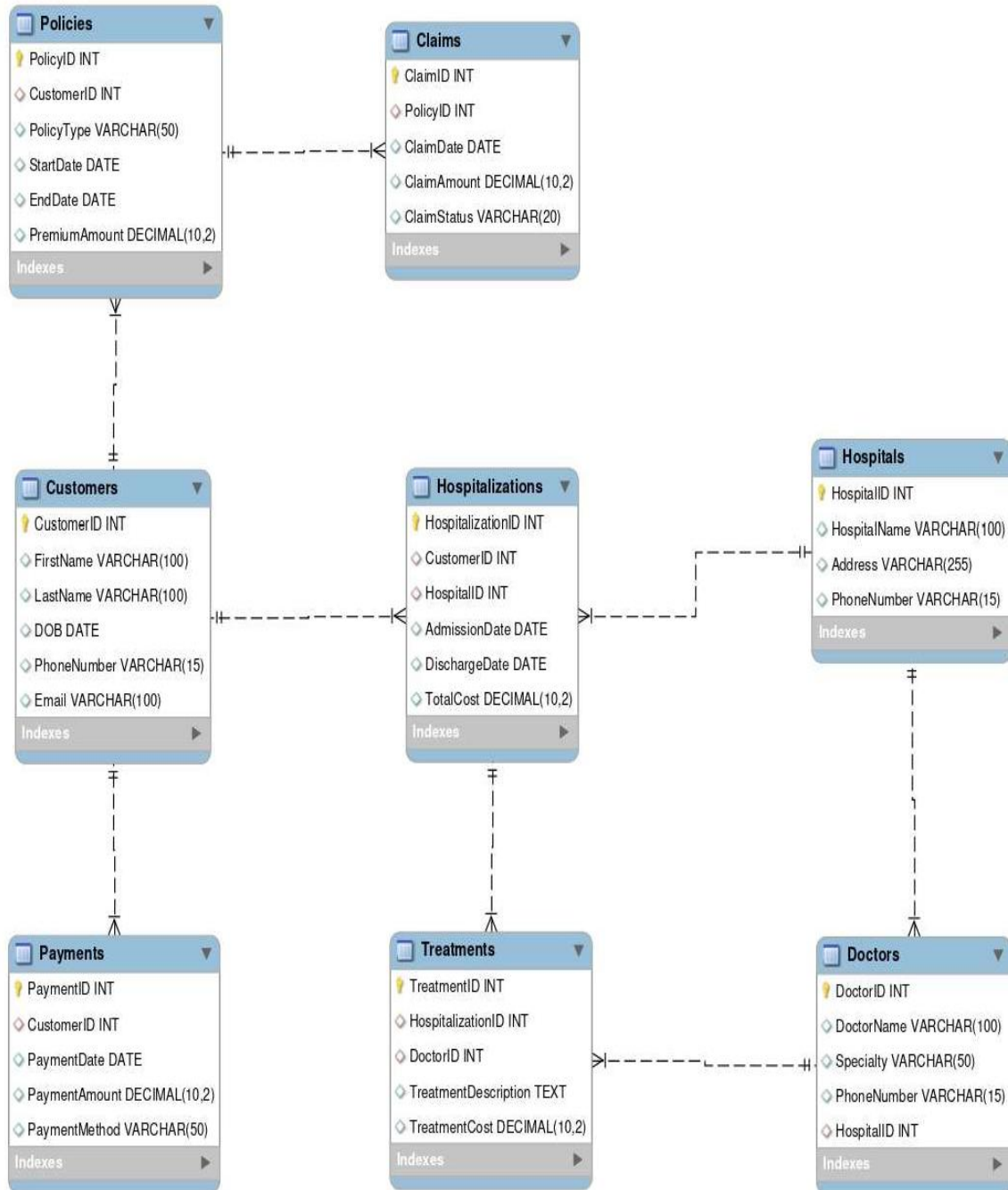


# Project 2

## ERD DIAGRAM



## **About the Table**

### **1. Customers Table:**

- Stores basic customer information such as `CustomerID`, `FirstName`, `LastName`, `DOB` (Date of Birth), `PhoneNumber`, and `Email`.
- `CustomerID` is the primary key, which uniquely identifies each customer.

### **2. Policies Table:**

- Tracks the insurance policies owned by customers.
- `PolicyID` is the primary key for each policy.
- `CustomerID` is a foreign key that links each policy to a specific customer in the `Customers` table.
- Other columns include `PolicyType`, `StartDate`, `EndDate`, and `PremiumAmount`.

### **3. Claims Table:**

- Manages claims made against insurance policies.
- `ClaimID` is the primary key.
- `PolicyID` is a foreign key linking each claim to a specific policy in the `Policies` table.
- Other fields include `ClaimDate`, `ClaimAmount`, and `ClaimStatus`.

### **4. Payments Table:**

- Records payments made by customers.
- `PaymentID` is the primary key.
- `CustomerID` is a foreign key linking each payment to a customer in the `Customers` table.
- Fields include `PaymentDate`, `PaymentAmount`, and `PaymentMethod`.

### **5. Hospitals Table:**

- Stores information about hospitals.
- `HospitalID` is the primary key.
- Other fields include `HospitalName`, `Address`, and `PhoneNumber`.

**6. Hospitalizations Table:**

- Tracks customer hospitalizations.
- `HospitalizationID` is the primary key.
- `CustomerID` is a foreign key linking each hospitalization to a customer in the `Customers` table.
- `HospitalID` is a foreign key linking each hospitalization to a hospital in the `Hospitals` table.
- Fields include `AdmissionDate`, `DischargeDate`, and `TotalCost`.

**7. Doctors Table:**

- Contains information about doctors.
- `DoctorID` is the primary key.
- `HospitalID` is a foreign key linking each doctor to a hospital in the `Hospitals` table.
- Fields include `DoctorName`, `Specialty`, and `PhoneNumber`.

**8. Treatments Table:**

- Records treatments administered during hospitalizations.
- `TreatmentID` is the primary key.
- `HospitalizationID` is a foreign key linking each treatment to a hospitalization in the `Hospitalizations` table.
- `DoctorID` is a foreign key linking each treatment to a doctor in the `Doctors` table.
- Fields include `TreatmentDescription` and `TreatmentCost`.

## **CODE**

### **Table Creation**

#### **-- Customer Information Table**

```
CREATE TABLE Customers (  
  
    CustomerID INT PRIMARY KEY AUTO_INCREMENT,  
  
    FirstName VARCHAR(100),  
  
    LastName VARCHAR(100),  
  
    DOB DATE,  
  
    PhoneNumber VARCHAR(15),  
  
    Email VARCHAR(100)  
  
);
```

#### **-- Policies Table**

```
CREATE TABLE Policies (  
  
    PolicyID INT PRIMARY KEY AUTO_INCREMENT,  
  
    CustomerID INT,  
  
    PolicyType VARCHAR(50),  
  
    StartDate DATE,  
  
    EndDate DATE,  
  
    PremiumAmount DECIMAL(10, 2)
```

FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)

);

#### -- Claims Table

CREATE TABLE Claims (

ClaimID INT PRIMARY KEY AUTO\_INCREMENT,

PolicyID INT,

ClaimDate DATE,

ClaimAmount DECIMAL(10, 2),

ClaimStatus VARCHAR(20),

FOREIGN KEY (PolicyID) REFERENCES Policies(PolicyID)

);

#### -- Payments Table

CREATE TABLE Payments (

PaymentID INT PRIMARY KEY AUTO\_INCREMENT,

CustomerID INT,

PaymentDate DATE,

PaymentAmount DECIMAL(10, 2),

PaymentMethod VARCHAR(50),

FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)

);

#### -- Hospitals Table

CREATE TABLE Hospitals (

HospitalID INT PRIMARY KEY AUTO\_INCREMENT,

HospitalName VARCHAR(100),

Address VARCHAR(255),

PhoneNumber VARCHAR(15)

);

#### -- Hospitalizations Table

CREATE TABLE Hospitalizations (

HospitalizationID INT PRIMARY KEY AUTO\_INCREMENT,

CustomerID INT,

```
HospitalID INT,  
  
AdmissionDate DATE,  
  
DischargeDate DATE,  
  
TotalCost DECIMAL(10, 2),  
  
FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID),  
  
FOREIGN KEY (HospitalID) REFERENCES Hospitals(HospitalID)  
  
);
```

#### -- Doctors Table

```
CREATE TABLE Doctors (  
  
    DoctorID INT PRIMARY KEY AUTO_INCREMENT,  
  
    DoctorName VARCHAR(100),  
  
    Specialty VARCHAR(50),  
  
    PhoneNumber VARCHAR(15),  
  
    HospitalID INT,  
  
    FOREIGN KEY (HospitalID) REFERENCES Hospitals(HospitalID)  
  
);
```

#### -- Treatments Table

```
CREATE TABLE Treatments (  
  
    TreatmentID INT PRIMARY KEY AUTO_INCREMENT,  
  
    HospitalizationID INT,  
  
    DoctorID INT,  
  
    TreatmentDescription TEXT,  
  
    TreatmentCost DECIMAL(10, 2),  
  
    FOREIGN KEY (HospitalizationID) REFERENCES Hospitalizations(HospitalizationID),  
  
    FOREIGN KEY (DoctorID) REFERENCES Doctors(DoctorID)  
  
);
```

## Insert Queries

-- Insert data into Customers table

INSERT INTO Customers (FirstName, LastName, DOB, PhoneNumber, Email)

VALUES

('John', 'Doe', '1980-05-15', '1234567890', 'john.doe@example.com'),  
('Jane', 'Smith', '1990-07-22', '0987654321', 'jane.smith@example.com'),  
('Emily', 'Davis', '1975-09-10', '1122334455', 'emily.davis@example.com'),  
('Michael', 'Brown', '1985-12-05', '6677889900', 'michael.brown@example.com'),  
('Sarah', 'Wilson', '1995-03-30', '4455667788', 'sarah.wilson@example.com');

-- Insert data into Policies table

INSERT INTO Policies (CustomerID, PolicyType, StartDate, EndDate, PremiumAmount)

VALUES

(1, 'Health Insurance', '2023-01-01', '2024-01-01', 12000.00),  
(2, 'Health Insurance', '2023-02-15', '2024-02-15', 15000.00),  
(3, 'Health Insurance', '2023-03-10', '2024-03-10', 13000.00),  
(4, 'Health Insurance', '2023-04-25', '2024-04-25', 11000.00),  
(5, 'Health Insurance', '2023-05-05', '2024-05-05', 14000.00);

-- Insert data into Claims table

INSERT INTO Claims (PolicyID, ClaimDate, ClaimAmount, ClaimStatus)

VALUES

(1, '2023-06-15', 5000.00, 'Approved'),  
(2, '2023-07-20', 10000.00, 'Pending'),  
(3, '2023-08-05', 7000.00, 'Rejected'),  
(4, '2023-09-10', 3000.00, 'Approved'),  
(5, '2023-10-15', 6000.00, 'Pending');

-- Insert data into Payments table

INSERT INTO Payments (CustomerID, PaymentDate, PaymentAmount, PaymentMethod)

VALUES

(1, '2023-01-01', 12000.00, 'Credit Card'),  
(2, '2023-02-15', 15000.00, 'Debit Card'),  
(3, '2023-03-10', 13000.00, 'Net Banking'),  
(4, '2023-04-25', 11000.00, 'UPI'),

```
(5, '2023-05-05', 14000.00, 'Credit Card');
```

```
-- Insert data into Hospitals table
```

```
INSERT INTO Hospitals (HospitalName, Address, PhoneNumber) VALUES
```

```
('City Hospital', '123 Main St', '5551234567'),
```

```
('Green Valley Hospital', '456 Elm St', '5559876543'),
```

```
('Sunshine Hospital', '789 Oak St', '5554567890'),
```

```
('Mountain View Hospital', '321 Pine St', '5556781234'),
```

```
('Riverdale Hospital', '654 Maple St', '5557890123');
```

```
-- Insert data into Hospitalizations table
```

```
INSERT INTO Hospitalizations (CustomerID, HospitalID, AdmissionDate, DischargeDate, TotalCost)
```

```
VALUES
```

```
(1, 1, '2023-06-10', '2023-06-15', 20000.00),
```

```
(2, 2, '2023-07-15', '2023-07-20', 30000.00),
```

```
(3, 3, '2023-08-01', '2023-08-05', 25000.00),
```

```
(4, 4, '2023-09-05', '2023-09-10', 15000.00),
```

```
(5, 5, '2023-10-10', '2023-10-15', 35000.00);
```

```
-- Insert data into Doctors table
```

```
INSERT INTO Doctors (DoctorName, Specialty, PhoneNumber, HospitalID)
```

```
VALUES
```

```
('Dr. Smith', 'Cardiology', '5551112222', 1),
```

```
('Dr. Johnson', 'Orthopedics', '5553334444', 2),
```

```
('Dr. Williams', 'Neurology', '5555556666', 3),
```

```
('Dr. Brown', 'Pediatrics', '5557778888', 4),
```

```
('Dr. Jones', 'General Medicine', '5559990000', 5);
```

```
-- Insert data into Treatments table
```

```
INSERT INTO Treatments (HospitalizationID, DoctorID, TreatmentDescription, TreatmentCost)
```

```
VALUES
```

```
(1, 1, 'Heart surgery', 15000.00),
```

```
(2, 2, 'Hip replacement', 20000.00),
```

```
(3, 3, 'Brain scan', 10000.00),
```

```
(4, 4, 'Childbirth', 8000.00),
```

```
(5, 5, 'General checkup', 5000.00);
```



## **Permissions**

-- Grant access privileges to the policy manager

GRANT SELECT, INSERT, UPDATE, DELETE ON project.Policies TO 'policy\_manager'@'localhost';

GRANT SELECT, INSERT, UPDATE, DELETE ON project.Claims TO 'policy\_manager'@'localhost';

-- Grant access privileges to the customer support team

GRANT SELECT, INSERT, UPDATE ON project.Customers TO 'customer\_support'@'localhost';

GRANT SELECT ON project.Payments TO 'customer\_support'@'localhost';

-- Grant access privileges to the hospital administrator

GRANT SELECT, INSERT, UPDATE ON project.Hospitals TO 'hospital\_admin'@'localhost';

GRANT SELECT, INSERT, UPDATE ON project.Hospitalizations TO 'hospital\_admin'@'localhost';

-- Grant access privileges to the medical staff

GRANT SELECT ON project.Doctors TO 'medical\_staff'@'localhost';

GRANT SELECT, INSERT ON project.Treatments TO 'medical\_staff'@'localhost';

## **Project Done By:**

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