

# **Project Report On**

# **eHOSPITAL**

Submitted in partial fulfillment for the award of  
**Diploma in Advance Computing (E-DAC) from**  
**C-DAC, ACTS (Pune)**



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From

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# **CHAPTER -1**

## **1. INTRODUCTION**

### **1.1 Introduction**

E-Hospital System is an organized computerized system designed and programmed to deal with day to day operations and management of the hospital activities. It deals with the collection of patient's information, diagnosis details, etc. Traditionally, it was done manually. The main function of the system is register and store patient details and doctor details and retrieve these details as and when required, and also to manipulate these details meaningfully. System input contains patient details, diagnosis details, while system output is to get these details on to the screen. The E-Hospital System can be entered using a username and password. It is accessible either by an administrator and receptionist. Only they can add data into the database. The data can be retrieved easily. The data are well protected for personal use and makes the data processing very fast.

The major problem for the patient nowadays to get report after consultation, many hospital managing reports in their system but it's not available to the patient when he / she is outside. In this project we are going to provide the facility to store the report in the database and make available from anywhere in the world. The E-Hospital System is a software product suite designed to improve the quality and management of hospital management in the areas of clinical process analysis and diagnosis. E-Hospital System enables to develop the organization and improve its effectiveness and quality of work. Managing the key processes efficiently is critical to the success of the hospital.

User Interface, developed in React uses user email to authenticate and data is imported using REST. UI makes secure calls to Spring Boot. In the backend, JAVA is used to fetch and manipulate the data and used MySQL as database.

For all this a lot of API's is used for the ease of user. API allows two applications to talk to each other and then the application interprets that data and presents the user with the information the user wanted in a readable way.

For the login of users into this website we use the user email authentication, which allows users to sign up with their email. This platform is based on REST services and it tends to independency of all services. This platform is rapid and frequent due to this technique.

### **1.2 Description**

This project is a web application in which Receptionist can register patient who will be getting diagnosed in accordance with health standards, the Doctors will write the report which can be viewed by the ward-in charge, Pharmacist and the Patient. The portal will provide information about the patient diagnosis report after every diagnosis with prescribed medicines or suggestions specified by the doctor. This diagnostic report will be maintained by the Doctor and Lab Incharge. For selected Patient and Doctor will be verified by the respective database. If entered data is correct then it will give information about Patient details, selection of tests and assigned diagnostic report that are available in the database. The project 'E-Hospital System' is based on the database, object-oriented programming and networking techniques. As there are many areas where we keep

the records in database for which we are using MY SQL software which is one of the best and the easiest software to keep our information. This project uses Angular with Bootstrap as the frontend software and has connectivity with MY SQL

### **1.3 Problem Formulation**

Since Hospitals are associated with the lives of common people and their day-to-day routines so we decided to work on this project. The manual handling of the record is time consuming and highly prone to error. The purpose of this project is to automate or make online, the process of day-to-day activities like Patient diagnosis, medication report, admission of New Patient, retrieving their record, etc. We have tried our best to make the complicated process of Hospital Management System as simple as possible using Structured & Modular technique & Menu oriented interface. We have tried to design the software in such a way that the user may not have any difficulty in using this package & further expansion is possible without much effort. Even though we cannot claim that this work to be entirely exhaustive, the main purpose of our exercise is to perform each activity in computerized way rather than manually which is time consuming.

### **1.4 Motivation**

#### **1. Easy Access to Patient Data**

One of the main advantages of hospital management software is easily available patient data to the care providers. It is only a matter of few clicks and all the required information about a patient, from various departments in the hospital, can be available on the screen.

#### **2. Cost Effective**

Well-Implemented clinic management system reduces a lot of manual work that is essentially performed in hospitals, especially the ones where documentation and record keeping is required. It also saves much on storage and the related operational costs.

#### **3. Improved Efficiency**

Using software enables the processes automated to mean that the processes will be taken care of mechanically without any human intervention and this will instantly ensure improved efficiency.

#### **4. Reduces Scope of Error**

Because processes on hospital software are automated and a lot of tasks are assigned to the software to perform with utmost accuracy with minimum human intervention, the scope of error is reduced dramatically.

#### **5. Data Security & Retrieve-ability**

All the important data is stored on the server or cloud, keeping it safe. Since hospital software works on logins, data security is becoming a non-issue offering data access based on the role of the person – Receptionist, doctor, nurse, radiologist etc.

## **6. Improved Patient Care**

Improved access to patient data and it improves work efficiency means better and quick clinical decisions. In this era of evidence-based medicine, the faster the clinician gets the diagnostic reports and the quicker her orders are implemented the faster is the patient recovery and the better it is on the patient care index.

### **1.5 Scope**

1. Information about Patients is done by just writing the Patients name, age and gender. Whenever the Patient comes up his information is stored freshly.
2. Bills are generated by recording price for each facility provided to Patient on a separate sheet and at last they all are summed up.
3. Diagnosis information to patients is generally recorded on the document, which contains Patient information. It is destroyed after some time period to decrease the paper load in the office.
4. Immunization records of children are maintained in pre-formatted sheets, which are kept in a file.
5. Information about various diseases is not kept as any document. Doctors themselves do this job by remembering various medicines.

All this work is done manually by the receptionist and other operational staff and lot of papers are needed to be handled and taken care of. Doctors have to remember various medicines available for diagnosis and sometimes miss better alternatives as they can't remember them at that time. **1.6**

### **Objective:-**

- 1) Define hospital
- 2) Recording information about the Patients that come.
- 3) Generating bills.
- 4) Recording information related to diagnosis given to Patients.
- 5) Keeping record of the Immunization provided to children/patients.
- 6) Keeping information about various diseases and medicines available to cure them.

These are the various jobs that need to be done in a Hospital by the operational staff and Doctors. All these works are done on papers.

### **1.7 MODULES:**

1. Admin
2. Doctor
3. Patient
4. Receptionist
5. Lab-Incharge
6. Pharmacist
7. Ward-Incharge



## **CHAPTER-2**

### **2. LITERATURE REVIEW:**

Automated Hospital Ward Management System Interacting with Mobile Robot Platform  
WDBOT

- This paper presents a novel intelligent Automated

Hospital Ward Management System (AHWMS) based on a mobile robotic platform named WDBOT for a hospital ward. The need of an automated system including an assisting robot for performing activities in the hospital system is great importance for doctors, nurses, patients and other healthcare assistants due to demanding work load and limited number of personnel. The aim of this research is to provide an automated mobile robot-based solution to improve the effectiveness of ward management and medicine management and distribution processes. AHWMS interacts with WDBOT via wireless network to achieve the abovementioned tasks with the help of controlling, image analysis, processing and communication. Verification of the system was done with the help of simulation and physical modeling of some units. This system shows its use can improve the effectiveness of the present hospital ward management system

## **CHAPTER-3**

### **3. SYSTEM ANALYSIS**

#### **3.1 FUNCTIONAL REQUIREMENTS:**

##### **3.1.1 Admin Login**

- System will allow Admin to register all the hospital employees details (Doctor, Receptionist, Lab-Incharge, Pharmacist, and Ward-Incharge).
- System will allow Admin to view all the hospital employees details (Doctor, Receptionist, Lab-Incharge, Pharmacist, and Ward-Incharge).
- System will allow Admin to login using email & password
- System will allow Admin to access all functionalities of other roles.
- Admin should be able to add departments to/from hospital.
- System will allow Admin to remove departments to/from hospital.

##### **3.1.2 Doctor Login**

- System will allow Doctor to provide prescription to patients. □ System will allow Doctor to view test reports of any patient.
- System will allow Doctor to check availability of medicines.
- System will allow Doctor to suggest admit a patient.
- System will allow Doctor to suggest discharge a patient.
- System will allow Doctor to trace the history of the patient.

##### **3.1.3 Patient Login**

- System will allow patient to view his/her prescription
- System will allow patient to view his/her appointments
- System will allow patient to view his/her reports
- System will allow patient to pay his/her bill
- System will allow patient to view his/her details

##### **3.1.4 Receptionist Login**

- System will allow receptionist to register incoming patient to hospital
- System will allow receptionist to update details of patient along with bill amount.
- System will allow receptionist to schedule appointment for patient
- System will allow receptionist to search patient by its ID

##### **3.1.5 Lab-In charge Login**

- System will allow Lab-In charge to be upload test reports of any patient. □  
System will allow Lab-In charge to introduce any newly added report type.

##### **3.1.6 Pharmacist Login**

- System will allow Pharmacist to provide medicines to patients according to prescription.

- System will allow Pharmacist to update stock medicine status.
- System will allow Pharmacist to introduce any newly added medicine □ System will allow Pharmacist to generate bill of medicines for a patient.

### **3.1.7 Ward-In charge Login**

- System will allow Ward-In charge to check availability of beds and allot bed to a patient.
- System will allow Ward-In charge to update newly added beds.

## **3.2 Non-functional Requirements**

### **3.2.1 Performance**

System performance is the most important quality in non-functional requirements and affects almost all the other preceding ones. The system should store all the database records of each patient and admin staff properly and the application should be available for use 24\*7 through the server. Also, the application should be user friendly with a proper user interface which makes it easy for the user to understand. All the options should be present in properly accessible places for user convenience. Admin staff personnel should be properly trained to operate the application so provided. Patient prescriptions, test details, administered food details, feedback details, allocation of nurse details, records are to be backed up securely across database servers. In case database is hacked by someone and data is deleted a backup server should be present for such purpose.

All login ids and passwords of the Admin, Police Admin and FIR Entry Operator should be protected for privacy using whatever constraints required in the database or the application.

### **3.2.2 Reliability**

Reliability is the probability and percentage of the software performing without failure for a specific number of uses or amount of time.

### **3.2.3 Availability**

This feature defines the amount of time the system is running, the time it takes to repair a fault, and the time between lapses.

### **3.2.4 Maintainability**

This feature indicates the average time and ease and rapidity with which a system can be restored after a failure.

The system should be easy to maintain. There should be a clear separation between the interface and the business logic code. There should be a clear separation between the data access objects that map the database and the business logic code.

### **3.2.5 Security**

All login ids and passwords of the Admin, Doctor, Nurse, and Patient should be protected for privacy using whatever constraints required in the database or the

application. The system requires the individual to acknowledge the person making use of the phone. Any adjustments like insert, erase, update, etc. for the data source can be integrated promptly as well as executed only by the Nurse and Doctor. The Admin can consider as well as alter any kind of information in the Hospital Management System

### **3.3 Technology Used**

#### **3.3.1 BACK END**

Spring Boot

MYSQL for storage of data.

#### **3.3.2 FRONT END**

React

CSS

REDUX

Platform:

Web Development: J2EE Spring Boot, React, MySQL

#### **J2EE Spring Boot**

Spring Boot has been built for Rapid Application Development. The goal of Spring Boot is to provide a way to create Java applications quickly and simply, through an embedded server. By default, it used an embedded version of Tomcat and hence eliminating the need of Java EE containers.

It is a framework to ease the bootstrapping and development of new Spring Applications. Bootstrapping with defaults included in the configuration/ jar-dependencies. Easy to create standalone applications with embedded Tomcat/Jetty/Undertow. It provides defaults for code and annotation configuration to quick start new spring projects within no time. Plenty of Spring Boot Starter to quickly get up and running.

No code generation and no requirement for XML configuration. It reduces lots of development time and increases productivity.

#### **React**

React is a JavaScript library for building user interfaces. It has transformed the way we think about front-end development. React.js has clasped the engagement of the opensource community. And its demand is irreversible in the coming future. It is here to stay. Improved performance: React uses Virtual DOM, thereby creating web applications faster. Virtual DOM compares the components' previous states and updates only the items in the Real DOM that were changed, instead of updating all of the components again, as conventional web applications do.

#### **MySQL**

MySQL is an open-source relational database management system (RDBMS).A list of commonly used MySQL queries to create database, use database, create table, insert record, update record, delete record, select record, truncate table and drop table etc.

MySQL is a relational database management system based on SQL – Structured Query Language. The application is used for a wide range of purposes, including data warehousing, e-commerce, and logging applications.

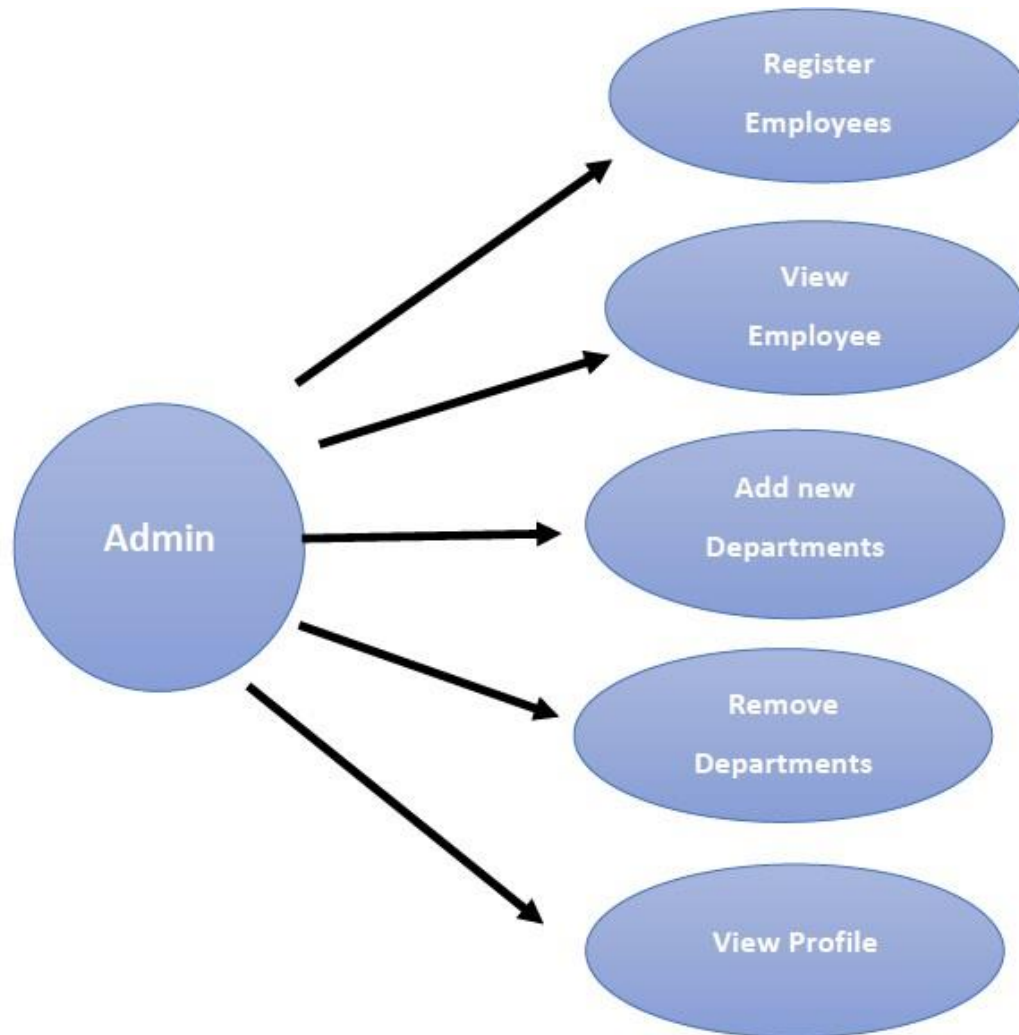
The most common use for MySQL, however, is for the purpose of a web database. It can be used to store anything from a single record of information to an entire inventory of available products for an online store. In association with a scripting language such as PHP or Perl (both offered on our hosting accounts) it is possible to create websites which will interact in real- time with a MySQL database to rapidly display categorized and searchable information to a website user.

## CHAPTER-4

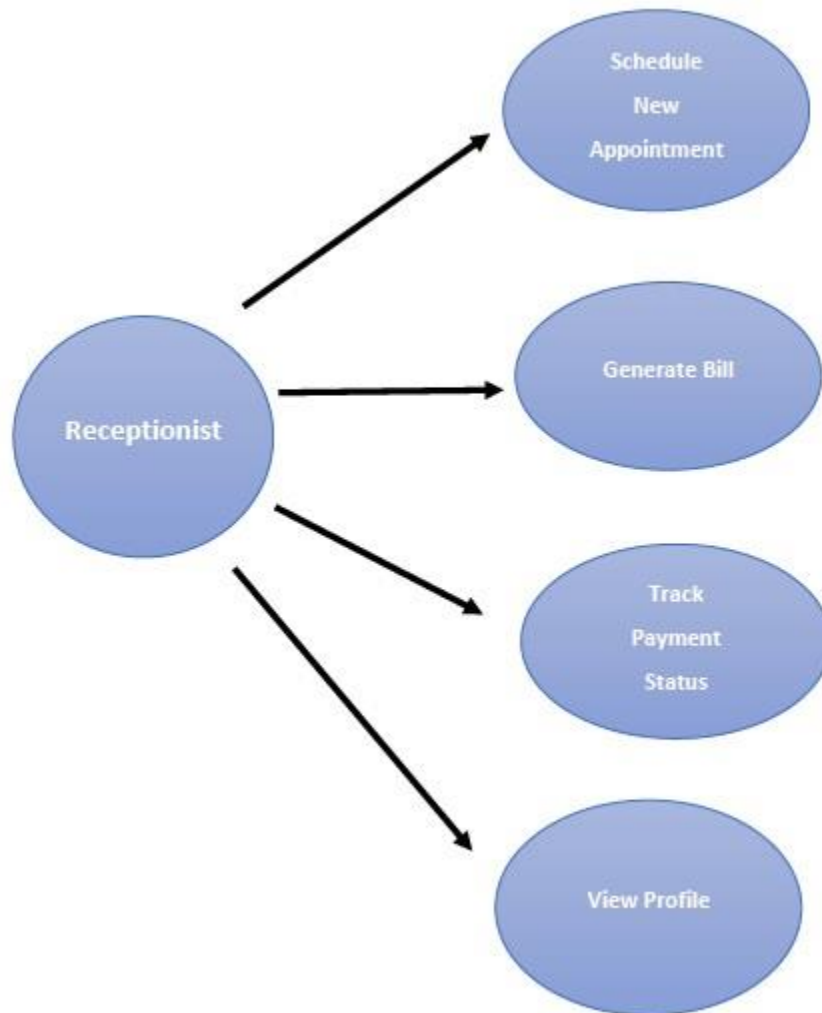
### 4. Analysis Modeling

#### 4.1 Use case Diagram

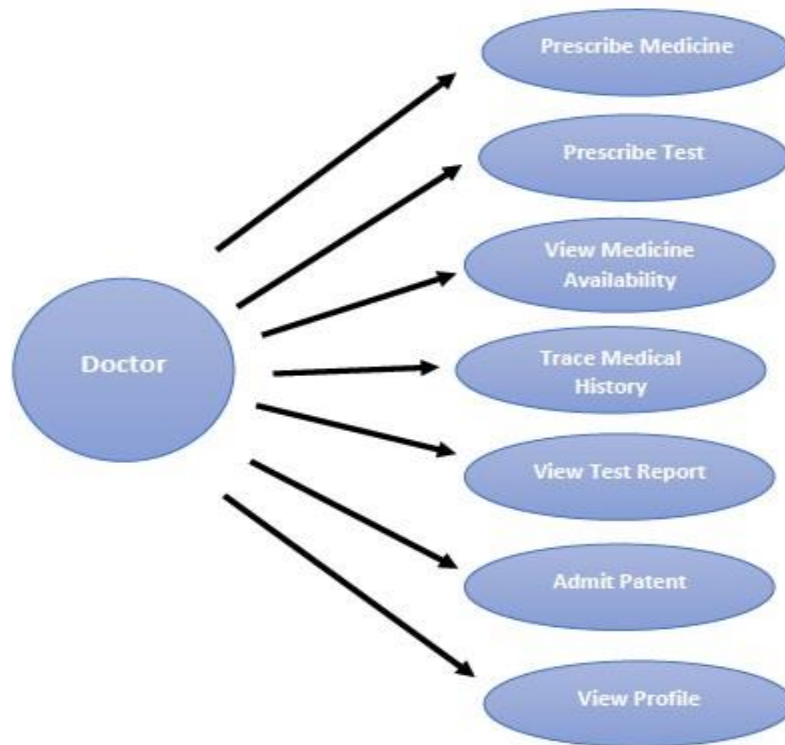
##### 4.1.1 Admin Module



#### 4.1.2 Receptionist Module

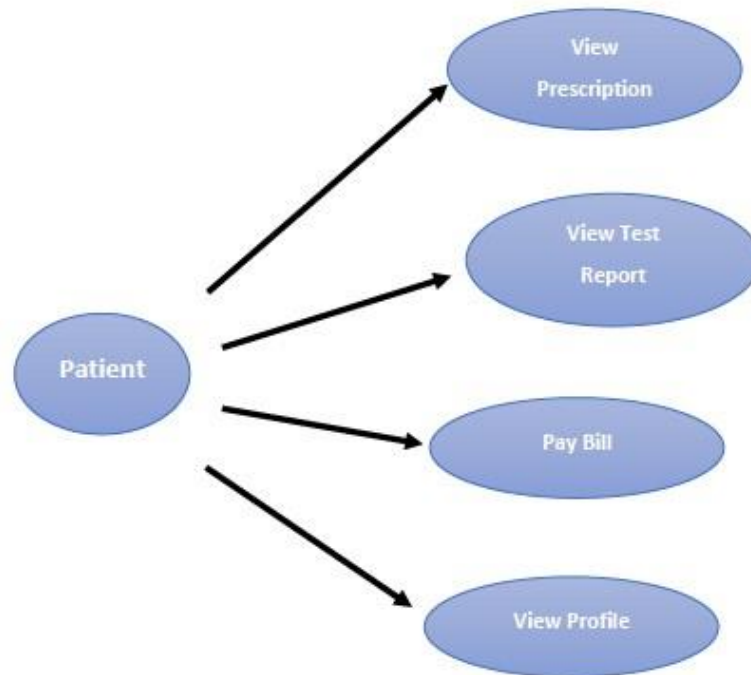


#### 4.2.3 Doctor Module

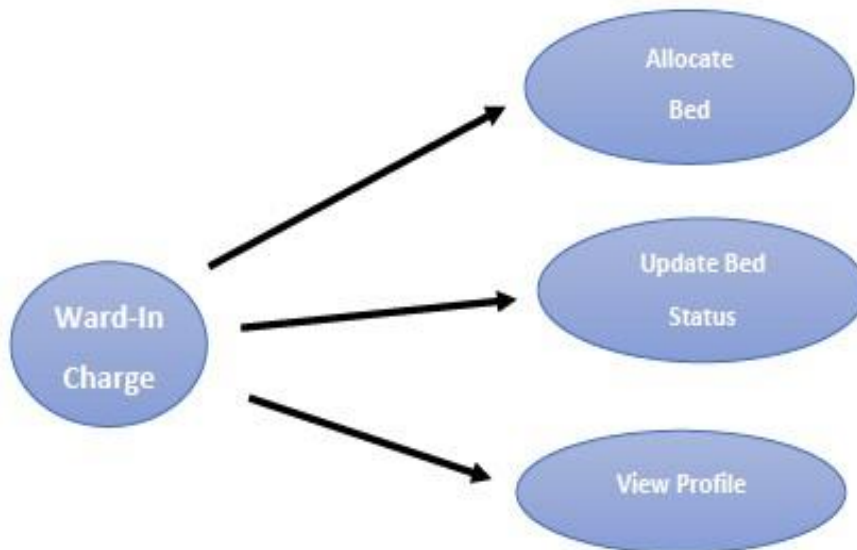


#### 4.1.4 Patient Module

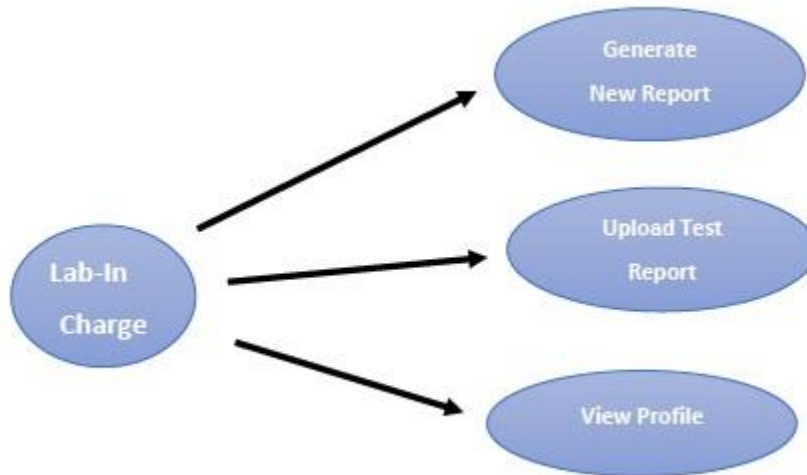




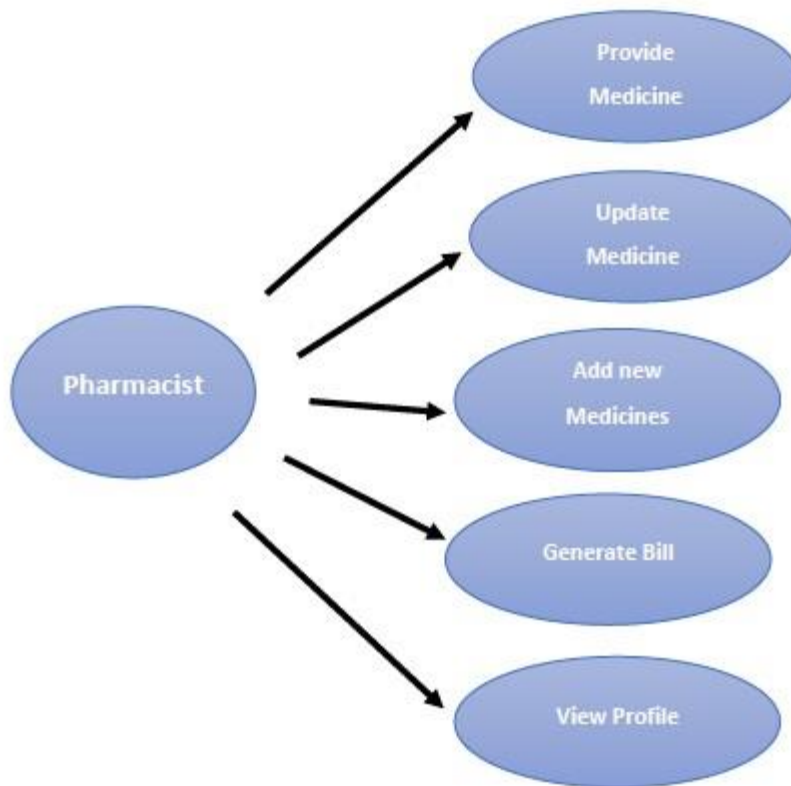
#### 4.1.5 Ward In-Charge Module



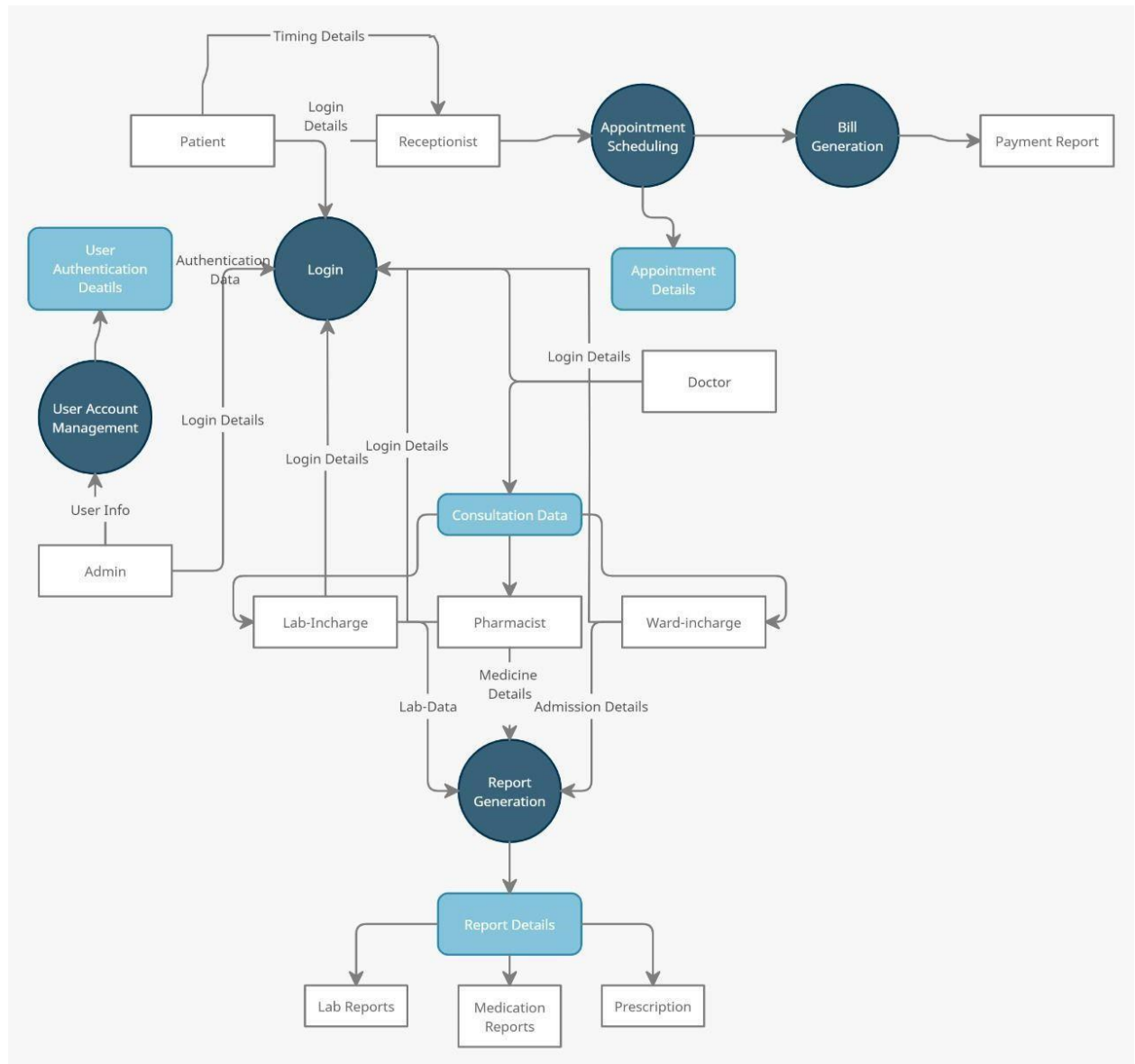
#### 4.1.6 Lab In-Charge Module



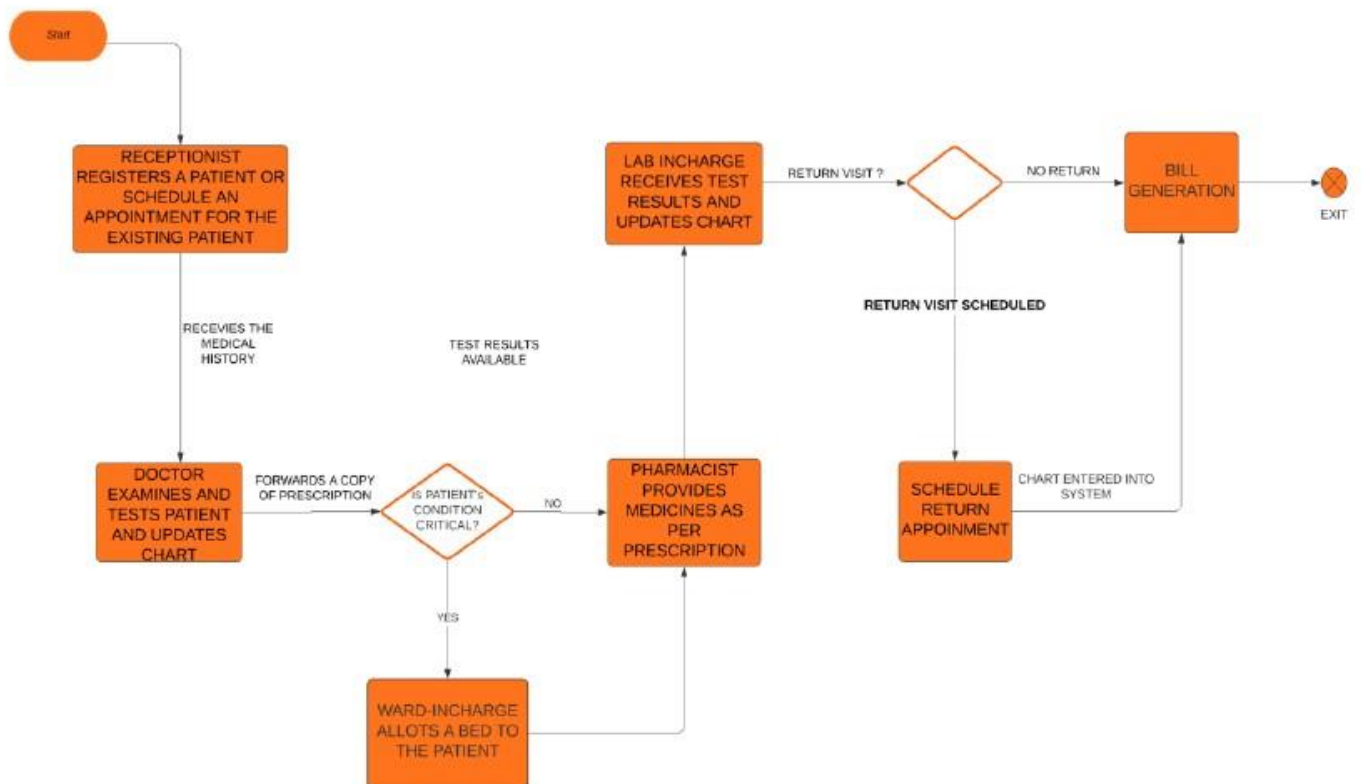
#### 4.1.7 Pharmacist Module



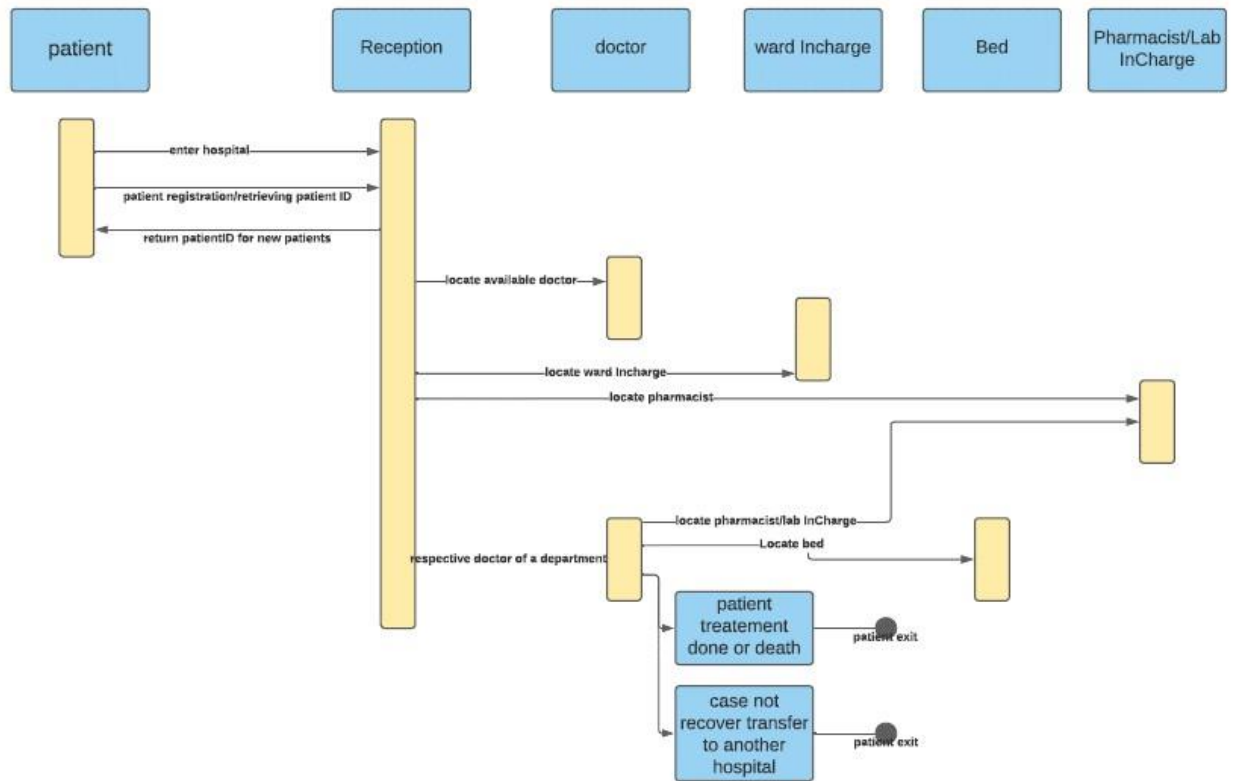
## 4.2 Data Flow Diagram



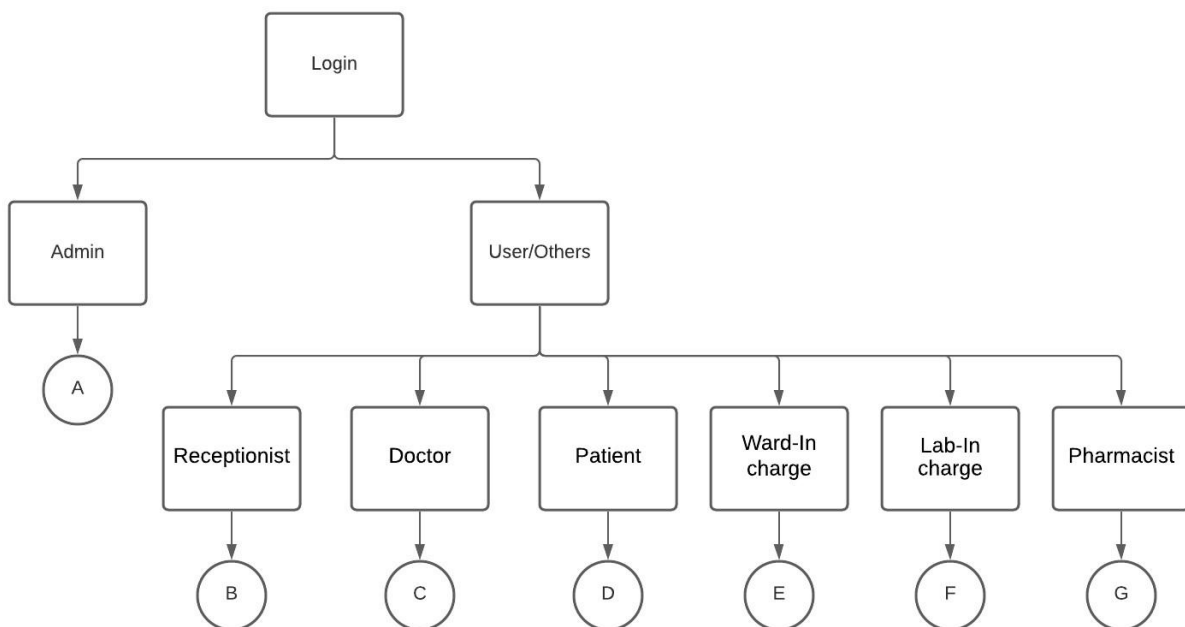
### 4.3 Activity Diagram

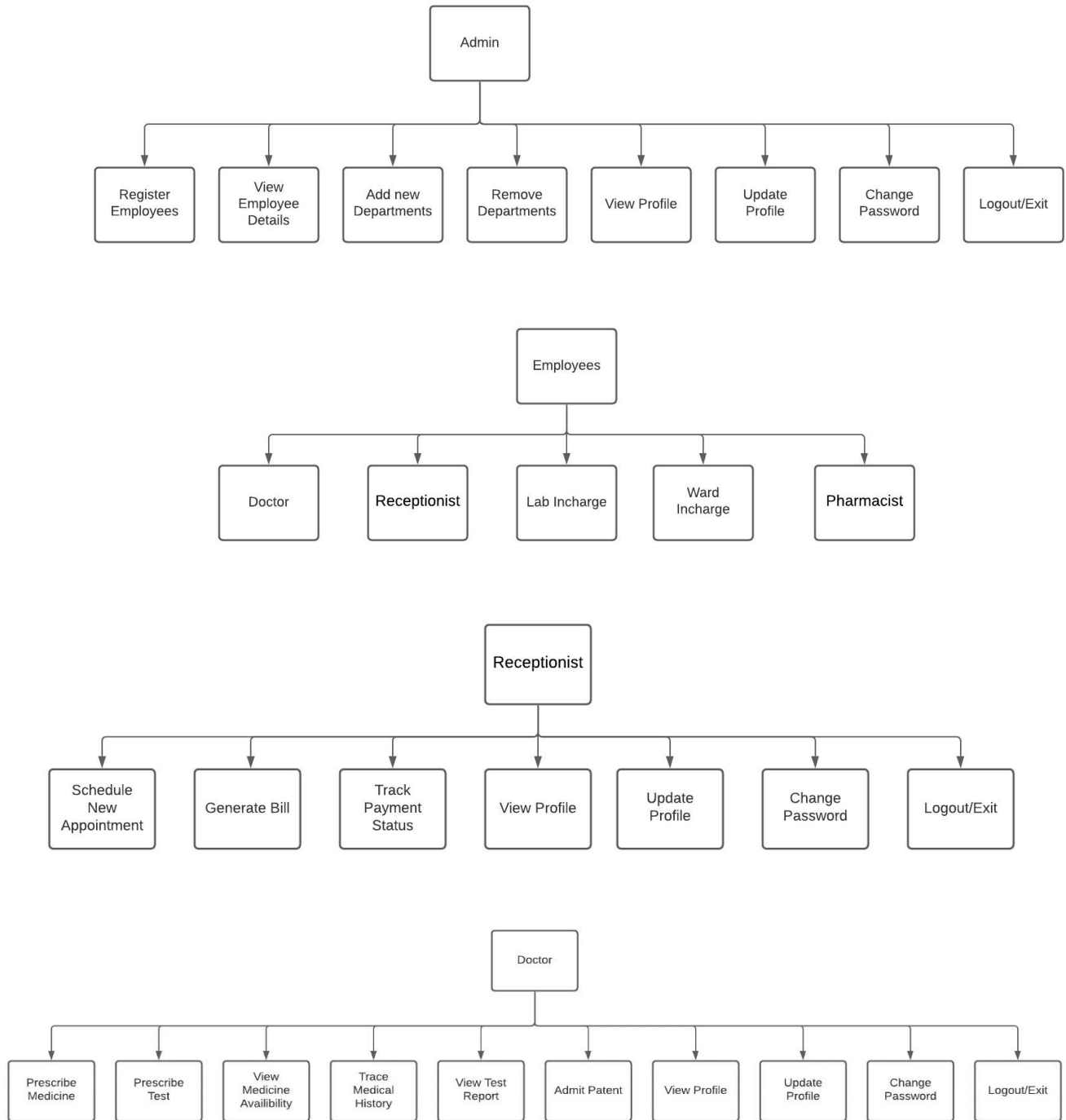


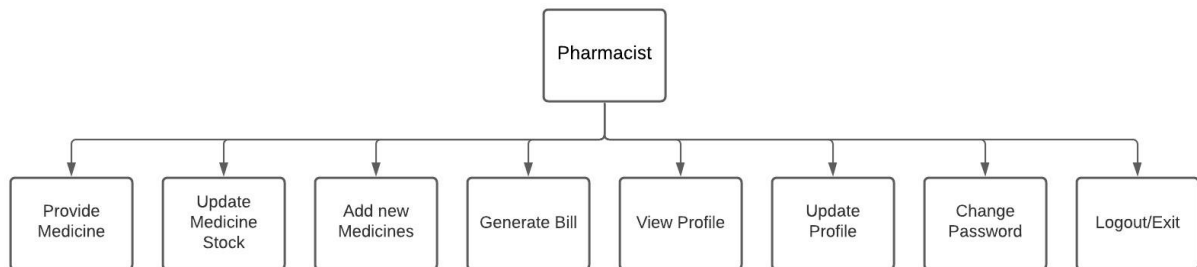
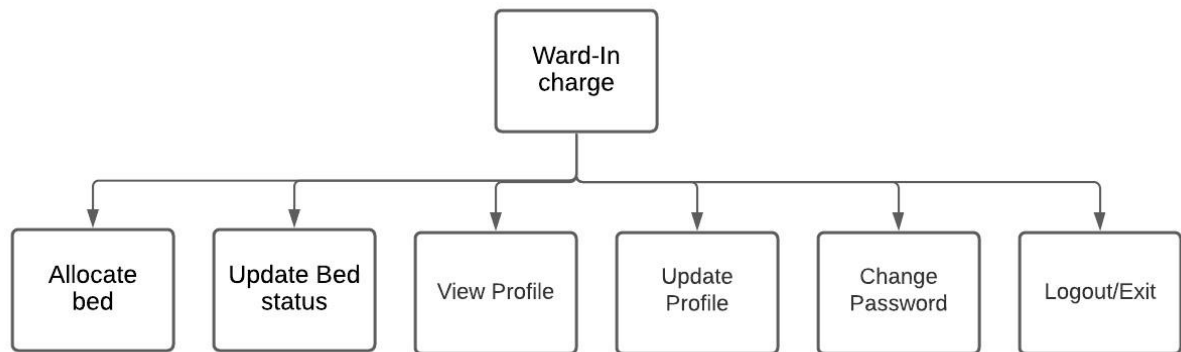
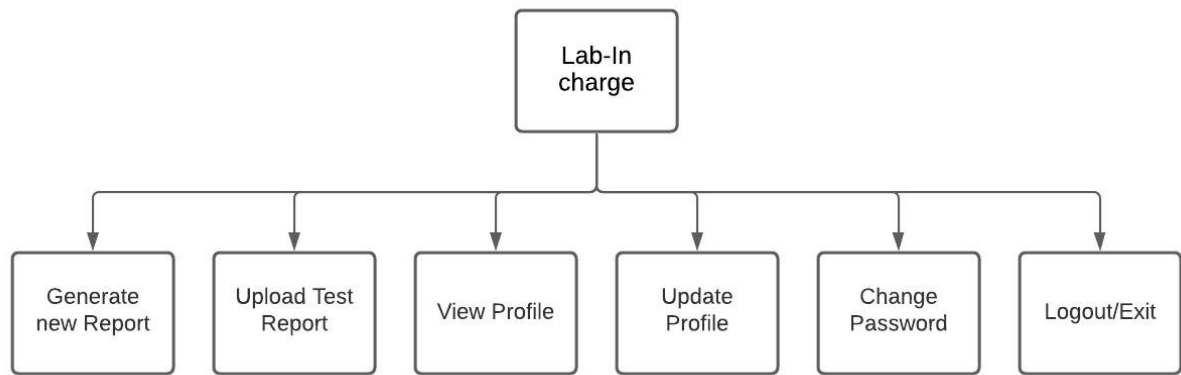
#### 4.4 Sequence Diagram



#### 4.5 Functional Flow Chart

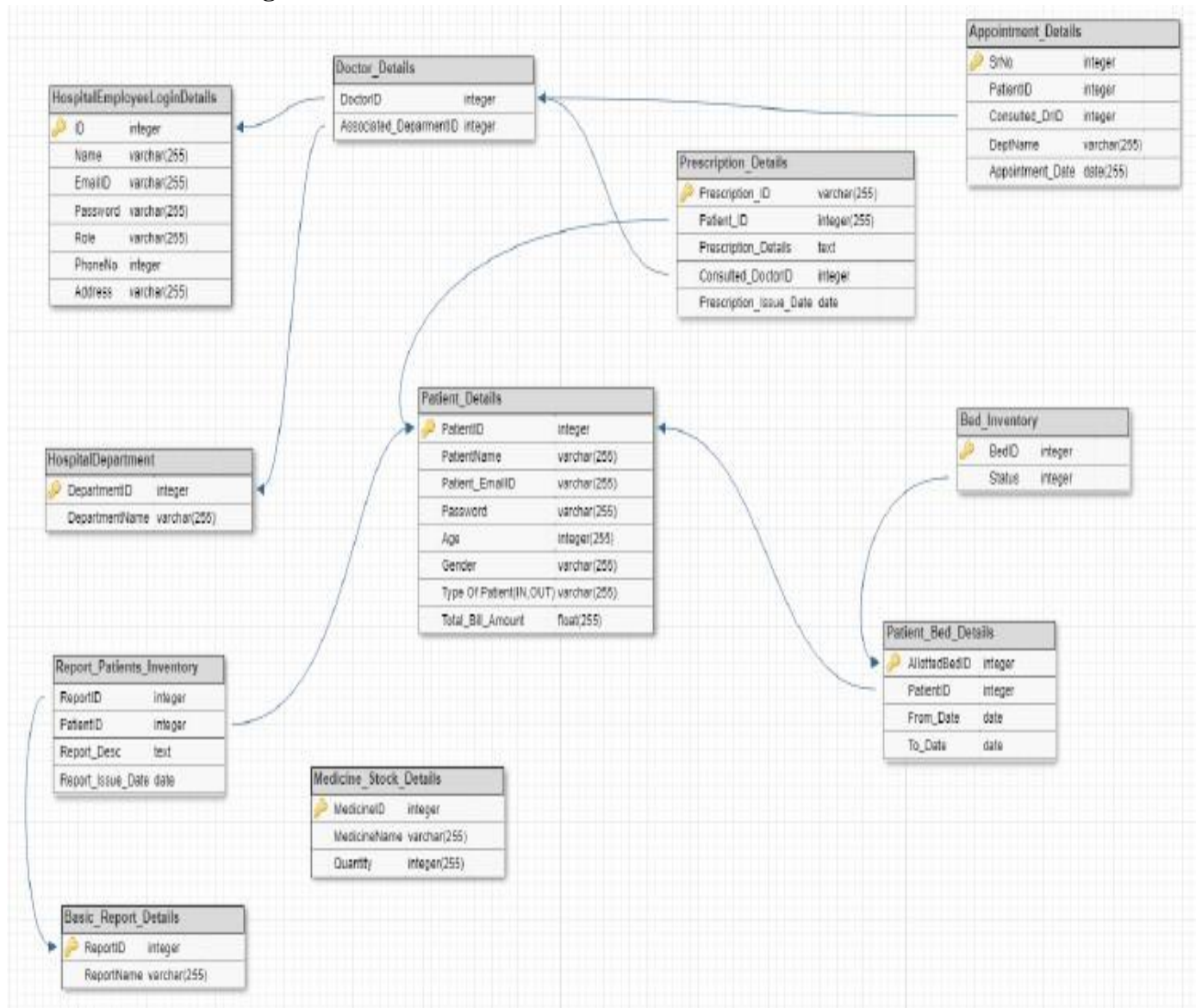




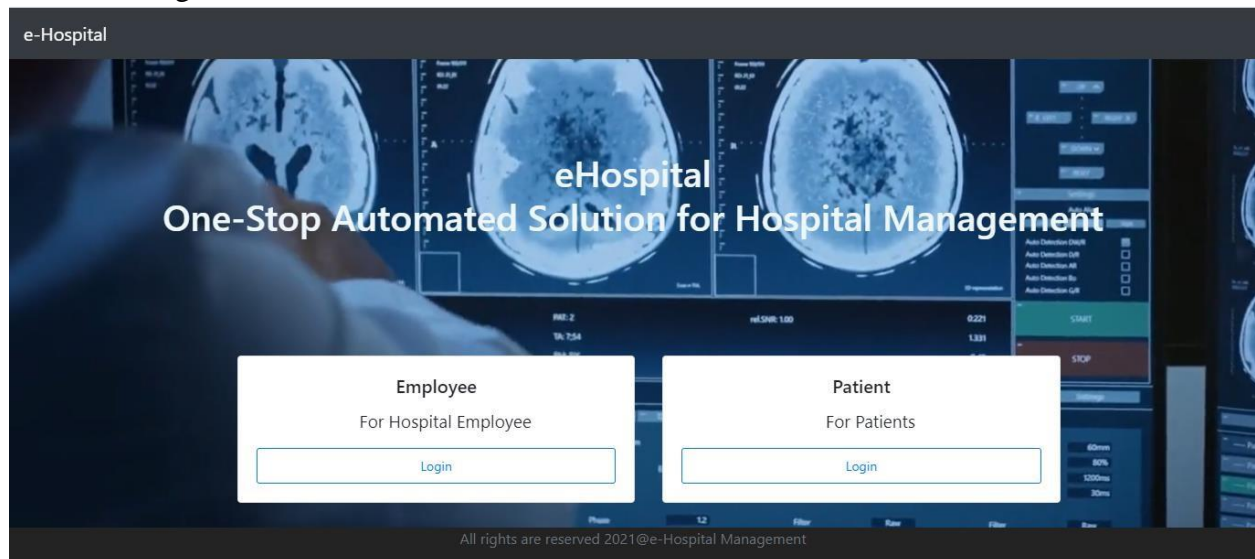




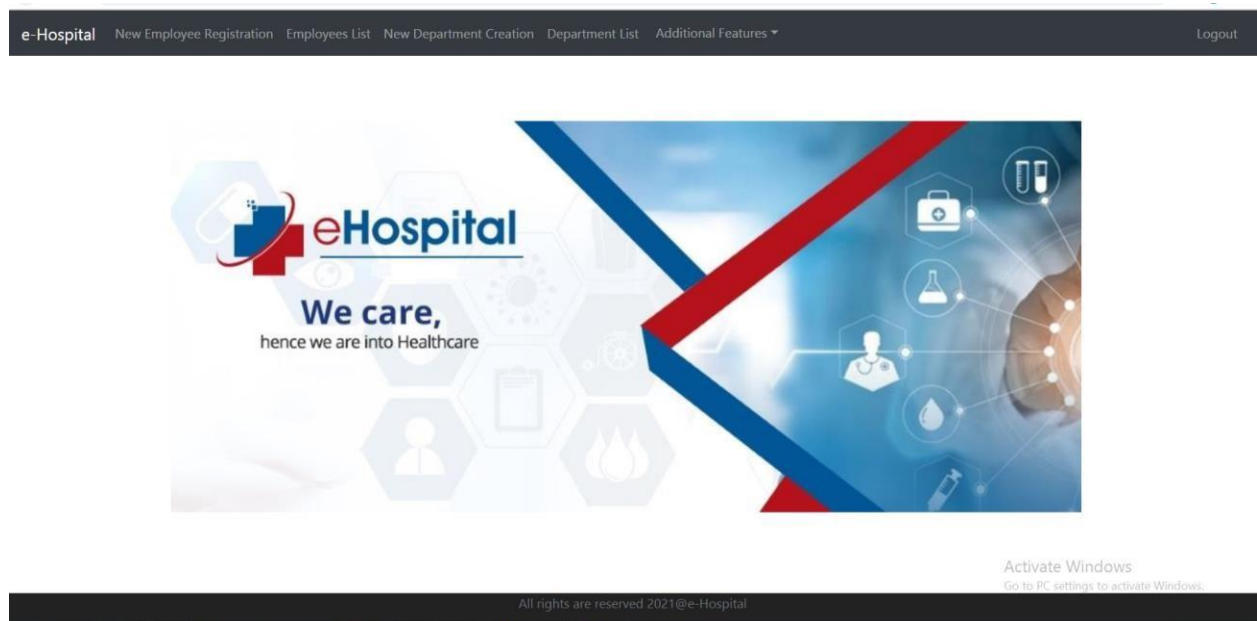
## 4.6 Database Diagram



#### 4.7 Home Page



#### 4.8 Admin Role Landing Page



## New Employee Registration

The screenshot shows a web browser window with the address bar displaying 'localhost:3000/add-employee'. The browser's navigation bar includes 'e-Hospital', 'New Employee Registration', 'Employees List', 'New Department Creation', 'Department List', 'Additional Features', and a 'Logout' button. The main content area features a form titled 'Employee Registration Form' with the following fields: 'Full Name eg.John Doe', 'aaa@example.com', 'Password', 'Choose Employees Role' (a dropdown menu), '+91-XXXXXXXXXX', and 'Employees full address'. A 'Register' button is located at the bottom of the form. In the bottom right corner of the browser window, there is a watermark that says 'Activate Windows Go to PC settings to activate Windows.' and a footer at the very bottom that reads 'All rights are reserved 2021@e-Hospital'.

## Registration Successful with employee Id:-

This screenshot shows the same 'Employee Registration Form' after a successful registration. The form fields are now populated with 'Saket Auti', 'sa@gmail.com', and a green 'Register' button is visible at the bottom. A white modal box is centered on the screen, displaying a green checkmark icon and the text 'Employee registration successful'. Below this, it says 'Please Note this reference id for future reference' and 'Employee Id : 12'. A blue 'Done' button is located at the bottom right of the modal. The background of the browser window is dimmed. The same 'Activate Windows' watermark and 'All rights are reserved 2021@e-Hospital' footer are present.

## List of Employees

← → ↻ localhost:3000/employees 🔍 ☆ ⚙️ 👤 ⋮

e-Hospital New Employee Registration Employees List New Department Creation Department List Additional Features ▾ Logout

List of Employees

Name	Email Id	Role	Phone No.	Address	
Akshit Kaur	aks@gmail.com	ADMIN	9876541230	Pune	<button>Delete</button> <button>Edit</button>
Asmita Kale	as@gmail.com	LABINCHARGE	9876541230	Pune	<button>Delete</button> <button>Edit</button>
Saket Auti	sa@gmail.com	PHARMACIST	9876543210	Pune	<button>Delete</button> <button>Edit</button>
Nidhi Rajurkar	ndr@gmail.com	WARDINCHARGE	7568932014	Pune	<button>Delete</button> <button>Edit</button>
Ayush Rungta	arg@gmail.com	DOCTOR	8956230147	Pune	<button>Delete</button> <button>Edit</button>
Suhani Mishra	suhm@gmail.com	RECEPTIONIST	8520314697	Pune	<button>Delete</button> <button>Edit</button>

Activate Windows  
Go to PC settings to activate Windows.

All rights are reserved 2021@e-Hospital

## Create New Department

e-Hospital New Employee Registration Employees List New Department Creation Department List Additional Features ▾ Logout

Create New Department

Add

Activate Windows  
Go to PC settings to activate Windows.

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## List Of All Departments

localhost:3000/departments

e-Hospital New Employee Registration Employees List New Department Creation Department List Additional Features Logout

### List of Departments

Department Name	
CARDIOLOGY	Delete
GENERAL MEDICINE	Delete
NEUROLOGY	Delete
OPHTHAMOLOGY	Delete

Activate Windows  
Go to PC settings to activate Windows.

All rights are reserved 2021@e-Hospital

## Additional Features : (Access to all functionalities of employees)

localhost:3000/employees

e-Hospital New Employee Registration Employees List New Department Creation Department List Additional Features Logout

### List of Employees

Name	Email Id	Role
Akshit Kaur	aks@gmail.com	ADMIN
Asmita Kale	as@gmail.com	LABINCHARGE
Saket Auti	sa@gmail.com	PHARMACIST
Nidhi Rajurkar	ndr@gmail.com	WARDINCHARGE
Ayush Rungta	arg@gmail.com	DOCTOR
Suhani Mishra	suhm@gmail.com	RECEPTIONIST

- View Prescriptions
- View Medicines
- View Basic Reports
- View Patient Reports
- Patient Registration
- Update Patient
- Patients List
- Search Patient Detail
- Book Appointment for Patient
- Add New Medicine Details
- Update Medicine Details
- List Available Beds
- Bed Inventory
- List Allocated Beds
- Allocate Bed to Patient
- Add New Basic Report
- Update Patient Report

Name	Email Id	Role
Akshit Kaur	aks@gmail.com	ADMIN
Asmita Kale	as@gmail.com	LABINCHARGE
Saket Auti	sa@gmail.com	PHARMACIST
Nidhi Rajurkar	ndr@gmail.com	WARDINCHARGE
Ayush Rungta	arg@gmail.com	DOCTOR
Suhani Mishra	suhm@gmail.com	RECEPTIONIST

Activate Windows  
Go to PC settings to activate Windows.

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## 4.9 Receptionist Role

### Get Patient Details

2

Search Patient

### Patient Details

ID: 2  
Name: Tanmay  
Email: tanmay@gmail.com  
Gender: male  
Age: 15  
Type: IN  
Bill: 600

Update

Delete

All rights are reserved 2021 @e-Hospital

## Update Patient

### Update Patient

Name	Email Address
Tanmay	tanmay@gmail.com
Type Of Patient	Bill
IN	700
Age	
15	

Update

All rights are reserved 2021 @e-Hospital

e-Hospital
Search Patient
Patient List
Create Patient
Book Appointment
Logout

### Patient List

Patient Name	Patient Email	Age	Gender	Bill	Type	Update	Delete
sayali	s@gmail.com	23	female	0	IN	Update	Delete
Tanmay	tanmay@			755	IN	Update	Delete
Manali	sayali@s					Update	Delete
tanu	tanu@g					Update	Delete

Updated Successfully

OK

All rights are reserved 2021@e-Hospital

## Create Patient

e-Hospital
Search Patient
Patient List
Create Patient
Book Appointment
Logout

### Create Patient

Name  
tanu

Email Address  
tanu@gmail.com

Password  
\*\*\*\*\*

Confirm Password  
\*\*\*\*\*

Type Of Patient  
IN

Gender  
Female

Age  
15

Save

All rights are reserved 2021@e-Hospital

e-Hospital
Search Patient
Patient List
Create Patient
Book Appointment
Logout

### Patient List

Patient Name	Patient Email	Age	Gender	Bill	Type	Update	Delete
sayali	s@gmail.com	23	female	0	IN	Update	Delete
Tanmay	tanmay@					Update	Delete
Manali	sayali@					Update	Delete
tanu	tanu@					Update	Delete

Patient Added Successfully!

OK

All rights are reserved 2021@e-Hospital

## Book Appointment

e-Hospital
Search Patient
Patient List
Create Patient
Book Appointment
Logout

### Book Appointment

Department Name

Gynaecology

Doctor Id-Name

1-rst

Patient Name

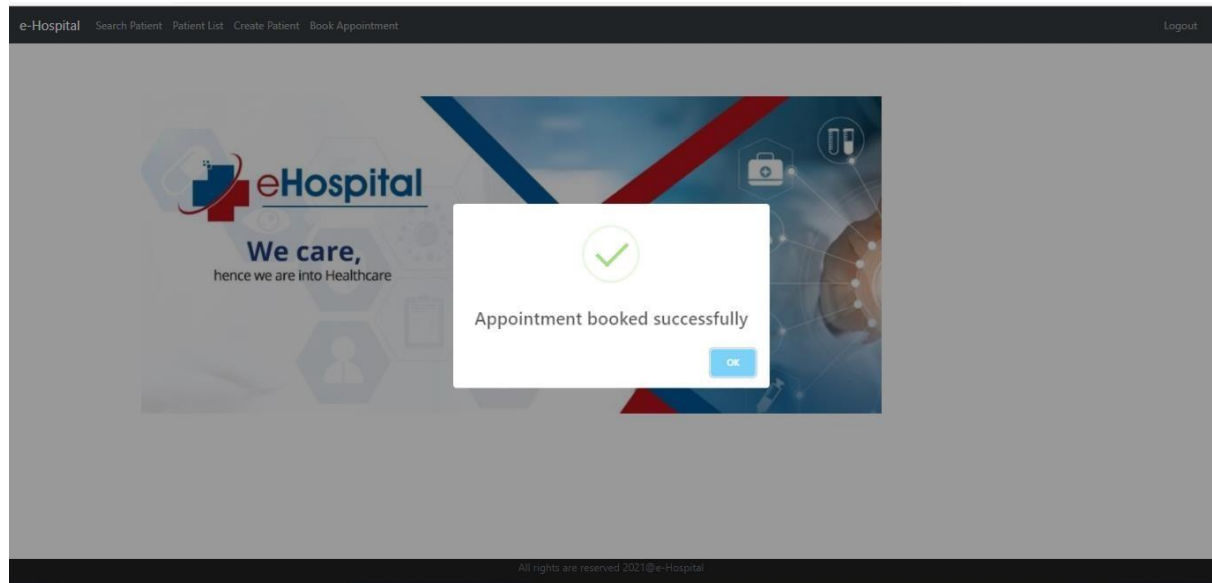
4-Manali

Date

2021/09/30 Thu 02:00 PM

Book Now





## 4.10 Doctor Role

### Create Prescription

The screenshot shows the "Create Prescription" form within the e-Hospital system. The header includes the e-Hospital logo and navigation links: Add Prescription, View Medicines, View Prescription, View Patient Report, and Logout. The form is titled "Create Prescription" and contains the following fields:

- Doctor ID: A dropdown menu with the value "d" selected.
- Patient ID: A text input field with the value "0".
- Enter Patient diagnosis: A text input field.
- Enter Prescription: A large text area for entering the prescription details.
- dd- - - - - yyyy: A date selection field with a calendar icon.
- Save: A green button to submit the form.

The footer contains the text "All rights are reserved 2021@e-Hospital" and a Windows activation watermark that reads "Activate Windows Go to PC settings to activate Windows".

localhost:3000/addPrescription

e-Hospital Add Prescription View Medicines View Prescription View Patient Report Logout

### Create Prescription

Doctor ID :  
5

Patient ID :  
2

Severe HeadAche

Tablets : Crocin - 1 tablet per day post meal

27-Sep-2021


Save

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localhost:3000/prescription

e-Hospital Add Prescription View Medicines View Prescription View Patient Report Logout



### Prescription Added Successfully

Prescription Added Successfully

Done

Activate Windows

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## View Prescriptions

[←](#) [→](#) [🔄](#) [localhost:3000/viewPrescription](#) [🔍](#) [☆](#) [⚙️](#) [👤](#) [⋮](#)

[e-Hospital](#) [Add Prescription](#) [View Medicines](#) [View Prescription](#) [View Patient Report](#) [Logout](#)

### Prescription Details

Prescription ID	Patient Name	Diagnosis	Prescription	Prescription Date
1	Bhavesh Talele	High Fever since 5-6 days	Tablets: Paracetamol -- 2 times per day post lunch for 5 days	2021-09-27
2	Bhavya Desai	Severe HeadAche	Tablets : Crocin - 1 tablet per day post meal	2021-09-27

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## View Medicine Stock

[←](#) [→](#) [🔄](#) [localhost:3000/viewMedicine](#) [🔍](#) [☆](#) [⚙️](#) [👤](#) [⋮](#)

[e-Hospital](#) [Add Prescription](#) [View Medicines](#) [View Prescription](#) [View Patient Report](#) [Logout](#)

### Medicine Stock Details

Medicine ID	Medicine Name	Quantity
1	Paracetamol	150
2	Crocin	200
3	Benadryl Syrup	220
4	Zincovit	150
5	Dolo 500mg	165

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## Get Patient Report

← → ↻ localhost:3000/getPatientReportByPatientID 🔑 ☆ ⚙️ 6

e-Hospital Add Prescription View Medicines View Prescription View Patient Report Logout

Get Patient Report Details

1

Get Reports

### Patient Reports

Report Name	Report Issue Date	
Sonography	2021-09-23	<div>View Report</div>

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## 4.11 Pharmacist Role

### Add Medicine Page

e-Hospital Add Medicine List Medicine Logout

Add New Medicine to Stock

Azithromycin

220

Save Medicine Details

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e-Hospital
Add Medicine
List Medicine
Logout

### Medicine Inventory

Medicine ID	Medicine Name	Quantity		
6	Paracetamol			Delete Medicine Details
7	Dolo 500mg			Delete Medicine Details
9	Benadryl Syrup			Delete Medicine Details
10	Crocina			Delete Medicine Details
11	Sinarest			Delete Medicine Details
13	HylaFusion Eye Drop	50	Update Quantity	Delete Medicine Details
15	Azithromycin	220	Update Quantity	Delete Medicine Details

**Medicine Added Successfully**

Medicine Added Successfully

Done

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## List Medicine

e-Hospital
Add Medicine
List Medicine
Logout

### Medicine Inventory

Medicine ID	Medicine Name	Quantity		
6	Paracetamol	280	Update Quantity	Delete Medicine Details
7	Dolo 500mg	250	Update Quantity	Delete Medicine Details
9	Benadryl Syrup	220	Update Quantity	Delete Medicine Details
10	Crocina	320	Update Quantity	Delete Medicine Details
11	Sinarest	215	Update Quantity	Delete Medicine Details
13	HylaFusion Eye Drop	50	Update Quantity	Delete Medicine Details
15	Azithromycin	220	Update Quantity	Delete Medicine Details

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## Update Medicine Page

e-Hospital

Add MedicineList Medicine

Logout

Update Medicine Details

220

Update Medicine

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## Delete Medicine

e-Hospital

Add MedicineList Medicine

Logout

Medicine Inventory

Medicine ID	Medicine Name	Quantity		
6	Paracetamol	200		Delete Medicine Details
9	Benadryl Syrup	100		Delete Medicine Details
10	Crocina	100		Delete Medicine Details
11	Sinarest	100		Delete Medicine Details
13	HylaFusion Eye Drop	50	Update Quantity	Delete Medicine Details
15	Azithromycin	220	Update Quantity	Delete Medicine Details

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## 4.12 Ward Incharge Role:

### Check Bed Statue:

The screenshot shows a web browser at localhost:3000/bedinventory. The navigation bar includes 'e-Hospital', 'Check Beds Availability', 'Bed-Inventory', 'Check Allocated Bed List to Patients', and a 'Logout' link. The main heading is 'Bed Inventory', followed by an 'Add New Bed' button. Below is a table with 8 rows, each representing a bed with its ID and status.

Bed ID	Status
1	Allocated
2	Allocated
3	Available
4	Available
5	Available
6	Available
7	Available
8	Available

At the bottom right, there is a 'Activate Windows' watermark with the text 'Go to PC settings to activate Windows.' and a footer stating 'All rights are reserved 2021@e-Hospital'.

### Allocate Bed

The screenshot shows a web browser at localhost:3000/beds. The navigation bar is identical to the previous screenshot. The main heading is 'List of Available Beds'. Below is a table with 8 rows, each representing an available bed with its ID, status, and an 'Allocate Bed to Patient' button.

Bed ID	Status	Action
3	Available	Allocate Bed to Patient
4	Available	Allocate Bed to Patient
5	Available	Allocate Bed to Patient
6	Available	Allocate Bed to Patient
7	Available	Allocate Bed to Patient
8	Available	Allocate Bed to Patient
9	Available	Allocate Bed to Patient
10	Available	Allocate Bed to Patient

Similar to the first screenshot, it includes a 'Activate Windows' watermark and a footer: 'All rights are reserved 2021@e-Hospital'.

localhost:3000/allocateBedToPatient

e-Hospital | [Check Beds Availability](#) | [Bed-Inventory](#) | [Check Allocated Bed List to Patients](#) | [Logout](#)

### Allocate Bed To Patient

Allocate Bed to Patient

Activate Windows  
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localhost:3000/bedInventory

e-Hospital | [Check Beds Availability](#) | [Bed-Inventory](#) | [Check Allocated Bed List to Patients](#) | [Logout](#)

### Bed Inventory

Add New Bed

Bed ID	Status
1	Allocated
2	Allocated
3	Allocated
4	Available
5	Available
6	Available
7	Available
8	Available

**Bed Allocation Successful**  
Bed ID :3 allocated to 4

Done

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Allocated Bed Status:



← → ↻ localhost:3000/allocatedBeds

e-Hospital Check Beds Availability Bed-Inventory Check Allocated Bed List to Patients Logout

### List of Allocated Beds to Patient

Bed ID	Patient ID	From Date	To Date
1	1	2021-09-28	2021-09-29
2	3	2021-09-28	2021-10-02
3	4	2021-09-28	2021-10-04

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#### 4.13 Lab Incharge Role:

##### Add New Basic Report

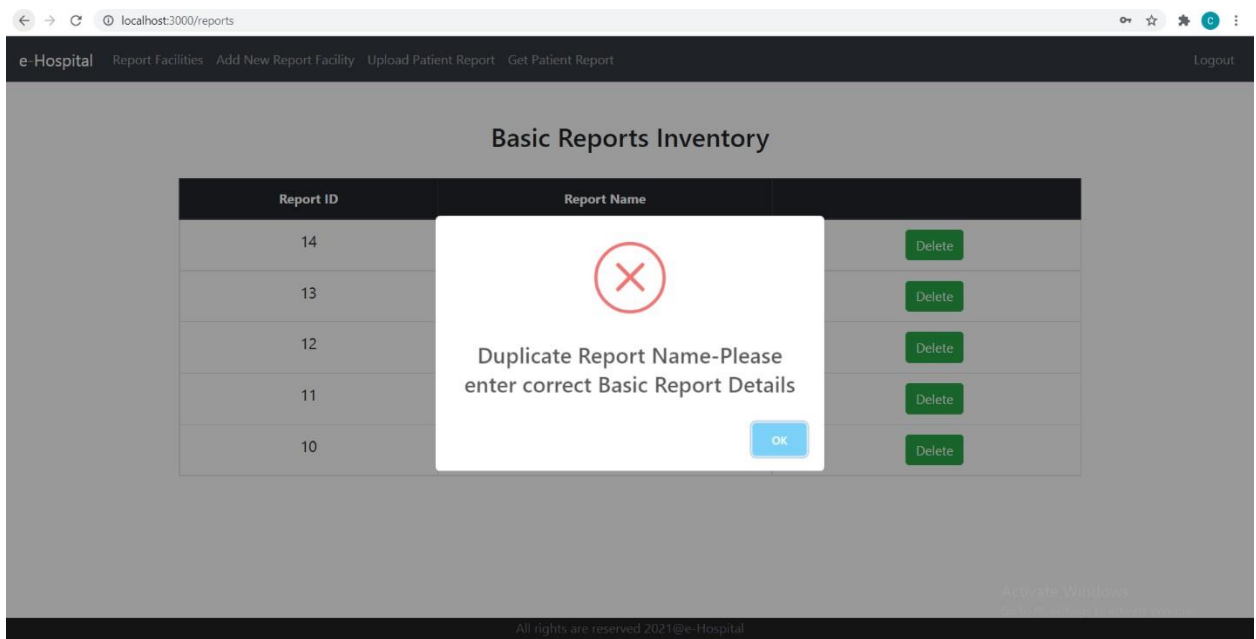
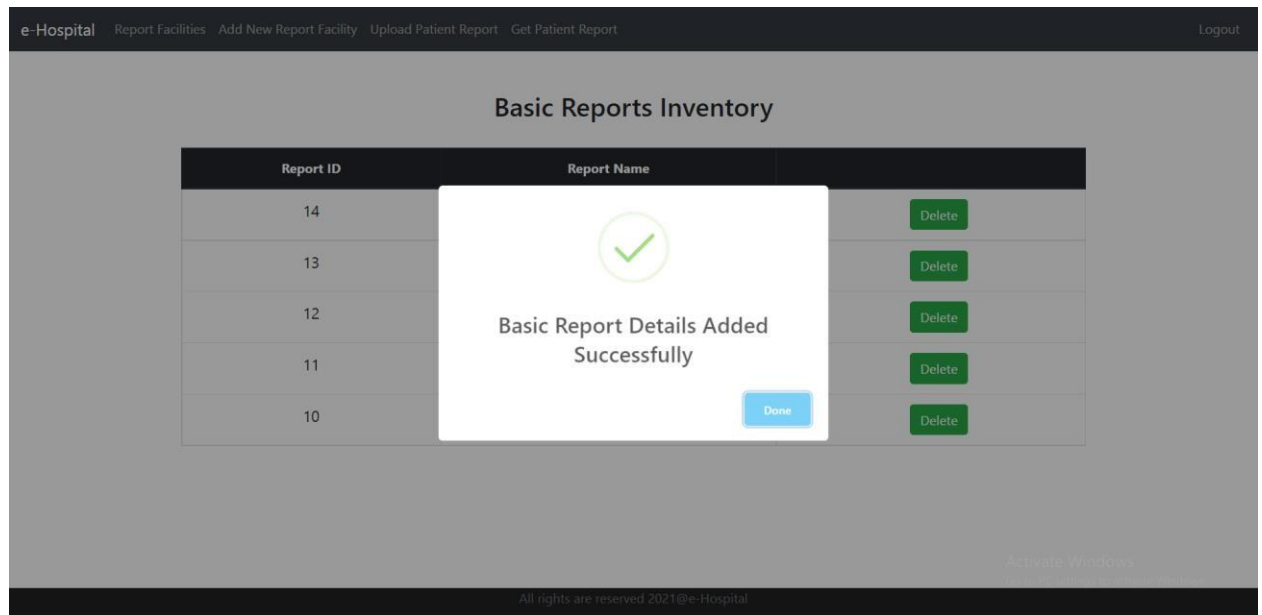
← → ↻ localhost:3000/addNewBasicReport

e-Hospital Report Facilities Add New Report Facility Upload Patient Report Get Patient Report Logout

#### Add New Basic Report

Activate Windows  
Go to PC settings to activate Windows.

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### List of Basic Reports

## Basic Reports Inventory

Report ID	Report Name	
14	Blood Test	Delete
13	CTScan	Delete
12	MRI	Delete
11	Sonography	Delete
10	Xray	Delete

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## Update Patient Report

### Upload Patient Report

Report Name
CTScan

Patient ID :
1

Report Issue Date :
26-Sep-2021

Choose File
TestReport1ForPatient1.pdf

Upload Patient Report

## Patient Reports Inventory

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## Search Patient Report

← → ↻ localhost:3000/getPatientReportByPatientID ☆ ⚙️ 🔍

e-Hospital Report Facilities Add New Report Facility Upload Patient Report Get Patient Report Logout

### Get Patient Report Details

1

Get Reports

### Patient Reports

Report Name	Report Issue Date	
Sonography	2021-09-30	<div>View Report</div>
CTScan	2021-09-26	<div>View Report</div>

Activate Windows  
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## 4.14 Patient Login

### Profile Details

e-Hospital MyDetails View Prescription View Appointment View Report Logout

### Patient Details

ID: 2

Name: Tanmay

Email: tanmay@gmail.com

Gender: male

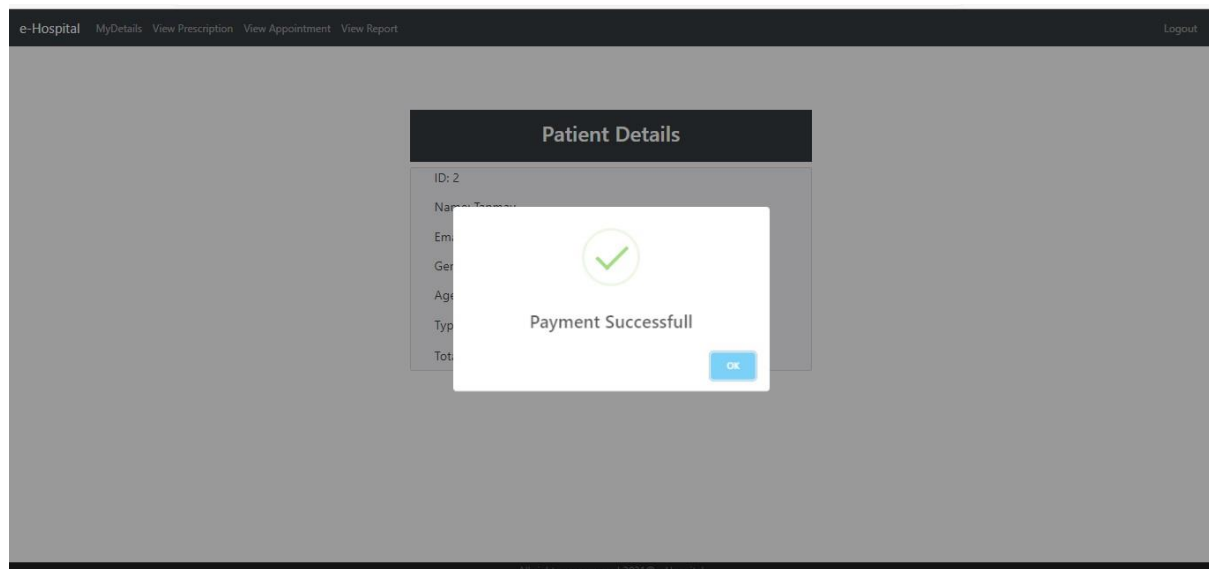
Age: 15

Type: IN

Total Bill Amount: 700

Pay

## Payment Successful



## Prescription History of Patient

e-Hospital

MyDetails

View Prescription

View Appointment

View Report

Logout

Patient Prescription List

Prescription Id	Date	Doctor Name	Prescription	Diagnosis
1	2021-09-26	jkl	Paracetamol 4, Ibuprofen 6, Omez 6	fever

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## Appointment History

e-Hospital MyDetails View Prescription View Appointment View Report

Logout

### Patient Appointment List

Date	Time	Doctor Name	Doctor Email	Department Name
2021-09-30	03:12:57	rst	rst@g.com	Gynaecology

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## Patient Report

e-Hospital MyDetails View Prescription View Appointment View Report

Logout

### Patient Report List

Report Download Link	Size
Download here → <a href="#">Report no- 1</a>	size: 115 KB

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## CHAPTER-5

### 5.Testing:

The report of the testing is given here under.

#### Test Cases

Sr. No	Test Case Title	Description	Expected Outcome	Error Message	Result
1.	Home Page	Hospital employee or patient should see login page when he will enter email and password.	After signing in user to be directed to home page of their respective role	Invalid Login	Passed
2.	Admin Login Landing Page	Admin should be able to create or delete new or old departments. And should be able to edit, add or delete the existing or new employee details.	After committing changes to the database, an alert should pop up with a respective message.	No error	Passed
3.	New Employee Registration	Admin should be able to register a new employee	Employee registered successfully	Invalid Input	Passed
4.	New Department Creation	Admin should be able to Create a new Department in the Hospital	New Department Created successfully	Invalid Input	Passed
5.	List Of All Departments	Admin should be able to view the list of all departments	list of all registered departments in the Hospital	No error	Passed
6.	Receptionist Login	Receptionist should be able to fetch the Patient data. As well	After committing changes to the database, an alert	No error	Passed

	Landing Page	as being able to create appointments for new patients and edit or add new or existing patient data.	should pop up with a respective message.		
7.	Create Patient	Receptionist should be able to register a new patient	Patient added successfully	Invalid Input	Passed
8.	Update Patient	Receptionist should be able to update the details of the registered patients	Updated successfully	Invalid Input	Passed
9.	Book Appointment	Receptionist should be able to book an appointment for the patient	Appointment booked successfully	Invalid Input	Passed
10.	Doctor Role Landing Page	Doctors should be able to fetch Patient reports and Medicine stock details. And also they can create and view prescriptions for any patient.	After committing changes to the database, an alert should pop up with a respective message.	No error	Passed
11.	Create Prescription	Doctor should be able to add a prescription to a registered patient of the hospital	Prescription added successfully	Invalid Input	Passed
12.	Get Patient Report	Doctor can view the report of a patient	Report List of the patient	Empty list	Passed
13.	Pharmacist Role Landing Page	Pharmacists should be able to add, view and delete the medicines list in the medicine stock database. And they can also edit any medicine details.	After committing changes to the database, an alert should pop up with a respective message.	No error	Passed
14.	Add Medicine	Pharmacist can add any new medicine to the hospital stock	Medicine added successfully	Invalid Input	Passed



15.	Update Medicine Page	Pharmacist can update the medicine stocks	Medicine updated successfully	Invalid Input	Passed
16.	Delete Medicine Page	Pharmacist can delete the medicine available in the hospital	Medicine deleted successfully	No Error	Passed
17.	Ward Incharge Page	Ward Incharge should be able to check the bed availability status and will be able to allocate the available beds.	After committing changes to the database, an alert should pop up with a respective message.	No Error	Passed
18.	Check Bed Status	Ward Incharge can check the bed status of patient admitted in the hospital	Bed status of the patient	No Error	Passed
19.	Bed Inventory	Ward Incharge can add a new bed for a patient in the hospital	Bed allocation successful	Invalid Input	Passed
20.	Lab Incharge Page	Lab Incharge should be able to add or delete the report. And he will be able to view and update any patient details.	After committing changes to the database, an alert should pop up with a respective message.	Duplicate Report Name	Passed
21.	Add New Report facility	Lab Incharge can upload the reports of patients to the hospital database	Report added successfully	Invalid Input	Passed
22.	Search Patient Report	Lab Incharge can view the reports of patients from the hospital database	Report list	No Error	Passed
23.	Patient Login Page	Patients will be able to fetch data of Report, Appointment History, Prescription History and Profile details. And also will	After payment an alert should pop up with a respective message.	No Error	Passed

		be able to make payments.			
24.	Profile Details page	Patient can view his details and payment status	Payment successful	No Error	Passed
25.	View prescription page	Patient can view his prescription list prescribed by different doctors of the hospital	List of prescription	No Error	Passed
26.	View appointment page	Patient can view his appointment list here	History of appointments of the patient	No Error	Passed
27.	Sign Out	Employee/Patient should be able to logout from the web application	User will logout and will be redirected to the Home page.	No Error	Passed

## **CHAPTER-6**

### **6.FUTURE SCOPE :**

1. We will provide payment gateway to the user so that he can also pay through online mode.
2. We will be adding an online help for the users and chatting with website administrator.