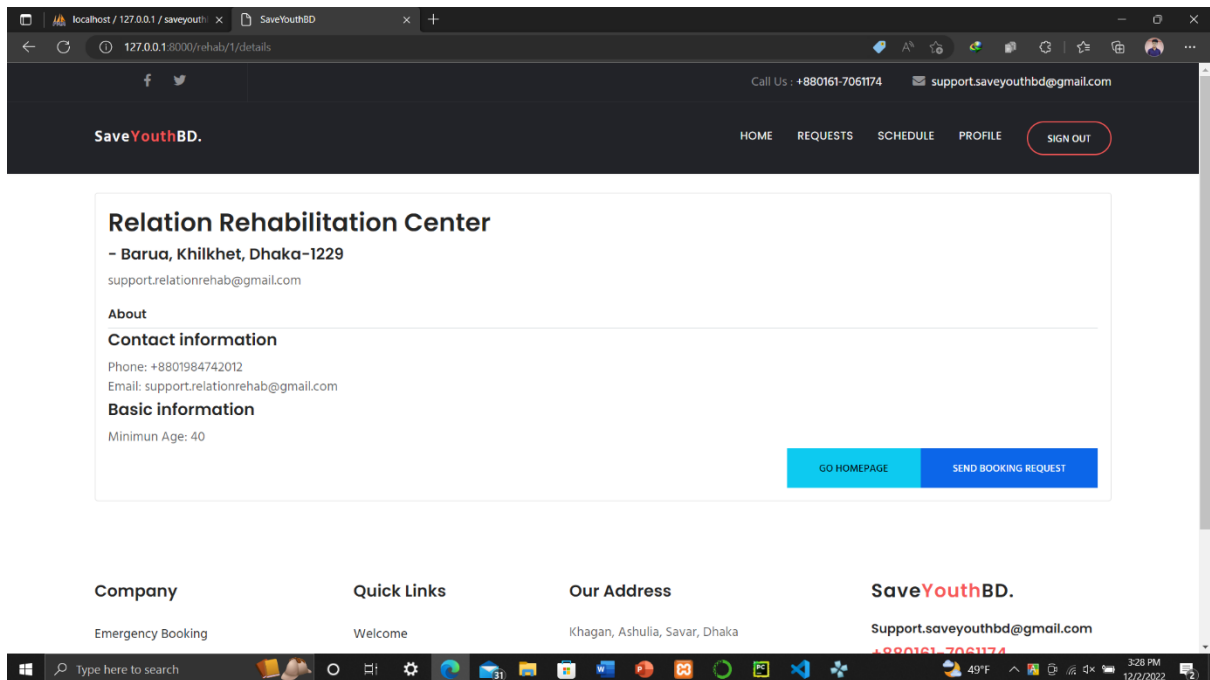
User Manual 6.2.2: View Doctor Profile from Patient Side



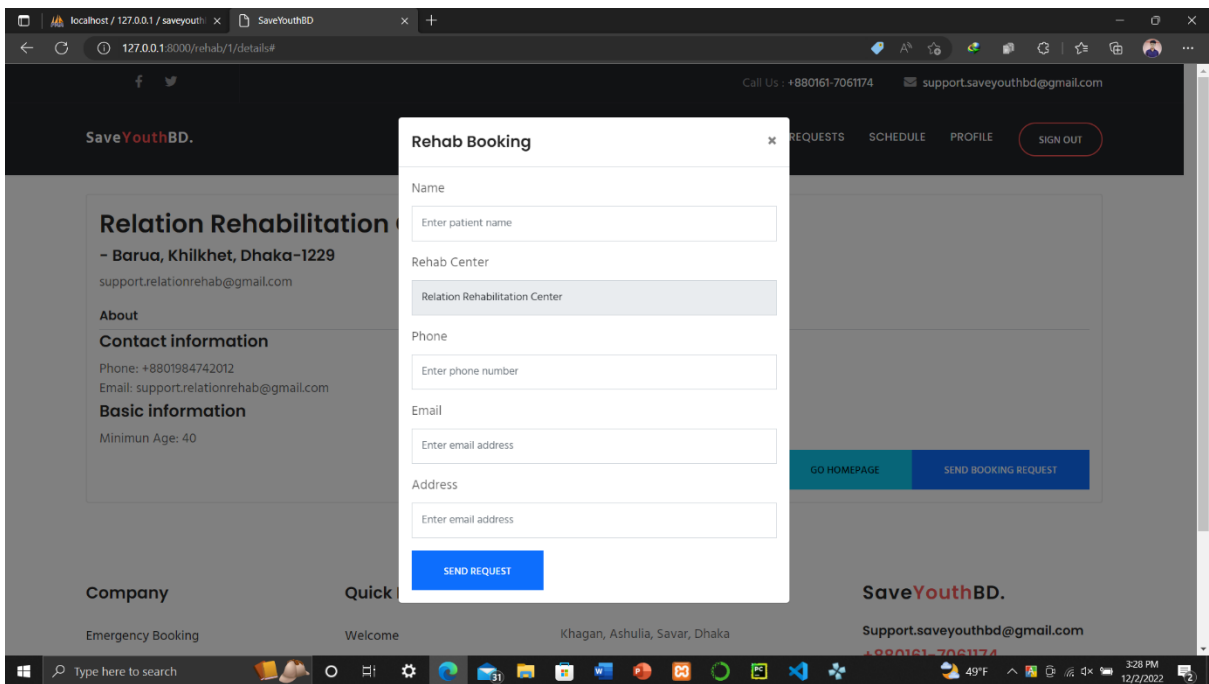
User Manual 6.2.3: Appointment Booking Modal



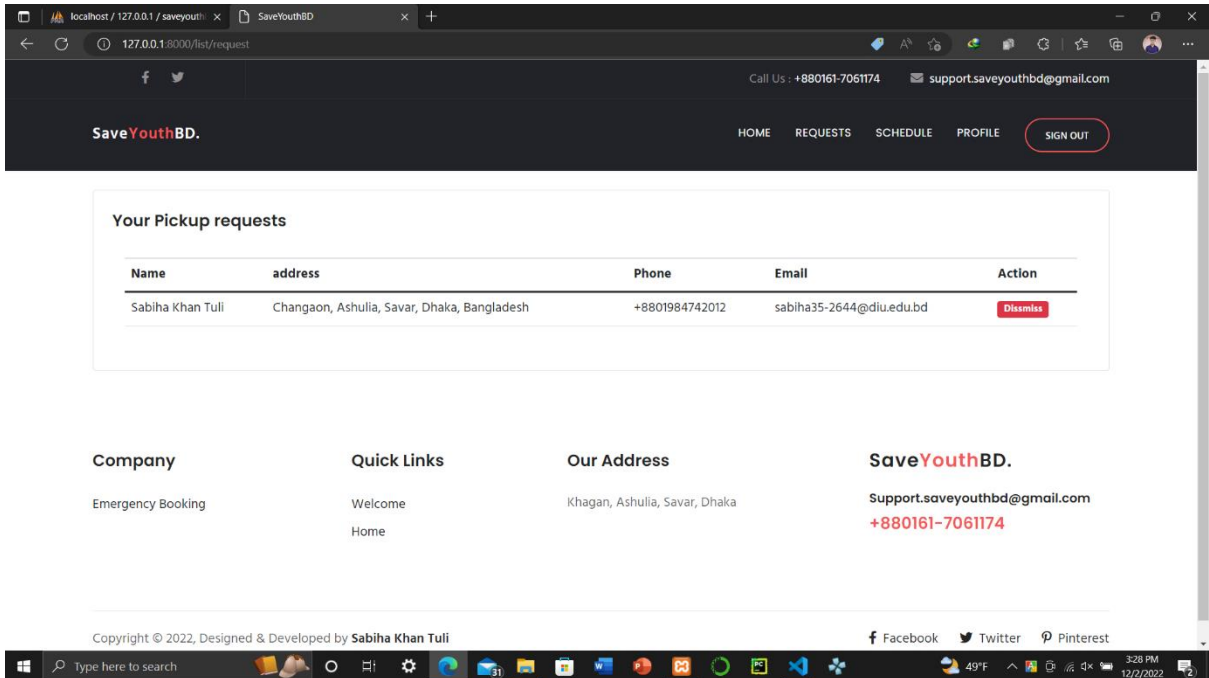
User Manual 6.2.4: Appoint Request List from Patient Side



User Manual 6.2.5: View Rehab Profile from Patient Side

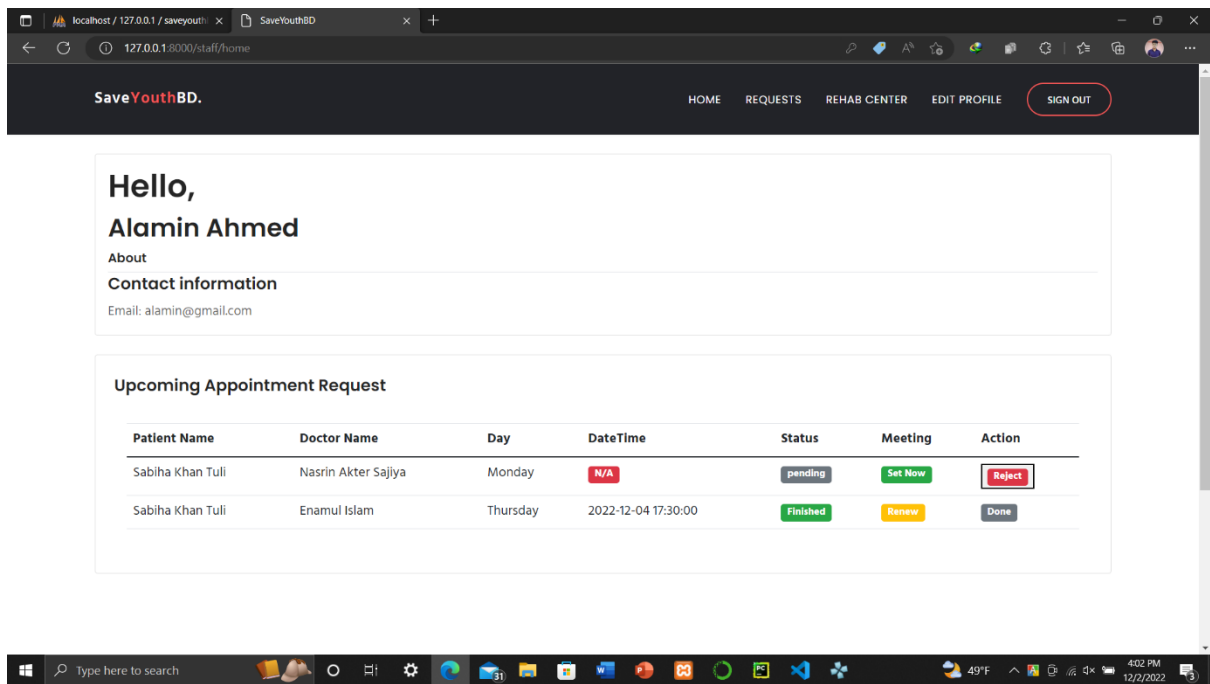


User Manual 6.2.6: Rehab Booking Modal

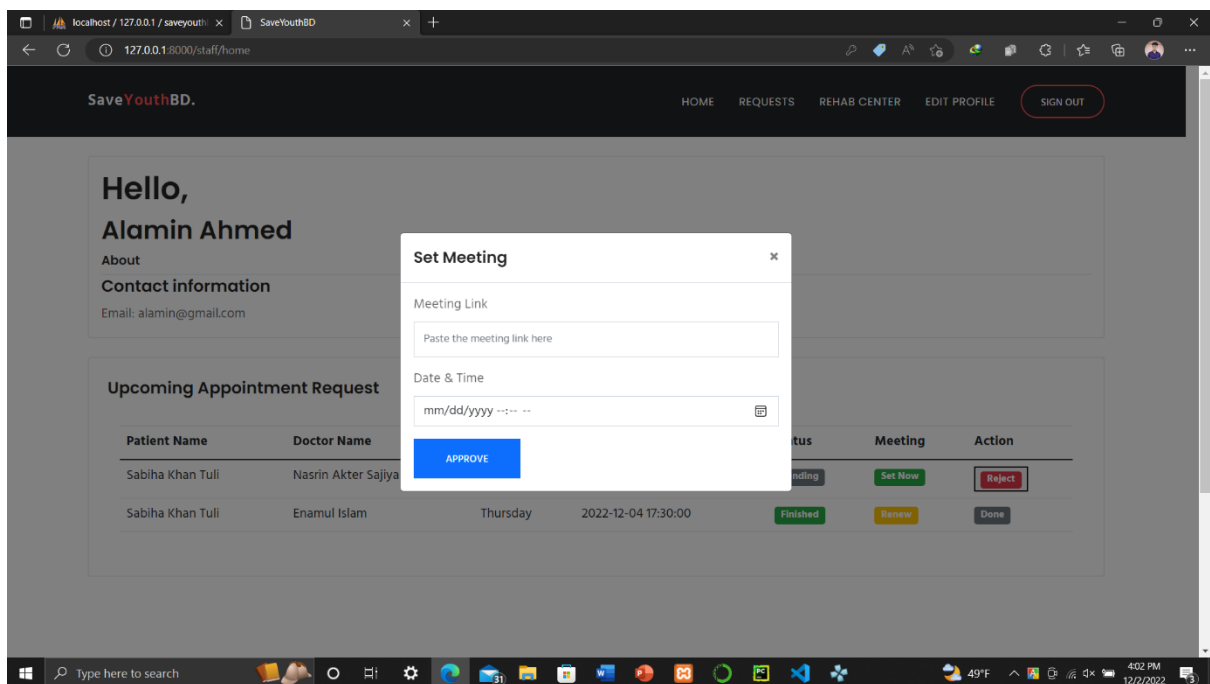


User Manual 6.2.7: Emergency Request List from Patient Side

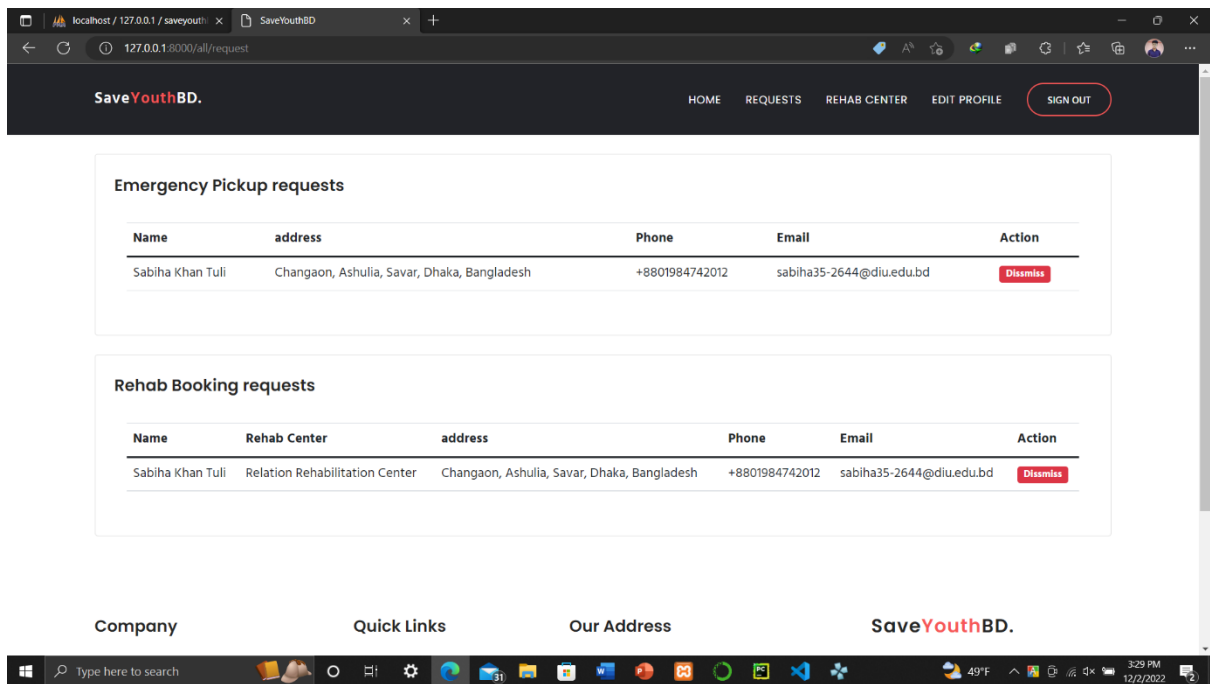
6.3 User Manual (Staff)



User Manual 6.3.1: Staff Home Page

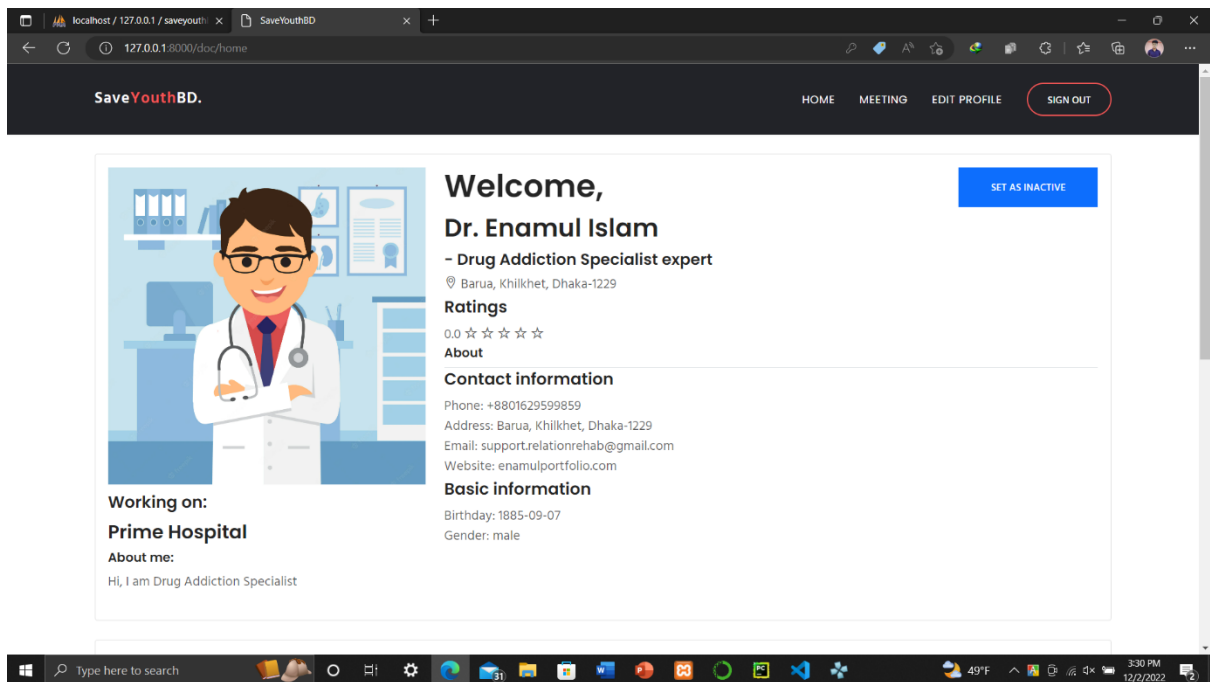


User Manual 6.3.2: Appointment Approval Modal for Staff

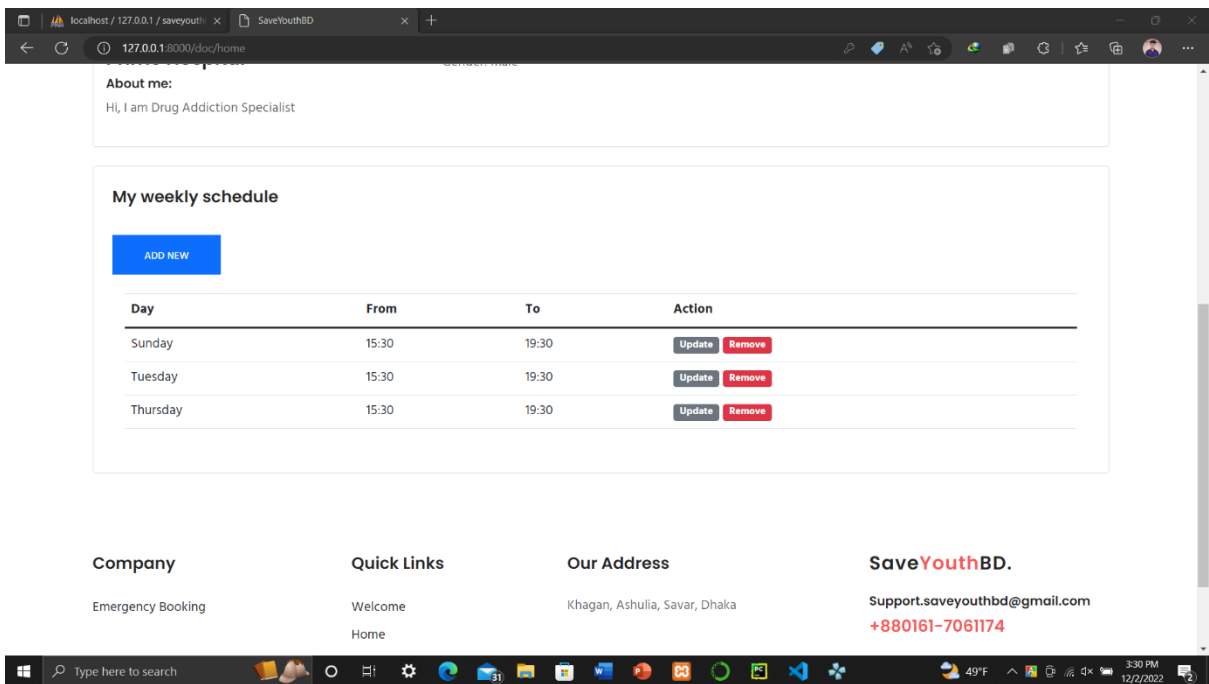


User Manual 6.3.3: Request List from Staff Side

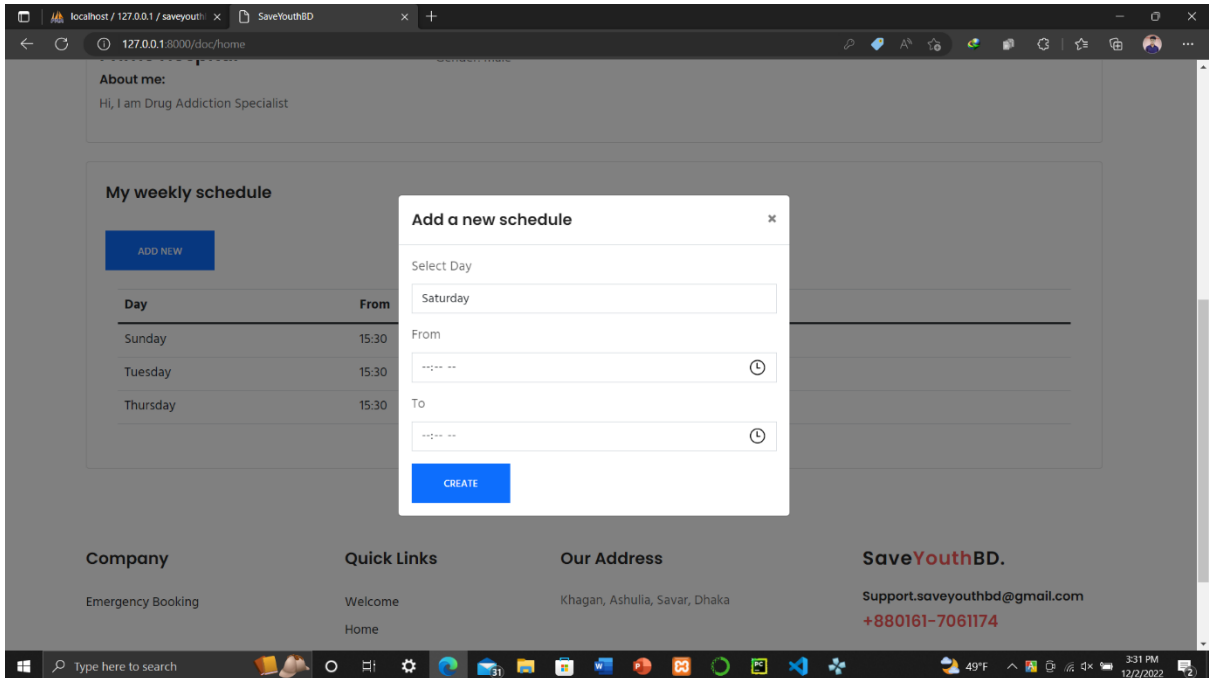
6.4 User Manual (Doctor)



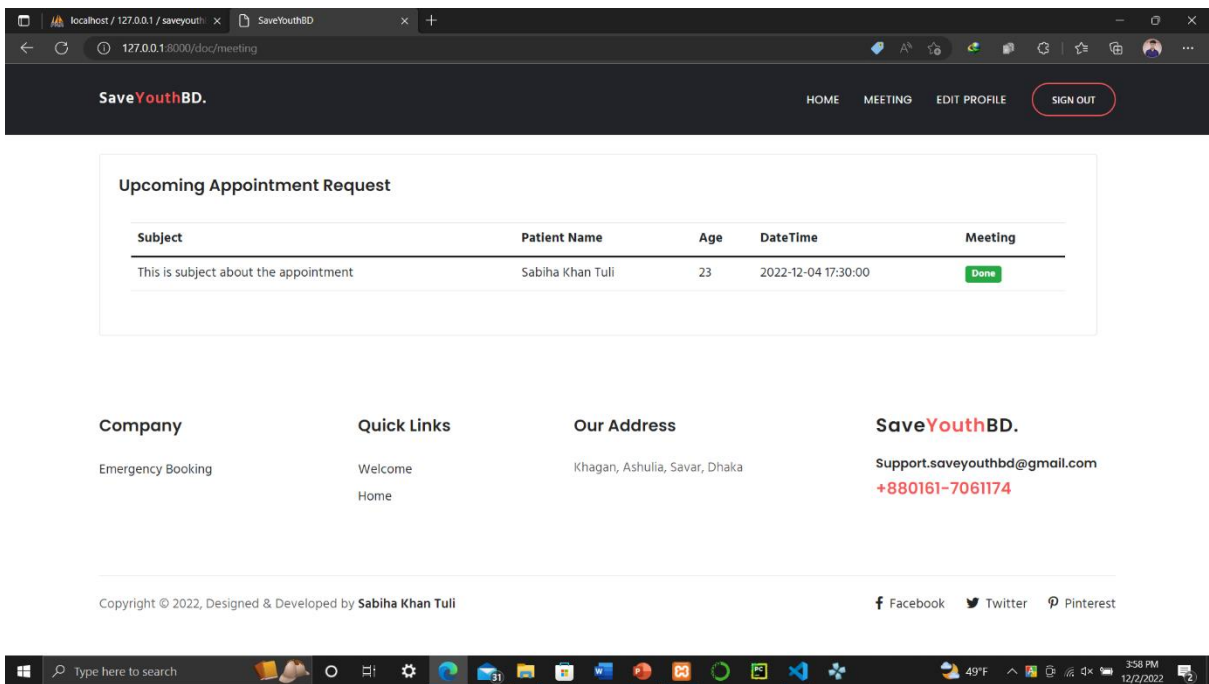
User Manual 6.4.1: Doctor Home Page



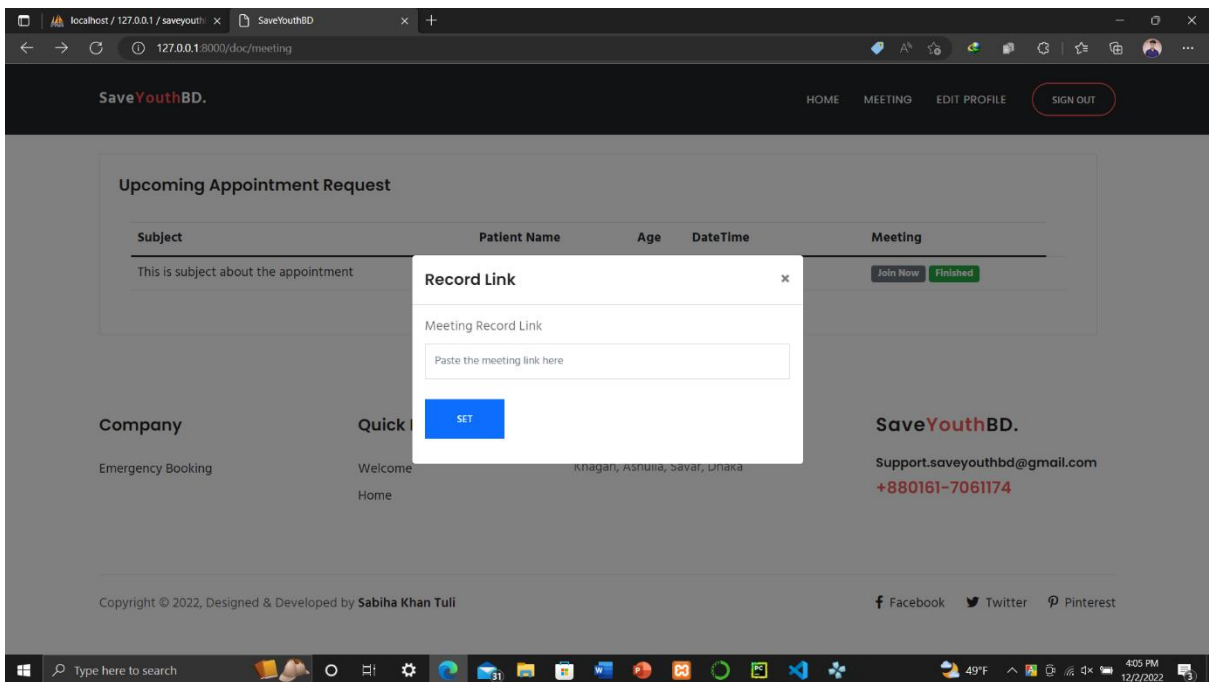
User Manual 6.4.2: Schedules of Doctor



User Manual 6.4.3: Update Schedule Modal for Doctor



User Manual 6.4.4: Approved Appointment Request List from Doctor Side



User Manual 6.4.5: Upload Meet Recording Modal for Doctor

CHAPTER-7: PROJECT SUMMARY

7.1 Limitations

- The system limits every user accessibility with respect to the requirements.
- Specified users can use specified features.

7.2 Obstacles and Achievement

First of all I thought to use Django to develop this project but due to some reasons my mind changed and I moved to Laravel and choose this framework to build this system. Though I used the framework but I had to pass through many difficulties to solve many problems arose while developing the project. This Documentation is a work of my bone hurting effort I gave to make the project successfully worked.

7.3 Future Scope

The future works will give a great enhance to this system. Some of future plans are

- Automated Appointment Booking System
- Fully Potential Payment Gateway
- Real Time Rehab Mapping
- Available service of emergency pick-up
- Mobile Application of this system
- Increase of Optimization

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1% match (Internet from 21-Nov-2022)

http://dspace.daffodilvarsity.edu.bd:8080/bitstream/handle/123456789/7713/153-35-1339%20%2823_%29.pdf?isAllowed=y&sequence=1

1% match (Internet from 21-Nov-2022)

<http://dspace.daffodilvarsity.edu.bd:8080/bitstream/handle/123456789/8236/181-35-2371%20%2824%25%29%20clearance.pdf?isAllowed=y&sequence=1>

1% match (Internet from 21-Nov-2022)

<http://dspace.daffodilvarsity.edu.bd:8080/bitstream/handle/123456789/7383/171-35-1888%20%2819%25%29.pdf?isAllowed=y&sequence=1>

1% match (Internet from 20-Nov-2022)

http://dspace.daffodilvarsity.edu.bd:8080/bitstream/handle/123456789/5734/163-35-1784%20%289_%29.pdf?isAllowed=y&sequence=1

1% match (Internet from 19-May-2022)

http://dspace.daffodilvarsity.edu.bd:8080/bitstream/handle/123456789/7812/153-35-1385%20%2823_%29.pdf?isAllowed=y&sequence=1

1% match (Internet from 20-Nov-2022)

http://dspace.daffodilvarsity.edu.bd:8080/bitstream/handle/123456789/5693/171-35-1870%20%2824_%29.pdf?isAllowed=y&sequence=1

1% match (Internet from 21-Nov-2022)

<http://dspace.daffodilvarsity.edu.bd:8080/bitstream/handle/123456789/8259/173-35->