American International University-Bangladesh (AIUB)

Department of Computer Science & Engineering Faculty of Science & Technology (FST)

Project Proposal, Fall 2023-24

Course	SOFTWARE ENGINEERING

Submitted By

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Submitted To

TONNY SHEKHA KAR

Lecturer, CS

Project Title:

SMART HEALTHCARE SYSTEM

SMART HEALTHCARE SYSTEM

Background Information:

The technical scope associated with the development and implementation of this Smart Health Care System allows patients to access information about medical test costs, obtain details about available doctors, and receive online pharmaceutical support. Additionally, it provides convenient suggestions for balancing one's lifestyle to address mental health issues. Traditional methods of scheduling doctor's appointments and purchasing medicines often involve long queues, limited doctor availability, and involving physical presence in front of psychiatrists for discussing mental health issues. There is a perfect example: "**My father's sudden heart attack left us in a frantic search for a specialized heart surgeon locally, but we couldn't find one available in time. With no other option, we had to travel to another city for his lifesaving surgery**." The system will grapple with uncertainty regarding hospital choices, treatment costs, and suitable healthcare providers. Simultaneously, the Online Medical Store System makes it easier to buy medicines by offering a simple and convenient online ordering process, replacing the old and complicated way of getting medications. It will also help them find the best doctor and places to get tests done in their area. On the other hand, to stay happy and to keep everyone in the family or surroundings happy everyone understands the value of money and with it they are thinking of gaining more and more. To achieve that happiness or social recognition sometimes individuals are pushing their limits without considering their physical health and at the same time mental health. The Smart Health care System aims to bridge these gaps by leveraging technology to empower individuals with healthcare information, efficient medication access, and mental health support.

Objective:

- To reduce treatment costs for patients, making healthcare more affordable and accessible.
- To empower patients by enabling them to plan and choose hospitals that best serve their needs.
- To allow patients to describe symptoms, receive preliminary diagnoses, and find nearby hospitals offering quality treatment at reasonable prices.
- To simplify the process of scheduling appointments with doctors, providing information on fees and available time slots.
- To assist patients in locating diagnostic centers, booking test appointments, and obtaining information on total test costs
- To promote mental well-being by offering features such as balanced diet plans, time management tips, yoga exercises, and personalized life purpose suggestions, engaging users in a supportive environment
- To enhance accessibility and convenience for patients in ordering medicine.
- To implement secure payment gateways ensuring seamless and safe transactions while promoting transparency.
- To create a user-friendly interface, fostering satisfaction and pleasant experience for customers, leading to increased user trust and satisfaction

Solution:

There is no Smart healthcare system in our country because it is not widely used here. But the thing is the traditional way of medical system is a mess considering different situations. Sometimes patients get hassled in long queues for admitting patients in hospital, not getting doctor's appointment and charge high medication fees. As our world becomes increasingly digitized, we recognize the need for a modern solution. We have envisioned a comprehensive healthcare system designed to address these issues. Our platform aims to eliminate physical queues by offering seamless online appointment scheduling, ensuring the availability of doctors, psychologists, and medications. Patients will have access to detailed profiles of doctors according to their specific medical conditions. Additionally, the system will facilitate efficient doctor scheduling and manage blood banks, enabling both donations and withdrawals. One of the groundbreaking features of our system is the provision of online consultations, bridging the gap between urban and rural areas. Patients from remote locations can seek medical advice, while psychologists can offer meditation sessions, dietary guidance, and reminders for daily activities. This holistic approach not only enhances convenience but also promotes overall well-being. our innovative healthcare system goes a step further by simplifying the process of acquiring prescribed medications. Patients will be able to purchase medicines through our platform by uploading their prescriptions. This user-friendly interface ensures hassle-free delivery and there will be no need for physical visits in pharmacy. A better user-friendly interface and fast searching algorithm with comprehensive features, the system enhances the overall healthcare service experience. Additionally, the system will provide some unique features, but these are insufficient to address these problems. We require a healthcare system that will be created to address each of the issues mentioned.

Target User:

The target users for the SMART HEALTHCARE SYSTEM are:

- **Patients:** People of all ages who require medical care, including those with specific health conditions, and individuals with emergency medical needs.

- **Medical Professionals:** Doctors, nurses, and healthcare providers who may use software to manage patient appointments, access patient information, and provide better care.

- **Healthcare Organizations:** Government health departments, non-profit organizations, and NGOs looking to improve healthcare access and information dissemination in underserved communities.

- **Medicine customer:** Customers can easily search and checkout for healthcare products or medicines.
- **Mental Health Recipient:** The students of higher class as in a period of their life they feel distorted and don't find the answer to some why's. About 23 percent of world's population are students/ job holders who are aged between 20-25.

- **Blood Acceptor:** People who need emergency blood for medical treatment.

- **Blood Donner:** People who want to donate their blood can donate in nearby hospitals.

By serving to these diverse user groups, the aim of the project is to make a bridge between patients and healthcare services, making it easier for individuals to access the care they need while also helping healthcare providers and institutions improve their services.

Basic Functionality:

- Users can create accounts with their basic information.
- Login with an existing account or create an account with password.
- Users select their location, disease or symptoms, and current condition. Then they will see a list of hospitals, doctors, and diagnostic centers in their location based on distance, road cost, medical test cost, and doctor's fee,medicine cost.
- Users can see their hospital rating by the success of that disease. And they also see a list of doctors for that disease and fees and the number of current patients. And the best diagnostic center in their location and test cost.
- Users can book appointments with doctors at preferred time slots.
- Users receive confirmation notifications for their appointments.
- Users can read and leave reviews and ratings for hospitals and doctors.
- Receptionist can view patients list.
- Customers can find medicines by searching manually through their names or categories after selecting medicines or products.
- Customers can check out by using payment gateways.
- If the user wants to take a suggested routine, then it will also create a simple routine first. It will take a survey about the routine and whether it pleased the user or not. If not, then it will suggest another and another analysis of previous data till it gets to the desired routine.
- If the routine is satisfied for the user, then the application will ask permission to start the routine. If the user agrees then it will remind the user of every step through notifications.
- The user can also ask for help from a psychologist through a minimum payment. For this, he/she might have to make an appointment and the user can connect with the psychologist They can also get help through a questionnaire where some prebuilt psychological question would be given and they would have to give an answer for that, as the psychologist check the answer, he/she would give some possible solution to that user's problem.

Software Requirement Analysis

1. **User/Patients: Login:**

   1.1 The login page has two options, login, and register. It will allow the user to login to the system with his/her given username and password.
   1.2 For login to the system database records will be compared with the username and password.
   1.3 If the login is successful, the homepage will be shown.
   1.4 The system will randomly generate a verification code and send it to the user's phone or email address to try again if the entered username and password are incorrect.
   1.5 If a user attempts to login more than three times, the system will display "Forgot Password".
   1.6 Anyone who selects the "Forgot Password" option will see a page where they must enter their phone or Mailing address. The user's mailbox or inbox will receive a verification code.
   1.7 The user will be able to change the password once they have entered the verification code. The user will then be automatically logged in and the home page will appear.
   1.8 If the user is new, they will click for register option, and it will take user to the register page.

   Priority: High

   Pre-Condition: Connection with the database.

   Cross-Reference: None

2. **User/Patients: Registration:**

   2.1 User must register to log into the system. In this registration process the user must provide his /her name.

   2.2 User should set a password and provide a unique username for further login.

   2.3 Also they must provide date of birth, gender, blood group, NID or Birth certificate number, zip code, phone number and email address.

   2.4 After giving all the information the user needs to click the register button. User will submit a code which has sent via email or phone number after submitting that code user will be successfully registered to the system.

   Priority: High

   Pre-Condition: Connection with the database

   Cross-Reference: None

3. **User/Patients: View Categories and Search:**

   3.1 User/Patients can view categories on the home page.

3.2 User/Patients can be able to view different categories.

3.3 User/Patients select one of the categories.

3.4 Hospital/Doctor/diagnostic center's name can be searched by selecting categories.

3.5 User/Patients can view the search item in list.

Priority: High

Pre-Condition: Database Must have the Hospital/Doctors/Diagnostic center's names.

Cross-Reference: None

4. **User/Patients: select living location:**

4.1 User/Patients must write his/her symptoms or disease before selecting the living location.

4.2 If User/Patients doesn't know his/her current disease name, he/she can skip this.

4.3 After this user/patient can select their living location. He/she can write their living location manually.

4.4 Show available blood nearest blood bank and e medicine shop.

4.5 There will be a "Select Your Living Area" button when user/patients click drop-down menu. In this drop-down menu all the nearest and living area will be displayed.

Priority: High

Pre-Condition: Database must have all area and disease/symptoms names. If the user/patient is unsure of their disease, they have the option to skip this step.

Cross-Reference: None

5. **User/Patients: Hospital Comparison:**

5.1 Application can provide suitable hospitals based on the user's health condition.

5.2 There will be a search option where users can search for hospitals. And able to search it based on cost, distance, medicine fees, cabin fees, and medical test costs.

5.3 Then it will provide a list of the hospitals from the users required.

5.4 A list will show the user the number of patients who were cured.

5.5 There is also a review and comment portion where patients account for rating hospitals.

Priority: High.

Precondition: database must have the Hospital's list.

Cross-Reference: None.

6 . User/Patients: Select Hospital:

6.1 Users can select a hospital.

Priority Level: High
Precondition: Result must be shown**.**
Cross-Reference: None.

7. User/Patients: Doctor Comparison:

7.1 Provide suitable doctors based on the user's health condition or disease.
7.2 There will be a search option where users can search for doctors.
7.3 And able to search it based on cost, distance, and appointment fees.
7.4 There is also a review and comment portion where patients account for rating hospitals.
7.5 Then will provide a list of the doctors from the users required.

Priority Level: High.

Precondition: Database must have the Hospital's list.

Cross Reference: None.

8. User/Patients: Select Doctor:

8.1 User can select a doctor.

Priority Level: High
Precondition: Result must be shown.
Cross-Reference: None.

9. User/Patients: Diagnostic Center Comparison:

9.1 There will be a search option where users can search Diagnostic Center. And able tosearch it based on cost, distance, and fees.
9.2 Then it will provide a list of the Diagnostic Center from the users required.
9.3 There is also a review and comment portion where patients account for rating hospitals.

Priority Level: High.

Precondition: Database must have the diagnostic list...

Cross-Reference: None.

10. User/Patients: Looking for any types of blood:

10.1 User can select Any blood type they need.

Priority Level: High.
Precondition: List of different blood samples in database and Result must be shown.
Cross-Reference: None.

11. User/Patients: E Medicine:

11.1 User can search for medicine.
11.2 User can select the medicine that he needs.
11.3 User can choose any quantity.
11.4 User can choose their payment method Like visa card or e-pay.

Priority Level: High
Precondition: List of different Medicines in database and Result must be shown.

Cross-Reference: None.

12. User/Admin: Crud Operation:

12.1 Admin can update, delete, search doctor list/Hospital/Diagnostic center.
12.2 Admin can fix system's backend issue.
12.3 Admin can verify user's authentication and manage payment.
12.4 Admin can add patient's information on database.

Priority Level: High
Precondition: System database to restore account and categories' information.

Cross-Reference: None.

Non-Functional Requirements

Performance: The system load time should not be more than one second for users.

Reliability: Applicants can access their search results 98% of the time without failure.

Availability: Users can search for medicine, doctors, and other things from those categories every week at any time during the day. So, users can get huge benefits from using this application.

Maintainability: If any problem arises from using this application, we can solve it in a few hours.

Capacity: Up to 100 users can request at a time in the current state.

Recoverability: If a major incident happens to software application, then it is recoverable within 4-5 days.

Serviceability: The users can request any service at any time, and they will get the proper solution according to their requirements.

Data integrity: The system shall maintain data integrity by keeping backups of all updates to the database for every record transaction.

Interoperability: The system must follow a service-oriented architecture.

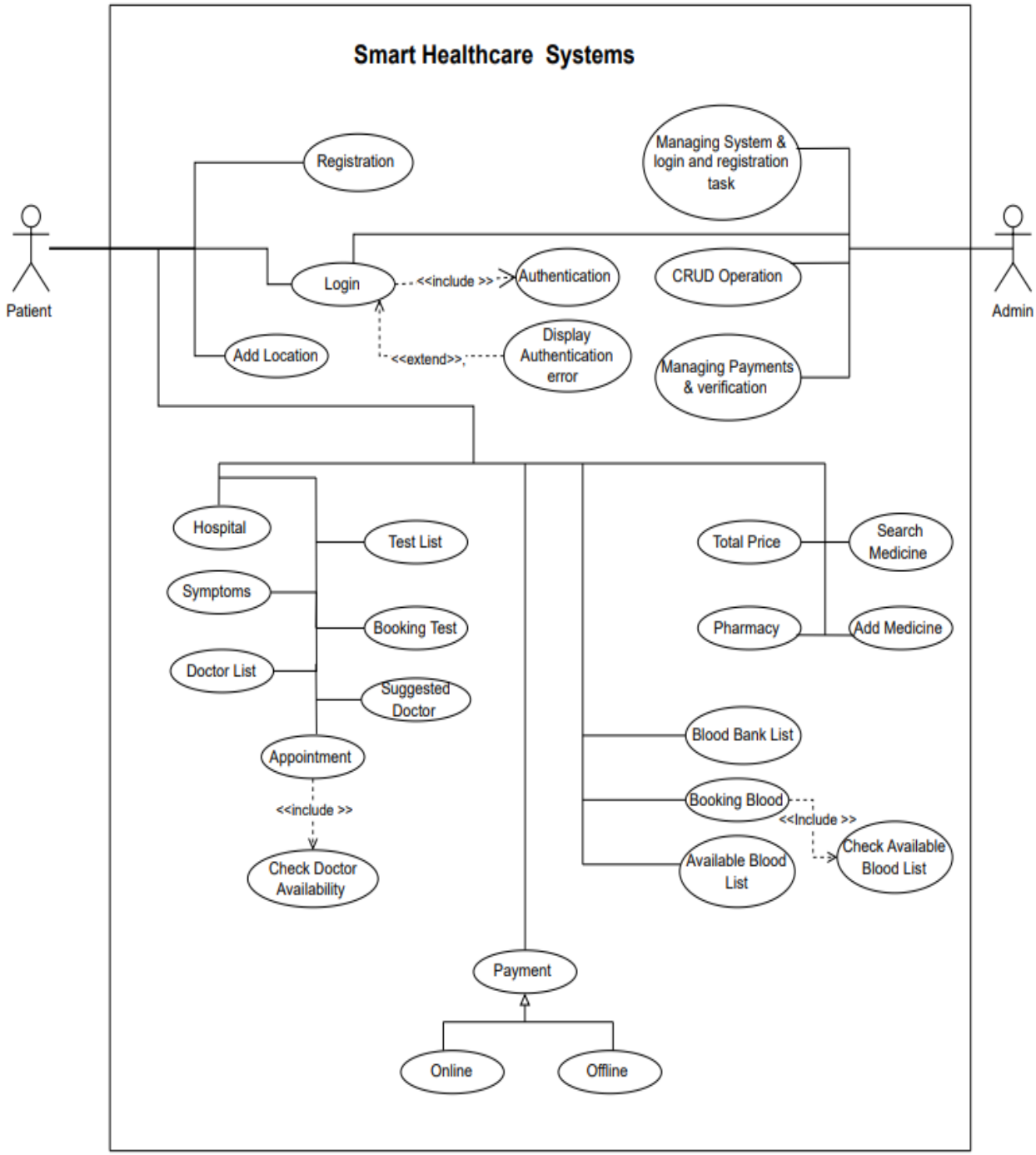
Usability: The system's interface must be user-friendly and easy to use

Project development constraints:

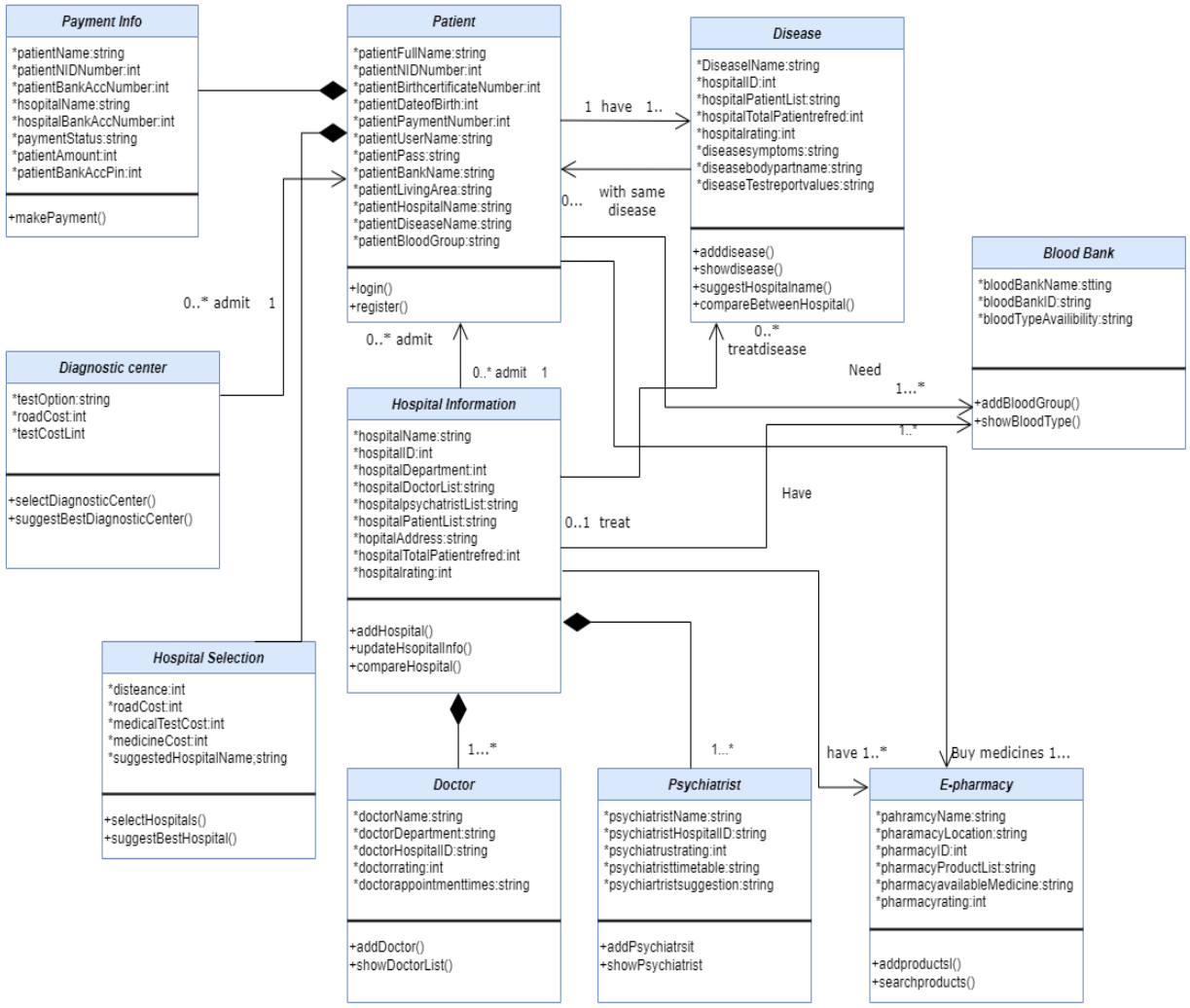
- As it is initially staged web software, there are financial limitations to develop the software more.
- This web application is internet based and as a result, always internet connection is needed.
- This web application has a language barrier as it only supports English language only.
- This web application is not available for app platforms.
- This web application supports entry level smartphone or pc to operate.
- This web application requires a high level of security as it handles moderate levels of user data.

Diagram

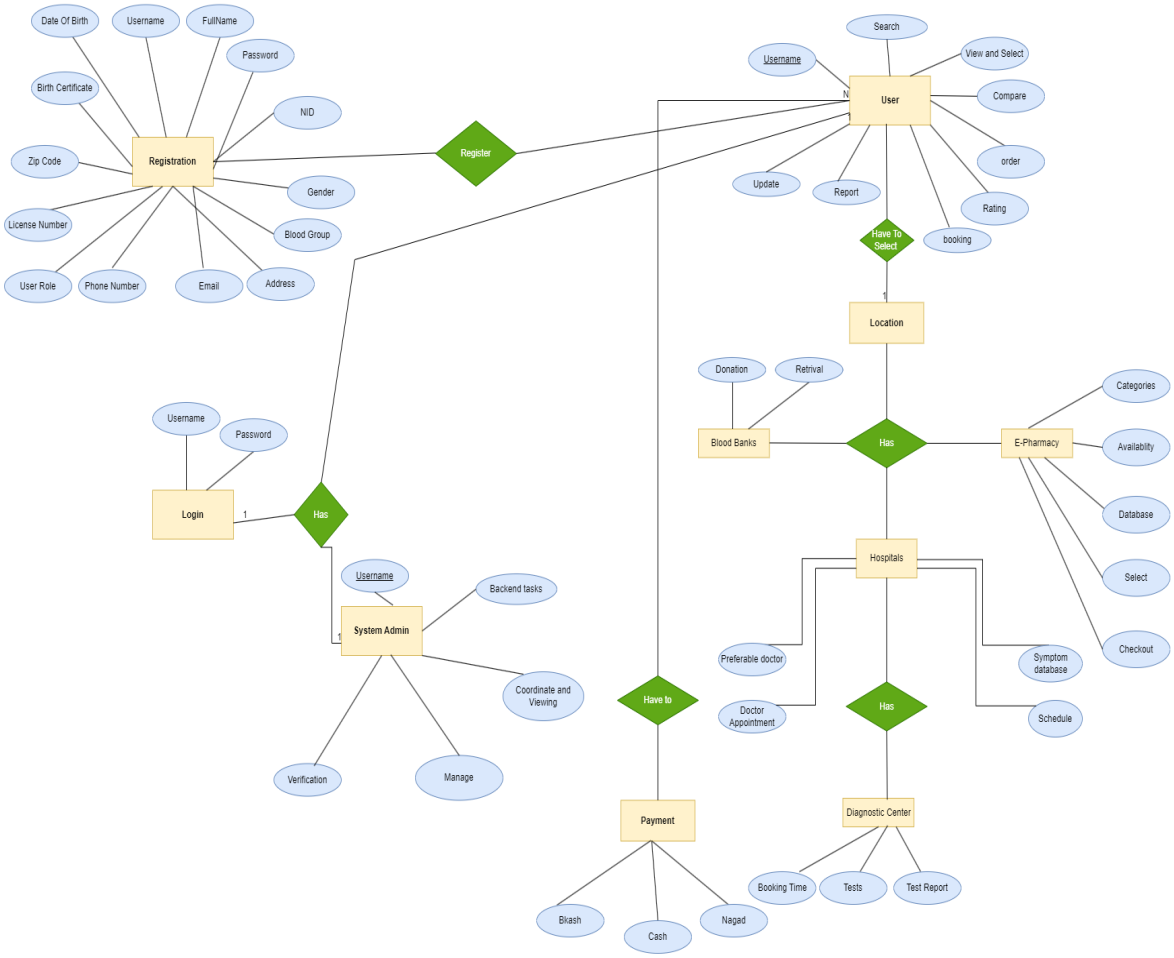
Use Case Diagram:



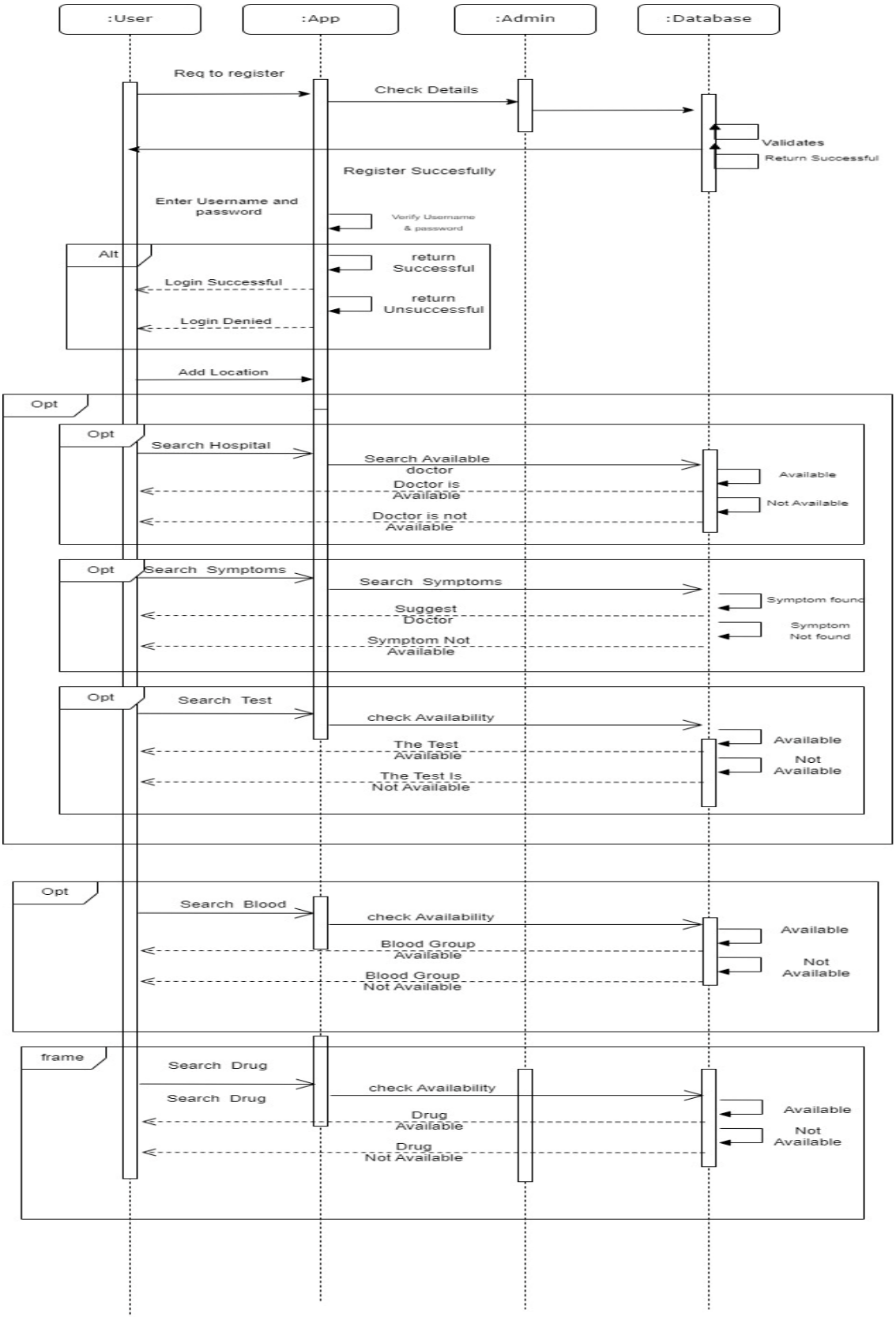
Class Diagram:



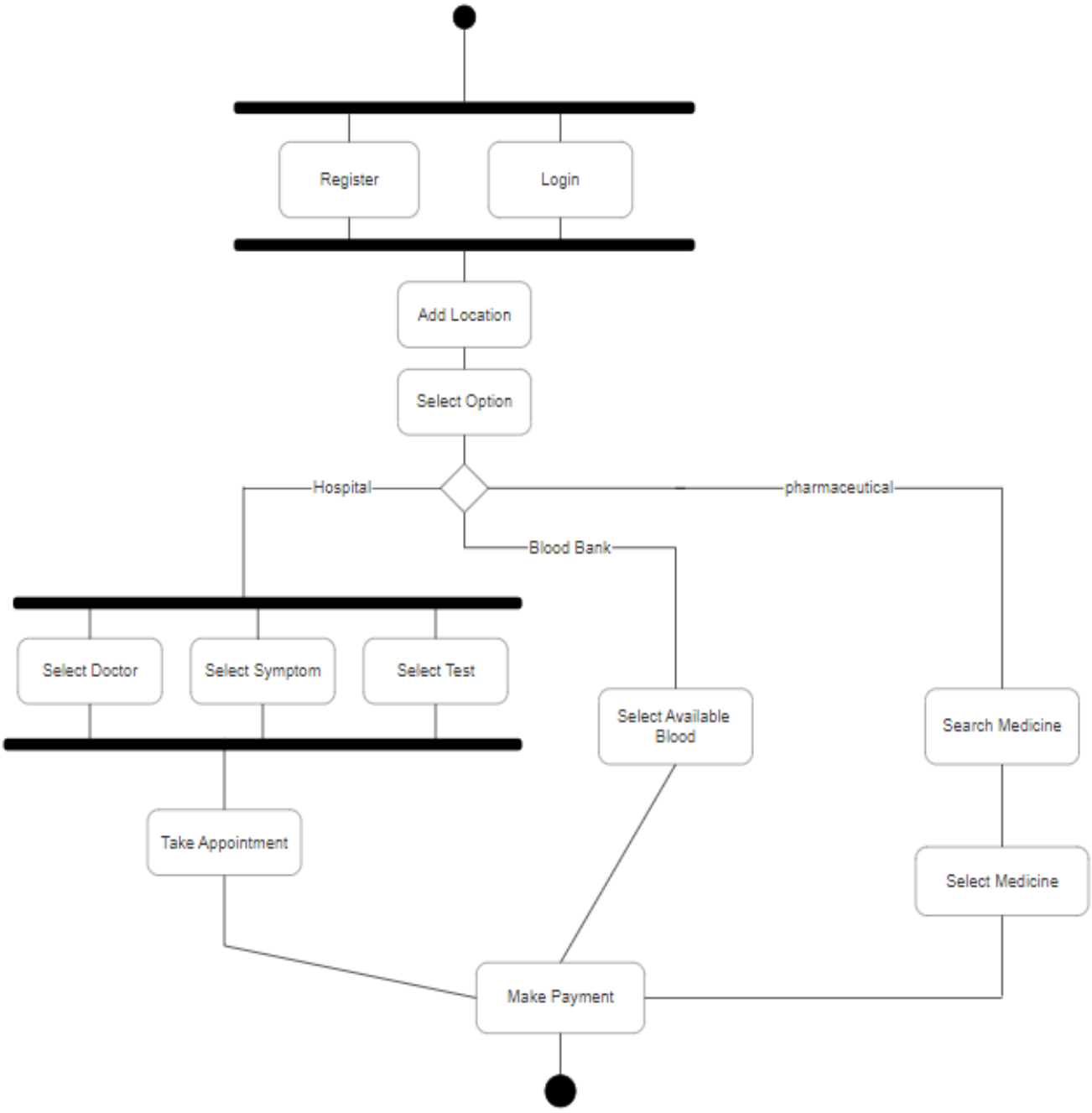
ER Diagram:


Date Of Birth
Username
FullName
Password
Birth Certificate
NID
Zip Code
Registration
Gender
License Number
Blood Group
User Role
Phone Number
Email
Address
Register
Search
Username
View and Select
User
Compare
order
Update
Report
Rating
booking
Have To Select
1
Location
Donation
Retrival
Blood Banks
Has
E-Pharmacy
Categories
Availability
Database
Select
Checkout
Hospitals
Preferable doctor
Doctor Appointment
Has
Symptom database
Schedule
Diagnostic Center
Booking Time
Tests
Test Report
Have to
Payment
Bkash
Cash
Nagad
Username
Password
Login
1
Has
Username
Backend tasks
System Admin
Coordinate and Viewing
Verification
Manage

Sequence Diagram:

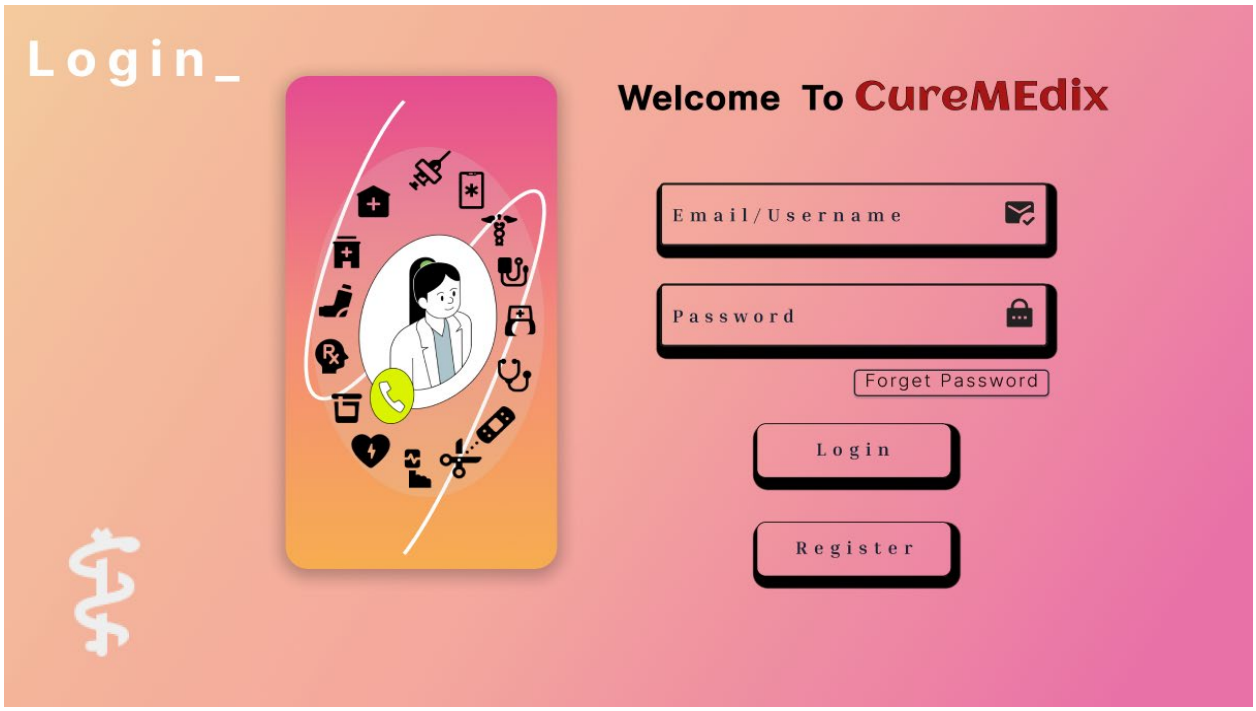


Activity Diagram:

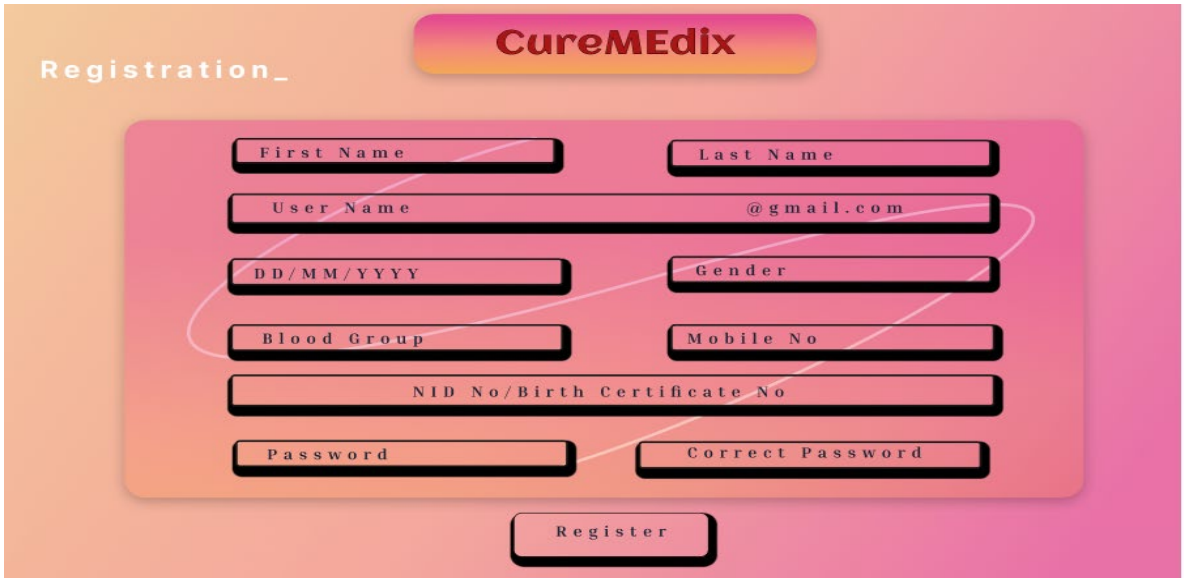


Prototype

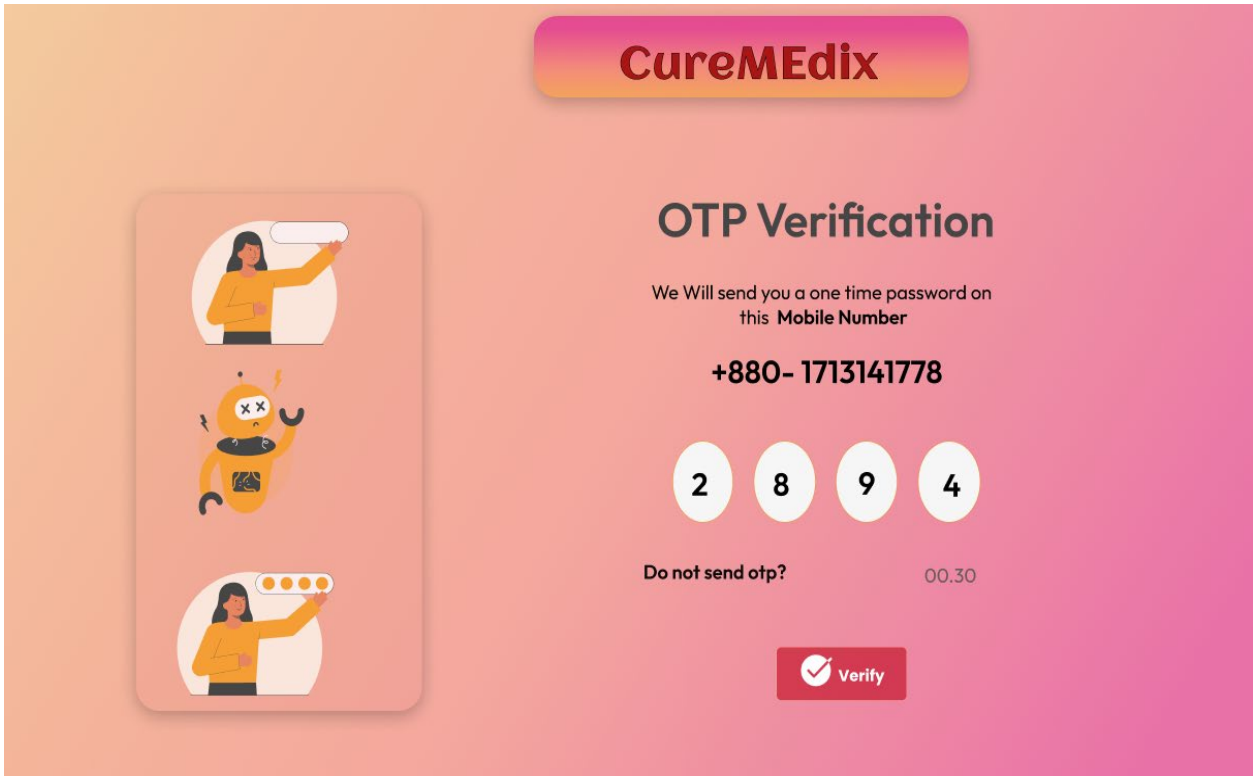
Login:



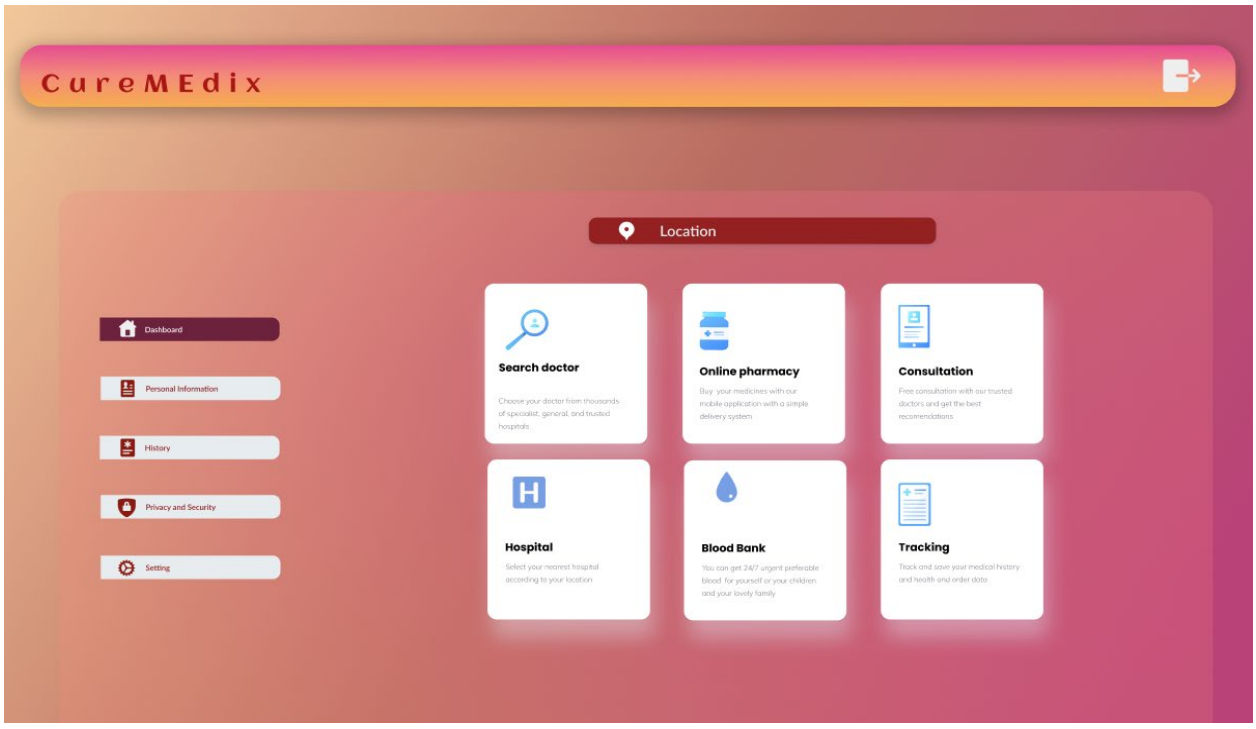
Registration:



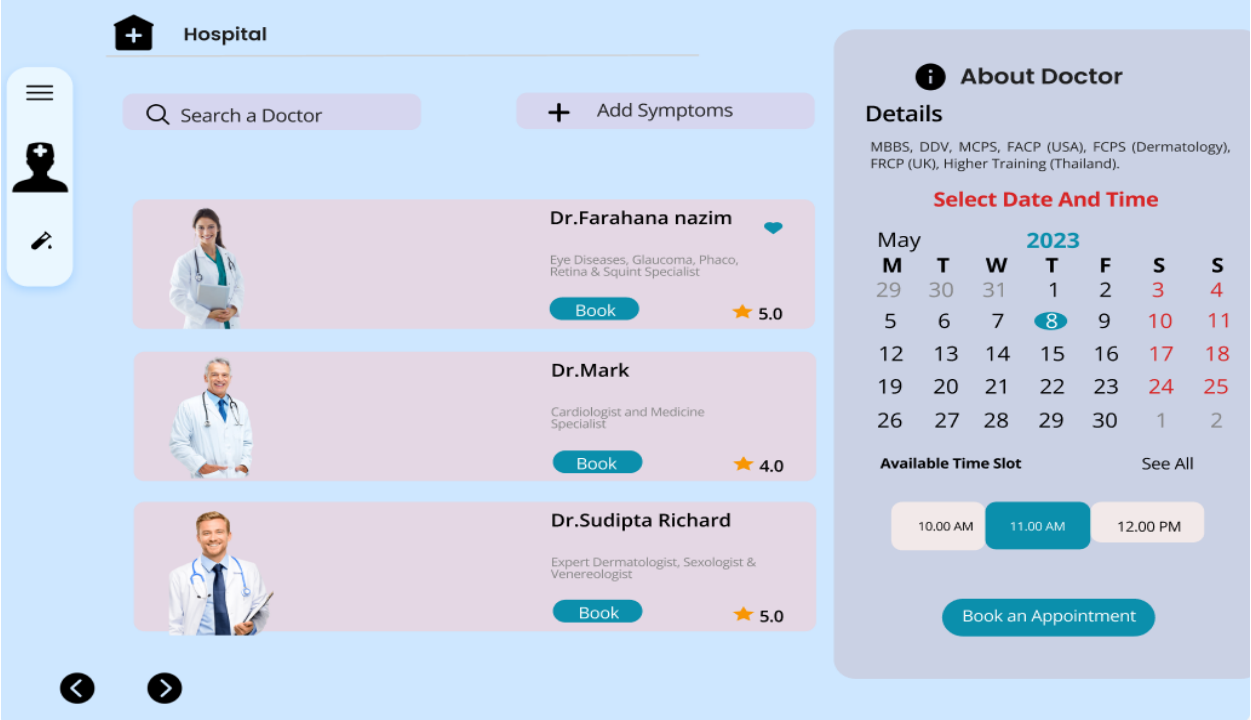
Verification:



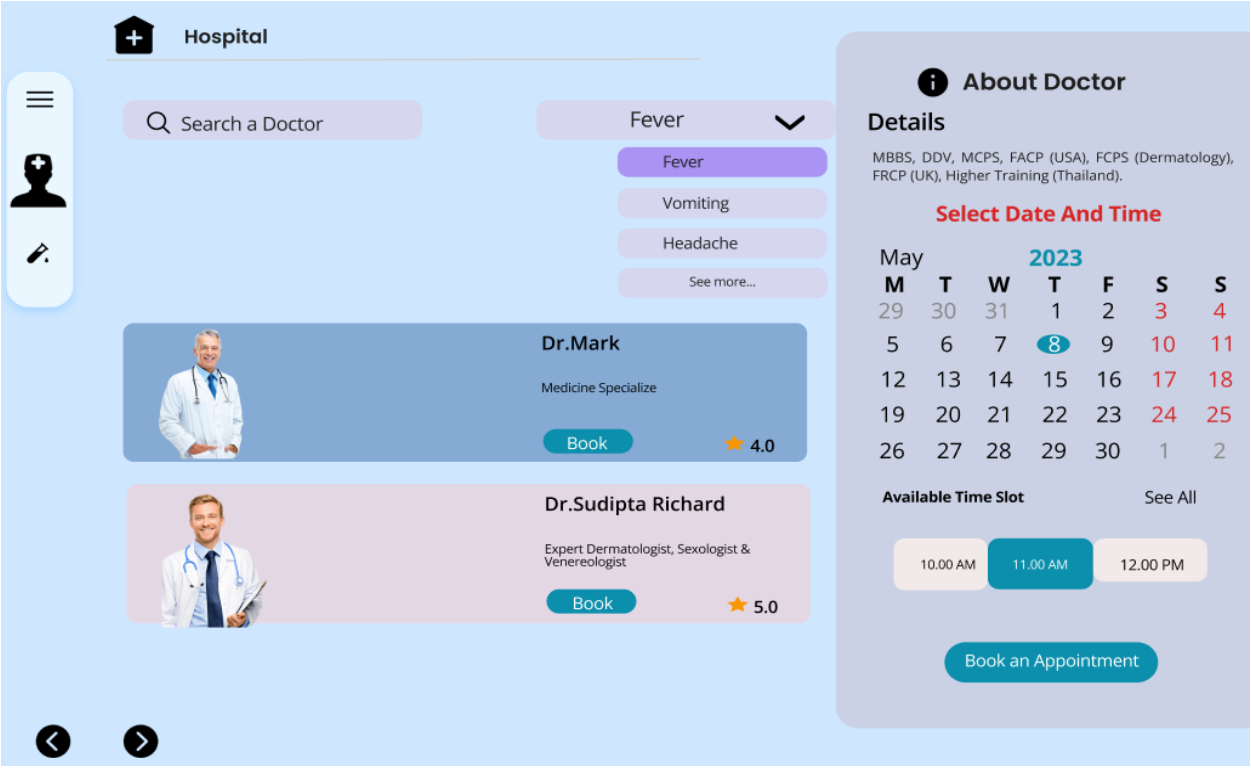
Home Page:



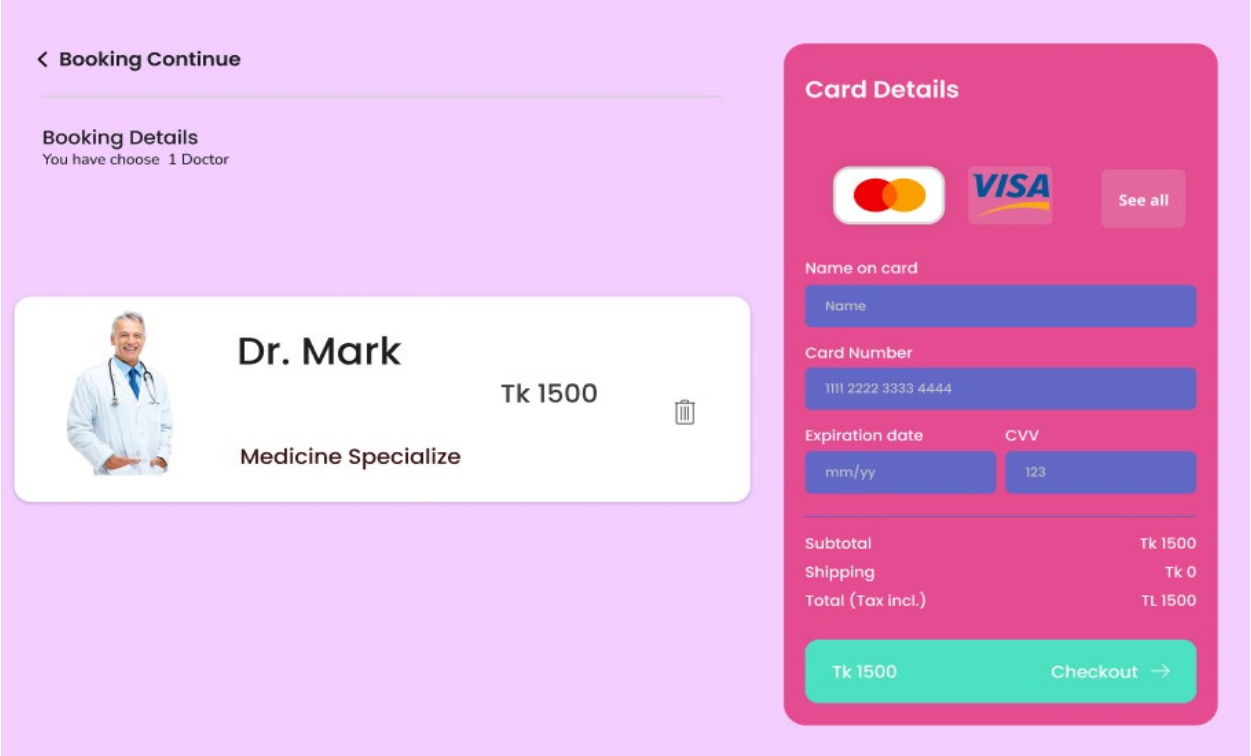
Hospital (Doctors List by Search):



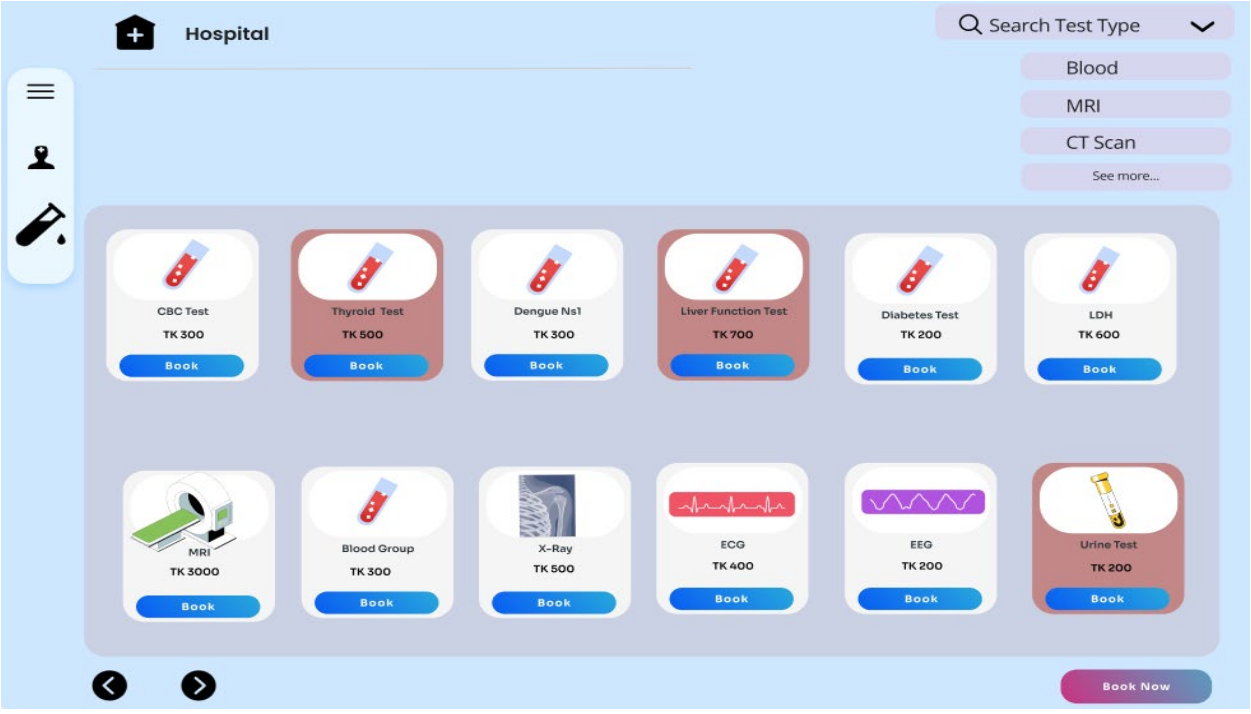
Hospital (Doctors Suggestions by Symptoms):



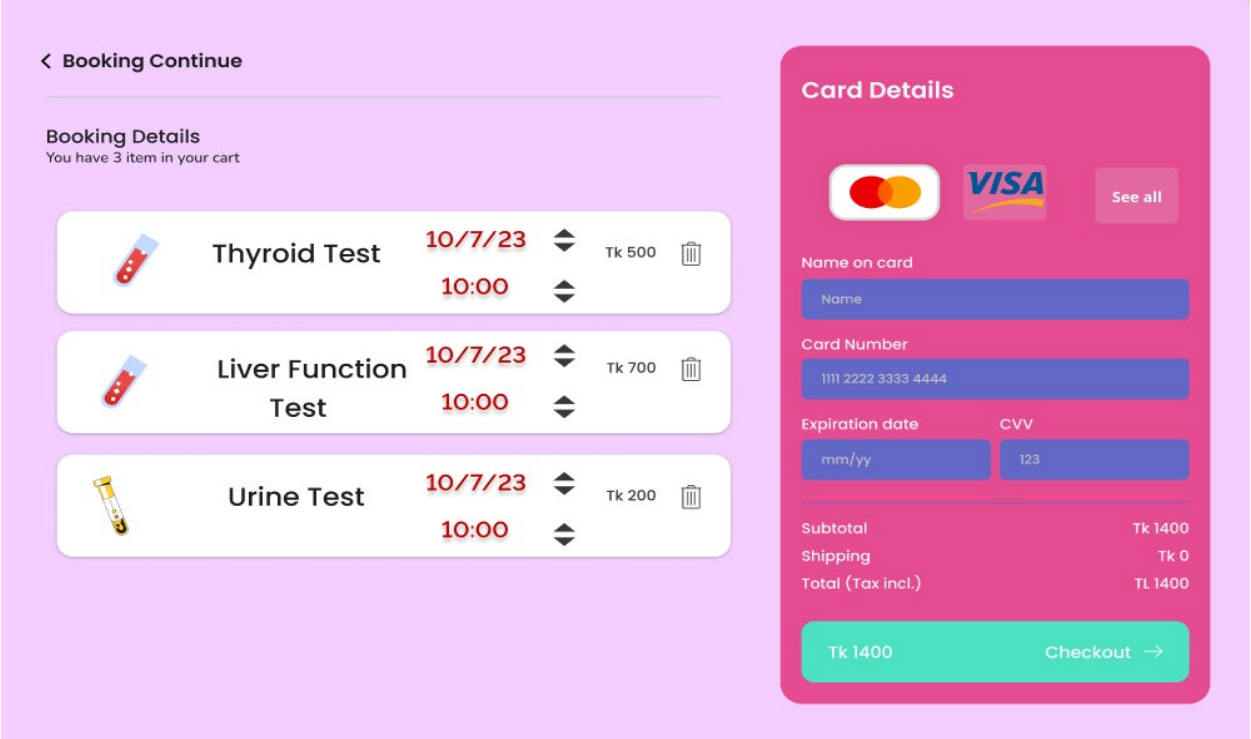
Doctor’s Payment:



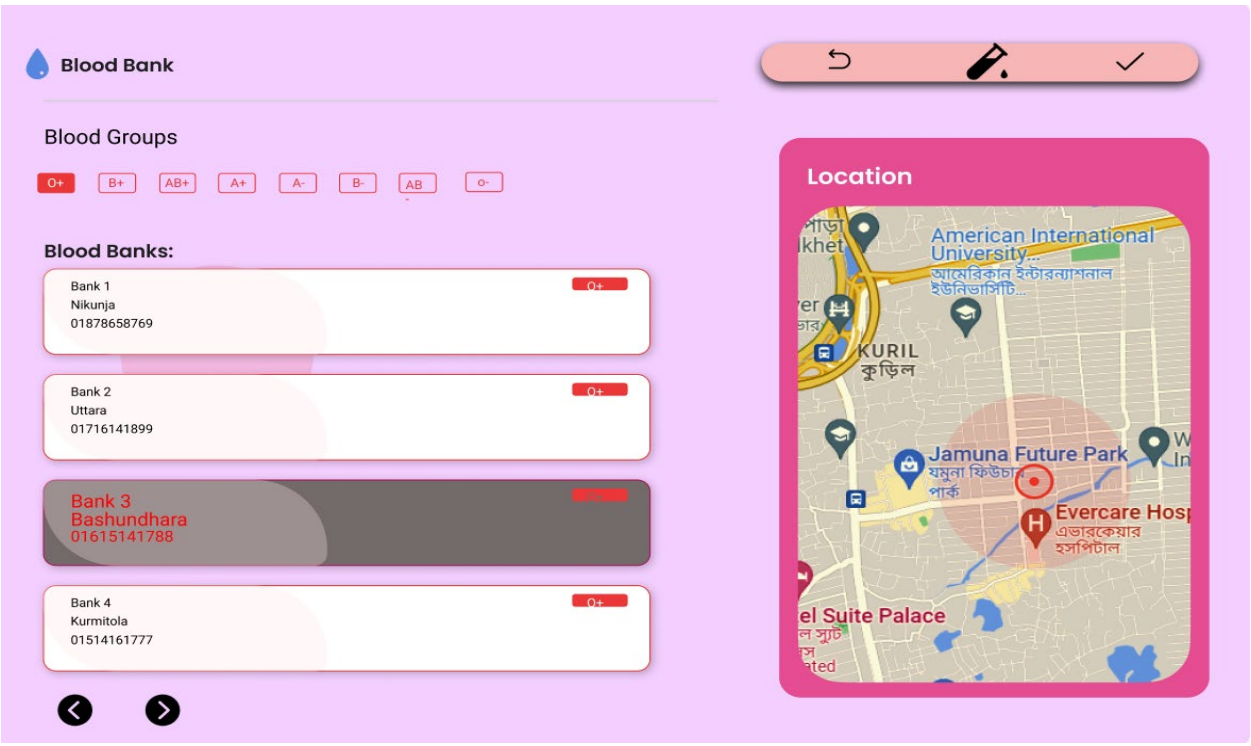
Diagnostic Center:



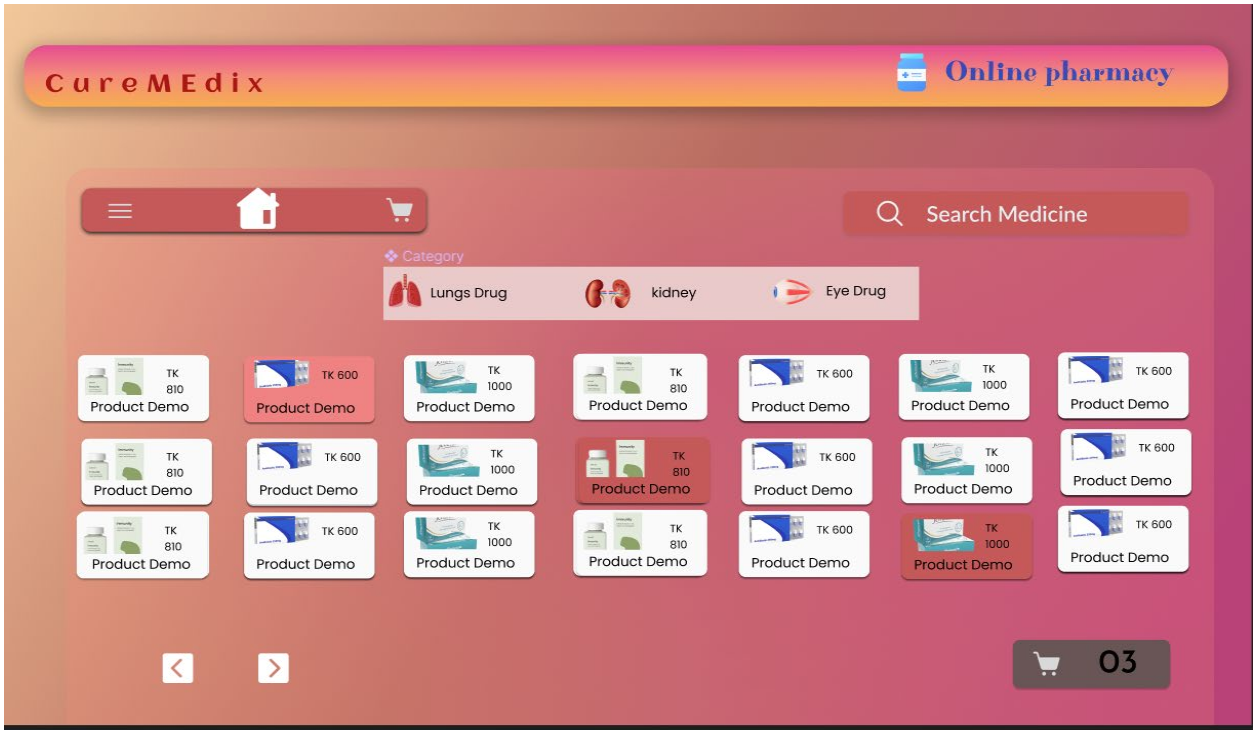
Payment of Medical Test:



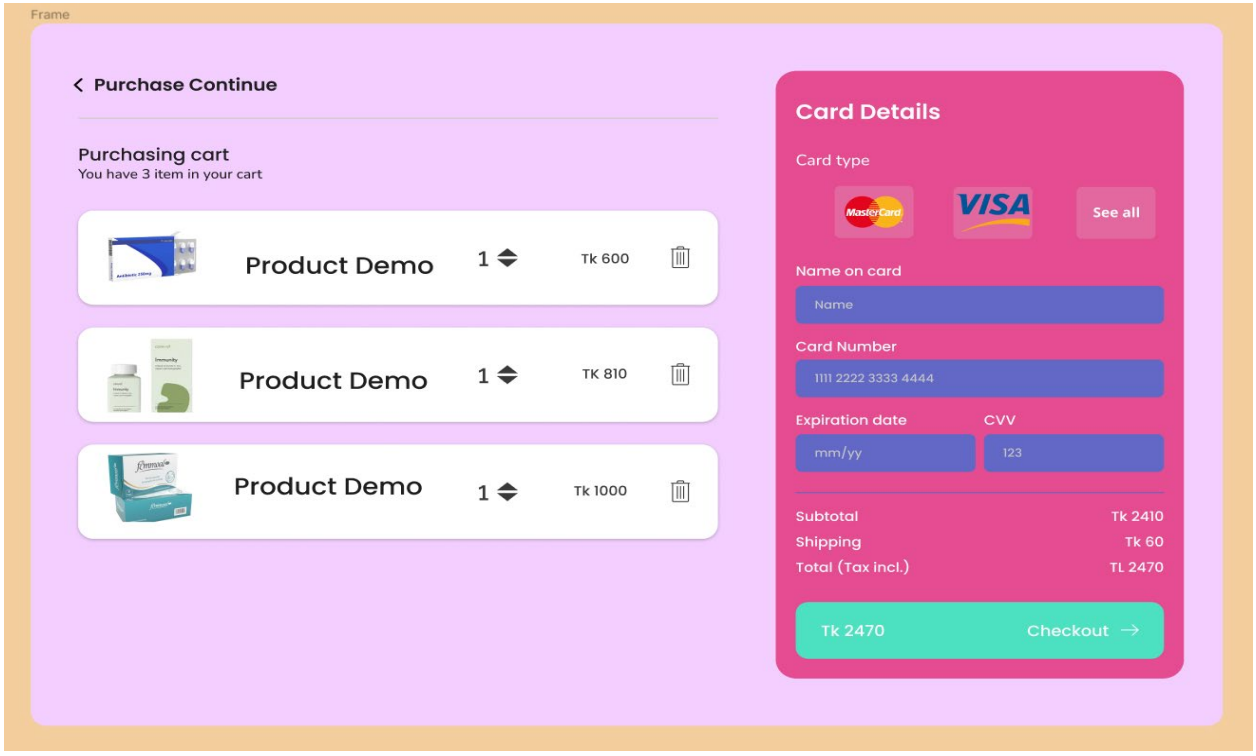
Blood Bank:



E Pharmacy:



E Pharmacy Payment:



System Testing:

<table>
<tr><td colspan="3">Project Name: Smart Healthcare System</td><td colspan="3">Test Designed by: Abrar Anan</td></tr>
<tr><td colspan="3">Test Case ID: ST_1_1

Test priority (Low, Medium, High): High

Module Name: Login</td><td colspan="3">Test Designed date: 20-11-2023

Test Executed by: Farhan Istiak

Test Execution date: 22-11-2023</td></tr>
<tr><td colspan="6">Test Title: Verify login with valid username and password</td></tr>
<tr><td colspan="6">Description: Test app login page

Precondition (If any): User must have valid username and password</td></tr>
<tr><td>Test Steps</td><td>Test Data</td><td>Expected Results</td><td>Actual Results</td><td>Status (Pass/Fail)</td></tr>
<tr><td>1. Go to app
2. Enter username
3. Enter password
4. Click login</td><td>Username: Farhan Istiak

Password: Istiak12</td><td>User should login into the application</td><td>As expected</td><td>Pass</td></tr>
<tr><td colspan="6">Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.</td></tr>
</table>

Project Name: Smart Healthcare System				Test Designed by: Farhan Istiak
Test Case ID: ST_1_2 Test priority (Low, Medium, High): High Module Name: Login				Test Designed date: 20-11-2023 Test Executed by: Arnob Ghosh Test Execution date: 22-11-2023
Test Title: Verify login with wrong username and password				
Description: Test app login page Precondition (If any): User doesn't need valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to app 2. Enter username 3. Enter password 4. Click login	Username: Farhan Istiak Password: Farhan123	User should not login into the application	As expected	Pass
Post Condition: User is not validated with database and could not login to account.				

Project Name: Smart Healthcare System				Test Designed by: Farhan Istiak
Test Case ID: ST_2 Test priority (Low, Medium, High): High Module Name: Logout				Test Designed date: 20-11-2023 Test Executed by: Al-Amin Test Execution date: 22-11-2023
Test Title: Logout from the system				
Description: Test app logout Precondition (If any): User must login to the system				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Click logout button		User should be able to logout anytime from homepage	As expected	Pass
Post Condition: User is validated with database and successfully logged out from system.				

Project Name: Smart Healthcare System				Test Designed by: Abrar Anan
Test Case ID: ST_3 Test priority (Low, Medium, High): High Module Name: Forgot Password				Test Designed date: 20-11-2023 Test Executed by: Arnab Ghosh Test Execution date: 21-11-2023
Test Title: Set new password				
Description: Test app forgot password Precondition (If any): User must have valid username, phone number and email				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to app 2. Click forgot password 3. Enter username 4. Enter phone number 5. Enter email 6. Verify details 7. Set new password	New Password: Arnab1234	User will be able to set new password	As expected	Pass
Post Condition: User successfully set new password.				

Project Name: Smart Healthcare System				Test Designed by: Farhan Istiak
Test Case ID: ST_5 Test priority (Low, Medium, High): High Module Name: Search				Test Designed date: 20-11-2023 Test Executed by: Md Al Amin Test Execution date: 23-11-2023
Test Title: Search options in app				
Description: Test app search page Precondition (If any): User must login to the system				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to app 2. Login 3. Click search 4. Search for current location of the user 5. Search for the available hospital 6. Search for available Blood Bank 7. Search for available Pharmacy	See the available Hospital, Blood Bank and Pharmacy	User will be able to search	As expected	Pass
Post Condition: User successfully searched all the options.				

Project Name: Smart Healthcare System				Test Designed by: Abrar Anan
Test Case ID: ST_4 Test priority (Low, Medium, High): High Module Name: Registration				Test Designed date: 20-11-2023 Test Executed by: Arnab Ghosh Test Execution date: 23-11-2023
Test Title: Register to the system				
Description: Test app registration page Precondition (If any): User must have valid phone number and email				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to app 2. Click register 3. Enter phone number 4. Enter email 5. Choose country code 6. Enter 6 digit code to verify 7. Fill the basic information form 8. Click submit	Phone: 01752930004 Email: abraranan18@gmail.com Country code: +880 Verify Code: 146808 Name: Abrar Anan Raiyan Gender: Male Date of Birth: 01/01/2002 Occupation: Student Set password: 181213 Birth Certificate Number: 123456789	User should be able to do registration by enter phone number, email, and country code. User should be able to submit verification code and verify. User should be able to fill the basic information form.	As expected	Pass
Post Condition: User is successfully registered to the system.				

Project Name: Smart Healthcare System				Test Designed by: Farhan Istiak
Test Case ID: ST_7 Test priority (Low, Medium, High): High Module Name: Appointment System				Test Designed date: 21-11-2023 Test Executed by: Md Al Amin Test Execution date: 23-11-2023
Test Title: Take appointment for the Doctor				
Description: Test app appointment Precondition (If any): User must login to system				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to app 2. Login 3. Click for Doctor's appointment 4. Confirm for Appointment	Selected Doctor	User will be able to take appointment	As expected	Pass
Post Condition: User successfully took appointment from the app.				

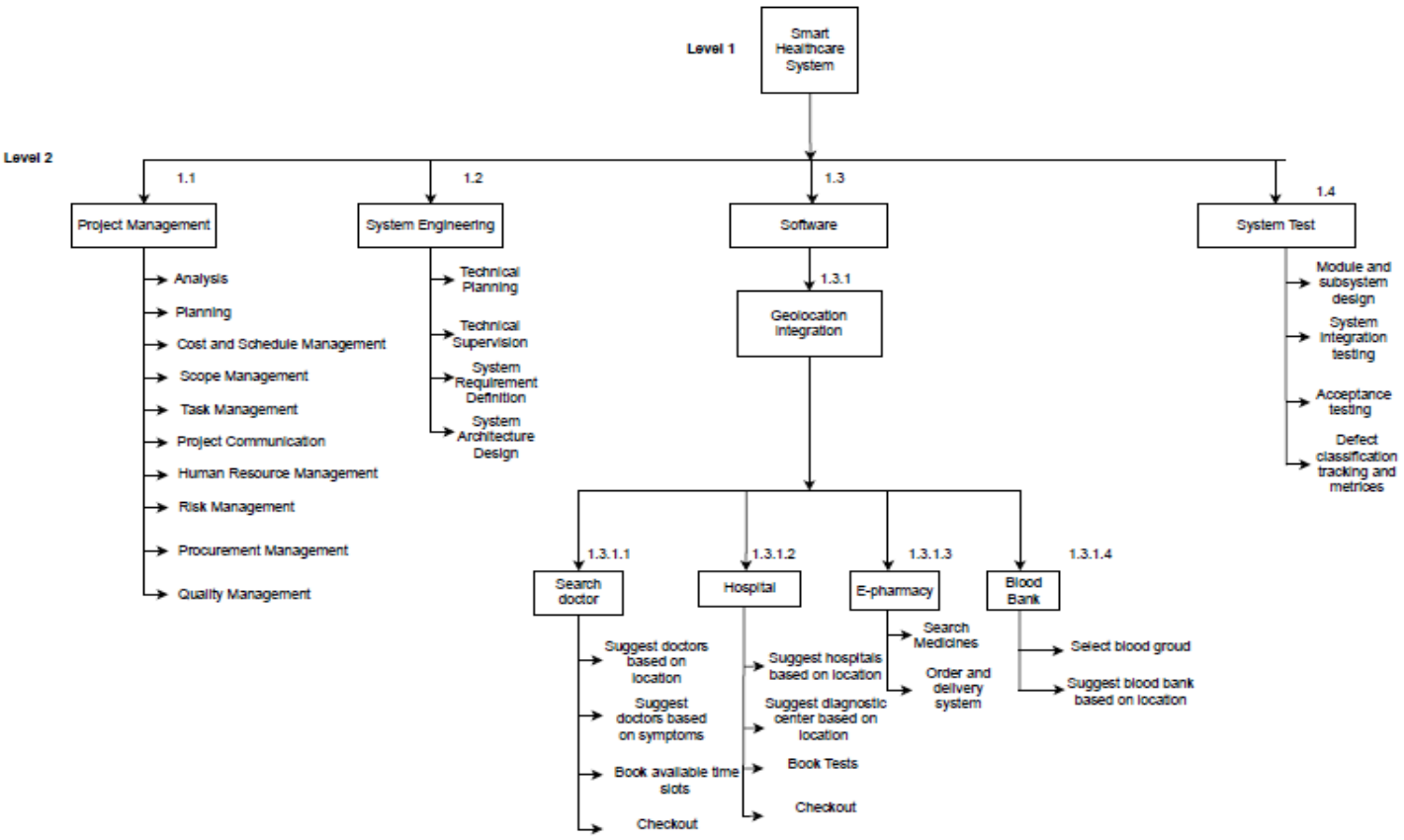
Project Name: Smart Healthcare System				Test Designed by: Abrar Anan Raiyan
Test Case ID: ST_8 Test priority (Low, Medium, High): Medium Module Name: Report a Problem				Test Designed date: 21-11-2023 Test Executed by: Arnab Ghosh Test Execution date: 23-11-2023
Test Title: Report any kind of problem				
Description: Test app report a problem Precondition (If any): User must login to system				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to app 2. Login 3. Click report a problem 4. Write problem description 5. Submit	Problem Description: Server is down.	User will be able to report	As expected	Pass
Post Condition: User successfully submitted the report.				

Project Name: Smart Health Care System				Test Designed by: Abrar Anan
Test Case ID: ST_9 Test priority (Low, Medium, High): High Module Name: Payment Of the Bills				Test Designed date: 22-11-2023 Test Executed by: Md Al Amin Test Execution date: 23-11-2023
Test Title: Watch the amount and pay the bill				
Description: Click to Pay the Bill Precondition (If any): User must login to system				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to app 2. Login 3. Click to watch the Bill 4. Select payment method	Payment method: Bkash	User will be able to pay	As expected	Pass
Post Condition: User successfully paid the Bill				

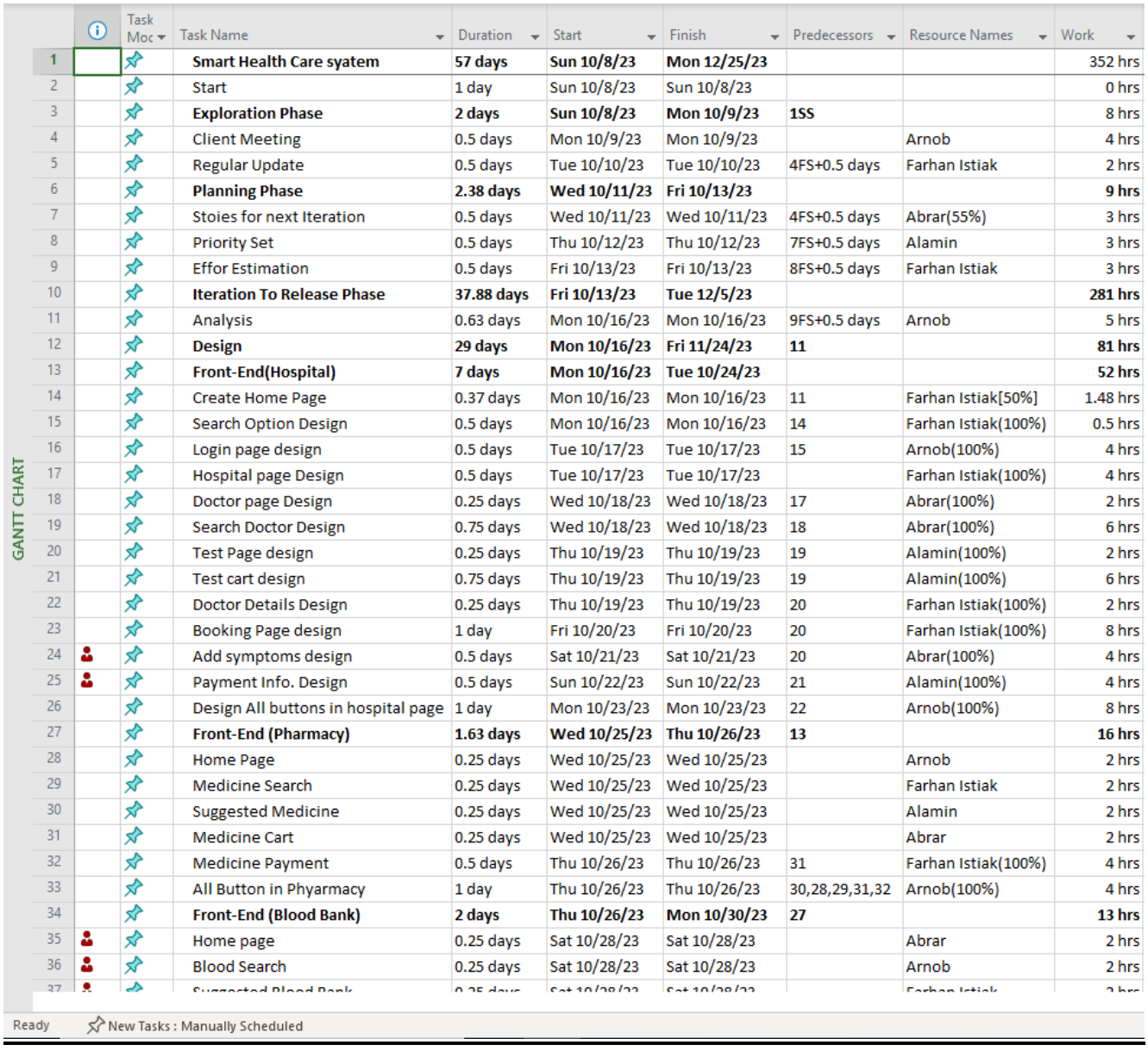
Project Name: Smart HealthCare System				Test Designed by: Abrar Anan
Test Case ID: ST_10 Test priority (Low, Medium, High): High Module Name: Pending Request List				Test Designed date: 22-11-2023 Test Executed by: Arnab Ghosh Test Execution date: 24-11-2023
Test Title: Confirm pending request list				
Description: Test app pending request list Precondition (If any): Admin must login to system				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to app 2. Login 3. Click pending request list 4. Select user 5. Confirm registration	Select Farhan Istiak	Admin will be able to confirm registration	As expected	Pass
Post Condition: Admin successfully confirmed patient request.				

Project Name: Smart Healthcare System				Test Designed by: Farhan Istiak
Test Case ID: ST_11 Test priority (Low, Medium, High): High Module Name: Patient Details				Test Designed date: 22-11-2023 Test Executed by: Md Al Amin Test Execution date: 24-11-2023
Test Title: See Patient (Client) details and Ban client if needed.				
Description: Test app patient details Precondition (If any): Admin must login to system				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to app 2. Login 3. Click patient details 4. Select user to Ban	Select XYZ	Admin will be able to ban	As expected	Pass
Post Condition: Admin successfully banned patient from the system.				

Work Breakdown Structure (WBS):



Activity Planning:



GANTT CHART

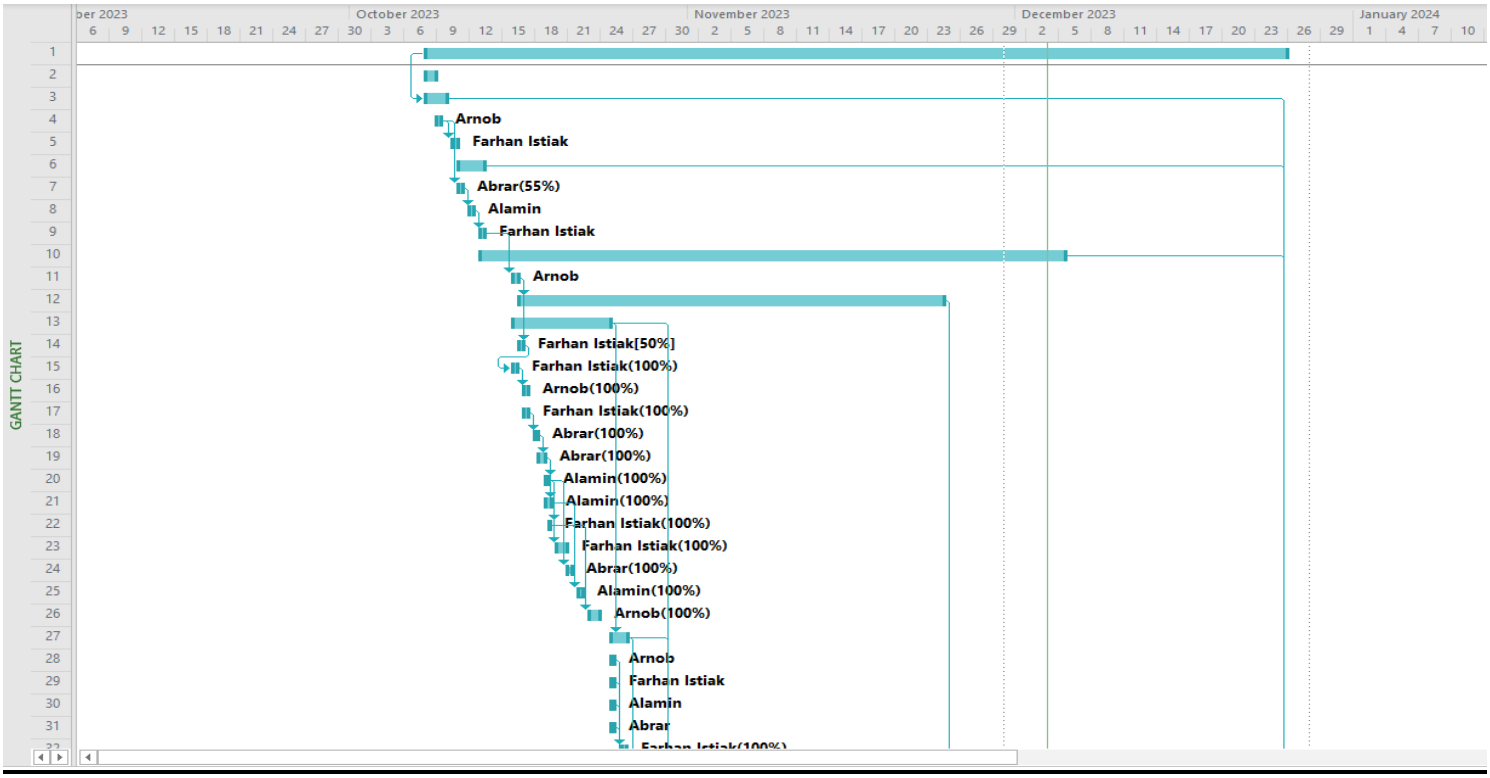
	Task Mod	Task Name	Duration	Start	Finish	Predecessors	Resource Names	Work
1		**Smart Health Care syatem**	**57 days**	**Sun 10/8/23**	**Mon 12/25/23**			352 hrs
2		Start	1 day	Sun 10/8/23	Sun 10/8/23			0 hrs
3		**Exploration Phase**	**2 days**	**Sun 10/8/23**	**Mon 10/9/23**	**1SS**		8 hrs
4		Client Meeting	0.5 days	Mon 10/9/23	Mon 10/9/23		Arnob	4 hrs
5		Regular Update	0.5 days	Tue 10/10/23	Tue 10/10/23	4FS+0.5 days	Farhan Istiak	2 hrs
6		**Planning Phase**	**2.38 days**	**Wed 10/11/23**	**Fri 10/13/23**			**9 hrs**
7		Stoies for next Iteration	0.5 days	Wed 10/11/23	Wed 10/11/23	4FS+0.5 days	Abrar(55%)	3 hrs
8		Priority Set	0.5 days	Thu 10/12/23	Thu 10/12/23	7FS+0.5 days	Alamin	3 hrs
9		Effor Estimation	0.5 days	Fri 10/13/23	Fri 10/13/23	8FS+0.5 days	Farhan Istiak	3 hrs
10		**Iteration To Release Phase**	**37.88 days**	**Fri 10/13/23**	**Tue 12/5/23**			**281 hrs**
11		Analysis	0.63 days	Mon 10/16/23	Mon 10/16/23	9FS+0.5 days	Arnob	5 hrs
12		**Design**	**29 days**	**Mon 10/16/23**	**Fri 11/24/23**	**11**		**81 hrs**
13		**Front-End(Hospital)**	**7 days**	**Mon 10/16/23**	**Tue 10/24/23**			**52 hrs**
14		Create Home Page	0.37 days	Mon 10/16/23	Mon 10/16/23	11	Farhan Istiak[50%]	1.48 hrs
15		Search Option Design	0.5 days	Mon 10/16/23	Mon 10/16/23	14	Farhan Istiak(100%)	0.5 hrs
16		Login page design	0.5 days	Tue 10/17/23	Tue 10/17/23	15	Arnob(100%)	4 hrs
17		Hospital page Design	0.5 days	Tue 10/17/23	Tue 10/17/23		Farhan Istiak(100%)	4 hrs
18		Doctor page Design	0.25 days	Wed 10/18/23	Wed 10/18/23	17	Abrar(100%)	2 hrs
19		Search Doctor Design	0.75 days	Wed 10/18/23	Wed 10/18/23	18	Abrar(100%)	6 hrs
20		Test Page design	0.25 days	Thu 10/19/23	Thu 10/19/23	19	Alamin(100%)	2 hrs
21		Test cart design	0.75 days	Thu 10/19/23	Thu 10/19/23	19	Alamin(100%)	6 hrs
22		Doctor Details Design	0.25 days	Thu 10/19/23	Thu 10/19/23	20	Farhan Istiak(100%)	2 hrs
23		Booking Page design	1 day	Fri 10/20/23	Fri 10/20/23	20	Farhan Istiak(100%)	8 hrs
24		Add symptoms design	0.5 days	Sat 10/21/23	Sat 10/21/23	20	Abrar(100%)	4 hrs
25		Payment Info. Design	0.5 days	Sun 10/22/23	Sun 10/22/23	21	Alamin(100%)	4 hrs
26		Design All buttons in hospital page	1 day	Mon 10/23/23	Mon 10/23/23	22	Arnob(100%)	8 hrs
27		**Front-End (Pharmacy)**	**1.63 days**	**Wed 10/25/23**	**Thu 10/26/23**	**13**		**16 hrs**
28		Home Page	0.25 days	Wed 10/25/23	Wed 10/25/23		Arnob	2 hrs
29		Medicine Search	0.25 days	Wed 10/25/23	Wed 10/25/23		Farhan Istiak	2 hrs
30		Suggested Medicine	0.25 days	Wed 10/25/23	Wed 10/25/23		Alamin	2 hrs
31		Medicine Cart	0.25 days	Wed 10/25/23	Wed 10/25/23		Abrar	2 hrs
32		Medicine Payment	0.5 days	Thu 10/26/23	Thu 10/26/23	31	Farhan Istiak(100%)	4 hrs
33		All Button in Phyarmacy	1 day	Thu 10/26/23	Thu 10/26/23	30,28,29,31,32	Arnob(100%)	4 hrs
34		**Front-End (Blood Bank)**	**2 days**	**Thu 10/26/23**	**Mon 10/30/23**	**27**		**13 hrs**
35		Home page	0.25 days	Sat 10/28/23	Sat 10/28/23		Abrar	2 hrs
36		Blood Search	0.25 days	Sat 10/28/23	Sat 10/28/23		Arnob	2 hrs
37		Suggested Blood Bank	0.25 days	Sat 10/28/23	Sat 10/28/23		Farhan Istiak	2 hrs

Ready | New Tasks : Manually Scheduled

GANTT CHART

	Task Mod	Task Name	Duration	Start	Finish	Predecessors	Resource Names	Work
29		Medicine Search	0.25 days	Wed 10/25/23	Wed 10/25/23		Farhan Istiak	2 hrs
30		Suggested Medicine	0.25 days	Wed 10/25/23	Wed 10/25/23		Alamin	2 hrs
31		Medicine Cart	0.25 days	Wed 10/25/23	Wed 10/25/23		Abrar	2 hrs
32		Medicine Payment	0.5 days	Thu 10/26/23	Thu 10/26/23	31	Farhan Istiak(100%)	4 hrs
33		All Button in Phyarmacy	1 day	Thu 10/26/23	Thu 10/26/23	30,28,29,31,32	Arnob(100%)	4 hrs
34		**Front-End (Blood Bank)**	**2 days**	**Thu 10/26/23**	**Mon 10/30/23**	**27**		**13 hrs**
35		Home page	0.25 days	Sat 10/28/23	Sat 10/28/23		Abrar	2 hrs
36		Blood Search	0.25 days	Sat 10/28/23	Sat 10/28/23		Arnob	2 hrs
37		Suggested Blood Bank	0.25 days	Sat 10/28/23	Sat 10/28/23		Farhan Istiak	2 hrs
38		Location page	0.25 days	Sat 10/28/23	Sat 10/28/23		Alamin	2 hrs
39		All Button in Blood bank	0.63 days	Sun 10/29/23	Sun 10/29/23	35,36,38,37	Abrar,Arnob	5 hrs
40		**Back-End(All)**	**10.5 days**	**Mon 10/30/23**	**Tue 11/14/23**	**13,27,34**		**84 hrs**
41		Back-end Server center With JS	2.25 days	Mon 10/30/23	Wed 11/1/23		Arnob	18 hrs
42		Connect Server	3 days	Wed 11/1/23	Mon 11/6/23	41	Farhan Istiak	22 hrs
43		Database Schema Design	2.25 days	Mon 11/6/23	Wed 11/8/23	42	Alamin	18 hrs
44		Database Model Validation	4.25 days	Wed 11/8/23	Tue 11/14/23	43	Abrar	29 hrs
45		**State Management(Hospital)**	**2 days**	**Tue 11/14/23**	**Thu 11/16/23**	**40**		**18 hrs**
46		Front-End State management	2 days	Tue 11/14/23	Thu 11/16/23	44	Alamin(100%)	18 hrs
47		**State Management(Pharmacy)**	**2.25 days**	**Thu 11/16/23**	**Mon 11/20/23**	**40**		**18 hrs**
48		Front-End State management	2.25 days	Thu 11/16/23	Mon 11/20/23	46	Farhan Istiak	18 hrs
49		**State Management(Blood Bank)**	**2.25 days**	**Tue 11/21/23**	**Thu 11/23/23**	**40**		**10 hrs**
50		Front-End State management	2.25 days	Tue 11/21/23	Thu 11/23/23	48	Arnob	10 hrs
51		**Front-End of Admin Panel**	**4 days**	**Thu 11/23/23**	**Tue 11/28/23**	**40**		**20 hrs**
52		Stat Page and Control Page Design	3.75 days	Thu 11/23/23	Tue 11/28/23	50	Farhan Istiak	18 hrs
53		**Testing**	**10 days**	**Fri 11/24/23**	**Fri 12/8/23**	**12**		**62 hrs**
54		Planning for Testing	1.25 days	Wed 11/29/23	Thu 11/30/23	52	Abrar(55%)	10 hrs
55		Testing	7 days	Fri 12/1/23	Mon 12/11/23	54	Farhan Istiak(100%),	46.97 hrs
56		**Prouctionizing Phase**	**3.75 days**	**Fri 12/8/23**	**Thu 12/14/23**	**53**		**20 hrs**
57		Small Release	2.25 days	Tue 12/12/23	Thu 12/14/23	55	Alamin	12 hrs
58		Client Meeting And Feed-back	1.5 days	Thu 12/14/23	Fri 12/15/23	57	Arnob	3.43 hrs
59		**Maintenance phase**	**3 days**	**Thu 12/14/23**	**Tue 12/19/23**	**56**		**28 hrs**
60		Update Releas	2.25 days	Fri 12/15/23	Tue 12/19/23	57,58	Farhan Istiak	18 hrs
61		Client Meeting And Feed-back	0.25 days	Fri 12/15/23	Fri 12/15/23	58	Farhan Istiak	2 hrs
62		**Death Phase**	**4.62 days**	**Tue 12/19/23**	**Mon 12/25/23**	**59**		**32 hrs**
63		Final Release	5 days	Tue 12/19/23	Mon 12/25/23	61	Abrar	32 hrs
64		Documentation	1.13 days	Tue 12/26/23	Wed 12/27/23	3,6,10,56,62	Abrar,Alamin,Arnob	18 hrs

Ready | New Tasks : Manually Scheduled


GANTT CHART
October 2023
November 2023
December 2023
January 2024
Arnob
Farhan Istiak
Abrar(55%)
Alamin
Farhan Istiak
Arnob
Farhan Istiak[50%]
Farhan Istiak(100%)
Arnob(100%)
Farhan Istiak(100%)
Abrar(100%)
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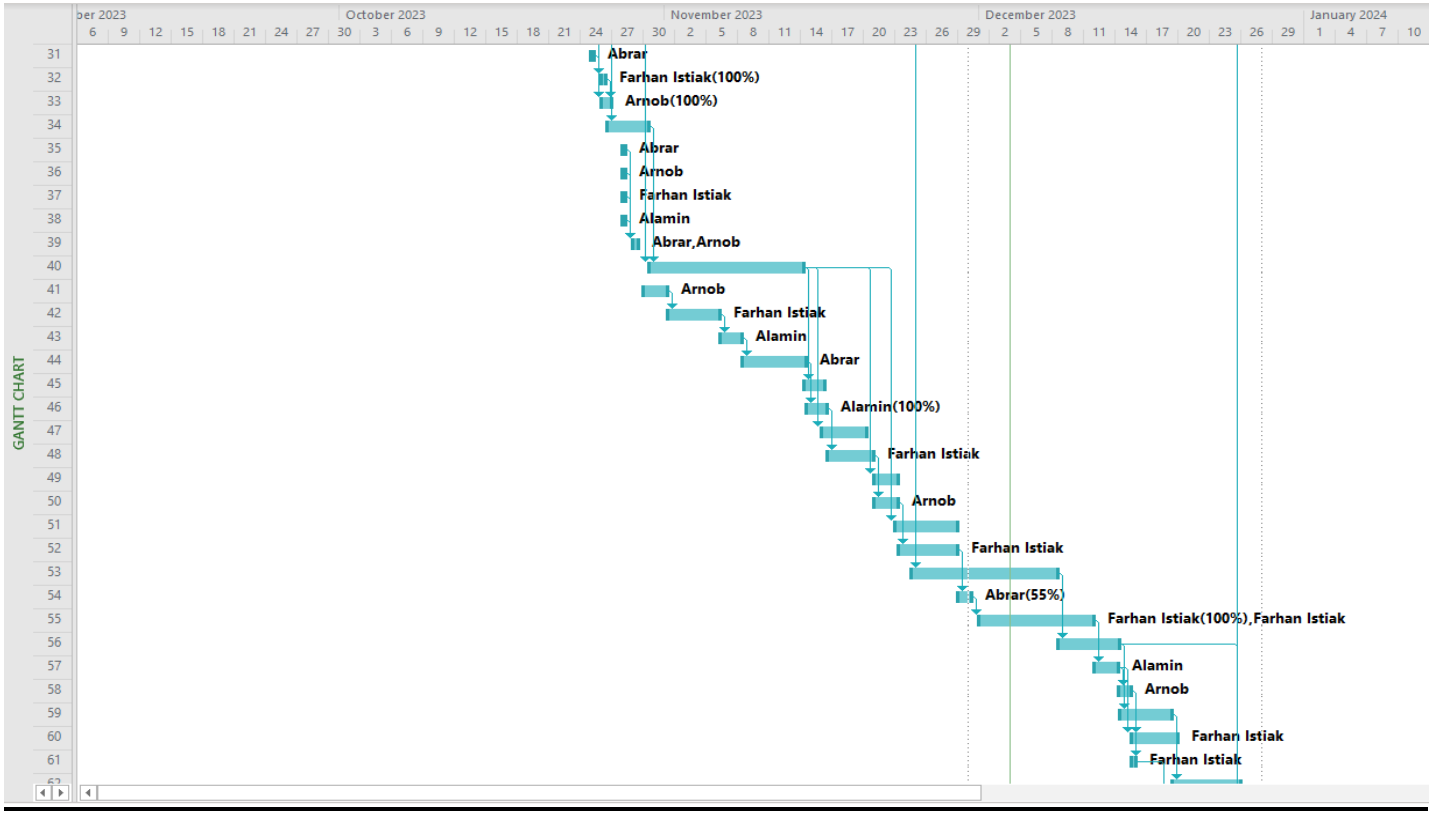
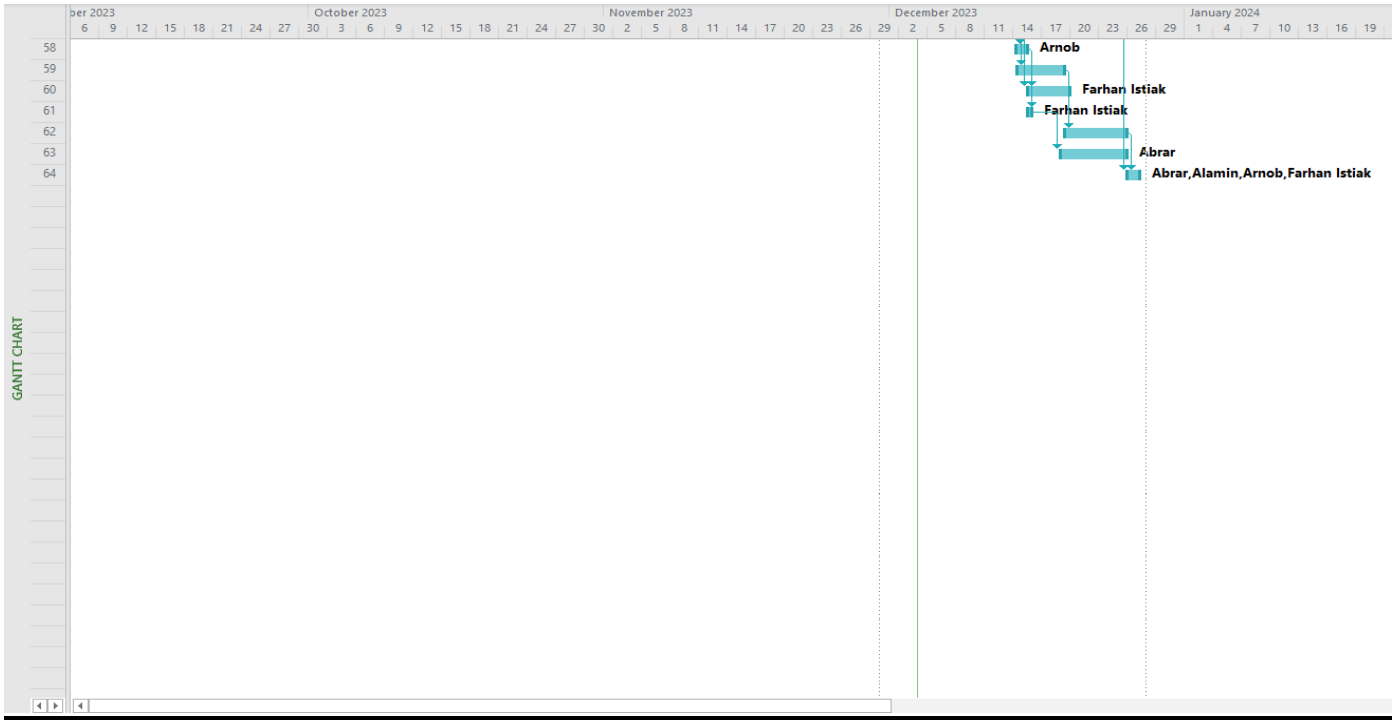
Arnob
Farhan Istiak
Alamin
Abrar


GANTT CHART
October 2023
November 2023
December 2023
January 2024
Abrar
Farhan Istiak(100%)
Arnob(100%)
Abrar
Arnob
Farhan Istiak
Alamin
Abrar,Arnob
Arnob
Farhan Istiak
Alamin
Abrar
Alamin(100%)
Farhan Istiak
Arnob
Farhan Istiak
Abrar(55%)
Farhan Istiak(100%),Farhan Istiak
Alamin
Arnob
Farhan Istiak
Farhan Istiak



Effort Estimation:

We are using COCOMO which is the only type of static model that can quickly and roughly estimate software development effort. It primarily deals with the number of lines of code, and the level of estimation accuracy is low because we do not consider all project parameters. The relation: gives the estimated effort and scheduled time for the project:

Based on SLOC characteristic, and operates according to the following equations:

- **Effort = PM = Coefficient<Effort Factor>*(SLOC/1000) ^P**
  [100,000 SLOC/1000 = 100k SLOC]

- **Development time = DM = 2.50*(PM)^T**
- **Required number of people = ST = PM/DM**

PM: person-months needed for project (labor working hours)

SLOC: source lines of code

P: project complexity (1.04-1.24)

DM: duration time in months for project (weekdays)

T: SLOC-dependent coefficient (0.32-0.38)

ST: average staffing necessary

Software Project Type	Coefficient <Effort Factor>	P	T
Organic	2.4	1.05	0.38
Semi-detached	3.0	1.12	0.35
Embedded	3.6	1.20	0.32

Semidetached Project:
It is an intermediate (in terms of size and complexity) project, where the team having mixed experience (both experience & inexperience resources) to deals with rigid/non-rigid requirements.

If we take 600KLOC for our "Medi-Care" Project, where
Coefficient = 3.0 [Semi Detached]

Project Complexity [P] = 1.12

SLOC-dependent coefficient [T] = 0.35
Now calculation,

Effort = 3.0 * (600K / 1000) ^ 1.12 = 3684.90 MM

Development Time = 2.50 * (3684.90 ^ 0.35 = 44.

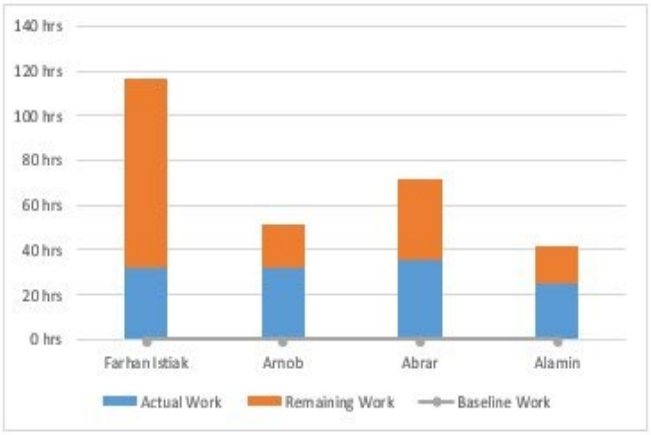
Resource Allocation:

	Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt.	Cost/Use	Accrue	Base
1	Farhan Istiak	Work		F		100%	$60.00/hr	$30.00/hr	$0.00	Prorated	Standard
2	Arnob	Work		A		100%	$50.00/hr	$25.00/hr	$0.00	Prorated	Standard
3	Abrar	Work		A		100%	$40.00/hr	$20.00/hr	$0.00	Prorated	Standard
4	Alamin	Work		A		100%	$30.00/hr	$15.00/hr	$0.00	Prorated	Standard

Resources Overview:

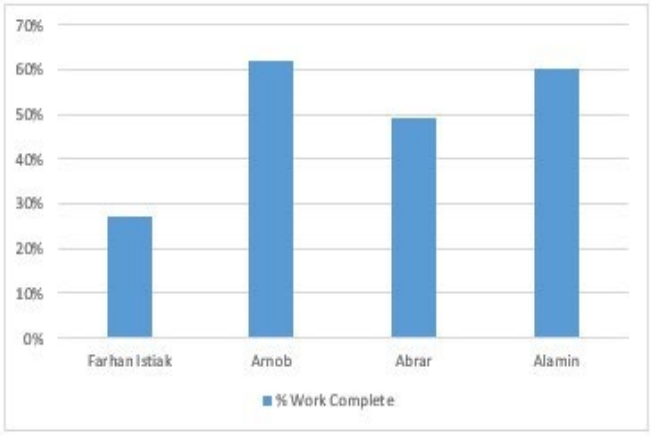
RESOURCE STATS

Work status for all work resources.



WORK STATUS

% work done by all the work resources.

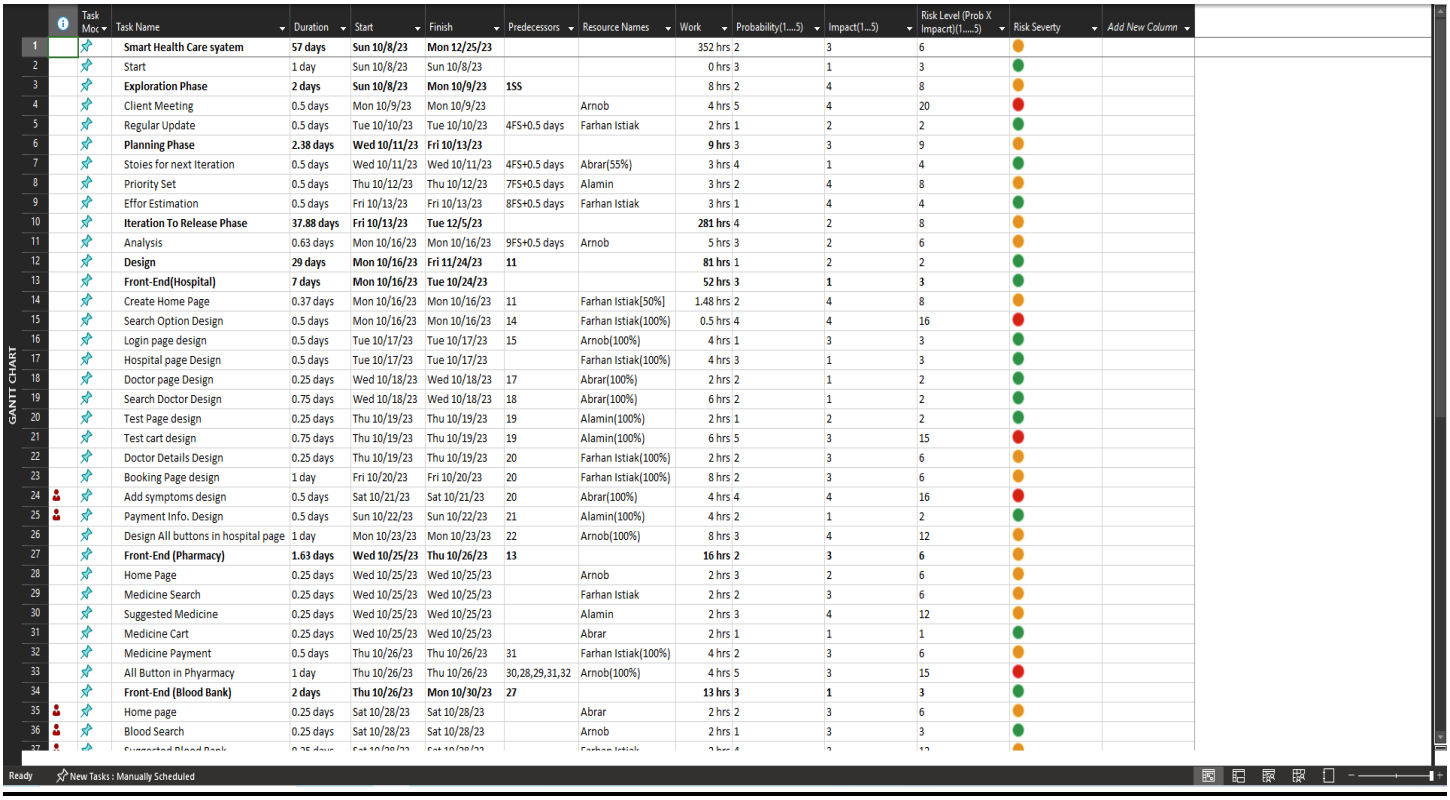


RESOURCE STATUS

Remaining work for all work resources.

Name	Start	Finish	Remaining Work
Farhan Istiak	Tue 10/10/23	Wed 12/27/23	84.88 hrs
Arnob	Mon 10/9/23	Wed 12/27/23	19.43 hrs
Abrar	Wed 10/25/23	Wed 12/27/23	36.5 hrs
Alamin	Thu 10/12/23	Wed 12/27/23	16.5 hrs

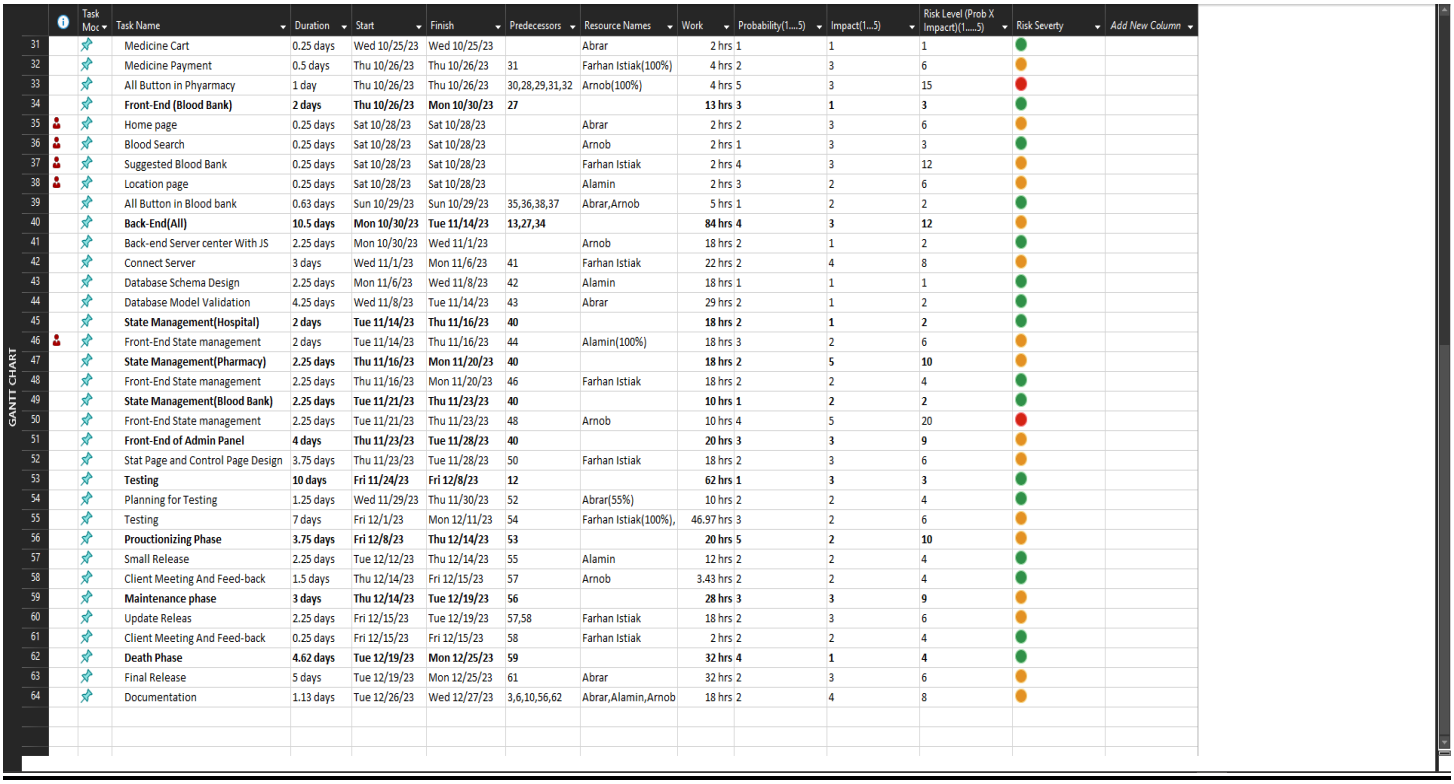
Risk Analysis:



	Task Mod	Task Name	Duration	Start	Finish	Predecessors	Resource Names	Work	Probability(1....5)	Impact(1...5)	Risk Level (Prob X Impact)(1.....5)	Risk Severty	Add New Column
1		**Smart Health Care syatem**	**57 days**	**Sun 10/8/23**	**Mon 12/25/23**			352 hrs	2	3	6		
2		Start	1 day	Sun 10/8/23	Sun 10/8/23			0 hrs	3	1	3		
3		**Exploration Phase**	**2 days**	**Sun 10/8/23**	**Mon 10/9/23**	**1SS**		8 hrs	2	4	8		
4		Client Meeting	0.5 days	Mon 10/9/23	Mon 10/9/23		Arnob	4 hrs	5	4	20		
5		Regular Update	0.5 days	Tue 10/10/23	Tue 10/10/23	4FS+0.5 days	Farhan Istiak	2 hrs	1	2	2		
6		**Planning Phase**	**2.38 days**	**Wed 10/11/23**	**Fri 10/13/23**			**9 hrs**	3	3	9		
7		Stoies for next Iteration	0.5 days	Wed 10/11/23	Wed 10/11/23	4FS+0.5 days	Abrar(55%)	3 hrs	4	1	4		
8		Priority Set	0.5 days	Thu 10/12/23	Thu 10/12/23	7FS+0.5 days	Alamin	3 hrs	2	4	8		
9		Effor Estimation	0.5 days	Fri 10/13/23	Fri 10/13/23	8FS+0.5 days	Farhan Istiak	3 hrs	1	4	4		
10		**Iteration To Release Phase**	**37.88 days**	**Fri 10/13/23**	**Tue 12/5/23**			**281 hrs**	4	2	8		
11		Analysis	0.63 days	Mon 10/16/23	Mon 10/16/23	9FS+0.5 days	Arnob	5 hrs	3	2	6		
12		**Design**	**29 days**	**Mon 10/16/23**	**Fri 11/24/23**	**11**		**81 hrs**	1	2	2		
13		**Front-End(Hospital)**	**7 days**	**Mon 10/16/23**	**Tue 10/24/23**			**52 hrs**	**3**	**1**	**3**		
14		Create Home Page	0.37 days	Mon 10/16/23	Mon 10/16/23	11	Farhan Istiak[50%]	1.48 hrs	2	4	8		
15		Search Option Design	0.5 days	Mon 10/16/23	Mon 10/16/23	14	Farhan Istiak(100%)	0.5 hrs	4	4	16		
16		Login page design	0.5 days	Tue 10/17/23	Tue 10/17/23	15	Arnob(100%)	4 hrs	1	3	3		
17		Hospital page Design	0.5 days	Tue 10/17/23	Tue 10/17/23		Farhan Istiak(100%)	4 hrs	3	1	3		
18		Doctor page Design	0.25 days	Wed 10/18/23	Wed 10/18/23	17	Abrar(100%)	2 hrs	2	1	2		
19		Search Doctor Design	0.75 days	Wed 10/18/23	Wed 10/18/23	18	Abrar(100%)	6 hrs	2	1	2		
20		Test Page design	0.25 days	Thu 10/19/23	Thu 10/19/23	19	Alamin(100%)	2 hrs	1	2	2		
21		Test cart design	0.75 days	Thu 10/19/23	Thu 10/19/23	19	Alamin(100%)	6 hrs	5	3	15		
22		Doctor Details Design	0.25 days	Thu 10/19/23	Thu 10/19/23	20	Farhan Istiak(100%)	2 hrs	2	3	6		
23		Booking Page design	1 day	Fri 10/20/23	Fri 10/20/23	20	Farhan Istiak(100%)	8 hrs	2	3	6		
24		Add symptoms design	0.5 days	Sat 10/21/23	Sat 10/21/23	20	Abrar(100%)	4 hrs	4	4	16		
25		Payment Info. Design	0.5 days	Sun 10/22/23	Sun 10/22/23	21	Alamin(100%)	4 hrs	2	1	2		
26		Design All buttons in hospital page	1 day	Mon 10/23/23	Mon 10/23/23	22	Arnob(100%)	8 hrs	3	4	12		
27		**Front-End (Pharmacy)**	**1.63 days**	**Wed 10/25/23**	**Thu 10/26/23**	**13**		**16 hrs**	**2**	**3**	**6**		
28		Home Page	0.25 days	Wed 10/25/23	Wed 10/25/23		Arnob	2 hrs	3	2	6		
29		Medicine Search	0.25 days	Wed 10/25/23	Wed 10/25/23		Farhan Istiak	2 hrs	2	3	6		
30		Suggested Medicine	0.25 days	Wed 10/25/23	Wed 10/25/23		Alamin	2 hrs	3	4	12		
31		Medicine Cart	0.25 days	Wed 10/25/23	Wed 10/25/23		Abrar	2 hrs	1	1	1		
32		Medicine Payment	0.5 days	Thu 10/26/23	Thu 10/26/23	31	Farhan Istiak(100%)	4 hrs	2	3	6		
33		All Button in Phyarmacy	1 day	Thu 10/26/23	Thu 10/26/23	30,28,29,31,32	Arnob(100%)	4 hrs	5	3	15		
34		**Front-End (Blood Bank)**	**2 days**	**Thu 10/26/23**	**Mon 10/30/23**	**27**		**13 hrs**	**3**	**1**	**3**		
35		Home page	0.25 days	Sat 10/28/23	Sat 10/28/23		Abrar	2 hrs	2	3	6		
36		Blood Search	0.25 days	Sat 10/28/23	Sat 10/28/23		Arnob	2 hrs	1	3	3		

GANTT CHART

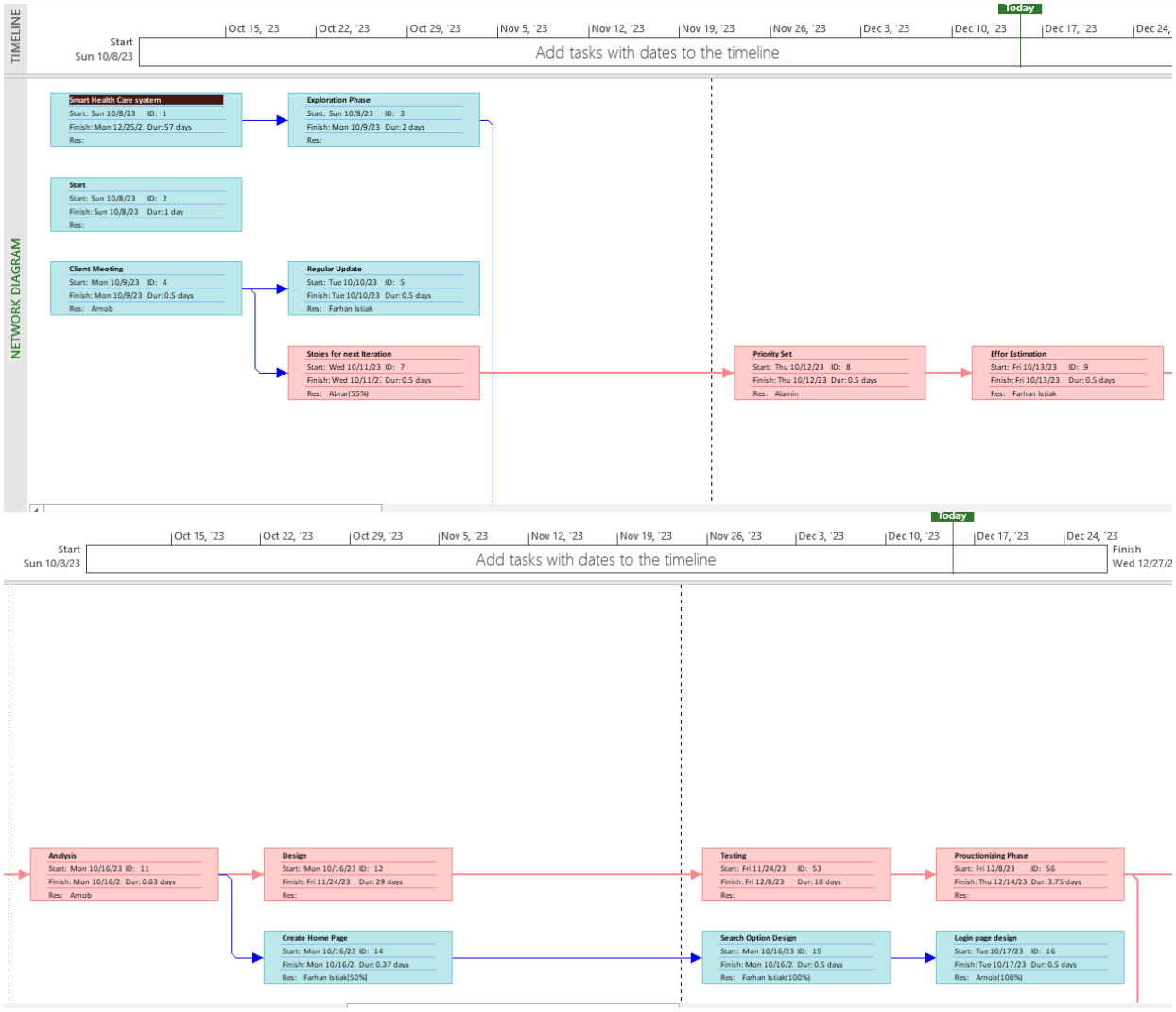
Ready | New Tasks : Manually Scheduled

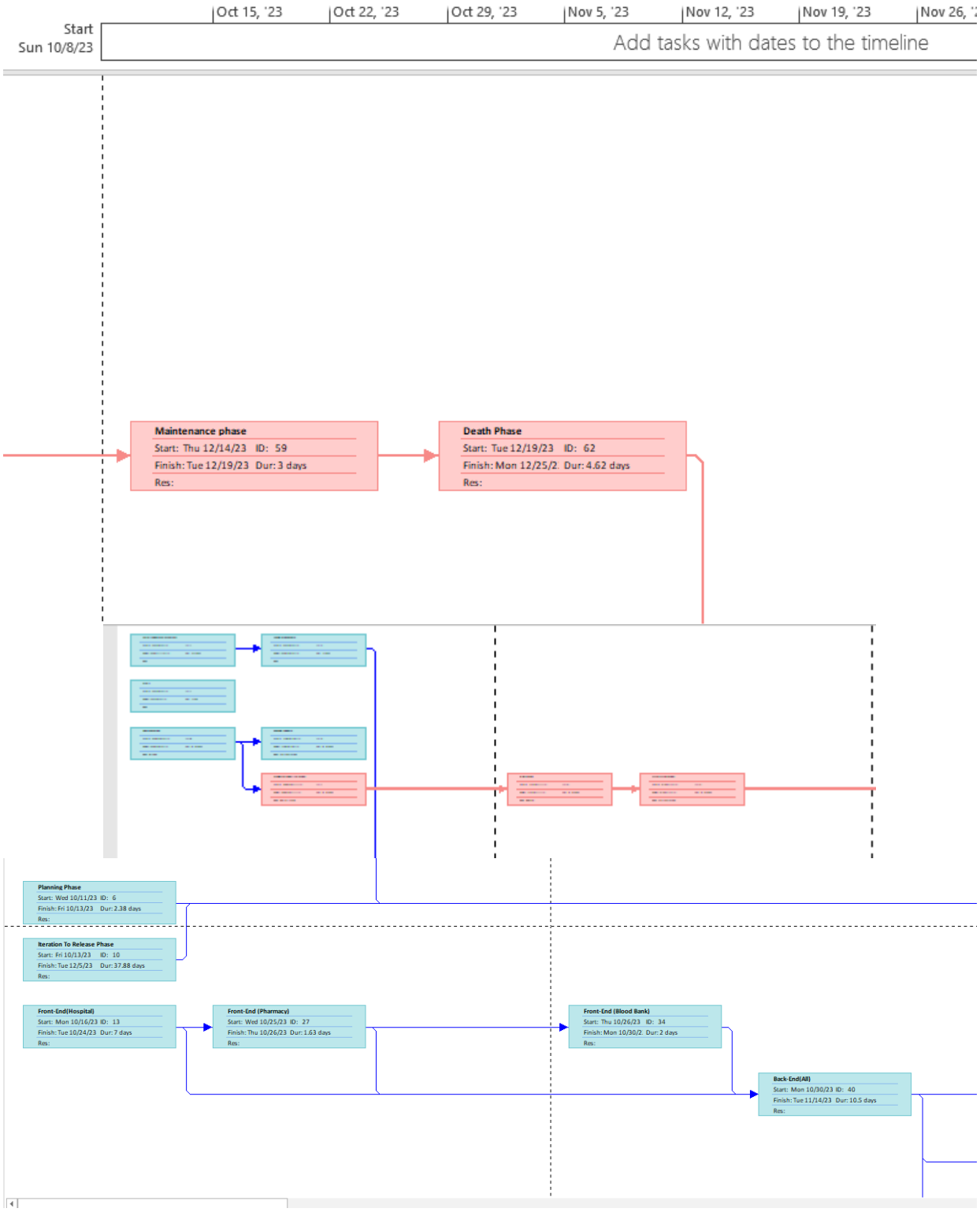


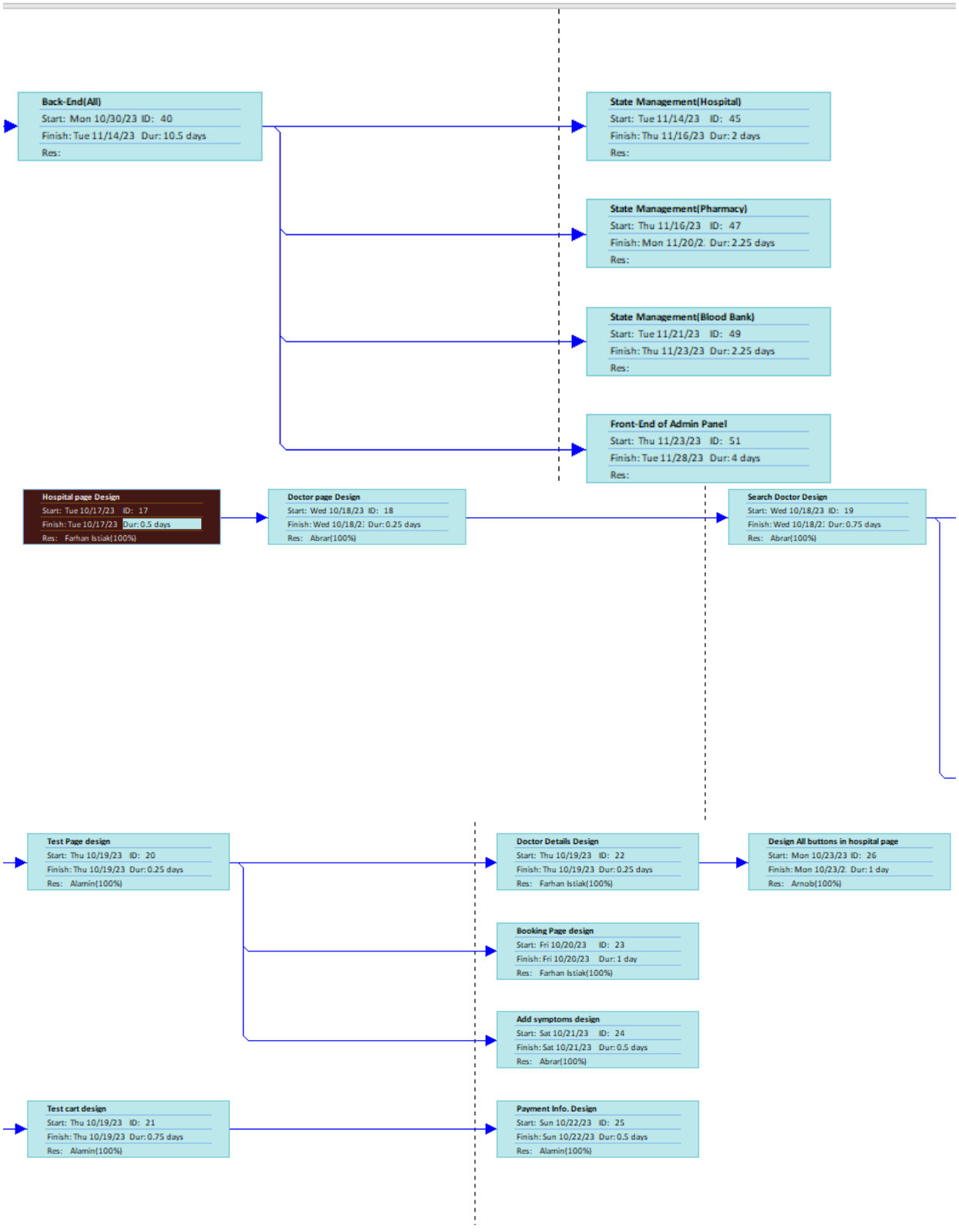
	Task Mod	Task Name	Duration	Start	Finish	Predecessors	Resource Names	Work	Probability(1....5)	Impact(1...5)	Risk Level (Prob X Impact)(1.....5)	Risk Severty	Add New Column
31		Medicine Cart	0.25 days	Wed 10/25/23	Wed 10/25/23		Abrar	2 hrs	1	1	1		
32		Medicine Payment	0.5 days	Thu 10/26/23	Thu 10/26/23	31	Farhan Istiak(100%)	4 hrs	2	3	6		
33		All Button in Phyarmacy	1 day	Thu 10/26/23	Thu 10/26/23	30,28,29,31,32	Arnob(100%)	4 hrs	5	3	15		
34		**Front-End (Blood Bank)**	**2 days**	**Thu 10/26/23**	**Mon 10/30/23**	**27**		**13 hrs**	**3**	**1**	**3**		
35		Home page	0.25 days	Sat 10/28/23	Sat 10/28/23		Abrar	2 hrs	2	3	6		
36		Blood Search	0.25 days	Sat 10/28/23	Sat 10/28/23		Arnob	2 hrs	1	3	3		
37		Suggested Blood Bank	0.25 days	Sat 10/28/23	Sat 10/28/23		Farhan Istiak	2 hrs	4	3	12		
38		Location page	0.25 days	Sat 10/28/23	Sat 10/28/23		Alamin	2 hrs	3	2	6		
39		All Button in Blood bank	0.63 days	Sun 10/29/23	Sun 10/29/23	35,36,38,37	Abrar,Arnob	5 hrs	1	2	2		
40		**Back-End(All)**	**10.5 days**	**Mon 10/30/23**	**Tue 11/14/23**	**13,27,34**		**84 hrs**	**4**	**3**	**12**		
41		Back-end Server center With JS	2.25 days	Mon 10/30/23	Wed 11/1/23		Arnob	18 hrs	2	1	2		
42		Connect Server	3 days	Wed 11/1/23	Mon 11/6/23	41	Farhan Istiak	22 hrs	2	4	8		
43		Database Schema Design	2.25 days	Mon 11/6/23	Wed 11/8/23	42	Alamin	18 hrs	1	1	1		
44		Database Model Validation	4.25 days	Wed 11/8/23	Tue 11/14/23	43	Abrar	29 hrs	2	1	2		
45		**State Management(Hospital)**	**2 days**	**Tue 11/14/23**	**Thu 11/16/23**	**40**		**18 hrs**	**2**	**1**	**2**		
46		Front-End State management	2 days	Tue 11/14/23	Thu 11/16/23	44	Alamin(100%)	18 hrs	3	2	6		
47		**State Management(Pharmacy)**	**2.25 days**	**Thu 11/16/23**	**Mon 11/20/23**	**40**		**18 hrs**	**2**	**5**	**10**		
48		Front-End State management	2.25 days	Thu 11/16/23	Mon 11/20/23	46	Farhan Istiak	18 hrs	2	2	4		
49		**State Management(Blood Bank)**	**2.25 days**	**Tue 11/21/23**	**Thu 11/23/23**	**40**		**10 hrs**	**1**	**2**	**2**		
50		Front-End State management	2.25 days	Tue 11/21/23	Thu 11/23/23	48	Arnob	10 hrs	4	5	20		
51		**Front-End of Admin Panel**	**4 days**	**Thu 11/23/23**	**Tue 11/28/23**	**40**		**20 hrs**	**3**	**3**	**9**		
52		Stat Page and Control Page Design	3.75 days	Thu 11/23/23	Tue 11/28/23	50	Farhan Istiak	18 hrs	2	3	6		
53		**Testing**	**10 days**	**Fri 11/24/23**	**Fri 12/8/23**	**12**		**62 hrs**	**1**	**3**	**3**		
54		Planning for Testing	1.25 days	Wed 11/29/23	Thu 11/30/23	52	Abrar(55%)	10 hrs	2	2	4		
55		Testing	7 days	Fri 12/1/23	Mon 12/11/23	54	Farhan Istiak(100%),	46.97 hrs	3	2	6		
56		**Prouctionizing Phase**	**3.75 days**	**Fri 12/8/23**	**Thu 12/14/23**	**53**		**20 hrs**	**5**	**2**	**10**		
57		Small Release	2.25 days	Tue 12/12/23	Thu 12/14/23	55	Alamin	12 hrs	2	2	4		
58		Client Meeting And Feed-back	1.5 days	Thu 12/14/23	Fri 12/15/23	57	Arnob	3.43 hrs	2	2	4		
59		**Maintenance phase**	**3 days**	**Thu 12/14/23**	**Tue 12/19/23**	**56**		**28 hrs**	**3**	**3**	**9**		
60		Update Releas	2.25 days	Fri 12/15/23	Tue 12/19/23	57,58	Farhan Istiak	18 hrs	2	3	6		
61		Client Meeting And Feed-back	0.25 days	Fri 12/15/23	Fri 12/15/23	58	Farhan Istiak	2 hrs	2	2	4		
62		**Death Phase**	**4.62 days**	**Tue 12/19/23**	**Mon 12/25/23**	**59**		**32 hrs**	**4**	**1**	**4**		
63		Final Release	5 days	Tue 12/19/23	Mon 12/25/23	61	Abrar	32 hrs	2	3	6		
64		Documentation	1.13 days	Tue 12/26/23	Wed 12/27/23	3,6,10,56,62	Abrar,Alamin,Arnob	18 hrs	2	4	8		

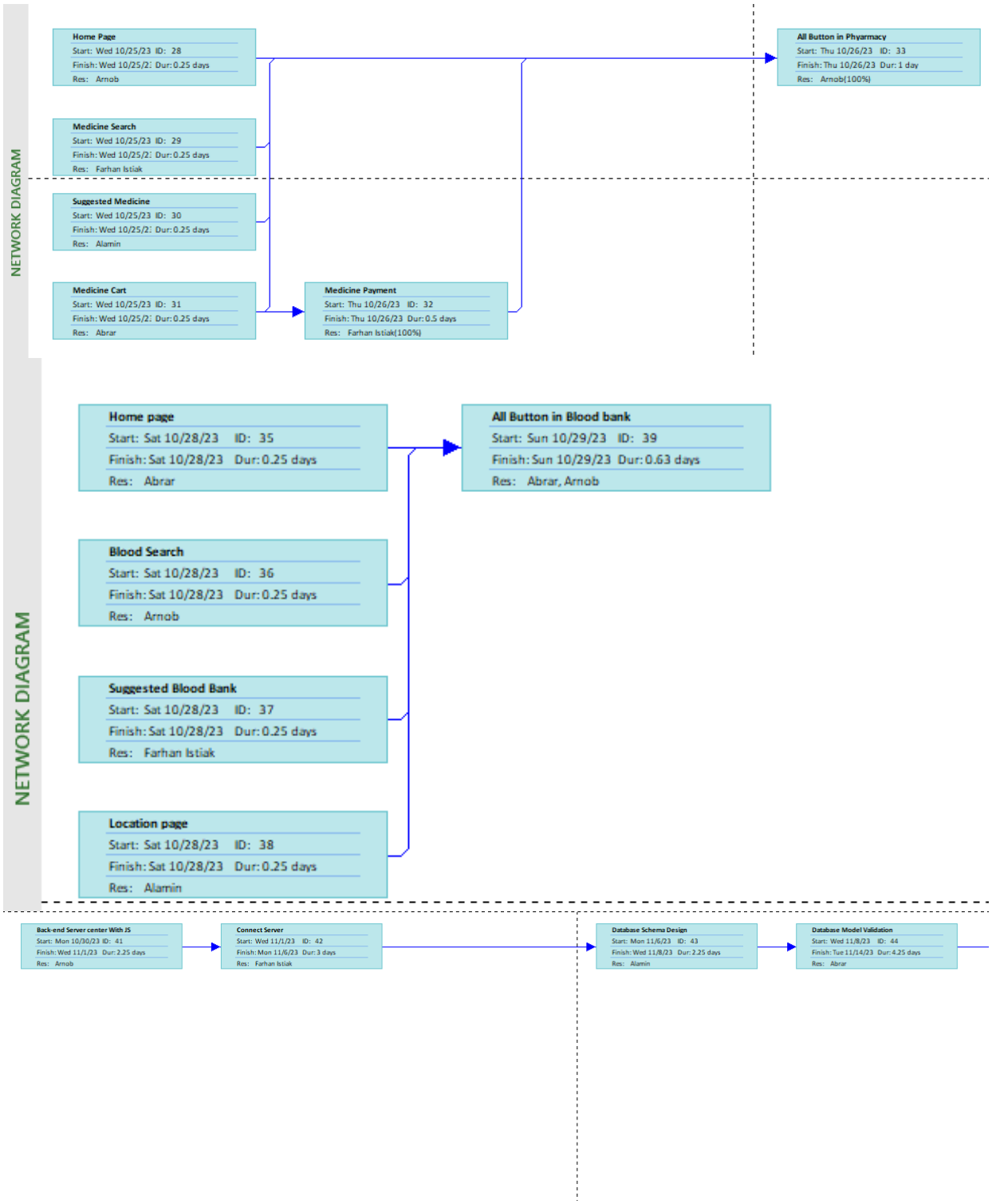
GANTT CHART

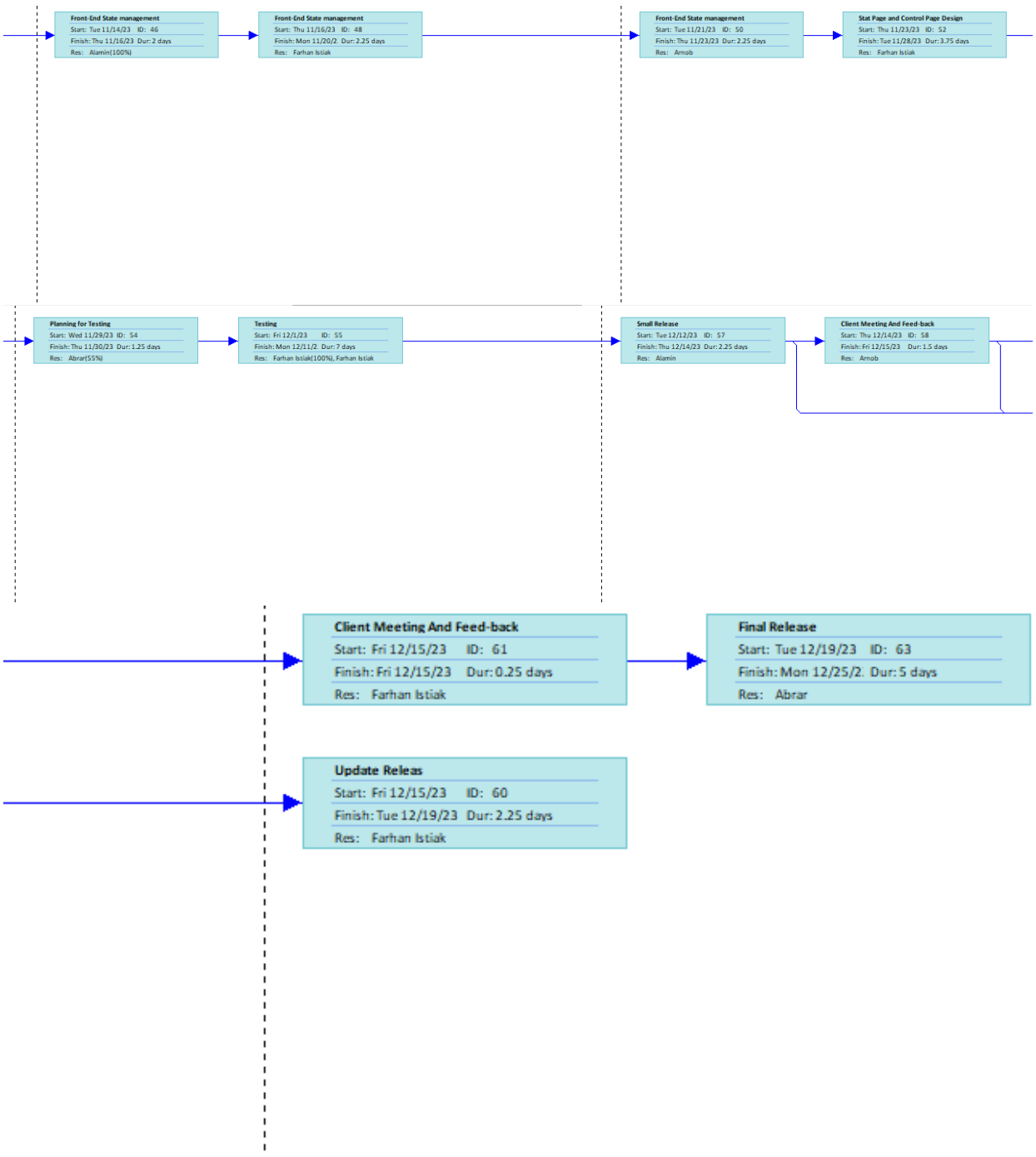
Network Diagram:




Oct 15, '23
Oct 22, '23
Oct 29, '23
Nov 5, '23
Nov 12, '23
Nov 19, '23
Start
Sun 10/8/23
Add tasks with dates to the timeline
Maintenance phase
Start: Thu 12/14/23 ID: 59
Finish: Tue 12/19/23 Dur: 3 days
Res:
Death Phase
Start: Tue 12/19/23 ID: 62
Finish: Mon 12/25/2 Dur: 4.62 days
Res:
Planning Phase
Start: Wed 10/11/23 ID: 6
Finish: Fri 10/13/23 Dur: 2.38 days
Res:
Iteration To Release Phase
Start: Fri 10/13/23 ID: 10
Finish: Tue 12/5/23 Dur: 37.88 days
Res:
Front-End(Hospital)
Start: Mon 10/16/23 ID: 13
Finish: Tue 10/24/23 Dur: 7 days
Res:
Front-End (Pharmacy)
Start: Wed 10/25/23 ID: 27
Finish: Thu 10/26/23 Dur: 1.63 days
Res:
Front-End (Blood Bank)
Start: Thu 10/26/23 ID: 34
Finish: Mon 10/30/2 Dur: 2 days
Res:
Back-End(All)
Start: Mon 10/30/23 ID: 40
Finish: Tue 11/14/23 Dur: 10.5 days
Res:


Back-End(All)
Start: Mon 10/30/23 ID: 40
Finish: Tue 11/14/23 Dur: 10.5 days
Res:
State Management(Hospital)
Start: Tue 11/14/23 ID: 45
Finish: Thu 11/16/23 Dur: 2 days
Res:
State Management(Pharmacy)
Start: Thu 11/16/23 ID: 47
Finish: Mon 11/20/2 Dur: 2.25 days
Res:
State Management(Blood Bank)
Start: Tue 11/21/23 ID: 49
Finish: Thu 11/23/23 Dur: 2.25 days
Res:
Front-End of Admin Panel
Start: Thu 11/23/23 ID: 51
Finish: Tue 11/28/23 Dur: 4 days
Res:
Hospital page Design
Start: Tue 10/17/23 ID: 17
Finish: Tue 10/17/23 Dur: 0.5 days
Res: Farhan Istiak(100%)
Doctor page Design
Start: Wed 10/18/23 ID: 18
Finish: Wed 10/18/2 Dur: 0.25 days
Res: Abrar(100%)
Search Doctor Design
Start: Wed 10/18/23 ID: 19
Finish: Wed 10/18/2 Dur: 0.75 days
Res: Abrar(100%)
Test Page design
Start: Thu 10/19/23 ID: 20
Finish: Thu 10/19/23 Dur: 0.25 days
Res: Alamin(100%)
Doctor Details Design
Start: Thu 10/19/23 ID: 22
Finish: Thu 10/19/23 Dur: 0.25 days
Res: Farhan Istiak(100%)
Design All buttons in hospital page
Start: Mon 10/23/23 ID: 26
Finish: Mon 10/23/2 Dur: 1 day
Res: Arnob(100%)
Booking Page design
Start: Fri 10/20/23 ID: 23
Finish: Fri 10/20/23 Dur: 1 day
Res: Farhan Istiak(100%)
Add symptoms design
Start: Sat 10/21/23 ID: 24
Finish: Sat 10/21/23 Dur: 0.5 days
Res: Abrar(100%)
Test cart design
Start: Thu 10/19/23 ID: 21
Finish: Thu 10/19/23 Dur: 0.75 days
Res: Alamin(100%)
Payment Info. Design
Start: Sun 10/22/23 ID: 25
Finish: Sun 10/22/23 Dur: 0.5 days
Res: Alamin(100%)


NETWORK DIAGRAM
Home Page
Start: Wed 10/25/23 ID: 28
Finish: Wed 10/25/2: Dur: 0.25 days
Res: Arnob
Medicine Search
Start: Wed 10/25/23 ID: 29
Finish: Wed 10/25/2: Dur: 0.25 days
Res: Farhan Istiak
Suggested Medicine
Start: Wed 10/25/23 ID: 30
Finish: Wed 10/25/2: Dur: 0.25 days
Res: Alamin
Medicine Cart
Start: Wed 10/25/23 ID: 31
Finish: Wed 10/25/2: Dur: 0.25 days
Res: Abrar
Medicine Payment
Start: Thu 10/26/23 ID: 32
Finish: Thu 10/26/23 Dur: 0.5 days
Res: Farhan Istiak(100%)
All Button in Phyarmacy
Start: Thu 10/26/23 ID: 33
Finish: Thu 10/26/23 Dur: 1 day
Res: Arnob(100%)
NETWORK DIAGRAM
Home page
Start: Sat 10/28/23 ID: 35
Finish: Sat 10/28/23 Dur: 0.25 days
Res: Abrar
Blood Search
Start: Sat 10/28/23 ID: 36
Finish: Sat 10/28/23 Dur: 0.25 days
Res: Arnob
Suggested Blood Bank
Start: Sat 10/28/23 ID: 37
Finish: Sat 10/28/23 Dur: 0.25 days
Res: Farhan Istiak
Location page
Start: Sat 10/28/23 ID: 38
Finish: Sat 10/28/23 Dur: 0.25 days
Res: Alamin
All Button in Blood bank
Start: Sun 10/29/23 ID: 39
Finish: Sun 10/29/23 Dur: 0.63 days
Res: Abrar, Arnob
Back-end Server center With JS
Start: Mon 10/30/23 ID: 41
Finish: Wed 11/1/23 Dur: 2.25 days
Res: Arnob
Connect Server
Start: Wed 11/1/23 ID: 42
Finish: Mon 11/6/23 Dur: 3 days
Res: Farhan Istiak
Database Schema Design
Start: Mon 11/6/23 ID: 43
Finish: Wed 11/8/23 Dur: 2.25 days
Res: Alamin
Database Model Validation
Start: Wed 11/8/23 ID: 44
Finish: Tue 11/14/23 Dur: 4.25 days
Res: Abrar


Front-End State management
Start: Tue 11/14/23 ID: 46
Finish: Thu 11/16/23 Dur: 2 days
Res: Alamin(100%)
Front-End State management
Start: Thu 11/16/23 ID: 48
Finish: Mon 11/20/2 Dur: 2.25 days
Res: Farhan Istiak
Front-End State management
Start: Tue 11/21/23 ID: 50
Finish: Thu 11/23/23 Dur: 2.25 days
Res: Arnob
Stat Page and Control Page Design
Start: Thu 11/23/23 ID: 52
Finish: Tue 11/28/23 Dur: 3.75 days
Res: Farhan Istiak
Planning for Testing
Start: Wed 11/29/23 ID: 54
Finish: Thu 11/30/23 Dur: 1.25 days
Res: Abrar(55%)
Testing
Start: Fri 12/1/23 ID: 55
Finish: Mon 12/11/2 Dur: 7 days
Res: Farhan Istiak(100%), Farhan Istiak
Small Release
Start: Tue 12/12/23 ID: 57
Finish: Thu 12/14/23 Dur: 2.25 days
Res: Alamin
Client Meeting And Feed-back
Start: Thu 12/14/23 ID: 58
Finish: Fri 12/15/23 Dur: 1.5 days
Res: Arnob
Client Meeting And Feed-back
Start: Fri 12/15/23 ID: 61
Finish: Fri 12/15/23 Dur: 0.25 days
Res: Farhan Istiak
Final Release
Start: Tue 12/19/23 ID: 63
Finish: Mon 12/25/2 Dur: 5 days
Res: Abrar
Update Releas
Start: Fri 12/15/23 ID: 60
Finish: Tue 12/19/23 Dur: 2.25 days
Res: Farhan Istiak

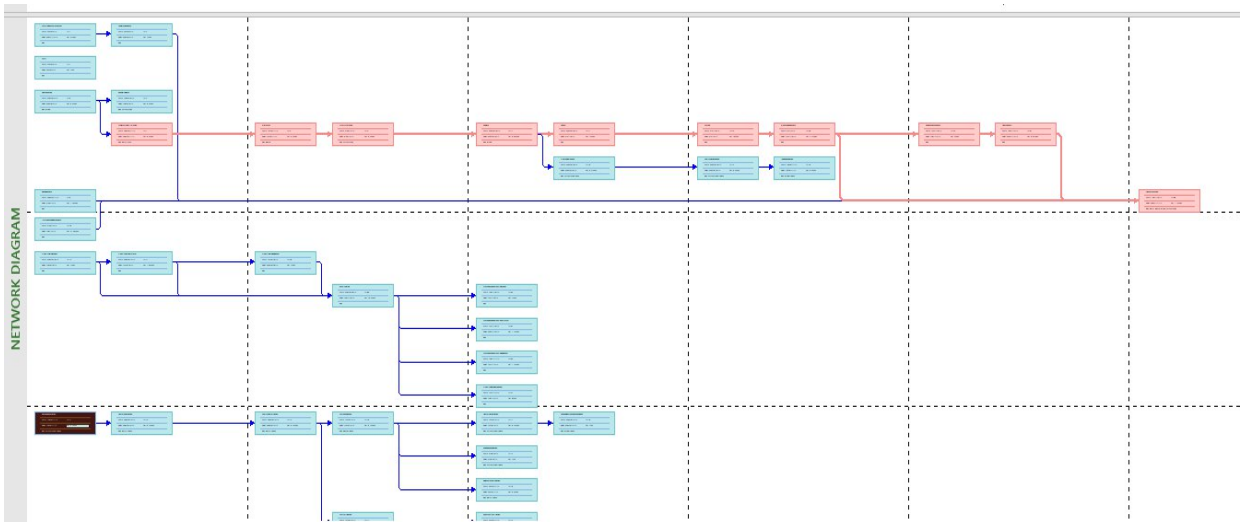


Fig1: Full Network Diagram 1

Fig2: Full Network Diagram 2

Risk Analysis:

1	Low
2	Medium Low
3	Medium
4	Medium High
5	High

	High
	Medium
	Low

GANTT CHART

	Task Mod	Task Name	Probability (1...5)	Impact (1...5)	Risk Level (Probability X	Risk Severity
1		**Nearest Doctor Feature**				
2		**Technical Risk**				
3		Data Security Concerns	5	3	15	
4		Integration Issues	3	2	6	
5		Technical Glitches	3	3	9	
6		**Operational Risk**				
7		Inaccurate Local data	1	4	4	
8		Dependency on Internet Connectivity	3	2	6	
9		**Buisness Risk**				
10		Legal Compliance	4	2	8	
11		User Adoption	4	5	20	
12		**Nearest Hospital Frature**				
13		**Technical Risk**				
14		System Downtime	3	4	12	
15		Data Acccuracy Issues	3	5	15	
16		**Operational Risk**				
17		Emergency Response Time	2	3	6	
18		Hospital Informatin Update	2	1	2	

GANTT CHART

	Task Mod	Task Name	Probability (1...5)	Impact (1...5)	Risk Level (Probability X	Risk Severity
19		**Buisness Risk**				
20		Partnership Risk	3	3	9	
21		**Diagnostic Center Feaature**				
22		**Technical Risk**				
23		Data Compatibility	3	4	12	
24		Integration Challenges	2	5	10	
25		**Operational Risk**				
26		Test Booking Time Failure	2	3	6	
27		**Business Risk**				
28		Competion	3	2	6	
29		**Blood Bank Risk**				
30		**Technical risk**				
31		Blood Inventory Management	3	3	9	
32		Blood Type Compatibility	2	4	8	
33		**Operationa Risk**				
34		Blood Storage Conditions	4	2	8	
35		**E-pharmacy Feature**				
36		**Technical risk**				
37		Security Of prescintion Data	2	4	8	

GANTT CHART

	Task Mod	Task Name	Probability (1...5)	Impact (1...5)	Risk Level (Probability X	Risk Severity
34		Blood Storage Conditions	4	2	8	
35		**E-pharmacy Feature**				
36		**Technical risk**				
37		Security Of presciption Data	2	4	8	
38		Payment Security	3	5	15	
39		**Operational Risk**				
40		Logistics And Delivery Issues	4	2	8	
41		Medication Safety	3	2	6	
42		**Business Risk**				
43		Pharmaceutical Regulation	1	3	3	
44		Market Competition	3	4	12	

1. Nearest Doctor Feature:

Technical Risks:

- Data Security Concerns: Risks associated with unauthorized access or breach of patient information.
- Integration Issues: Challenges in integrating the system with existing healthcare databases or electronic health record (EHR) systems.
- Technical Glitches: Potential software bugs or system failures that could affect the functionality.

Operational Risks:

- Inaccurate Location Data: Issues with the accuracy of GPS data could lead to incorrect information about the nearest doctor.
- Dependency on Internet Connectivity: Reliance on a stable internet connection may pose challenges, especially in remote areas with poor connectivity.

Business Risks:

- Legal Compliance: Ensuring compliance with healthcare regulations and privacy laws to avoid legal consequences.
- User Adoption: Resistance or slow adoption by healthcare providers could impact the success of the feature.

2. Nearest Hospital Feature:

Technical Risks:

- System Downtime: Potential disruptions in service availability, affecting the ability to locate the nearest hospital.
- Data Accuracy Issues: Inaccurate hospital data could lead to incorrect recommendations.

Operational Risks:

- Emergency Response Time: Delays in updating hospital information could impact emergency response times.
- Hospital Information Updates: Ensuring timely updates of hospital information to reflect changes in infrastructure or services.

Business Risks:

- Partnership Risks: Dependence on partnerships with hospitals, and the potential for disagreements or contract issues.

3. Diagnostic Center Feature:

Technical Risks:

- Data Compatibility: Compatibility issues with different diagnostic center systems and formats.
- Integration Challenges: Challenges in integrating with diverse diagnostic technologies.

Operational Risks:

- Test booking Time failure: So many patients in a particular time

Business Risks:

- Competition: Market competition from other healthcare platforms offering similar diagnostic services.

4. Blood Bank Feature:

Technical Risks:

- Blood Inventory Management: Risks associated with inaccurate or outdated blood inventory information.
- Blood Type Compatibility: Ensuring accurate information on blood types and compatibility.

Operational Risks:

- Blood Storage Conditions: Ensuring proper storage conditions for blood to maintain its usability.

5. E-Pharmacy Feature:

Technical Risks:

- Security of Prescription Data: Ensuring the secure transmission and storage of prescription data.
- Payment Security: Risks associated with online payment transactions.

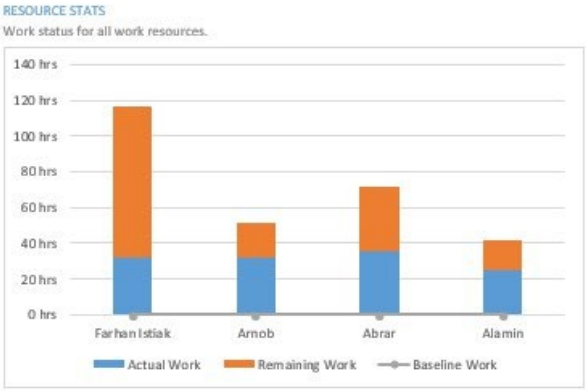
Operational Risks:

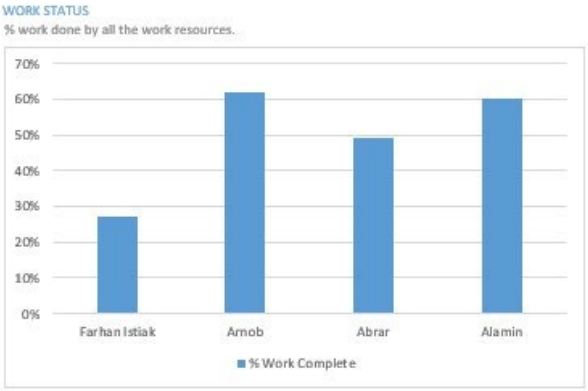
- Logistics and Delivery Issues: Challenges in timely and accurate delivery of pharmaceuticals.
- Medication Safety: Ensuring the quality and safety of medications supplied through the e-pharmacy platform.

Business Risks:

- Pharmaceutical Regulations: Compliance with regulations related to online pharmaceutical sales.
- Market Competition: Risks associated with competition from other e-pharmacy platforms.

Risk Overview:





RESOURCE STATUS

Remaining work for all work resources.

Name	Start	Finish	Remaining Work
Farhan Istiak	Tue 10/10/23	Wed 12/27/23	84.88 hrs
Arnob	Mon 10/9/23	Wed 12/27/23	19.43 hrs
Abrar	Wed 10/25/23	Wed 12/27/23	36.5 hrs
Alamin	Thu 10/12/23	Wed 12/27/23	16.5 hrs

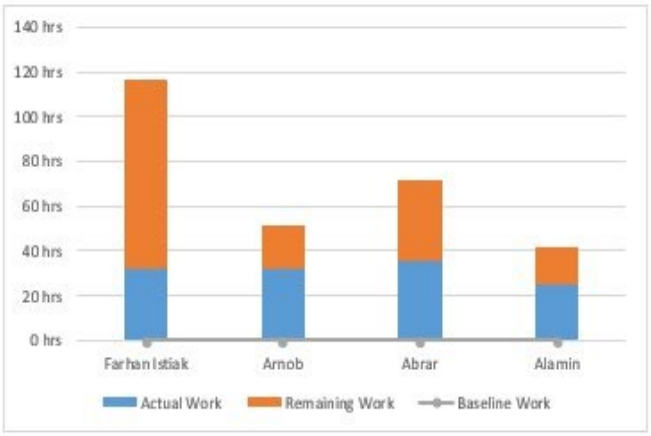
Resource Allocation:

	Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt.	Cost/Use	Accrue	Base
1	Farhan Istiak	Work		F		100%	$60.00/hr	$30.00/hr	$0.00	Prorated	Standard
2	Arnob	Work		A		100%	$50.00/hr	$25.00/hr	$0.00	Prorated	Standard
3	Abrar	Work		A		100%	$40.00/hr	$20.00/hr	$0.00	Prorated	Standard
4	Alamin	Work		A		100%	$30.00/hr	$15.00/hr	$0.00	Prorated	Standard

Resources Overview:

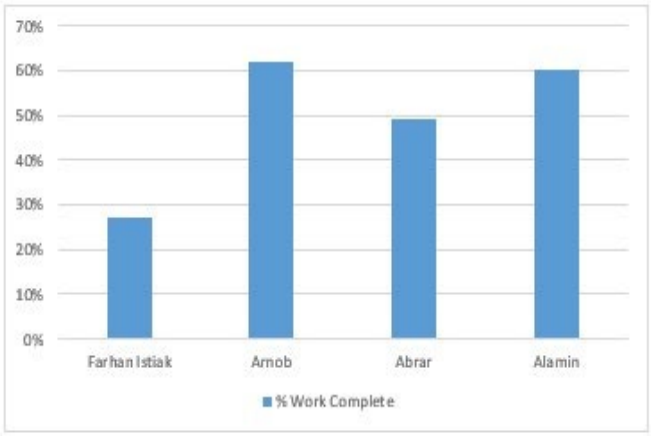
RESOURCE STATS

Work status for all work resources.



WORK STATUS

% work done by all the work resources.



RESOURCE STATUS

Remaining work for all work resources.

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Abrar	Wed 10/25/23	Wed 12/27/23	36.5 hrs
Alamin	Thu 10/12/23	Wed 12/27/23	16.5 hrs