

## **Course -631 : Database Management System Design**

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**Term project**

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# **1. Application Requirements**

Develop a 3 Web-based applications Newark Medical Associates as shown below:

## **a. Patient Management**

- Insert new patient records
- View patient details and delete patients
- Schedule appointments with doctors
- View scheduled appointments filtered by doctor and date
- Access history of diagnoses and illnesses

## **b. In-patient Management**

- Check room availability
- Assign,view and remove patients to/from rooms and beds
- Assign,view and remove doctors to/from patients
- Assign,view and remove nurse to/from patients
- Check current room assignments
- Book surgeries
- View scheduled surgeries

## **c. Medical Staff Management**

- Add ,View or remove staff members
- View staff by job type using filter
- Schedule work shifts
- Delete job shifts

## **1.1 System Requirements:**

Frontend: HTML5 + Bootstrap, JavaScript

Backend: Python, FastAPI

Database: MySQL 8.0+

Authentication: JSON Web Tokens (JWT)

API Design: RESTful API

Browsers: Chrome, Firefox

Operating System : Windows 11

Software tools: VS Code, Git Hub

**Git-Hub** is a **version control system** that lets you track changes in your code, collaborate with others, and manage multiple versions of your project efficiently. It's essential for managing development history, especially in team projects or open-source work. Git Hub

**Visual Studio Code** is the recommended development environment for this application because of its ease of use, cross-platform support, and strong compatibility with technologies like Python, FastAPI, SQL, HTML, and CSS. It offers built-in Git integration, a powerful extension ecosystem (e.g., Python, Pylance, SQLTools), and integrated tools for terminal access and debugging, making it ideal for efficient and scalable development.

## **1.2 Justification and Design Decisions:**

### **1. Framework Selection (FastAPI)**

Chose FastAPI for its high performance, async support, and automatic documentation generation via Swagger UI.

### **2. Database Choice (MySQL)**

Used MySQL for storing the data, it is scalable and reliable for relational data and its structured schema aligns with ERD design.

### **3. Software Tools: VS Code, GitHub**

Chose development and version control tools because we had to both work together and it made easier to exchange and use files.

**VS Code** is lightweight, extensible, and offers rich support for Python, HTML, and Git integration.

**GitHub** is essential for version control, collaboration, and backup during development.

#### **4.API Design: RESTful API**

It simplifies frontend-backend integration and ensures clarity with standard HTTP methods (GET, POST, PUT, DELETE).

#### **5.Browsers: Chrome, Firefox**

#### **Operating System : Windows 11**

They support all modern HTML5, CSS3, and JavaScript features. Widely used and reliable for cross-platform testing. As we both have Chrome and Windows 11, and most people have it, it's become a default choice for us.

#### **6.API Design: RESTful API**

It simplifies frontend-backend integration and ensures clarity with standard HTTP methods (GET, POST, PUT, DELETE).

#### **7. Modular App Structure**

**Design Decision: How to organize functionality (e.g., Patients, Staff, Inpatients)**

**Decision Made: Separate apps for each major entity (e.g., Patients, In-patients and Staff) to have:**

- Encourages modularity and reusability.
- Helps isolate features for testing, debugging, and expansion.

#### **8. Make Patient and Staff first**

**Design Decision: Which modules to make first? (e.g., Patients, Staff, In-patients)**

**Decision Made: Make Patient first, then Staff and then Inpatient:**

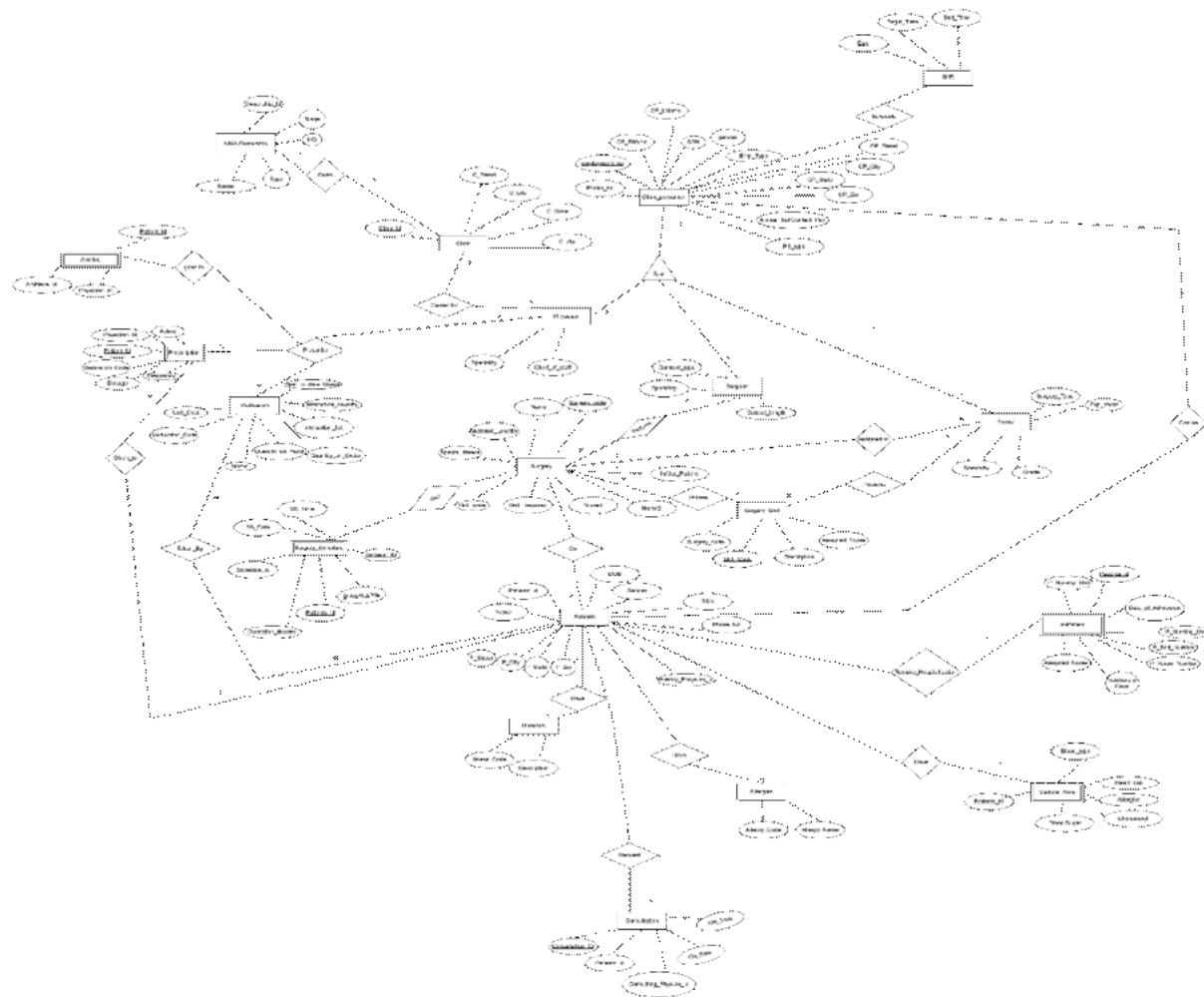
- As In-patient is dependent on Patient and Staff modules.
- Helps test and make features of individual modules – Patient and Staff easier as they are independent of each other.

## 2.ER Diagram (Draw.io)

Link -

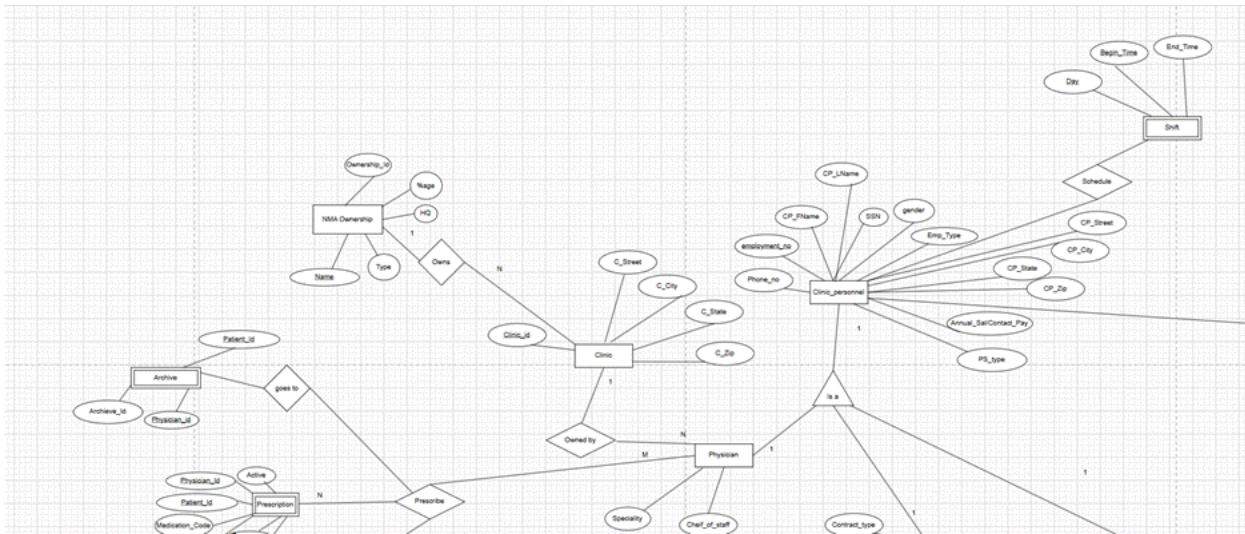
<https://app.diagrams.net/#G11mTqAaAEtEuKzR0WjFwaa8EYYYF-1V1G#%7B%22pageId%22%3A%22qlN1j-kzBrw9Kcp9bQl8%22%7D>

### ER Diagram – Whole Image

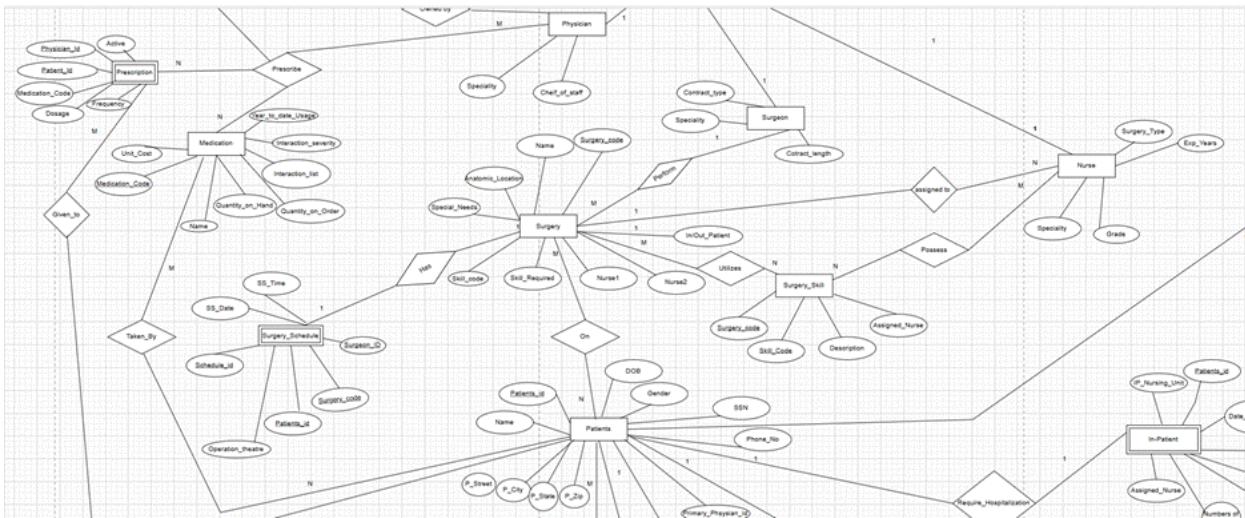


## **2.1 Section by Section diagrams (for Enhanced Visibility)**

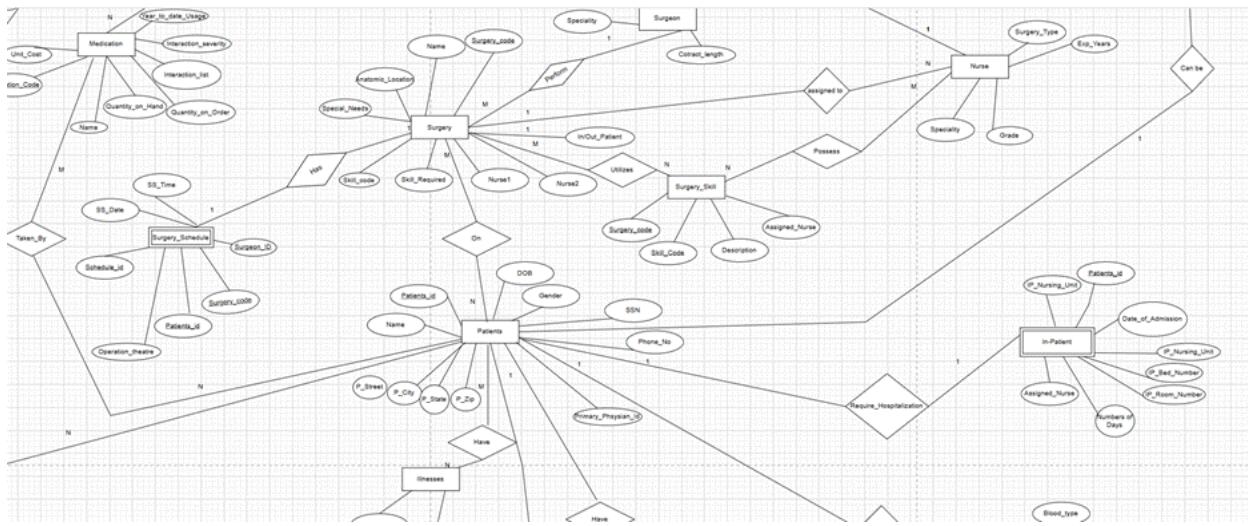
1.



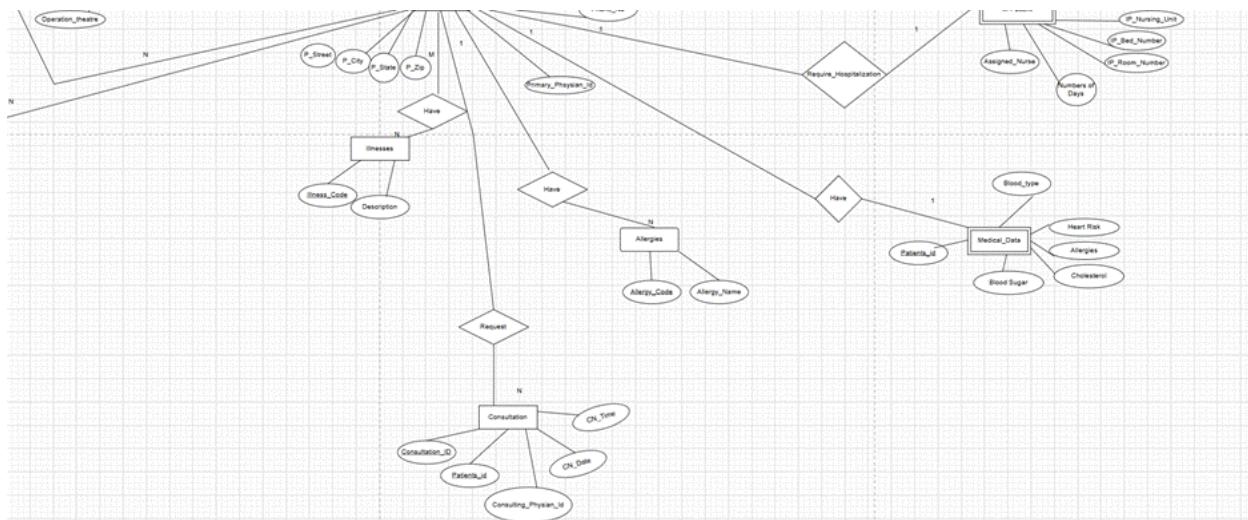
2.



3.



4.



## **2.2 Step-By-Step Mapping:**

### **Step 1 - Handling Entities**

- 1.NMA Ownership(Name, Ownership\_Id, %age, HQ, Type)
2. Clinic(Clinic\_id, C\_Street, C\_city, C\_state, C\_Zip)
3. Clinic Personnel(employment\_no, Phone\_no, CP\_FName, CP\_LName, SSN, gender, Emp\_Type, CP\_Street, CP\_City, CP\_State, CP\_Zip, Annual\_Sal/Contract\_Pay, PS\_type)
4. Surgery(Surgery\_code, Name, Anatomic\_Location, Special\_Needs, Skill\_code, Skill\_Required, Nurse1, Nurse2, In/Out\_Patient)
5. Surgery Skill(Skill\_Code, Surgery\_Code, Description, Assigned\_Nurse)
6. Medication(Medication\_Code, Unit\_Cost, Name, Quantity\_on\_Hand, Quantity\_on\_Order, Interaction\_list, Interaction\_severity, Year\_to\_date\_Usage)
7. Patients(Patients\_id, Name, DOB, Gender, P\_Street, P\_City, P\_State, P\_Zip, Primary\_Physician\_Id)
8. Illness(Illness\_Code, Description)
9. Allergies(Allergy\_Code, Allergy\_Name)
10. Consultation(Consultation\_ID, Consulting\_Physian\_Id, Patients\_id, CN\_Date, CN\_Time)

### **Step 2 - Weak Entities**

1. Medical Data(Patients\_id, Blood\_type, Blood\_Sugar, Heart\_Risk, Allergies, Cholesterol)
2. In-Patient(Patients\_id, IP\_Nursing\_Unit, Date\_of\_Admission, IP\_Nursing\_Unit, IP\_Bed\_Number, IP\_Room\_Number, Number\_of\_Days, Assigned\_Nurse)
3. Prescription(Physician\_Id, Patient\_Id, Medication\_Code, Active, Dosage, Frequency)
4. Archive(Archive\_Id, Physician\_Id, Patient\_Id), [if any one wants to search for data for existing patient or surgeon will look for Physician\_id and Patient\_id combined as primary key]
5. Surgery Schedule(Schedule\_id, Surgeon\_ID, Surgery\_code, Patient\_Id, SS\_Date, SS\_Time, Operation\_Theatre)

### **Step 3 - One to One Relationships**

1. Patients :Medical\_data

Patients has Medical\_data

Medical Data(Patients\_id,Blood\_type, Blood\_Sugar, Heart\_Risk,Allergies, Cholesterol)

Where Patients\_id is Foreign key.

2. Patients:In-Patient

Patients Require\_Hospitalization In-Patient

In-Patient(Patients\_id,IP\_Nursing\_Unit, Date\_of\_Admission, IP\_Nursing\_Unit, IP\_Bed\_Number,IP\_Room\_Number, Number\_of\_Days, Assigned\_Nurse)

Where Patients\_id is Foreign key.

### **Step 4 - One to N Relationships**

1. **Surgery has Surgery\_Schedule**

Surgery has Surgery\_Schedule

Surgery Schedule(Schedule\_id, Surgery\_code,Patient\_Id, SS\_Date, SS\_Time, Operation\_Theatre) where Schedule\_id is primary key.

### **2. Surgeon perform Surgery**

**Reason:** A surgeon can perform many surgeries, each surgery is done by one surgeon.

Surgery(Surgery\_code, Name, Anatomic\_Location, Special\_Needs, Skill\_code, Skill\_Required, Nurse1, Nurse2, In/Out\_Patient) where Where Surgery\_code is primary key.

### **3. Physician Prescribe Prescription**

**Reason:** A prescription is typically written by one physician but a physician can write many.

Prescription(Physician\_Id,Patient\_Id, Medication\_Code,Active, Dosage, Frequency) where Physician\_Id,Patient\_Id, Medication\_Code become super key.

### **4. Patients request consultation**

**Reason:** A patient can request many consultations, each consultation is tied to one patient.

Consultation(Consultation\_ID,Consulting\_Physian\_Id,Patients\_id,CN\_Date, CN\_Time)

Where Consultation\_ID is Primary key and Consulting\_Physian\_Id,Patients\_id is foreign key.

## **Step 5: Many to Many Relationships (Cardinality: M:N)**

### **1. Surgery Utilizes Surgery\_Skill**

**Reason:** A surgery can require multiple skills, and a skill can be used in many surgeries.

Surgery Skill(Skill\_Code,Surgery\_Code, Description, Assigned\_Nurse) where Skill\_Code is Primary Key.

### **2. Physician Prescribe Medication**

**Reason:** A physician can prescribe many medications, and a medication can be prescribed by many physicians.

Medication(Medication\_Code,Unit\_Cost,Name, Quantity\_on\_Hand, Quantity\_on\_Order,Interaction\_list, Interaction\_severity,Year\_to\_date\_Usage)

Where Medication\_Code is Primary Key.

### **3.Patients have illnesses**

**Reason:** A patient can have multiple illnesses; each illness can affect multiple patients.

Illness(Illness\_Code, Description)

Where Illness\_Code is Primary key.

### **4.Patients have allergies**

**Reason:** Similar to illnesses, many-to-many.

Allergies(Allergy\_Code, Allergy\_Name)

Where Allergy\_Code is Primary key.

### **Step 6: Multivalued Attributes**

**Phone number :** As one person can have many contact numbers

**Illness:** As one person can have many illness.

**Quantity\_on\_order:** As it may be on order from different vendors and in different amounts

**Interaction\_list** (can have many types of interactions)

**Dosage:** Can have different type of Dosage depending on symptoms i.e., if symptoms are less severe with time then Dosage might reduce

### **Step 7 - Higher Order Relationships**

We have handled all relationships as binary or handled as entities for the purpose of this project.

### **Step 8 - Specialization**

Physician, Nurse, Surgeon and Support\_Staff are Specialization of Clinic\_personnel Entity and inherit it. employment\_no is the primary key of the Clinic\_personnel Entity. employment\_no is the foreign key in the tables below -

1. Physician(employment\_no, Speciality, Chief\_of\_Staff)
2. Surgeon(employment\_no, Contract\_type, Speciality, Contract\_length)
3. Nurse(employment\_no, Exp\_Years, Surgery\_Type, Grade, Speciality)

In-Patient and Medical\_Data are a specific of Patient Entity and Inherit it. Patients\_id is the primary key of the Patient Entity and it the foreign key in the below tables -

4. Medical Data(Patients\_id, Blood\_type, Blood\_Sugar, Heart\_Risk, Allergies, Cholesterol)
5. In-Patient(Patients\_id, IP\_Nursing\_Unit, Date\_of\_Admission, IP\_Nursing\_Unit, IP\_Bed\_Number, IP\_Room\_Number, Number\_of\_Days, Assigned\_Nurse)

### **Step 9 - Aggregation**

We did not find any derived attributes here.

### **2.3 Final Set of Relations**

1. NMA Ownership(Name, Ownership\_Id, %age, HQ, Type)
2. Clinic(Clinic\_id, C\_Street, C\_city, C\_state, C\_Zip)
3. Clinic Personnel(employment\_no, Phone\_no, CP\_FName, CP\_LName, SSN, gender, Emp\_Type, CP\_Street, CP\_City, CP\_State, CP\_Zip, Annual\_Sal/Contract\_Pay, PS\_type)
4. Physician(employment\_no, Speciality, Chief\_of\_Staff)
5. Surgeon(employment\_no, Contract\_type, Speciality, Contract\_length)
6. Nurse(employment\_no, Exp\_Years, Surgery\_Type, Grade, Speciality)
7. Surgery(Surgery\_code, Name, Anatomic\_Location, Special\_Needs, Skill\_code, Skill\_Required, Nurse1, Nurse2, In/Out\_Patient)
8. Surgery Skill(Skill\_Code, Surgery\_Code, Description, Assigned\_Nurse)

**9.** Medication(Medication\_Code,Unit\_Cost,Name, Quantity\_on\_Hand,  
Quantity\_on\_Order,Interaction\_list, Interaction\_severity,Year\_to\_date\_Usage)

**10.** Patients(Patients\_id,Name, DOB, Gender,P\_Street,P\_City,P\_State,  
P\_Zip,Primary\_Physian\_Id)

**11.** In-Patient(Patients\_id,IP\_Nursing\_Unit, Date\_of\_Admission, IP\_Nursing\_Unit,  
IP\_Bed\_Number,IP\_Room\_Number, Number\_of\_Days, Assigned\_Nurse)

**12.** Illness(Illness\_Code, Description)

**13.** Allergies(Allergy\_Code, Allergy\_Name)

**14.** Consultation(Consultation\_ID,Consulting\_Physian\_Id,Patients\_id,CN\_Date, CN\_Time)

**15.** Medical Data(Patients\_id,Blood\_type, Blood\_Sugar, Heart\_Risk,Allergies, Cholesterol)

**16.** In-Patient(Patients\_id,IP\_Nursing\_Unit, Date\_of\_Admission, IP\_Nursing\_Unit,  
IP\_Bed\_Number,IP\_Room\_Number, Number\_of\_Days, Assigned\_Nurse)

**17.** Prescription(Physician\_Id,Patient\_Id, Medication\_Code,Active, Dosage, Frequency)

**18.** Archive(Archive\_Id,Physician\_Id, Patient\_Id),[if any one wants to search for data for existing patient or surgeon will look for Physician\_id and Patient\_id combined as primary key]

**19.** Surgery Schedule(Schedule\_id,Surgeon\_ID, Surgery\_code,Patient\_Id,SS\_Date, SS\_Time,  
Operation\_Theatre)

**20.** Shift(Day, Begin\_Time, End\_Time)

### **3.The (Relation) Logical Database Design**

Based on the Entity-Relationship Model, the Relational Database Schema is as follows

#### **3.1 Database Schema**

1. Patients Table

```
CREATE TABLE IF NOT EXISTS patients (
    id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    age INT NOT NULL,
    gender VARCHAR(10) NOT NULL,
    phone VARCHAR(20) NOT NULL,
    email VARCHAR(100) NOT NULL,
    address VARCHAR(255) NOT NULL,
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP
)
```

2. Appointments Table

```
CREATE TABLE IF NOT EXISTS appointments (
    id INT AUTO_INCREMENT PRIMARY KEY,
    patient_id INT NOT NULL,
    doctor VARCHAR(100) NOT NULL,
    appointment_date DATE NOT NULL,
    appointment_time TIME NOT NULL,
```

```
FOREIGN KEY (patient_id) REFERENCES patients(id)  
)
```

### 3. Diagnoses Table

```
CREATE TABLE IF NOT EXISTS diagnoses (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    patient_id INT NOT NULL,  
    diagnosis TEXT NOT NULL,  
    diagnosis_date DATE NOT NULL DEFAULT (CURRENT_DATE),  
    FOREIGN KEY (patient_id) REFERENCES patients(id)  
)
```

### 4. Staff Table

```
CREATE TABLE IF NOT EXISTS staff (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    first_name VARCHAR(50) NOT NULL,  
    last_name VARCHAR(50) NOT NULL,  
    age INT NOT NULL,  
    employment_no VARCHAR(20) UNIQUE NOT NULL,
```

```
    ssn VARCHAR(20) UNIQUE NOT NULL,  
    street VARCHAR(100) NOT NULL,  
    city VARCHAR(50) NOT NULL,  
    state VARCHAR(50) NOT NULL,  
    zip VARCHAR(20) NOT NULL,  
    gender VARCHAR(10) NOT NULL,  
    phone VARCHAR(20) NOT NULL,  
    emp_type VARCHAR(20) NOT NULL,  
    role VARCHAR(50) NOT NULL,  
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP  
)
```

## 5. Room Assignments Table

```
CREATE TABLE IF NOT EXISTS room_assignments (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    patient_id INT NOT NULL,  
    admission_date DATE NOT NULL,  
    nursing_unit VARCHAR(20) NOT NULL,  
    room_number VARCHAR(20) NOT NULL,  
    bed_number VARCHAR(10) NOT NULL,  
    number_of_days INT NOT NULL,  
    assigned_nurse VARCHAR(100) NOT NULL,
```

```
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,  
    FOREIGN KEY (patient_id) REFERENCES patients(id)  
 )
```

## 6. Shifts Table

```
CREATE TABLE IF NOT EXISTS shifts (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    staff_id INT NOT NULL,  
    shift_type VARCHAR(20) NOT NULL,  
    shift_date DATE NOT NULL,  
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,  
    FOREIGN KEY (staff_id) REFERENCES staff(id)  
)
```

## 7. Doctor Assignments Table

```
CREATE TABLE IF NOT EXISTS doctor_assignments (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    patient_id INT NOT NULL,  
    doctor_id INT NOT NULL,  
    assignment_date DATE NOT NULL,  
    reason TEXT NOT NULL,
```

```

created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
FOREIGN KEY (patient_id) REFERENCES patients(id),
FOREIGN KEY (doctor_id) REFERENCES staff(id)
)

```

#### 8. Nurse Assignments Table:

```

CREATE TABLE IF NOT EXISTS nurse_assignments (
    id INT AUTO_INCREMENT PRIMARY KEY,
    patient_id INT NOT NULL,
    nurse_id INT NOT NULL,
    assignment_date DATE NOT NULL,
    shift VARCHAR(20) NOT NULL,
    responsibilities TEXT NOT NULL,
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (patient_id) REFERENCES patients(id),
    FOREIGN KEY (nurse_id) REFERENCES staff(id)
)

```

## 3.2 Logical Database Design

### 1. Patients

- id, name, age, gender, phone, email, address, created\_at
- id is the Primary Key

### 2. Appointments

- id, patient\_id, doctor, appointment\_date, appointment\_time
- id is the Primary Key
- patient\_id is a Foreign Key → patients(id)'

### 3. Diagnoses

- id, patient\_id, diagnosis, diagnosis\_date
- id is the Primary Key
- patient\_id is a Foreign Key

### 4. Staff

- id, first\_name, last\_name, age, employment\_no, ssn, address..., role, etc.
- id is the Primary Key

### 5. Room Assignments

- id, patient\_id, admission\_date, nursing\_unit, etc.
- id is the Primary Key
- patient\_id is a Foreign Key

### 6. Shifts

- id, staff\_id, shift\_type, shift\_date
- staff\_id is a Foreign Key

### 7. Doctor Assignments

- id, patient\_id, doctor\_id, assignment\_date, reason
- patient\_id and doctor\_id (FK to staff)

### 8. Nurse Assignments

- id, patient\_id, nurse\_id, assignment\_date, shift, responsibilities
- patient\_id and nurse\_id (FK to staff)

## **4. Application Program Design**

### **4.1 System Architecture**

The system follows a 3-tier architecture:

1. Presentation Layer: Web-based user interfaces
2. Application Layer: Business logic and application services
3. Data Layer: Database and data access components

The architecture is designed to be modular, allowing for independent development and maintenance of each application while sharing the underlying data model.

### **4.2 Technology Stack**

- Frontend: HTML5, CSS3, JavaScript, React.js
- Backend: Python, FastAPI
- Database: MySQL database driver, MySQL 8.0+
- Authentication: JSON Web Tokens (JWT)
- API Design: RESTful API

### **4.3 Application Components**

Patient Management Application:

User roles: Patients, Front desk staff, Doctors

Key features:

- Patient registration and profile management
- Appointment scheduling and tracking
- Medical history visualization
- Doctor schedule views

**In-patient Management Application:**

User roles: Nurses, Doctors, Administration staff

Key features:

- Room/bed assignment dashboard
- Surgery scheduling interface

- Patient-doctor-nurse assignment tools

### **Medical Staff Management Application:**

User roles: HR personnel, Department heads, Administration

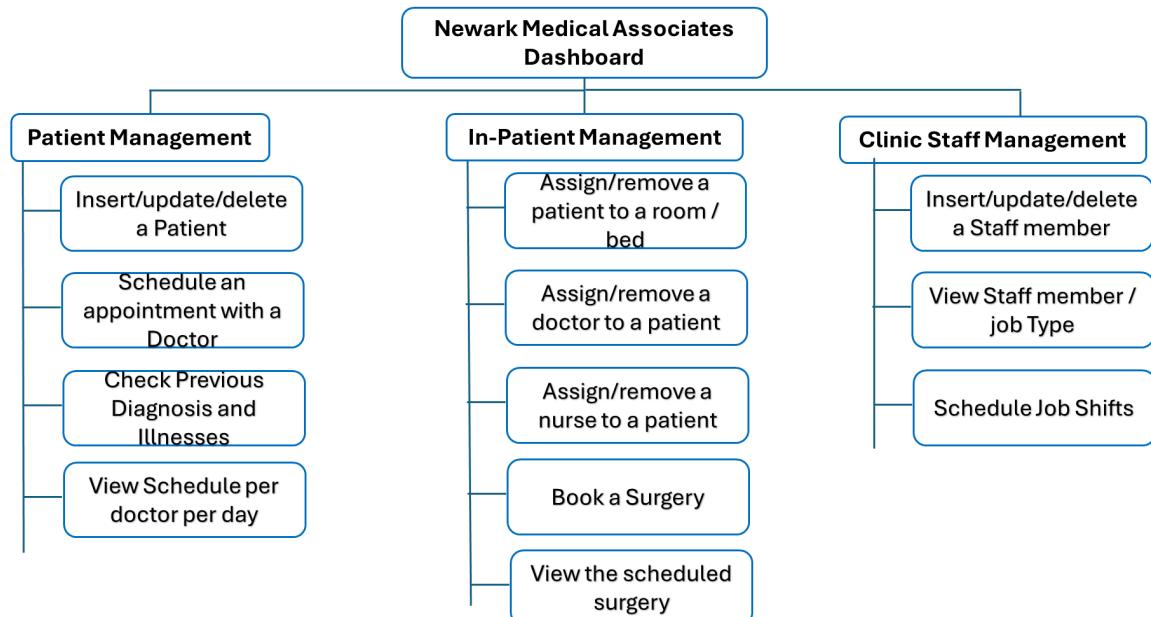
Key features:

- Staff registration and profile management
- Shift scheduling tools
- Department organization tools
- Staff directory by job type

## **5. User Manual**

Below is the Process Flow Diagram of our application, which tells the user how to navigate the application (structure), and find how a feature works. Below that we start with Dashboard of the Newark Medical Associates Dashboard.

### **Process Flow Diagram**



This is the front webpage/landing page of our application (Newark Medical Associates Dashboard). One can see all the three modules 1. Patient Management, 2. In-Patient Management and 3. Clinical Staff Management. Each of these tabs is a clickable link which opens the corresponding tab, which are discussed in detail below.

The screenshot shows the Newark Medical Associates Dashboard with the Patient Management module selected. The page title is "Newark Medical Associates Dashboard". Below it, there are three tabs: "Patient Management" (selected), "In-Patient Management", and "Clinic Staff Management". Under the "Patient Management" section, there is a button "Add New Patient". Below that is a "Schedule an Appointment" form with fields for "Select Patient" (dropdown), "Select Doctor" (dropdown), "mm/dd/yyyy" (date input), and a "Schedule" button. Further down is a "Scheduled Appointments" section with a dropdown "All Doctors" and a date input "mm/dd/yyyy". There are buttons for "Apply Filters" and "Clear Filters". Below these is a table of scheduled appointments:

ID	Patient Name	Doctor	Date	Time
12	Riya	kiran desai	05/05/2025	17:30:00
13	Tom	Michael Chen	11/05/2025	18:31:00
14	viha	Robert Williams	06/05/2025	17:31:00
15	JERY	Ram doe	05/05/2025	20:31:00
16	John	James Wilson	05/05/2025	17:35:00
17	nikhil	Michael Chen	05/05/2025	18:32:00
18	John	NARENDRAKUMAR PATEL	11/05/2025	22:37:00
19	Kevin	kiran desai	14/05/2025	12:54:00
20	Neha	Ram doe	19/05/2025	13:44:00
21	Tom	Robert Williams	13/05/2025	13:40:00
22	Ross	Robert Williams	25/05/2025	16:31:00
23	Kevin	mercey vietry	18/05/2025	19:37:00

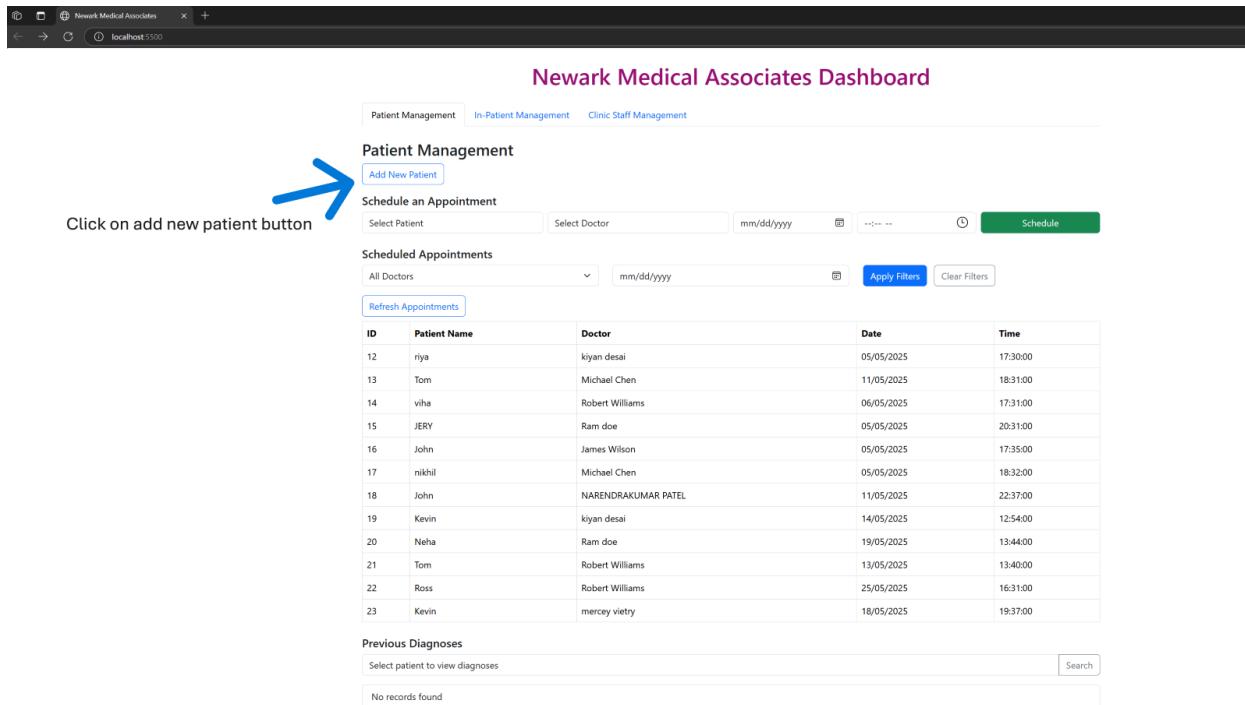
Below the table is a "Previous Diagnoses" section with a dropdown "Select patient to view diagnoses" and a "Search" button. A message "No records found" is displayed.

The homepage features three modules: Patient Management, In-Patient Management, and Clinic Staff Management. Each of which have their one submodules. The Patient Management is the default page of this application.

## 5.1. Patient Management features :

### 5.1.1 View patient details and delete patients

On the patient management page, when we click the "Add New Patient" button, it will navigate to the Patient Management page as below:



Click on add new patient button

Newark Medical Associates Dashboard

Patient Management   In-Patient Management   Clinic Staff Management

**Patient Management**

**Add New Patient**

**Schedule an Appointment**

Select Patient   Select Doctor   mm/dd/yyyy   Schedule

**Scheduled Appointments**

All Doctors   mm/dd/yyyy   Apply Filters   Clear Filters

**Refresh Appointments**

ID	Patient Name	Doctor	Date	Time
12	riya	kiyan desai	05/05/2025	17:30:00
13	Tom	Michael Chen	11/05/2025	18:31:00
14	viha	Robert Williams	06/05/2025	17:31:00
15	JERY	Ram doe	05/05/2025	20:31:00
16	John	James Wilson	05/05/2025	17:35:00
17	nikhil	Michael Chen	05/05/2025	18:32:00
18	John	NARENDRAKUMAR PATEL	11/05/2025	22:37:00
19	Kevin	kiyan desai	14/05/2025	12:54:00
20	Neha	Ram doe	19/05/2025	13:44:00
21	Tom	Robert Williams	13/05/2025	13:40:00
22	Ross	Robert Williams	25/05/2025	16:31:00
23	Kevin	mercey vietry	18/05/2025	19:37:00

**Previous Diagnoses**

Select patient to view diagnoses   Search

No records found

Upon selecting 'Add New Patient', you will be directed to the Patient Management page, where you can add new patient and the following screen will display the stored patient records.

After filling in all the fields, clicking "Add Patient" will store the patient data in the records and display a success message("Patient successfully added!). On this form, Patient details/information can be Edited/Updated by using the "Edit" Button, and deleted by using the "Delete" button, The delete button will remove the patient data from Table and the database.

## Add New Patient

Full Name
Age
Select Gender
Email Address
Phone Number
Address
<a href="#">Add Patient</a>

## Patient Records

[View Patients](#)

ID	Name	Age	Gender	Phone	Email	Address	Created At	Actions
1	abc	24	Male	78965789	abc@example.com	123 Main St, New York, NY	4/20/2025, 10:34:32 PM	<a href="#">Edit</a> <a href="#">Delete</a>
2	abcd	45	Female	9999977890	abcd@example.com	456 Oak Ave, Boston, MA	4/20/2025, 10:37:15 PM	<a href="#">Edit</a> <a href="#">Delete</a>
3	riya	23	Female	780282398	riya@example.com	789 Pine Rd, Chicago, IL	4/20/2025, 10:42:31 PM	<a href="#">Edit</a> <a href="#">Delete</a>
4	nikhil	28	Male	25697530	nikhil@example.com	321 Elm St, Houston, TX	4/20/2025, 10:50:33 PM	<a href="#">Edit</a> <a href="#">Delete</a>
5	Neha	28	Female	6703589012	neha@example.com	654 Maple Dr, Phoenix, AZ	4/21/2025, 6:43:40 PM	<a href="#">Edit</a> <a href="#">Delete</a>
6	John	56	Male	824196390	john@gmail.com	jersey city,NJ	4/21/2025, 7:06:47 PM	<a href="#">Edit</a> <a href="#">Delete</a>
7	HETVI PATEL	27	Female	5512632475	hetvi4444@gmail.com	150 saint pauls ave	4/21/2025, 8:43:26 PM	<a href="#">Edit</a> <a href="#">Delete</a>
8	kim	37	Male	765254189	kim.kiya@gmail.com	289,forest,st,Iselin,NJ	4/21/2025, 10:06:20 PM	<a href="#">Edit</a> <a href="#">Delete</a>
9	Tom	87	Male	897603890	tom@gmail.com	67 jeferson,new Jersey	4/23/2025, 11:21:34 PM	<a href="#">Edit</a> <a href="#">Delete</a>
10	viha	6	Female	32497439	viha@gmail.com	23,cliff st,jersey city	4/29/2025, 7:24:43 PM	<a href="#">Edit</a> <a href="#">Delete</a>
11	Kevin	27	Male	8924097267	kevin@gmail.com	4821 Maple Ridge Lane,Springfield,NJ	5/3/2025, 4:23:32 PM	<a href="#">Edit</a> <a href="#">Delete</a>
12	Kevin	27	Male	8924097267	kevin@gmail.com	4821 Maple Ridge Lane,Springfield,NJ	5/4/2025, 11:14:35 AM	<a href="#">Edit</a> <a href="#">Delete</a>
13	JERY	67	Male	789-546-145	JERY@GNAIL.COM	49 manhattan ave,Manhattan,NY	5/4/2025, 11:37:50 AM	<a href="#">Edit</a> <a href="#">Delete</a>
16	riya	32	Female	5512632478	riya@gmail.com	143 saint pauls ave	5/9/2025, 11:29:24 PM	<a href="#">Edit</a> <a href="#">Delete</a>
17	Ross	45	Male	3482352398	ross@yahoo.com	89 cliff ave,colonia	5/9/2025, 11:30:01 PM	<a href="#">Edit</a> <a href="#">Delete</a>

## Patient Management

[Add New Patient](#)

Full Name	Email Address
Age	Phone Number
Select Gender	Address
<a href="#">Add Patient</a>	
Patient successfully added!	

When a user wants to delete Patient record and clicks on “Delete” button, a confirmation prompt will appear. Upon clicking the “Delete” button, as shown in the diagram below, the patient data will be removed, and a message indicating successful deletion will be displayed.

The screenshot shows a patient management application interface. At the top, there are input fields for 'Full Name', 'Age', 'Email Address', and 'Select Gender'. Below these is a blue 'Add Patient' button and a green success message 'Patient successfully added!'. A 'Confirm Deletion' dialog box is overlaid on the page, containing the text 'Are you sure you want to delete this patient record? This action cannot be undone.' with 'Cancel' and 'Delete' buttons. In the background, there is a 'Patient Records' table with columns: ID, Name, Age, Gender, Phone, Email, and Actions (containing 'Delete' buttons). The table lists 20 patients from 1 to 20, with various names and contact details.

ID	Name	Age	Gender	Phone	Email	Actions
1	abc	24	Male	127399024r73	abc@example.com	<button>Delete</button>
2	abcd	45	Female	127399024r73	abcd@example.com	<button>Delete</button>
3	riya	23	Female	780282398	riya@example.com	<button>Delete</button>
4	nikhil	28	Male	25697530	nikhil@example.com	<button>Delete</button>
5	Neha	28	Female	6703589012	neha@example.com	<button>Delete</button>
6	John	56	Male	824196390	john@gmail.com	<button>Delete</button>
7	HETVI PATEL	27	Female	5512632475	hetvi4444@gmail.com	<button>Delete</button>
8	kim	37	Male	765254189	kim.kiya@gmail.com	<button>Delete</button>
9	Tom	87	Male	897603890	tom@gmail.com	<button>Delete</button>
10	viha	6	Female	32497439	viha@gmail.com	<button>Delete</button>
11	Kevin	27	Male	8924097267	kevin@gmail.com	<button>Delete</button>
12	Kevin	27	Male	8924097267	kevin@gmail.com	<button>Delete</button>
13	JERY	67	Male	789-546-145	JERY@GNAIL.COM	<button>Delete</button>
16	riya	32	Female	5512632478	riya@gmail.com	<button>Delete</button>
17	Ross	45	Male	3482352398	ross@yahoo.com	<button>Delete</button>
18	karan	23	Male	1238748476	karan@hotmail.com	<button>Delete</button>
19	veer	7	Male	8976429076	veer@gmail.com	<button>Delete</button>
20	Janvi	14	Female	5512632453	janvi@gmail.com	<button>Delete</button>

## Add New Patient

Full Name
Age
Select Gender
Email Address
Phone Number
Address
<a href="#">Add Patient</a>

Patient successfully deleted!



**Patient Records**

ID	Name	Age	Gender	Phone	Email	Address	Created At	Actions
1	abc	24	Male	78965789	abc@example.com	123 Main St, New York, NY	4/20/2025, 10:34:32 PM	<a href="#">Edit</a> <a href="#">Delete</a>
2	abcd	45	Female	9999977890	abcd@example.com	456 Oak Ave, Boston, MA	4/20/2025, 10:37:15 PM	<a href="#">Edit</a> <a href="#">Delete</a>
3	riya	23	Female	780282398	riya@example.com	789 Pine Rd, Chicago, IL	4/20/2025, 10:42:31 PM	<a href="#">Edit</a> <a href="#">Delete</a>
4	nikhil	28	Male	25697530	nikhil@example.com	321 Elm St, Houston, TX	4/20/2025, 10:50:33 PM	<a href="#">Edit</a> <a href="#">Delete</a>
5	Neha	28	Female	6703589012	neha@example.com	654 Maple Dr, Phoenix, AZ	4/21/2025, 6:43:40 PM	<a href="#">Edit</a> <a href="#">Delete</a>
6	John	56	Male	824196390	john@gmail.com	jersey city,NJ	4/21/2025, 7:06:47 PM	<a href="#">Edit</a> <a href="#">Delete</a>
7	HETVI PATEL	27	Female	5512632475	hetvi4444@gmail.com	150 saint pauls ave	4/21/2025, 8:43:26 PM	<a href="#">Edit</a> <a href="#">Delete</a>
8	kim	37	Male	765254189	kim.kiya@gmail.com	289,forest,st,Iselin,NJ	4/21/2025, 10:06:20 PM	<a href="#">Edit</a> <a href="#">Delete</a>
9	Tom	87	Male	897603890	tom@gmail.com	67 jeferson,new Jersey	4/23/2025, 11:21:34 PM	<a href="#">Edit</a> <a href="#">Delete</a>
10	viha	6	Female	32497439	viha@gmail.com	23,cliff st,jersey city	4/29/2025, 7:24:43 PM	<a href="#">Edit</a> <a href="#">Delete</a>
11	Kevin	27	Male	8924097267	kevin@gmail.com	4821 Maple Ridge Lane, Springfield,NJ	5/3/2025, 4:23:32 PM	<a href="#">Edit</a> <a href="#">Delete</a>
12	Kevin	27	Male	8924097267	kevin@gmail.com	4821 Maple Ridge Lane, Springfield,NJ	5/4/2025, 11:14:35 AM	<a href="#">Edit</a> <a href="#">Delete</a>
13	JERY	67	Male	789-546-145	JERY@GNAIL.COM	49 manhattan ave,Manhattan,NY	5/4/2025, 11:37:50 AM	<a href="#">Edit</a> <a href="#">Delete</a>
16	riya	32	Female	5512632478	riya@gmail.com	143 saint pauls ave	5/9/2025, 11:29:24 PM	<a href="#">Edit</a> <a href="#">Delete</a>

To Edit the data, upon clicking on edit button, user can see previously stored record (fetched from the database) of the patient and then can make appropriate changes, when the required changes are made, user clicks on update patient button and information will get updated as shown in below screenshot after editing information.

**Add New Patient**

HETVI PATEL	Edit Delete
27	Edit Delete
Female	Edit Delete
hetvi4444@gmail.com	Edit Delete
5512632475	Edit Delete
150 saint pauls ave	Edit Delete

[Update Patient](#)
[Cancel Edit](#)

**Patient Records**

ID	Name	Age	Gender	Phone	Email	Address	Created At	Actions
1	abc	24	Male	78965789	abc@example.com	123 Main St, New York, NY	4/20/2025, 10:34:32 PM	<a href="#">Edit</a> <a href="#">Delete</a>
2	abcd	45	Female	9999977890	abcd@example.com	456 Oak Ave, Boston, MA	4/20/2025, 10:37:15 PM	<a href="#">Edit</a> <a href="#">Delete</a>
3	riya	23	Female	780282398	riya@example.com	789 Pine Rd, Chicago, IL	4/20/2025, 10:42:31 PM	<a href="#">Edit</a> <a href="#">Delete</a>
4	nikhil	28	Male	25697530	nikhil@example.com	321 Elm St, Houston, TX	4/20/2025, 10:50:33 PM	<a href="#">Edit</a> <a href="#">Delete</a>
5	Neha	28	Female	6703589012	neha@example.com	654 Maple Dr, Phoenix, AZ	4/21/2025, 6:43:40 PM	<a href="#">Edit</a> <a href="#">Delete</a>
6	John	56	Male	824196390	john@gmail.com	jersey city,NJ	4/21/2025, 7:06:47 PM	<a href="#">Edit</a> <a href="#">Delete</a>
7	HETVI PATEL	27	Female	5512632475	hetvi4444@gmail.com	150 saint pauls ave	4/21/2025, 8:43:26 PM	<a href="#">Edit</a> <a href="#">Delete</a>
8	kim	37	Male	765254189	kim.kiya@gmail.com	289,forest,st,Iselin,NJ	4/21/2025, 10:06:20 PM	<a href="#">Edit</a> <a href="#">Delete</a>
9	Tom	87	Male	897603890	tom@gmail.com	67 jeferson,new Jersey	4/23/2025, 11:21:34 PM	<a href="#">Edit</a> <a href="#">Delete</a>
10	viha	6	Female	32497439	viha@gmail.com	23,cliff st,jersey city	4/29/2025, 7:24:43 PM	<a href="#">Edit</a> <a href="#">Delete</a>
11	Kevin	27	Male	8924097267	kevin@gmail.com	4821 Maple Ridge Lane,Springfield,NJ	5/3/2025, 4:23:32 PM	<a href="#">Edit</a> <a href="#">Delete</a>
12	Kevin	27	Male	8924097267	kevin@gmail.com	4821 Maple Ridge Lane,Springfield,NJ	5/4/2025, 11:14:35 AM	<a href="#">Edit</a> <a href="#">Delete</a>
13	JERY	67	Male	789-546-145	JERY@GNAIL.COM	49 manhattan ave,Manhattan,NY	5/4/2025, 11:37:50 AM	<a href="#">Edit</a> <a href="#">Delete</a>
14	riya	32	Female	5512632478	riya@gmail.com	143 saint pauls ave	5/9/2025, 11:29:24 PM	<a href="#">Edit</a> <a href="#">Delete</a>
15	Ross	45	Male	3482352398	ross@yahoo.com	89 cliff ave colonia	5/9/2025, 11:30:01 PM	<a href="#">Edit</a> <a href="#">Delete</a>

### 5.1.2 Schedule an Appointment

To arrange an appointment, click on the 'Select Patient' field, which will present a dropdown menu featuring a list of all patients stored in the database. Similarly, selecting the 'Select Doctor' tab will display a list of all registered doctors (physicians and surgeons). After choosing the desired date and time from the relevant fields, click the 'Schedule' button to finalize the appointment. Once completed, the appointment will be displayed on the home page.

#### **Step- by-Step: How to book an appointment**

Following is a step by step guidance on how to book an appointment, there are drop down menus from which one can select the desired requirements.

#### **Step1: Select a patient**

Patient Management   In-Patient Management   Clinic Staff Management

## Patient Management

[Add New Patient](#)

### Schedule an Appointment

Select Patient	Select Doctor	Date	Time
<input type="text" value="Select Patient"/> abc (ID: 1) abcd (ID: 2) riya (ID: 3) nikhil (ID: 4) <b>Neha (ID: 5)</b> John (ID: 6) HETVI PATEL (ID: 7) kim (ID: 8) Tom (ID: 9) viha (ID: 10) Kevin (ID: 11) Kevin (ID: 12) JERY (ID: 13) riya (ID: 16) Ross (ID: 17) karan (ID: 18) veer (ID: 19)	<input type="text" value="Select Doctor"/>	<input type="text" value="mm/dd/yyyy"/>	<input type="text" value="--::--"/>
		<input type="button" value="Apply Filters"/>	<input type="button" value="Clear Filters"/>
			<input type="button" value="Schedule"/>

	Doctor	Date	Time
20	kiyan desai	05/05/2025	17:30:00
21	Michael Chen	11/05/2025	18:31:00
22	Robert Williams	06/05/2025	17:31:00
23	Ram doe	05/05/2025	20:31:00
24	James Wilson	05/05/2025	17:35:00
	Michael Chen	05/05/2025	18:32:00
	NARENDRAKUMAR PATEL	11/05/2025	22:37:00
	kiyan desai	14/05/2025	12:54:00
	Ram doe	19/05/2025	13:44:00
	Robert Williams	13/05/2025	13:40:00
	Robert Williams	25/05/2025	16:31:00
	mercey vietry	18/05/2025	19:37:00
	James Wilson	24/05/2025	19:24:00

**Previous Diagnoses**

Neha (ID: 5)	<input type="button" value="Search"/>
<b>Date:</b> 22/04/2025 <b>Diagnosis:</b> Iron deficiency anemia	

## Step 2: Select the Doctor

## Patient Management

[Add New Patient](#)

### Schedule an Appointment

ID	Patient Name	Doctor	Date	Time
12	riya	NARENDRAKUMAR PATEL (Surgeon)	05/05/2025	17:30:00
13	Tom	mercey vietry (Physician)	11/05/2025	18:31:00
14	viha	Robert Williams	06/05/2025	17:31:00
15	JERY	Ram doe	05/05/2025	20:31:00
16	John	James Wilson	05/05/2025	17:35:00
17	nikhil	Michael Chen	05/05/2025	18:32:00
18	John	NARENDRAKUMAR PATEL	11/05/2025	22:37:00
19	Kevin	kiyan desai	14/05/2025	12:54:00

## Step 3 : Select the Date

ID	Patient Name	Doctor	Date	Time
12	riya	kiyan desai	05/05/2025	17:30:00
13	Tom	Michael Chen	11/05/2025	18:31:00
14	viha	Robert Williams	06/05/2025	17:31:00
15	JERY	Ram doe	05/05/2025	20:31:00
16	John	James Wilson	05/05/2025	17:35:00
17	nikhil	Michael Chen	05/05/2025	18:32:00
18	John	NARENDRAKUMAR PATEL	11/05/2025	22:37:00

## Step 4: Select Time

Patient Management   In-Patient Management   Clinic Staff Management

### Patient Management

Add New Patient

Schedule an Appointment

Select Patient   Select Doctor   mm/dd/yyyy   01:43 PM   Schedule

Scheduled Appointments

All Doctors   mm/dd/yyyy   Refresh Appointments

ID	Patient Name	Doctor	Date	Time
12	riya	kiyan desai	05/05/2025	17:30:00
13	Tom	Michael Chen	11/05/2025	18:31:00
14	viha	Robert Williams	06/05/2025	17:31:00
15	JERY	Ram doe	05/05/2025	20:31:00
16	John	James Wilson	05/05/2025	17:35:00
17	nikhil	Michael Chen	05/05/2025	18:32:00
18	John	NARENDRAKUMAR PATEL	11/05/2025	22:37:00
19	Kevin	kiyan desai	14/05/2025	12:54:00
20	Neha	Ram doe	19/05/2025	13:44:00
21	Tom	Robert Williams	13/05/2025	13:40:00
22	Ross	Robert Williams	25/05/2025	16:31:00
23	Kevin	mercey vietry	18/05/2025	19:37:00

## Step 5.SUCCESS Message after scheduling appointments

Patient Management   In-Patient Management   Clinic Staff Management

### Patient Management

Add New Patient

Schedule an Appointment

Select Patient   Select Doctor   mm/dd/yyyy   ...   Schedule

Appointment scheduled!

Scheduled Appointments

All Doctors   mm/dd/yyyy   Apply Filters   Clear Filters   Refresh Appointments

ID	Patient Name	Doctor	Date	Time
12	riya	kiyan desai	05/05/2025	17:30:00
13	Tom	Michael Chen	11/05/2025	18:31:00
14	viha	Robert Williams	06/05/2025	17:31:00
15	JERY	Ram doe	05/05/2025	20:31:00
16	John	James Wilson	05/05/2025	17:35:00
17	nikhil	Michael Chen	05/05/2025	18:32:00
18	John	NARENDRAKUMAR PATEL	11/05/2025	22:37:00
19	Kevin	kiyan desai	14/05/2025	12:54:00
20	Neha	Ram doe	19/05/2025	13:44:00
21	Tom	Robert Williams	13/05/2025	13:40:00
22	Ross	Robert Williams	25/05/2025	16:31:00
23	Kevin	mercey vietry	18/05/2025	19:37:00
24	veer	James Wilson	24/05/2025	19:24:00

### 5.1.3 Check previous diagnoses and illnesses

When we enter the field to select patients, a dropdown menu appears displaying a list of patient data. Upon clicking the search button, the diagnoses of the selected patient will be retrieved.

The screenshot shows the 'Patient Management' section of a software application. At the top, there are three tabs: 'Patient Management' (selected), 'In-Patient Management', and 'Clinic Staff Management'. Below the tabs, there is a header for 'Patient Management' with a 'Add New Patient' button. Underneath this, there is a 'Schedule an Appointment' form with fields for 'Select Patient' (containing 'riya'), 'Select Doctor' (containing 'kiyan desai'), 'mm/dd/yyyy' (date), and a time selector. A large green 'Schedule' button is on the right. Below the appointment form is a section titled 'Scheduled Appointments' with a table showing one entry for 'riya' at '05/05/2025' at '17:30:00'. Further down, there is a dropdown menu titled 'Select patient to view diagnoses' containing a list of names and IDs. The list includes: abc (ID: 1), abcd (ID: 2), riya (ID: 3), nikhil (ID: 4), Neha (ID: 5), John (ID: 6), HETVI PATEL (ID: 7), kim (ID: 8), Tom (ID: 9), viha (ID: 10), Kevin (ID: 11), Kevin (ID: 12), JERY (ID: 13), riya (ID: 16), Ross (ID: 17), karan (ID: 18), and veer (ID: 19). At the bottom of this dropdown is a 'Search' button. Below the dropdown, a message says 'No records found'.

After clicking on the search button it will display diagnoses of the selected patient.

The screenshot shows a detailed view of a patient's information. At the top, there is a table with columns for 'ID' (24), 'Name' (veer), 'Doctor' (James Wilson), 'Date' (24/05/2025), and 'Time' (19:24:00). Below this, there is a section titled 'Previous Diagnoses' with a table showing one entry: Neha (ID: 5). At the bottom of this section is a 'Search' button. Below the diagnoses table, there is a summary section with 'Date: 22/04/2025' and 'Diagnosis: Iron deficiency anemia'.

## 5.2.IN-Patient Management

Upon clicking the IN-Patient Management tab on the homepage, you will be redirected to the IN-Patient Management page as illustrated below.

**Newark Medical Associates Dashboard**

Patient Management   In-Patient Management   Clinic Staff Management

In-Patient Management

Assign Room   Assign Doctor   Assign Nurse

Current Room Assignments

Refresh Assignments

Assignment ID	Patient	Room Number	Assigned Date	Status
7	abcd	Blue-102		scheduled
5	viha	Blue-101		scheduled
3	John	Green-201		scheduled
8	Neha	Blue-102		scheduled
2	Neha	Green-201		scheduled
1	John	Blue-102	07/05/2025	scheduled
2	Neha	Blue-107	19/05/2025	scheduled
3	Kevin	Green-201	11/05/2025	scheduled

Schedule a Procedure

Select Patient   Select Doctor   Room Number

mm/dd/yyyy        

View Scheduled Surgeries

Refresh Surgeries

ID	Patient	Doctor	Room	Date	Time	Status
No surgeries scheduled						

### 5.2.1 Assign,view and remove patients to/from rooms and beds

A patient can be assigned a room here, the allotted room and bed can be found in the display records. If patient for any reason, does not want a room , we can delete the entry and the bed and room becomes available. Lets start by seeing how Assign bed/room works.

After clicking on the Assign room button it will redirect you to Manage Patient Room Assignment page.

#### Step-By-Step : Room/Bed Assignment

**Manage Patient Room Assignment**

Select Patient  
mm/dd/yyyy 

Select Nursing Unit

Select Room

Select Bed

Number of Days

Assigned Nurse

**Assign Room** **Remove Assignment**

**Room Assignments**  
**View Assignments**



## Step 1: Select patient from dropdown

### Manage Patient Room Assignment

riya (ID: 3)

- Select Patient
- abc (ID: 1)
- abcd (ID: 2)
- riya (ID: 3)**
- nikhil (ID: 4)
- Neha (ID: 5)
- John (ID: 6)
- HETVI PATEL (ID: 7)
- kim (ID: 8)
- Tom (ID: 9)
- viha (ID: 10)
- Kevin (ID: 11)
- Kevin (ID: 12)
- JERY (ID: 13)
- riya (ID: 16)
- Ross (ID: 17)
- karan (ID: 18)
- veer (ID: 19)

## Step 2: Select date

Manage Patient Room Assignment

riya (ID: 3)

05/05/2025

May 2025 ↑ ↓

Su	Mo	Tu	We	Th	Fr	Sa
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

Please select an item in the list.

[Assign Room](#) [Remove Assignment](#)

**Room Assignments**

[View Assignments](#)

## Step 3: Select Nursing Unit

riya (ID: 3)

05/05/2025

Unit 3

Select Nursing Unit

- Unit 1
- Unit 2
- Unit 3**
- Unit 4
- Unit 5
- Unit 6
- Unit 7

[Assign Room](#) [Remove Assignment](#)

**Room Assignments**

[View Assignments](#)

## Step 4:Select Room

### Manage Patient Room Assignment

riya (ID: 3)

05/05/2025

Unit 3

Select Room

- Blue Wing - Room 101
- Blue Wing - Room 102
- Green Wing - Room 201
- Green Wing - Room 202

[Assign Room](#) [Remove Assignment](#)

### Room Assignments

[View Assignments](#)

## Step 5: Select Bed

### Manage Patient Room Assignment

riya (ID: 3)

05/05/2025

Unit 3

Select Room

Select Bed

- Bed A
- Bed B

[Assign Room](#) [Remove Assignment](#)

### Room Assignments

[View Assignments](#)

6. Enter the number of days or adjust the number using the up and down arrows provided in the field, and specify the name of the assigned nurse, and click on Assign room button.

#### Manage Patient Room Assignment

riya (ID: 3)

05/05/2025

Unit 6

Green Wing - Room 202

Bed A

5

Sara

[Assign Room](#) [Remove Assignment](#)

#### Room Assignments

[View Assignments](#)

### Step 7: Successful room assignment.

---

#### Manage Patient Room Assignment

Select Patient

mm/dd/yyyy

Select Nursing Unit

Select Room

Select Bed

Number of Days

Assigned Nurse

[Assign Room](#) [Remove Assignment](#)

Room successfully assigned!

**Step 8:** To view room assignments, please click on the 'View Assignment' button, which will present all patient information associated with the assigned rooms.

#### Manage Patient Room Assignment

(dd/mm/yyyy)

Assign Room
Remove Assignment

#### Room Assignments

[View Assignments](#)

ID	Patient	Room	Bed	Admission Date	Nursing Unit	Assigned Nurse	Actions
7	abcd (ID: 2)	Blue-102	B	5/13/2025	4	Kevin	<button style="background-color: red; color: white; border: none; padding: 2px 5px;">Remove</button>
5	viha (ID: 10)	Blue-101	A	5/12/2025	6	Marck	<button style="background-color: red; color: white; border: none; padding: 2px 5px;">Remove</button>
3	John (ID: 6)	Green-201	A	5/11/2025	5	Sana	<button style="background-color: red; color: white; border: none; padding: 2px 5px;">Remove</button>
10	Kevin (ID: 12)	Blue-102	B	5/11/2025	5	Sharon	<button style="background-color: red; color: white; border: none; padding: 2px 5px;">Remove</button>
8	Neha (ID: 5)	Blue-102	A	5/8/2025	5	Iara	<button style="background-color: red; color: white; border: none; padding: 2px 5px;">Remove</button>
2	Neha (ID: 5)	Green-201	A	5/7/2025	6	Kevin	<button style="background-color: red; color: white; border: none; padding: 2px 5px;">Remove</button>
9	riya (ID: 3)	Green-202	A	5/4/2025	6	Sara	<button style="background-color: red; color: white; border: none; padding: 2px 5px;">Remove</button>

**Step 9:** To cancel the room assignment, kindly click the remove button, which will successfully eliminate the assignment and display a confirmation message.

Assignment removed successfully

#### Room Assignments

[View Assignments](#)

ID	Patient	Room	Bed	Admission Date	Nursing Unit	Assigned Nurse	Actions
7	abcd (ID: 2)	Blue-102	B	5/13/2025	4	Kevin	<button style="background-color: red; color: white; border: none; padding: 2px 5px;">Remove</button>
5	viha (ID: 10)	Blue-101	A	5/12/2025	6	Marck	<button style="background-color: red; color: white; border: none; padding: 2px 5px;">Remove</button>
3	John (ID: 6)	Green-201	A	5/11/2025	5	Sana	<button style="background-color: red; color: white; border: none; padding: 2px 5px;">Remove</button>
10	Kevin (ID: 12)	Blue-102	B	5/11/2025	5	Sharon	<button style="background-color: red; color: white; border: none; padding: 2px 5px;">Remove</button>
8	Neha (ID: 5)	Blue-102	A	5/8/2025	5	Iara	<button style="background-color: red; color: white; border: none; padding: 2px 5px;">Remove</button>

## 5.2.2 Assign,view and remove doctors to/from patients

After clicking on the Assign Doctor button, it will redirect you to Assign Doctor to Patient page.

Assign Doctor to Patient

Select Patient

Select Doctor

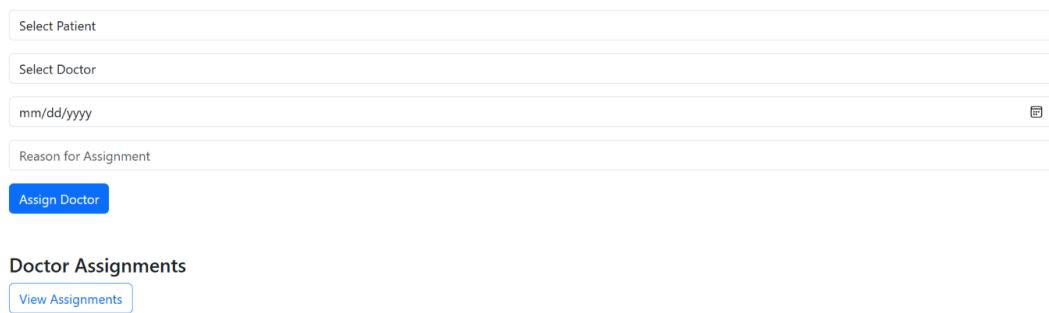
mm/dd/yyyy

Reason for Assignment

Assign Doctor

Doctor Assignments

[View Assignments](#)



### Step-By-Step: Assign/Remove/View doctors to/from patients

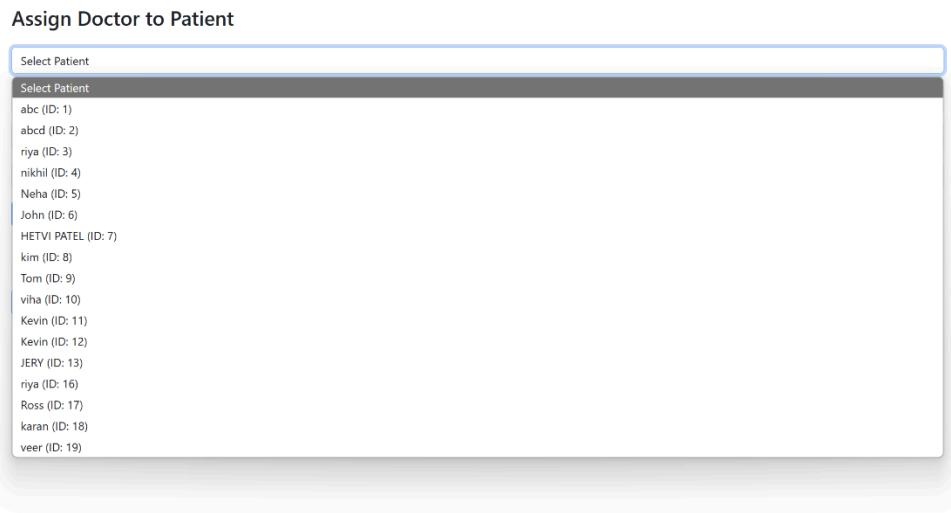
#### Step 1.select patient

Assign Doctor to Patient

Select Patient

Select Patient

- abc (ID: 1)
- abcd (ID: 2)
- riya (ID: 3)
- nikhil (ID: 4)
- Neha (ID: 5)
- John (ID: 6)
- HETVI PATEL (ID: 7)
- kim (ID: 8)
- Tom (ID: 9)
- visha (ID: 10)
- Kevin (ID: 11)
- Kevin (ID: 12)
- JERY (ID: 13)
- riya (ID: 16)
- Ross (ID: 17)
- karan (ID: 18)
- veer (ID: 19)



#### Step 2. select doctor

## Assign Doctor to Patient

Select Patient

Select Doctor

Select Doctor

Tom joe (101)  
Sarah Johnson (103)  
Michael Chen (104)  
Robert Williams (105)  
Maria Garcia (106)  
James Wilson (107)  
kiyan desai (209)  
Ram doe (109)  
NARENDRAKUMAR PATEL (108)  
Smith Grey (1002)  
Alice Johnson (1003)  
Mecc chopra (110)  
Gredy doe (122)  
mercsey vietry (123)

## Step 3.select date

### Assign Doctor to Patient

Select Patient

Select Doctor

mm/dd/yyyy

May 2025 ▾ ↑ ↓

Su	Mo	Tu	We	Th	Fr	Sa
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

[Clear](#) [Today](#)

**Step 4.** Enter the reason for assigning a doctor to the patient and click 'Assign Doctor' to save the information, after which you will receive a confirmation message.

Assign Doctor to Patient

Select Patient	
Select Doctor	
mm/dd/yyyy	<input type="button" value=""/>
Reason for Assignment	
<input type="button" value="Assign Doctor"/>	
Doctor successfully assigned!	

**Step 5.** To review the records of doctor assignments, please click on the 'View Assignment' button, which will display the relevant records.

Doctor Assignments

ID	Patient	Doctor	Assignment Date	Reason	Actions
4	kim (ID: 8)	Robert Williams (ID: 5)	5/14/2025	annual checkup	<input type="button" value="Remove"/>
6	kim (ID: 8)	kiyan desai (ID: 10)	5/11/2025	Allergy test	<input type="button" value="Remove"/>
2	kim (ID: 8)	Tom joe (ID: 1)	5/9/2025	Blood Work	<input type="button" value="Remove"/>
5	nikhil (ID: 4)	Michael Chen (ID: 4)	5/9/2025	annual checkup	<input type="button" value="Remove"/>

### 5.2.3 Assign, view and remove nurse to/from patients

Newark Medical Associates Dashboard

Patient Management	In-Patient Management	Clinic Staff Management
In-Patient Management		
<input type="button" value="Assign Room"/>	<input type="button" value="Assign Doctor"/>	<input type="button" value="Assign Nurse"/> 

Clicked on Assign Nurse button will redirect to Assign Nurse to Patient page

We can choose patient information from a dropdown menu, select a nurse from another dropdown, choose a date, and specify the shift (either night or day). After entering this data, clicking on 'Assign' will allocate the selected nurse to the chosen patient.

## **Step-By-Step: Nurse Assignment to In-patients(Add/Remove/View)**

### **Step 1. Select patients**

Assign Nurse to Patient

Select Patient

- abc (ID: 1)
- abcd (ID: 2)
- riya (ID: 3)
- nikhil (ID: 4)
- Neha (ID: 5)
- John (ID: 6)
- HETVI PATEL (ID: 7)
- kim (ID: 8)
- Tom (ID: 9)
- visha (ID: 10)
- Kevin (ID: 11)
- Kevin (ID: 12)
- JERY (ID: 13)
- riya (ID: 16)
- Ross (ID: 17)
- karan (ID: 18)
- veer (ID: 19)

### **Step 2. Select Nurse**

Select Nurse

Select Nurse

Gredy doe (ID: 122)  
Smith Grey (ID: 1002)  
Sarah Johnson (ID: 103)  
Alice Johnson (ID: 1003)

Assign Nurse

Nurse Assignments

[View Assignments](#)

### Step 3. Select date

#### Assign Nurse to Patient

Select Patient

Select Nurse

mm/dd/yyyy

May 2025

Su	Mo	Tu	We	Th	Fr	Sa
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

[Clear](#) [Today](#)

### Step 4. Enter Shift and Responsibility and click on Assign Nurse button .

#### Assign Nurse to Patient

Select Patient

Select Nurse

mm/dd/yyyy

DAY

Emergency Response

Assign Nurse

#### Step 5. Successfully Assign nurse

##### Assign Nurse to Patient

Select Patient

Select Nurse

mm/dd/yyyy

Shift (e.g., Day, Night)

Responsibilities

Assign Nurse

Nurse assigned successfully!

#### Step 6. To view Nurse assignment click on view assignment button

##### Nurse Assignments

[View Assignments](#)

ID	Patient	Nurse	Assignment Date	Shift	Responsibilities	Actions
7	viha (ID: 10)	Sarah Johnson (ID: 3)	5/19/2025	DAY	Emergency Response	<a href="#">Remove</a>
3	riya (ID: 3)	Sarah Johnson (ID: 3)	5/15/2025	day	Emergency Response	<a href="#">Remove</a>
5	kim (ID: 8)	Sarah Johnson (ID: 3)	5/15/2025	day	Emergency Response	<a href="#">Remove</a>
4	John (ID: 6)	Smith Grey (ID: 13)	5/6/2025	night	Administrative task	<a href="#">Remove</a>
6	nikhil (ID: 4)	Alice Johnson (ID: 14)	5/6/2025	night	Medical Support	<a href="#">Remove</a>

#### 5.2.4 Current Room Assignments

When a room is assigned to a patient, his/her details will be added on this page. The refresh button helps to view the most updated information. This view presents the room assignment details for a specific patient.

#### Current Room Assignments

[Refresh Assignments](#)

Assignment ID	Patient	Room Number	Assigned Date	Status
7	abcd	Blue-102		scheduled
5	vihā	Blue-101		scheduled
3	John	Green-201		scheduled
10	Kevin	Blue-102		scheduled
8	Neha	Blue-102		scheduled
1	John	Blue-102	07/05/2025	scheduled
2	Neha	Blue-107	19/05/2025	scheduled
3	Kevin	Green-201	11/05/2025	scheduled

### 5.2.5 Schedule a Procedure (Book Surgery)

To book a procedure, please select the patient and doctor from the dropdown menu, input the room number, choose the date, enter the time, and click the 'Schedule Procedure' button to confirm the booking for the selected patient. Follow the step-by-step to follow the process.

#### Step-By-Step: Schedule a Procedure

##### Step 1. Select patient

Patient Management | In-Patient Management | Clinic Staff Management

**In-Patient Management**

Select Patient

- abc (ID: 1)
- abcd (ID: 2)
- riya (ID: 3)
- nikhil (ID: 4)
- Neha (ID: 5)
- John (ID: 6)
- HETVI PATEL (ID: 7)
- kim (ID: 8)
- Tom (ID: 9)
- vihā (ID: 10)
- Kevin (ID: 11)
- Kevin (ID: 12)
- JERRY (ID: 13)
- riya (ID: 16)
- Ross (ID: 17)
- karan (ID: 18)
- veer (ID: 19)

Select Doctor

mm/dd/yyyy

Please select an item in the list.

Room Number	Assigned Date	Status
Blue-102		scheduled
Blue-101		scheduled
Green-201		scheduled
Blue-102		scheduled
Blue-102	07/05/2025	scheduled
Blue-107	19/05/2025	scheduled
Green-201	11/05/2025	scheduled

Schedule Procedure

**View Scheduled Surgeries**

[Refresh Surgeries](#)

ID	Patient	Doctor	Room	Date	Time	Status
No surgeries scheduled						

## Step 2.select Doctor

Schedule a Procedure

Select Patient	Select Doctor	Room Number
mm/dd/yyyy		Schedule Procedure
View Scheduled Surgeries		
<a href="#">Refresh Surgeries</a>		
ID	Patient	Doctor

Select Doctor

- Select Doctor
- undefined (Surgeon)
- undefined (Nurse)
- undefined (Physician)
- undefined (Surgeon)
- undefined (Support Staff)**
- undefined (Physician)
- undefined (Surgeon)
- undefined (Surgeon)
- undefined (Nurse)
- undefined (Nurse)
- undefined (Support Staff)
- undefined (Nurse)
- undefined (Physician)

## Step 3.Select date

Schedule a Procedure

Select Patient	Select Doctor	Room Number		
mm/dd/yyyy		Schedule Procedure		
<input type="button" value="May 2025 ▾"/> <input type="button" value="Up"/> <input type="button" value="Down"/> <input type="button" value="Today"/>	<input type="button" value="--:-- --"/>			
Doctor	Room	Date	Time	Status
No surgeries scheduled				

## Step 4. select time and click on schedule procedure

Schedule a Procedure

Select Patient	Select Doctor	Room Number																														
mm/dd/yyyy		<input type="button" value="Schedule Procedure"/>																														
<b>View Scheduled Surgeries</b> <input type="button" value="Refresh Surgeries"/>																																
<table border="1"> <thead> <tr> <th>ID</th> <th>Patient</th> <th>Doctor</th> <th>Date</th> <th>Time</th> <th>Status</th> </tr> </thead> <tbody> <tr><td>1</td><td>John</td><td>Ram doe</td><td>07/05/2025</td><td>12:38</td><td>scheduled</td></tr> <tr><td>2</td><td>Neha</td><td>Michael Chen</td><td>19/05/2025</td><td>15:53</td><td>scheduled</td></tr> <tr><td>3</td><td>Kevin</td><td>Tom joe</td><td>11/05/2025</td><td>15:59</td><td>scheduled</td></tr> <tr><td>4</td><td>Ross</td><td>James Wilson</td><td>17/05/2025</td><td>10:59</td><td>scheduled</td></tr> </tbody> </table>			ID	Patient	Doctor	Date	Time	Status	1	John	Ram doe	07/05/2025	12:38	scheduled	2	Neha	Michael Chen	19/05/2025	15:53	scheduled	3	Kevin	Tom joe	11/05/2025	15:59	scheduled	4	Ross	James Wilson	17/05/2025	10:59	scheduled
ID	Patient	Doctor	Date	Time	Status																											
1	John	Ram doe	07/05/2025	12:38	scheduled																											
2	Neha	Michael Chen	19/05/2025	15:53	scheduled																											
3	Kevin	Tom joe	11/05/2025	15:59	scheduled																											
4	Ross	James Wilson	17/05/2025	10:59	scheduled																											

05	53	PM
06	54	AM
07	55	
08	56	
09	57	
10	58	
11	59	

**Step 5.** To view the scheduled surgeries or after adding a surgery, please click the 'Refresh Surgeries' button to display all scheduled surgeries.

---

**View Scheduled Surgeries**

ID	Patient	Doctor	Room	Date	Time	Status
1	John	Ram doe	Blue-102	07/05/2025	12:38	scheduled
2	Neha	Michael Chen	Blue-107	19/05/2025	15:53	scheduled
3	Kevin	Tom joe	Green-201	11/05/2025	15:59	scheduled
4	Ross	James Wilson	Blue-102	17/05/2025	10:59	scheduled

## 5.3. Clinic Staff Management

Upon clicking the Clinic staff Management tab on the homepage, you will be redirected to the Clinic staff Management page as illustrated below.

**Newark Medical Associates Dashboard**

Patient Management   In-Patient Management   Clinic Staff Management

**Clinic Staff Management**

[Add New Staff](#) [Remove Staff Member](#) [View All Staff](#)

**Staff by Job Type**

All Job Types [Filter](#)

ID	Name	Role	Department	Employment Type	Phone
1	Tom grey	Surgeon	General	Contractual	2397428654
3	Sarah Johnson	Nurse	General	Permanent	201-555-0123
4	Michael Chen	Physician	General	Permanent	551-222-3344
5	Robert Williams	Surgeon	General	Contractual	201-444-5566
6	Maria Garcia	Support Staff	General	Permanent	908-777-8899
7	James Wilson	Physician	General	Permanent	201-666-7788
10	kiyan desai	Surgeon	General	Contractual	2014846507
11	Ram doe	Surgeon	General	Contractual	2014846567
12	NARENDRAKUMAR PATEL	Surgeon	General	Contractual	5512632479
13	Smith Grey	Nurse	General	Permanent	5512632490
14	Alice Johnson	Nurse	General	Permanent	5512632209
15	Mecc chopra	Support Staff	General	Permanent	1937824989

**Schedule a Shift**

Select Staff Member [Select Shift](#) mm/dd/yyyy [Schedule Shift](#)

**Scheduled Shifts**

[Refresh Shifts](#)

Staff	Role	Shift	Date	Actions
Ram doe	Surgeon	Morning	05/28/2025	<a href="#">Cancel Shift</a>
kiyan desai	Surgeon	Night	05/27/2025	<a href="#">Cancel Shift</a>
Alice Johnson	Nurse	Morning	05/20/2025	<a href="#">Cancel Shift</a>
Mecc chopra	Support Staff	Afternoon	05/19/2025	<a href="#">Cancel Shift</a>

### Add Staff member:

The clinic staff page allows for the addition of staff members and the viewing of their information. By clicking the 'Add New Staff' button, you will be redirected to the 'Add New Staff' page.

**Add New Staff**

---

First Name
Last Name
Age
Employment Number
SSN
Street
City
State
Zip Code
Select Gender
Phone Number
Select Employment Type

**Submit**

**Staff Records**

[View Staff](#)

## Update Staff Information:

Clicking the staff view button retrieves staff data from the database.

**Staff Records**

[View Staff](#)

ID	Name	Age	Gender	Employment No	Phone	Employment Type	Role	Actions
1	Tom grey	45	Male	101	2397428654	Contractual	Surgeon	<a href="#">Edit</a>
3	Sarah Johnson	32	Female	103	201-555-0123	Permanent	Nurse	<a href="#">Edit</a>
4	Michael Chen	41	Male	104	551-222-3344	Permanent	Physician	<a href="#">Edit</a>
5	Robert Williams	53	Male	105	201-444-5566	Contractual	Surgeon	<a href="#">Edit</a>
6	Maria Garcia	28	Female	106	908-777-8899	Permanent	Support Staff	<a href="#">Edit</a>
7	James Wilson	47	Male	107	201-666-7788	Permanent	Physician	<a href="#">Edit</a>
10	kiyan desai	15	Male	209	2014846507	Contractual	Surgeon	<a href="#">Edit</a>
11	Ram doe	34	Male	109	2014846567	Contractual	Surgeon	<a href="#">Edit</a>
12	NARENDRAKUMAR PATEL	55	Male	108	5512632479	Contractual	Surgeon	<a href="#">Edit</a>
13	Smith Grey	27	Female	1002	5512632490	Permanent	Nurse	<a href="#">Edit</a>
14	Alice Johnson	45	Female	1003	5512632209	Permanent	Nurse	<a href="#">Edit</a>

To edit staff information, click on the “Edit” button it will pop up new page which retrieves all data stored in database as shown below.

Age

Employment Number

SSN

Street

City

State

Zip Code

Select Gender

Phone Number

Select Employment Type

**Submit**

### Edit Staff

First Name	Last Name	
NARENDRAKUMAR	PATEL	
Age	Gender	
55	Male	
Employment Number	Phone	
108	5512632479	
Employment Type	Role	
Contractual	Surgeon	
SSN		
78956983		
Street		
150 saint pauls ave		
City	State	Zip Code
Jersey City	New Jersey	07306

**Close** **Save changes**

**Staff Records**

**View Staff**

ID	Name	Role	Actions
1	Tom grey	Surgeon	<b>Edit</b>
3	Sarah Johnson	Nurse	<b>Edit</b>
4	Michael Chen	Physician	<b>Edit</b>
5	Robert Williams	Surgeon	<b>Edit</b>
6	Maria Garcia	Support Staff	<b>Edit</b>
7	James Wilson	Physician	<b>Edit</b>
10	kiyan desai	Surgeon	<b>Edit</b>

After making the necessary change, click on the “Save Changes” button, and the information will be updated and show the user a success message, “Staff Updated Successfully!” as shown below.

**Edit Staff**

First Name	Last Name	
Narendraumar	Patel	
Age	Gender	
55	Male	
Employment Number	Phone	
108	5512632479	
Employment Type	Role	
Contractual	Surgeon	
SSN		
78956983		
Street		
150 saint pauls ave		
City	State	Zip Code
Jersey City	New Jersey	07306

Staff updated successfully!

[Close](#) [Save changes](#)

	Age	Gender	Employment No	Phone	Employment Type	Role	Actions
Key	45	Male	101	2397428654	Contractual	Surgeon	<a href="#">Edit</a>
Johnson	32	Female	103	201-555-0123	Permanent	Nurse	<a href="#">Edit</a>
All Chen	41	Male	104	551-222-3344	Permanent	Physician	<a href="#">Edit</a>
Williams	53	Male	105	201-444-5566	Contractual	Surgeon	<a href="#">Edit</a>

The image below shows you the updated information as changed above.

Staff Records								
<a href="#">View Staff</a>								
ID	Name	Age	Gender	Employment No	Phone	Employment Type	Role	Actions
1	Tom grey	45	Male	101	2397428654	Contractual	Surgeon	<a href="#">Edit</a>
3	Sarah Johnson	32	Female	103	201-555-0123	Permanent	Nurse	<a href="#">Edit</a>
4	Michael Chen	41	Male	104	551-222-3344	Permanent	Physician	<a href="#">Edit</a>
5	Robert Williams	53	Male	105	201-444-5566	Contractual	Surgeon	<a href="#">Edit</a>
6	Maria Garcia	28	Female	106	908-777-8899	Permanent	Support Staff	<a href="#">Edit</a>
7	James Wilson	47	Male	107	201-666-7788	Permanent	Physician	<a href="#">Edit</a>
10	kiyan desai	15	Male	209	2014846507	Contractual	Surgeon	<a href="#">Edit</a>
11	Ram doc	34	Male	109	2014846567	Contractual	Surgeon	<a href="#">Edit</a>
12	Narendraumar Patel	55	Male	108	5512632479	Contractual	Surgeon	<a href="#">Edit</a>
13	Smith Grey	27	Female	1002	5512632490	Permanent	Nurse	<a href="#">Edit</a>
14	Alice Johnson	45	Female	1003	5512632209	Permanent	Nurse	<a href="#">Edit</a>
15	Mecc chopra	26	Male	110	1937824989	Permanent	Support Staff	<a href="#">Edit</a>

### Delete Staff Information:

When we click on the “Remove Staff Member” button, it will give us a dropdown to select which staff user we want to delete. Once, a Staff Member record is selected to be deleted, the user is prompted for confirmation, if the staff member record is to be deleted. Upon confirmation, the user clicks on the “Remove Staff Member” Button, and the record will be deleted.

The screenshot shows a web-based clinic management system. At the top, there's a navigation bar with links for Patient Management, In-Patient Management, and Clinic Staff Management. Below this is a sub-navigation for Clinic Staff Management with buttons for Add New Staff, Remove Staff Member, and View All Staff.

The main content area displays a table titled "Staff by Job Type" with columns for ID, Name, Role, Department, Employment Type, and Phone. The table lists 15 staff members with various details like name, role (Surgeon, Nurse, Physician, Support Staff), department (General), employment type (Contractual, Permanent), and phone numbers.

A modal window titled "Remove Staff Member" is overlaid on the page. It contains a dropdown menu labeled "Select Staff Member" with a placeholder "Select Staff Member to Remove". Below the dropdown is a checkbox labeled "I confirm that I want to remove this staff member". At the bottom of the modal is a red button labeled "Remove Staff Member".

Below the table, there's a section titled "Schedule a Shift" with fields for "Select Staff Member", "Select Shift", and a date input field "mm/dd/yyyy". To the right of these fields is a green "Schedule Shift" button.

At the bottom of the page, there's a section titled "Scheduled Shifts" with a "Refresh Shifts" button. A table lists scheduled shifts for four staff members: Ram doe, kiyan desai, Alice Johnson, and Mecc chopra. Each row includes the staff member's name, their role, the shift (Morning, Night, Afternoon), the date of the shift, and a "Cancel Shift" button.

Select a staff member from the dropdown, click the check mark, and then click the remove staff member button to delete the staff from the database.

**Newark Medical Associates Dashboard**

Patient Management   In-Patient Management

### Clinic Staff Management

Add New Staff   Remove Staff Member   View All Staff

Sort by Job Type

Job Types

Name	Role	Shift	Date	Actions
Tom grey	Surgeon	Morning	05/28/2025	<button>Cancel Shift</button>
Sarah Johnson	Surgeon	Night	05/27/2025	<button>Cancel Shift</button>
Michael Chen	Nurse	Morning	05/20/2025	<button>Cancel Shift</button>
Robert Williams	Support Staff	Afternoon	05/19/2025	<button>Cancel Shift</button>

**Remove Staff Member**

Select Staff Member

Select Staff Member to Remove

- Tom grey (Surgeon)
- Sarah Johnson (Nurse)
- Michael Chen (Physician)
- Robert Williams (Surgeon)
- Maria Garcia (Support Staff)
- James Wilson (Physician)
- kiyan desai (Surgeon)
- Ram doe (Surgeon)
- NARENDRAKUMAR PATEL (Surgeon)
- Smith Grey (Nurse)
- Alice Johnson (Nurse)
- Mecc chopra (Support Staff)
- Gredy doe (Nurse)

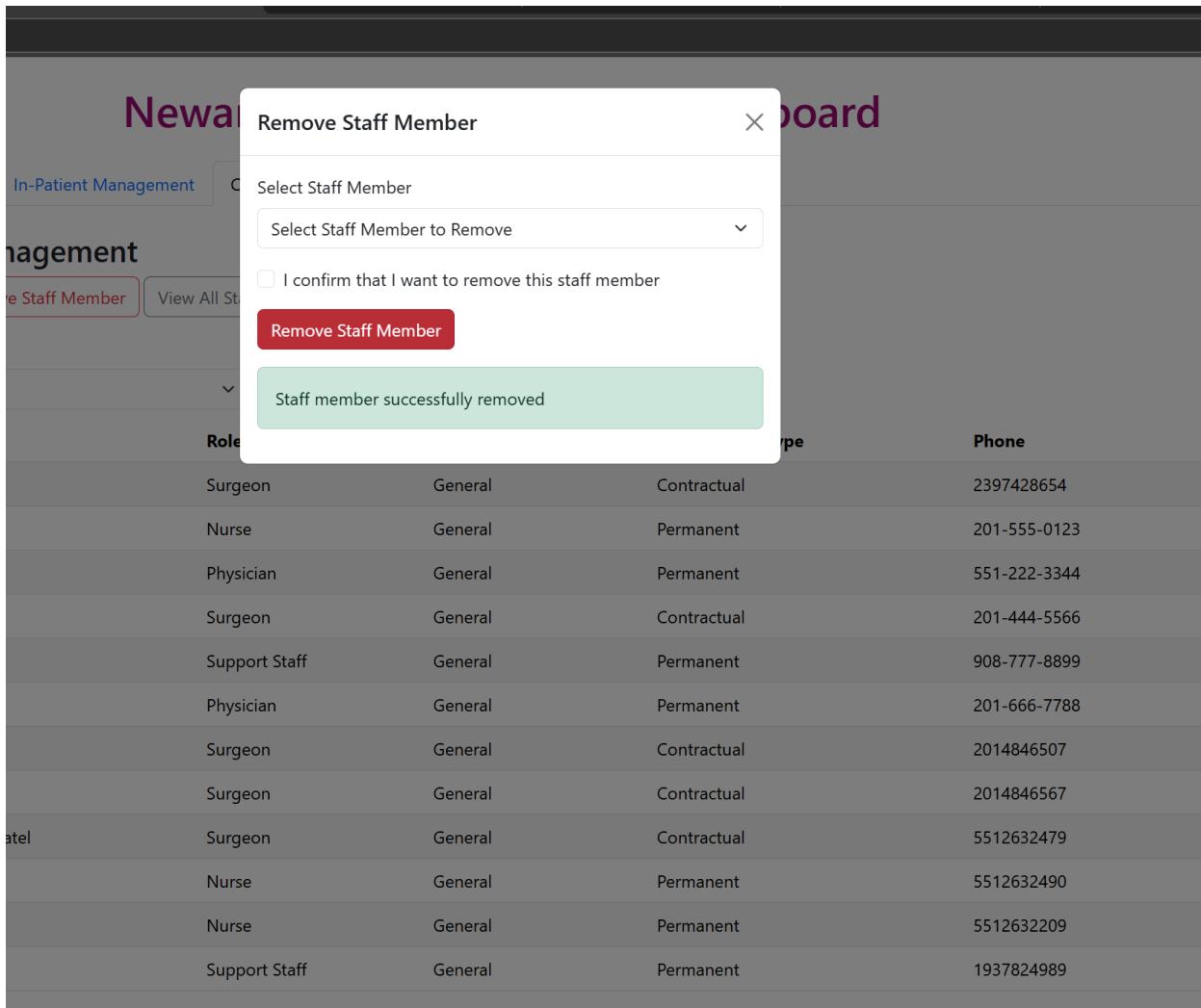
**Schedule a Shift**

Select Staff Member   Select Shift   mm/dd/yyyy  

**Scheduled Shifts**

Staff	Role	Shift	Date	Actions
Ram doe	Surgeon	Morning	05/28/2025	<button>Cancel Shift</button>
kiyan desai	Surgeon	Night	05/27/2025	<button>Cancel Shift</button>
Alice Johnson	Nurse	Morning	05/20/2025	<button>Cancel Shift</button>
Mecc chopra	Support Staff	Afternoon	05/19/2025	<button>Cancel Shift</button>

The confirmation message will be displayed as below.



### 5.3.1 View staff member per job type

To view staff by job type we have to select job role from drop down and click on filter button so it will filter data as per selected role.

**Step 1.** Select role from dropdown from all job type and click on filter button

Staff by Job Type

Nurses		Filter			
	All Job Types				
1	Physicians				
2	Nurses				
3	Surgeons				
4	Support Staff				
5	Robert Williams	Surgeon	General	Contractual	2397428654
6	Maria Garcia	Surgeon	General	Permanent	201-555-0123
7	James Wilson	Surgeon	General	Permanent	551-222-3344
10	kiyan desai	Surgeon	General	Contractual	201-444-5566
11	Ram doe	Surgeon	General	Contractual	2014846507
12	NARENDRAKUMAR PATEL	Surgeon	General	Contractual	5512632479
13	Smith Grey	Surgeon	General	Permanent	5512632490
14	Alice Johnson	Surgeon	General	Permanent	5512632209
15	Mecc chopra	Surgeon	General	Permanent	1937824989
19	Gredy doe	Surgeon	General	Permanent	937824989

Schedule a Shift

**Step 2.** Here I select surgeons as job roles so it will display all surgeon from database

Staff by Job Type

Surgeons		Filter			
ID	Name	Role	Department	Employment Type	Phone
1	Tom joe	Surgeon	General	Contractual	2397428654
5	Robert Williams	Surgeon	General	Contractual	201-444-5566
10	kiyan desai	Surgeon	General	Contractual	2014846507
11	Ram doe	Surgeon	General	Contractual	2014846567
12	NARENDRAKUMAR PATEL	Surgeon	General	Contractual	5512632479

### 5.3.2 Schedule job shift

To arrange a job shift, you must choose a staff member from the dropdown menu, select the type of shift and the date, and then click the 'Schedule Shift' button. This will schedule the shift for the chosen staff member.

#### Step-By-Step: Schedule job shift

**Step 1.** select staff member(it will display all staff members from staff table)

Schedule a Shift

Select Staff Member	Select Shift	Date	Actions
Tom joe (Surgeon)	Morning	05/28/2025	<button>Cancel Shift</button>
Sarah Johnson (Nurse)	Night	05/27/2025	<button>Cancel Shift</button>
Michael Chen (Physician)	Afternoon	05/19/2025	<button>Cancel Shift</button>
Robert Williams (Surgeon)	Morning	05/14/2025	<button>Cancel Shift</button>
Maria Garcia (Support Staff)	Morning	05/11/2025	<button>Cancel Shift</button>
James Wilson (Physician)	Night		
Kiran desai (Surgeon)	Afternoon		
Ram doe (Surgeon)	Morning		
NARENDRAKUMAR PATEL (Surgeon)	Night		
Smith Grey (Nurse)	Afternoon		
Alice Johnson (Nurse)	Morning		
Mecc chopra (Support Staff)	Night		
Gredy doe (Nurse)	Afternoon		

## Step 2:select shift

Schedule a Shift

Select Staff Member	Select Shift	Date	Actions
Tom joe (Surgeon)	Morning (7AM-3PM)	05/28/2025	<button>Cancel Shift</button>
Sarah Johnson (Nurse)	Afternoon (3PM-11PM)	05/27/2025	<button>Cancel Shift</button>
Michael Chen (Physician)	Night (11PM-7AM)	05/19/2025	<button>Cancel Shift</button>
Robert Williams (Surgeon)	Morning	05/14/2025	<button>Cancel Shift</button>
Maria Garcia (Support Staff)	Night	05/11/2025	<button>Cancel Shift</button>
James Wilson (Physician)	Afternoon		
Kiran desai (Surgeon)	Morning		
Ram doe (Surgeon)	Night		
NARENDRAKUMAR PATEL (Surgeon)	Afternoon		
Smith Grey (Nurse)	Morning		
Alice Johnson (Nurse)	Night		
Mecc chopra (Support Staff)	Afternoon		
Gredy doe (Nurse)	Morning		

## Step3: Select date

Schedule a Shift

(dd/mm/yyyy)

**Scheduled Shifts**

[Refresh Shifts](#)

Staff	Role	Shift	
Ram doe	Surgeon	Morning	<a href="#">Cancel Shift</a>
kiyan desai	Surgeon	Night	<a href="#">Cancel Shift</a>
Mecc chopra	Support Staff	Afternoon	<a href="#">Cancel Shift</a>
Tom joe	Surgeon	Morning	05/14/2025
James Wilson	Physician	Morning	05/11/2025

**Actions**

[Clear](#)

[Today](#)

May 2025 ▾

Su	Mo	Tu	We	Th	Fr	Sa
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

↑ ↓

To remove data from the shift table, please click the 'Cancel Shift' button. This action will prompt you for confirmation before deleting the record, and upon clicking 'OK', a success

message will be displayed indicating that the shift has been successfully canceled.

The screenshot shows a web-based application interface for managing staff and shifts. At the top, there are buttons for 'Add New Staff' (blue), 'Remove Staff Member' (red), and 'View All Staff' (grey). A modal dialog box titled 'localhost:5500 says' asks 'Are you sure you want to cancel this shift?' with 'OK' and 'Cancel' buttons. Below the dialog is a table titled 'Staff by Job Type' with a dropdown menu 'All Job Types'. The table lists staff members with columns for ID, Name, Role, Department, Employment Type, and Phone. A red box highlights the row for 'Tom grey'. Below the table is a section titled 'Schedule a Shift' with fields for 'Select Staff Member' (dropdown), 'Select Shift' (dropdown), 'mm/dd/yyyy' (date input), and a green 'Schedule Shift' button. At the bottom is a section titled 'Scheduled Shifts' with a 'Refresh Shifts' button. This section displays a table of scheduled shifts with columns for Staff, Role, Shift, Date, and Actions (a red 'Cancel Shift' button).

ID	Name	Role	Department	Employment Type	Phone
1	Tom grey	Surgeon	General	Contractual	2397428654
3	Sarah Johnson	Nurse	General	Permanent	201-555-0123
4	Michael Chen	Physician	General	Permanent	551-222-3344
5	Robert Williams	Surgeon	General	Contractual	201-444-5566
6	Maria Garcia	Support Staff	General	Permanent	908-777-8899
7	James Wilson	Physician	General	Permanent	201-666-7788
10	kiyan desai	Surgeon	General	Contractual	2014846507
11	Ram doe	Surgeon	General	Contractual	2014846567
12	Narendraumar Patel	Surgeon	General	Contractual	5512632479
13	Smith Grey	Nurse	General	Permanent	5512632490
14	Alice Johnson	Nurse	General	Permanent	5512632209
15	Mecc chopra	Support Staff	General	Permanent	1937824989
25	Charles Yoo	Surgeon	General	Contractual	5512632475
26	professor raya	Physician	General	Permanent	2014846504

**Schedule a Shift**

Select Staff Member Select Shift mm/dd/yyyy Schedule Shift

**Scheduled Shifts**

Refresh Shifts

Staff	Role	Shift	Date	Actions
Ram doe	Surgeon	Morning	05/28/2025	<button>Cancel Shift</button>
kiyan desai	Surgeon	Night	05/27/2025	<button>Cancel Shift</button>
Alice Johnson	Nurse	Morning	05/20/2025	<button>Cancel Shift</button>
Mecc chopra	Support Staff	Afternoon	05/19/2025	<button>Cancel Shift</button>
Robert Williams	Surgeon	Night	05/13/2025	<button>Cancel Shift</button>
Ram doe	Surgeon	Night	05/13/2025	<button>Cancel Shift</button>

**localhost:5500 says**  
Shift successfully cancelled!

**OK**

ID	Name	Role	Department	Employment Type	Phone
1	Tom grey	Surgeon	General	Contractual	2397428654
3	Sarah Johnson	Nurse	General	Permanent	201-555-0123
4	Michael Chen	Physician	General	Permanent	551-222-3344
5	Robert Williams	Surgeon	General	Contractual	201-444-5566
6	Maria Garcia	Support Staff	General	Permanent	908-777-8899
7	James Wilson	Physician	General	Permanent	201-666-7788
10	kiyan desai	Surgeon	General	Contractual	2014846507
11	Ram doe	Surgeon	General	Contractual	2014846567
12	Narendraumar Patel	Surgeon	General	Contractual	5512632479
13	Smith Grey	Nurse	General	Permanent	5512632490
14	Alice Johnson	Nurse	General	Permanent	5512632209
15	Mecc chopra	Support Staff	General	Permanent	1937824989
25	Charles Yoo	Surgeon	General	Contractual	5512632475
26	professor raya	Physician	General	Permanent	2014846504

**Schedule a Shift**

Select Staff Member  Select Shift  mm/dd/yyyy  Schedule Shift

**Scheduled Shifts**

Staff	Role	Shift	Date	Actions
Ram doe	Surgeon	Morning	05/28/2025	<input type="button" value="Cancel Shift"/>
kiyan desai	Surgeon	Night	05/27/2025	<input type="button" value="Cancel Shift"/>
Alice Johnson	Nurse	Morning	05/20/2025	<input type="button" value="Cancel Shift"/>
Mecc chopra	Support Staff	Afternoon	05/19/2025	<input type="button" value="Cancel Shift"/>
Robert Williams	Surgeon	Night	05/13/2025	<input type="button" value="Cancel Shift"/>
Ram doe	Surgeon	Night	05/13/2025	<input type="button" value="Cancel Shift"/>

**Tables View in Software:** These are the tables created in the software while the application was created and data was being stored.

The screenshot shows a code editor interface with several tabs open. The main tab is 'main.py' containing Python code for a medical management system. A search bar at the top right shows the error message 'Failed to load room assign Aa ab\_\* No results'. The left sidebar shows a file tree for 'DATAMANAGEMENT [WSL:...]' and other files like 'index.html', 'addstaff.html', 'newpatient.html', 'addrroom.html', 'assigndoctor.html', 'assignnurse.html', and 'test\_mysql.py'. The bottom terminal window shows a MySQL query for patients:

```
mysql> select * from patients;
+----+----+----+----+----+----+----+
| id | name | age | gender | phone | email | address | created_at |
+----+----+----+----+----+----+----+
| 1 | abc | 24 | Male | 127399024r73 | abc@example.com | 123 Main St, New York, NY | 2025-04-20 22:34:32 |
| 2 | abcd | 45 | Female | 127399024r73 | abc@example.com | 456 Oak Ave, Boston, MA | 2025-04-20 22:37:15 |
| 3 | riya | 23 | Female | 780282398 | riya@example.com | 789 Pine Rd, Chicago, IL | 2025-04-20 22:42:31 |
| 4 | nikhil | 28 | Male | 25697530 | nikhil@example.com | 321 Elm St, Houston, TX | 2025-04-20 22:50:33 |
| 5 | Neha | 28 | Female | 6703589012 | neha@example.com | 654 Maple Dr, Phoenix, AZ | 2025-04-21 18:43:40 |
| 6 | John | 56 | Male | 824196390 | john@gmail.com | jersey city,NJ | 2025-04-21 19:06:47 |
| 7 | HETVI, PATEL | 27 | Female | 5512632475 | hetvi444@gmail.com | 150 saint pauls ave | 2025-04-21 20:43:26 |
| 8 | kim | 37 | Male | 765254189 | kim.kiy@gmail.com | 289,forest,st,Iselin,NJ | 2025-04-21 22:06:20 |
| 9 | Tom | 87 | Male | 897603890 | tom@mail.com | 67 jefferson,new Jersey | 2025-04-23 23:21:34 |
| 10 | viha | 6 | Female | 32497439 | viha@gmail.com | 23,cliff st,jersey city | 2025-04-29 19:24:43 |
| 11 | Kevin | 27 | Male | 8924097267 | kevins@gmail.com | 4821 Maple Ridge Lane,Springfield,NJ | 2025-05-03 16:23:32 |
| 12 | Kevin | 27 | Male | 8924097267 | kevins@gmail.com | 4821 Maple Ridge Lane,Springfield,NJ | 2025-05-04 11:14:35 |
| 13 | JERRY | 67 | Male | 789-546-145 | JERY@GMAIL.COM | 49 manhattan ave,Manhattan,NY | 2025-05-04 11:37:50 |
| 16 | riya | 32 | Female | 5512632478 | riya@gmail.com | 143 saint pauls ave | 2025-05-09 23:29:24 |
| 17 | Ross | 45 | Male | 3482352398 | ross@yahoo.com | 89 cliff ave,colonia | 2025-05-09 23:30:01 |
| 18 | karan | 23 | Male | 1238748476 | karan@hotmail.com | 38 jefferson ave,jersey city,NJ | 2025-05-09 23:30:47 |
+----+----+----+----+----+----+----+
16 rows in set (0.00 sec)
```

The screenshot shows a MySQL query for nurse assignments:

```
mysql> select * from nurse_assignments;
+----+----+----+----+----+----+----+
| id | patient_id | nurse_id | assignment_date | shift | responsibilities | created_at |
+----+----+----+----+----+----+----+
| 3 | 3 | 3 | 2025-05-16 | day | Emergency Response | 2025-05-04 14:48:40 |
| 4 | 6 | 13 | 2025-05-07 | night | Administrative task | 2025-05-04 14:52:35 |
| 6 | 4 | 14 | 2025-05-07 | night | Medical Support | 2025-05-04 21:58:05 |
| 7 | 10 | 3 | 2025-05-20 | DAY | Emergency Response | 2025-05-10 17:46:30 |
| 9 | 9 | 13 | 2025-05-14 | evening | Emergency Response | 2025-05-11 14:05:25 |
+----+----+----+----+----+----+----+
5 rows in set (0.01 sec)
```

OPEN EDITORS

DATA MANAGEMENT (WSL)

```

    744     async def assign_doctor(assignment: DoctorAssignment):
    745         patient_id, doctor_id, assignment_date, reason
    746         ) VALUES (%s, %s, %s, %s)
    747         """
    748         assignment.patient_id, assignment.doctor_id,
    749         assignment.assignment_date, assignment.reason
    750     )
    751     connection.commit()
    752     return {"message": "Doctor assigned successfully", "success": True}
    753     except Error as e:
    754         connection.rollback()
    755         raise HTTPException(status_code=500, detail=str(e))
    756
    757     @app.get("/api/doctors/assignments")
    758     async def get_doctor_assignments():
    759         with get_db_connection() as connection:
    760             with get_db_cursor(connection) as cursor:
    761                 try:
    762                     cursor.execute("""
    763                         SELECT da.*,
    764                             CONCAT(da.patient_name,
    765                                 ' ', da.last_name) as doctor_name
    766                         FROM doctor_assignments da
    767                         JOIN patients p ON da.patient_id = p.id
    768                         JOIN staff s ON da.doctor_id = s.id
    769                         ORDER BY da.assignment_date DESC
    770                     """)
    771                     assignments = cursor.fetchall()
    772                     return {"assignments": assignments}
    773                 except Error as e:
    774                     raise HTTPException(status_code=500, detail=str(e))
    775
    776     @app.delete("/api/doctors/assignments/{assignment_id}")
    777     async def delete_doctor_assignment(assignment_id: int):
    778         with get_db_connection() as connection:
    779             with get_db_cursor(connection) as cursor:
    780                 try:
    781                     cursor.execute("DELETE FROM doctor_assignments WHERE id = %s", (assignment_id,))
    782                     connection.commit()
    783                 except Error as e:
    784                     raise HTTPException(status_code=500, detail=str(e))
    785
    786     # MySQL Management
    787     # Data Management
    788     # Test MySQL
    
```

OUTPUT DEBUG CONSOLE TERMINAL PORTS TEST RESULTS

TERMINAL

```

    1 |   1 |   13 | 2025-05-07 | night | Administrative task | 2025-05-04 14:52:35 |
    1 |   1 |   14 | 2025-05-07 | night | Medical Support | 2025-05-04 15:56:05 |
    1 |   10 |   3 | 2025-05-20 | DAY | Emergency Response | 2025-05-10 17:46:30 |
    1 |   9 |   13 | 2025-05-14 | evening | Emergency Response | 2025-05-11 14:05:25 |
    4 rows in set (0.01 sec)

mysql> select * from staff;
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| id | first_name | last_name | age | employment_no | ssn | street | city | state | zip | gender | phone | emp_type | role | created_at |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | Tom | grey | 45 | 101 | 34567 | 189 cliff ave | Jersey City | NJ | 07306 | Male | 2397428659 | Contractual | Surgeon | 2025-04-29 21:59:21 |
| 2 | Narendra | Patel | 50 | 102 | 45678 | 123 Main St | Bayonne | NJ | 07002 | Female | 5512345678 | Contractual | Surgeon | 2025-04-29 22:00:00 |
| 3 | Michael | Chen | 41 | 184 | 567-89-0123 | 78 Health Ave | Hoboken | NJ | 07036 | Male | 551-222-3344 | Permanent | Physician | 2025-04-29 22:22:27 |
| 4 | Robert | Williams | 53 | 185 | 678-98-1234 | 300 Heart Lane | Jersey City | NJ | 07306 | Male | 281-444-5566 | Contractual | Surgeon | 2025-04-29 22:21:36 |
| 5 | Maria | Garcia | 28 | 186 | 789-01-2345 | 65 Service Rd | Bayonne | NJ | 07002 | Female | 988-777-8889 | Permanent | Support Staff | 2025-04-29 22:20:49 |
| 6 | Max | Lopez | 37 | 187 | 890-12-3456 | 123 Main St | Jersey City | NJ | 07306 | Male | 123-456-7890 | Permanent | Physician | 2025-04-29 22:21:41 |
| 7 | kiyani | desai | 15 | 189 | 2973254593 | Ward No. 4, Boudha Marg | Manhattan | NY | 100-00 | Male | 2014846567 | Contractual | Surgeon | 2025-05-03 16:39:59 |
| 8 | Ram | doe | 34 | 189 | 8763458989 | 49 manhattan ave, Newark | Newark | NJ | 07182 | Male | 2014846567 | Contractual | Surgeon | 2025-05-03 17:49:00 |
| 9 | Narendra | Patel | 50 | 102 | 4567890000 | 123 Main St, New Jersey | Jersey City | NJ | 07306 | Female | 5512345678 | Contractual | Surgeon | 2025-05-04 00:00:00 |
| 10 | Alice | Johnson | 45 | 1803 | 55678908 | 321 Maple St | Hoboken | NJ | 07036 | Female | 5512322089 | Permanent | Nurse | 2025-05-04 14:51:28 |
| 11 | Charles | Yoo | 30 | 123 | 46659878 | 28 saint pauls ave | Jersey City | NJ | 07306 | Male | 197824989 | Permanent | Support Staff | 2025-05-04 22:10:15 |
| 12 | professor | reya | 56 | 125 | 2184327465 | 126 Saint Pauls Ave | Jersey City | NJ | 07306-2627 | Male | 5512852471 | Contractual | Surgeon | 2025-05-11 14:10:11 |
| 13 | professor | Patel | 50 | 102 | 4567890000 | 123 Main St, New Jersey | Jersey City | NJ | 07306 | Female | 5512345678 | Contractual | Surgeon | 2025-05-04 14:50:00 |
| 14 | Alice | Johnson | 45 | 1803 | 55678908 | 321 Maple St | Hoboken | NJ | 07036 | Female | 5512322089 | Permanent | Nurse | 2025-05-04 14:51:28 |
| 15 | Mcc | chopra | 26 | 110 | 29479858 | 67Cliff ave, colonia | Jersey City | NJ | 07116 | Male | 197824989 | Permanent | Support Staff | 2025-05-04 22:10:15 |
| 16 | Charles | Yoo | 30 | 123 | 46659878 | 28 saint pauls ave | Jersey City | NJ | 07306 | Male | 5512852471 | Contractual | Surgeon | 2025-05-11 14:10:11 |
| 17 | professor | reya | 56 | 125 | 2184327465 | 126 Saint Pauls Ave | Jersey City | NJ | 07306-2627 | Male | 55128465684 | Permanent | Physician | 2025-05-11 14:10:11 |
    14 rows in set (0.01 sec)

mysql> select * from room_assignments;
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| id | patient_id | admission_date | nursing_unit | room_number | bed_number | number_of_days | assigned_nurse | created_at |
+----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 6 | 2025-05-12 | 5 | Green-201 | A | 1 | 3 | Sana | 2025-05-03 16:25:27 |
| 5 | 18 | 2025-05-13 | 6 | Blue-101 | A | 1 | 2 | Marck | 2025-05-04 13:41:22 |
| 7 | 2 | 2025-05-14 | 4 | Blue-102 | B | 1 | 3 | Kevin | 2025-05-04 21:47:30 |
| 8 | 5 | 2025-05-09 | 5 | Blue-102 | A | 1 | 4 | lara | 2025-05-04 21:56:26 |
| 10 | 12 | 2025-05-12 | 5 | Blue-102 | B | 1 | 1 | Sharon | 2025-05-10 17:10:05 |
| 11 | 3 | 2025-05-12 | 3 | Blue-102 | B | 1 | 3 | Siya | 2025-05-11 11:01:50 |
    6 rows in set (0.00 sec)

mysql>

```

mysql> select \* from diagnoses;

id	patient_id	diagnosis												
1	1	Flu and mild fever												
2	3	Seasonal allergy with skin rash												
3	6	Type 2 Diabetes Mellitus												
4	8	Back pain due to poor posture												
5	2	Hypertension (Stage 1)												
6	4	Migraine with aura												
7	5	Iron deficiency anemia												
8	7	Allergic rhinitis												
9	9	Osteoarthritis of knee												
10	10	Common cold												

10 rows in set (0.01 sec)

mysql>

## **6. Conclusion:**

This report details the design and implementation of a comprehensive hospital management system for Newark Medical Associates. The system consists of three integrated web-based applications focusing on patient management, in-patient management, and clinic staff management. The solution aims to streamline daily hospital operations, improve patient care coordination, and optimize resource allocation through a unified database system with specialized interfaces for different stakeholders.

The designed system offers a complete solution for the Application requirements of the hospital management needs of Newark Medical Associates. By dividing the functionality into three specialized applications while maintaining a single unified database, we have created a system that caters to the specific requirements of various user groups while ensuring data consistency throughout the organization.