create database Group8

CREATE TABLE Doctor (

DoctorID VARCHAR(50) PRIMARY KEY,

LicenseNumber VARCHAR(20),

YearsOfExperience INT,

Education VARCHAR(100),

AvailabilitySchedule VARCHAR(100),

Specialization VARCHAR(50)

);

INSERT INTO Doctor (DoctorID, LicenseNumber, YearsOfExperience, Education, AvailabilitySchedule, Specialization)

VALUES

('DOC001', '12345', 10, 'MD', 'Monday-Friday', 'Cardiology'),

('DOC002', '67890', 8, 'DO', 'Tuesday-Saturday', 'Orthopedics'),

('DOC003', '54321', 15, 'MBBS', 'Monday-Wednesday', 'Pediatrics'),

('DOC004', '98765', 12, 'MD', 'Thursday-Sunday', 'Ophthalmology'),

('DOC005', '23456', 10, 'MBBS', 'Monday-Friday', 'Dermatology'),

('DOC006', '87654', 18, 'DO', 'Wednesday-Saturday', 'Neurology'),

('DOC007', '34567', 20, 'MD', 'Tuesday-Thursday', 'Cardiothoracic Surgery'),

('DOC008', '76543', 8, 'MBBS', 'Monday-Friday', 'Gastroenterology'),

('DOC009', '45678', 10, 'DO', 'Monday-Sunday', 'Orthopedics'),

('DOC010', '65432', 14, 'MD', 'Thursday-Saturday', 'Urology'),

('DOC011', '87654', 12, 'MBBS', 'Tuesday-Sunday', 'Endocrinology'),

('DOC012', '23456', 15, 'DO', 'Monday-Wednesday', 'Ophthalmology'),

('DOC013', '56789', 10, 'MD', 'Friday-Sunday', 'Pulmonology'),

('DOC014', '34567', 8, 'MBBS', 'Monday-Thursday', 'Rheumatology'),

('DOC015', '78901', 10, 'MD', 'Monday-Wednesday', 'Cardiology'),

('DOC016', '43210', 12, 'DO', 'Thursday-Saturday', 'Nephrology'),

('DOC017', '89012', 15, 'MD', 'Monday-Sunday', 'Dermatology'),

('DOC018', '54321', 8, 'MBBS', 'Wednesday-Friday', 'Neurology'),

('DOC019', '21098', 10, 'DO', 'Tuesday-Sunday', 'Oncology'),

('DOC020', '90123', 14, 'MD', 'Monday-Thursday', 'Gynecology');

CREATE TABLE Patient (

PatientID VARCHAR(50) PRIMARY KEY,

SSN VARCHAR(20),

FirstName VARCHAR(50),

LastName VARCHAR(50),

DateOfBirth DATE,

Gender VARCHAR(10) CHECK (Gender IN ('Male', 'Female','Other')),

Email VARCHAR(100),

Address VARCHAR(255),

PhoneNumber VARCHAR(20),

EmergencyContact VARCHAR(50),

BloodType VARCHAR(10) CHECK (BloodType IN ('A+', 'A-', 'B+', 'B-', 'AB+', 'AB-', 'O+', 'O-'))

);

INSERT INTO Patient (PatientID, SSN, FirstName, LastName, DateOfBirth, Gender, Email, Address, PhoneNumber, EmergencyContact, BloodType)

VALUES

('PAT001', '123-45-6789', 'John', 'Doe', '1990-01-01', 'Male', 'john.doe@email.com', '123 Main St', '555-1234', 'Jane Doe', 'A+'),

('PAT002', '987-65-4321', 'Jane', 'Smith', '1985-05-15', 'Female', 'jane.smith@email.com', '456 Oak St', '555-5678', 'John Smith', 'B-'),

('PAT003', '543-21-9876', 'Alice', 'Johnson', '1995-08-20', 'Female', 'alice.johnson@email.com', '789 Pine St', '555-8765', 'Bob Johnson', 'O+'),

('PAT004', '654-32-1098', 'Michael', 'Williams', '1980-03-10', 'Male', 'michael.williams@email.com', '456 Maple St', '555-4321', 'Laura Williams', 'AB-'),

('PAT005', '876-54-3210', 'Emily', 'Brown', '1992-11-05', 'Female', 'emily.brown@email.com', '789 Cedar St', '555-9876', 'Chris Brown', 'A-'),

('PAT006', '234-56-7890', 'David', 'Jones', '1988-07-15', 'Male', 'david.jones@email.com', '123 Birch St', '555-2345', 'Sarah Jones', 'B+'),

('PAT007', '567-89-0123', 'Sophia', 'Miller', '1975-04-25', 'Female', 'sophia.miller@email.com', '789 Elm St', '555-6789', 'Daniel Miller', 'O-'),

('PAT008', '789-01-2345', 'Matthew', 'Davis', '1997-09-30', 'Male', 'matthew.davis@email.com', '456 Oak St', '555-8901', 'Olivia Davis', 'A+'),

('PAT009', '210-98-7654', 'Olivia', 'Taylor', '1982-12-12', 'Female', 'olivia.taylor@email.com', '123 Pine St', '555-2109', 'William Taylor', 'AB+'),

('PAT010', '432-10-9876', 'Daniel', 'Wilson', '1998-02-18', 'Male', 'daniel.wilson@email.com', '789 Maple St', '555-5432', 'Emma Wilson', 'O-'),

('PAT011', '876-54-3210', 'Emma', 'Anderson', '1986-06-22', 'Female', 'emma.anderson@email.com', '456 Cedar St', '555-8765', 'James Anderson', 'B-'),

('PAT012', '345-67-8901', 'Christopher', 'Harris', '1993-04-09', 'Male', 'christopher.harris@email.com', '789 Birch St', '555-3456', 'Jessica Harris', 'A+'),

('PAT013', '987-65-4321', 'Mia', 'Moore', '1984-10-14', 'Female', 'mia.moore@email.com', '123 Elm St', '555-9876', 'Christopher Moore', 'O-'),

('PAT014', '123-45-6789', 'William', 'Clark', '1991-08-07', 'Male', 'william.clark@email.com', '456 Pine St', '555-1234', 'Sophia Clark', 'A-'),

('PAT015', '567-89-0123', 'Ava', 'White', '1980-01-30', 'Female', 'ava.white@email.com', '789 Maple St', '555-5678', 'Ethan White', 'AB+'),

('PAT016', '876-54-3210', 'Ethan', 'Thomas', '1995-03-28', 'Male', 'ethan.thomas@email.com', '123 Cedar St', '555-8765', 'Lily Thomas', 'B-'),

('PAT017', '210-98-7654', 'Lily', 'Brown', '1987-07-05', 'Female', 'lily.brown@email.com', '456 Elm St', '555-2109', 'Noah Brown', 'A+'),

('PAT018', '432-10-9876', 'Noah', 'Jones', '1994-09-17', 'Male', 'noah.jones@email.com', '789 Oak St', '555-5432', 'Emily Jones', 'O-'),

('PAT019', '654-32-1098', 'Grace', 'Miller', '1983-05-03', 'Female', 'grace.miller@email.com', '123 Birch St', '555-6543', 'Samuel Miller', 'AB-'),

('PAT020', '876-54-3210', 'Samuel', 'Roberts', '1996-11-12', 'Male', 'samuel.roberts@email.com', '456 Cedar St', '555-8765', 'Olivia Roberts', 'B+');

CREATE TABLE Visit (

VisitID VARCHAR(50) PRIMARY KEY,

VisitDate DATETIME,

Purpose VARCHAR(255),

Status VARCHAR(20) CHECK (Status IN ('Scheduled', 'Completed', 'Cancelled')),

DoctorID VARCHAR(50) REFERENCES Doctor(DoctorID),

PatientID VARCHAR(50) REFERENCES Patient(PatientID)

);

INSERT INTO Visit (VisitID, VisitDate, Purpose, Status, DoctorID, PatientID)

VALUES

('VIS001', '2023-01-05 10:00:00', 'Heart Checkup', 'Completed', 'DOC001', 'PAT001'),

('VIS002', '2023-02-10 14:30:00', 'Severe Knee Joint Pain', 'Scheduled', 'DOC002', 'PAT002'),

('VIS003', '2023-03-15 11:15:00', 'Fever', 'Completed', 'DOC003', 'PAT003'),

('VIS004', '2023-04-20 09:45:00', 'Blurry Eye check up', 'Scheduled', 'DOC004', 'PAT004'),

('VIS005', '2023-05-25 13:30:00', 'Skin rashes', 'Completed', 'DOC005', 'PAT005'),

('VIS006', '2023-06-30 15:00:00', 'Seizure', 'Scheduled', 'DOC006', 'PAT006'),

('VIS007', '2023-07-05 08:45:00', 'General Heart Checkup', 'Completed', 'DOC007', 'PAT007'),

('VIS008', '2023-08-10 12:15:00', 'Heavy Stomach Pain', 'Scheduled', 'DOC008', 'PAT008'),

('VIS009', '2023-09-15 14:30:00', 'Orthopedic Consultation', 'Completed', 'DOC009', 'PAT009'),

('VIS010', '2023-10-20 10:30:00', 'Urine Tract Checkup', 'Scheduled', 'DOC010', 'PAT010'),

('VIS011', '2023-11-25 09:00:00', 'Endocrine Assessment', 'Completed', 'DOC011', 'PAT011'),

('VIS012', '2023-12-30 11:45:00', 'Eye care Follow-up', 'Scheduled', 'DOC012', 'PAT012'),

('VIS013', '2024-01-04 13:15:00', 'Pulmonology Consultation', 'Completed', 'DOC013', 'PAT013'),

('VIS014', '2024-02-09 16:00:00', 'Rheumatology Checkup', 'Scheduled', 'DOC014', 'PAT014'),

('VIS015', '2024-03-15 10:45:00', 'Heart Check up', 'Completed', 'DOC015', 'PAT015'),

('VIS016', '2024-04-20 14:30:00', 'Kidney function assessment', 'Scheduled', 'DOC016', 'PAT016'),

('VIS017', '2024-05-25 09:30:00', 'Rosacea condition evaluation', 'Completed', 'DOC017', 'PAT017'),

('VIS018', '2024-06-30 11:15:00', 'Memory loss checkup', 'Scheduled', 'DOC018', 'PAT018'),

('VIS019', '2024-07-05 13:45:00', 'Cancer Chemotherapy', 'Completed', 'DOC019', 'PAT019'),

('VIS020', '2024-08-10 15:30:00', 'Pregancy Checkup', 'Scheduled', 'DOC020', 'PAT020');

CREATE TABLE Treatment (

TreatmentID VARCHAR(50) PRIMARY KEY,

TreatmentName VARCHAR(255),

TreatmentFees DECIMAL(10, 2),

VisitID VARCHAR(50) REFERENCES Visit(VisitID),

Admit\_Flag CHAR(1) CHECK (Admit\_Flag IN ('Y', 'N'))

);

INSERT INTO Treatment (TreatmentID, TreatmentName, TreatmentFees, VisitID, Admit\_Flag)

VALUES

('TRT001', 'Cardiac Angiography', 500.00, 'VIS001', 'N'),

('TRT002', 'Knee Joint Operation', 400.00, 'VIS002', 'Y'),

('TRT003', 'Antibiotics for Fever', 50.00, 'VIS003', 'N'),

('TRT004', 'Eye Prescription Glasses', 300.00, 'VIS004', 'N'),

('TRT005', 'Topical Cream for Skin Rashes', 20.00, 'VIS005', 'N'),

('TRT006', 'Anti-seizure Medication', 150.00, 'VIS006', 'N'),

('TRT007', 'Cardiac Stress Test', 200.00, 'VIS007', 'N'),

('TRT008', 'Gastrointestinal Endoscopy', 500.00, 'VIS008', 'Y'),

('TRT009', 'Orthopedic Physical Therapy', 400.00, 'VIS009', 'Y'),

('TRT010', 'Urological Tests', 80.00, 'VIS010', 'N'),

('TRT011', 'Hormone Replacement Therapy', 600.00, 'VIS011', 'N'),

('TRT012', 'Eye Care Follow-up Consultation', 50.00, 'VIS012', 'N'),

('TRT013', 'Pulmonary Function Tests', 300.00, 'VIS013', 'N'),

('TRT014', 'Rheumatoid Arthritis Medication', 200.00, 'VIS014', 'N'),

('TRT015', 'Cardiac Medication', 100.00, 'VIS015', 'N'),

('TRT016', 'Nephrology Consultation', 50.00, 'VIS016', 'N'),

('TRT017', 'Dermatology Cream for Rosacea', 25.00, 'VIS017', 'N'),

('TRT018', 'Neurological Memory Tests', 150.00, 'VIS018', 'N'),

('TRT019', 'Chemotherapy Session', 500.00, 'VIS019', 'Y'),

('TRT020', 'Obstetric Ultrasound', 150.00, 'VIS020', 'N');

CREATE TABLE Room (

RoomID VARCHAR(50) PRIMARY KEY,

RoomType VARCHAR(20) CHECK (RoomType IN ('ICU', 'General Ward', 'Suite', 'Operating Room')),

RoomStatus VARCHAR(20) CHECK (RoomStatus IN ('Occupied', 'Available', 'Maintenance')),

RoomCharge DECIMAL(10, 2) -- Adjust the precision and scale based on your requirements

);

-- Insert records into Room table

INSERT INTO Room (RoomID, RoomType, RoomStatus, RoomCharge)

VALUES

('Room001', 'ICU', 'Available', 500.00),

('Room002', 'General Ward', 'Occupied', 200.00),

('Room003', 'Suite', 'Available', 800.00),

('Room004', 'Operating Room', 'Maintenance', 1000.00),

('Room005', 'ICU', 'Occupied', 550.00),

('Room006', 'General Ward', 'Available', 250.00),

('Room007', 'Suite', 'Occupied', 900.00),

('Room008', 'Operating Room', 'Maintenance', 1100.00),

('Room009', 'ICU', 'Available', 520.00),

('Room010', 'General Ward', 'Occupied', 210.00),

('Room011', 'Suite', 'Available', 850.00),

('Room012', 'Operating Room', 'Maintenance', 1050.00),

('Room013', 'ICU', 'Occupied', 530.00),

('Room014', 'General Ward', 'Available', 220.00),

('Room015', 'Suite', 'Occupied', 920.00),

('Room016', 'Operating Room', 'Maintenance', 1150.00),

('Room017', 'ICU', 'Available', 510.00),

('Room018', 'General Ward', 'Occupied', 230.00),

('Room019', 'Suite', 'Available', 880.00),

('Room020', 'Operating Room', 'Maintenance', 1020.00);

CREATE TABLE Prescription (

PrescriptionID VARCHAR(50),

MedicineName Varchar(50),

TreatmentID VARCHAR(50) REFERENCES Treatment(TreatmentID),

PrescriptionDate DATETIME,

Dosage VARCHAR(255),

Primary Key(PrescriptionID,MedicineName)

);

INSERT INTO Prescription (PrescriptionID, MedicineName, TreatmentID, PrescriptionDate, Dosage)

VALUES

('PRE001', 'Aspirin', 'TRT001', Getdate(), 'once every 3 months'),

('PRE001', 'Lisinopril', 'TRT001', Getdate(), '2 times daily for 10 days'),

('PRE002', 'Advil', 'TRT002', Getdate(), 'Thrice every day for 3 months'),

('PRE002', 'Motrin', 'TRT002', Getdate(), 'twice per month'),

('PRE003', 'Crocin', 'TRT003', Getdate(), '4 times every week'),

('PRE004', 'Eye Drops', 'TRT004', Getdate(), 'once daily for 2 weeks'),

('PRE005', 'Azelic Acid Cream', 'TRT005', Getdate(), 'thrice for 5 weeks'),

('PRE006', 'Dilantin', 'TRT006', Getdate(), '2 times a daily for 3 months'),

('PRE007', 'Atenolol', 'TRT007', Getdate(), '3 times a day for 3 weeks'),

('PRE007', 'Carvetilol', 'TRT007', Getdate(), 'once daily for 3months'),

('PRE008', 'Lomeramide', 'TRT008', Getdate(), 'Twice a day for 4 days'),

('PRE009', 'Moov', 'TRT009', Getdate(), 'Daily for a week'),

('PRE010', 'Nitrofuraentoin', 'TRT010', Getdate(), '3 times a day'),

('PRE011', 'Hormone Replacement Drug', 'TRT011', Getdate(), 'twice a day for 5 days '),

('PRE012', 'Eye Drops', 'TRT012', Getdate(), 'thrice a day for 3 days'),

('PRE013', 'Bronchodilator', 'TRT013', Getdate(), 'twice daily for 2 months'),

('PRE013', 'Nilgiri', 'TRT013', Getdate(), 'thrice daily for 2 months'),

('PRE014', 'Methotrexate', 'TRT014', Getdate(), 'thrice daily for 1 month'),

('PRE015', 'Cardiac Medication', 'TRT015', Getdate(), '3 times a day for 3 months'),

('PRE016', 'Diuretic', 'TRT016', Getdate(), '2 times daily for 1 week'),

('PRE017', 'Topical Cream', 'TRT017', Getdate(), 'twice daily for 3 months'),

('PRE018', 'Ritalin', 'TRT018', Getdate(), 'once daily for 1 month'),

('PRE019', 'Chemotherapy Drugs', 'TRT019', Getdate(), 'As directed by the physician during admission'),

('PRE020', 'Omega3 Vitamins', 'TRT020', Getdate(), 'Once daily for 1 month'),

('PRE020', 'Estrace', 'TRT020', Getdate(), 'Once daily for 1 month'),

('PRE020', 'Azithromycin', 'TRT020', Getdate(), 'Once daily for 1 month');

CREATE TABLE InsuranceProvider (

ProviderID VARCHAR(5) PRIMARY KEY,

Name VARCHAR(255) NOT NULL,

Address VARCHAR(255),

PhoneNumber VARCHAR(15),

ContactEmail VARCHAR(255),

Website VARCHAR(255)

);

INSERT INTO InsuranceProvider (ProviderID, Name, Address, PhoneNumber, ContactEmail, Website)

VALUES

('PRO01', 'HealthGuard Insurance', '123 Insurance Ave', '800-123-4567', 'info@healthguard.com', 'www.healthguard.com'),

('PRO02', 'SecureCare Insurance', '456 Coverage St', '800-987-6543', 'info@securecare.com', 'www.securecare.com'),

('PRO03', 'QuickHealth Insurance', '789 Coverage Blvd', '800-567-8901', 'info@quickhealth.com', 'www.quickhealth.com'),

('PRO04', 'LifeInsure Health', '101 Policy Lane', '800-234-5678', 'info@lifeinsure.com', 'www.lifeinsure.com'),

('PRO05', 'SafeHealth Assurance', '202 Security St', '800-345-6789', 'info@safehealth.com', '[www.safehealth.com](http://www.safehealth.com)');

CREATE TABLE CoveragePlan (

PlanID VARCHAR(5) PRIMARY KEY,

PlanName VARCHAR(255) NOT NULL,

CoverageDetails VARCHAR(255),

Premium DECIMAL(10, 2),

Deductible DECIMAL(10, 2),

CoverageStartDate DATE,

CoverageEndDate DATE,

ProviderID VARCHAR(5),

PatientID VARCHAR(50),

FOREIGN KEY (ProviderID) REFERENCES InsuranceProvider(ProviderID),

FOREIGN KEY (PatientID) REFERENCES Patient(PatientID)

);

INSERT INTO CoveragePlan (PlanID, PlanName, CoverageDetails, Premium, Deductible, CoverageStartDate, CoverageEndDate, ProviderID, PatientID)

VALUES

('PLA01', 'Basic Plan', 'Basic coverage for common medical services', '60.00', '550.00', '2025-02-01', '2023-12-31', 'PRO01', 'PAT007'),

('PLA02', 'Premium Plan', 'Comprehensive coverage including specialist visits', '120.00', '200.00', '2025-03-01', '2023-12-31', 'PRO02', 'PAT002'),

('PLA03', 'QuickHealth Standard', 'Standard coverage for medical needs', '80.00', '400.00', '2025-04-01', '2023-12-31', 'PRO03', 'PAT009'),

('PLA04', 'LifeInsure Comprehensive', 'Extensive coverage for health and wellness', '140.00', '180.00', '2025-05-01', '2023-12-31', 'PRO04', 'PAT004'),

('PLA05', 'SafeHealth Plus', 'Enhanced coverage for preventive care', '100.00', '250.00', '2025-06-01', '2023-12-31', 'PRO05', 'PAT010'),

('PLA06', 'Guardian Gold Plan', 'Gold-level coverage for comprehensive health needs', '120.00', '200.00', '2025-07-01', '2023-12-31', 'PRO01', 'PAT008'),

('PLA07', 'EverWell Assurance', 'Assurance plan for health and well-being', '105.00', '300.00', '2025-08-01', '2023-12-31', 'PRO02', 'PAT006'),

('PLA08', 'FamilyCare Family Plan', 'Family-focused coverage for healthcare needs', '150.00', '180.00', '2025-09-01', '2023-12-31', 'PRO03', 'PAT005'),

('PLA09', 'PremierHealth Executive', 'Executive-level coverage for comprehensive healthcare', '170.00', '150.00', '2025-10-01', '2023-12-31', 'PRO04', 'PAT003'),

('PLA10', 'EliteCare Platinum', 'Platinum-level coverage for elite health services', '200.00', '100.00', '2025-11-01', '2023-12-31', 'PRO05', 'PAT001'),

('PLA04', 'LifeInsure Comprehensive', 'Extensive coverage for health and wellness', '140.00', '180.00', '2025-05-01', '2023-12-31', 'PRO04', 'PAT015'),

('PLA05', 'SafeHealth Plus', 'Enhanced coverage for preventive care', '100.00', '250.00', '2025-06-01', '2023-12-31', 'PRO05', 'PAT017'),

('PLA01', 'Basic Plan', 'Basic coverage for common medical services', '60.00', '550.00', '2025-02-01', '2023-12-31', 'PRO01', 'PAT019');

CREATE TABLE Admission (

AdmissionID int identity PRIMARY KEY,

TreatmentID VARCHAR(50) REFERENCES Treatment(TreatmentID),

RoomID VARCHAR(50) REFERENCES Room(RoomID), -- Make sure to replace with the actual Room table

AdmissionDate DATETIME,

DischargeDate DATETIME,

AdmissionReason VARCHAR(255),

Status VARCHAR(20)

);

CREATE PROCEDURE InsertAdmissionFromTreatment

AS

BEGIN

SET NOCOUNT ON;

-- Declare variables

DECLARE @RoomID VARCHAR(50);

DECLARE @AdmissionDate DATETIME;

DECLARE @TreatmentID VARCHAR(50);

DECLARE @AdmissionReason NVARCHAR(255);

DECLARE @TreatmentCount INT;

-- Get the count of eligible TreatmentID

SELECT @TreatmentCount = COUNT(\*)

FROM Treatment

WHERE Admit\_Flag = 'Y'

AND TreatmentID NOT IN (SELECT TreatmentID FROM Admission);

-- Loop through eligible treatments

WHILE @TreatmentCount > 0

BEGIN

-- Get the available room

SELECT TOP 1 @RoomID = RoomID

FROM Room

WHERE RoomStatus = 'Available'

ORDER BY RoomID;

--print @roomid

-- Set the admission date

SET @AdmissionDate = GETDATE();

-- Get the next eligible TreatmentID

SELECT TOP 1 @TreatmentID = TreatmentID

FROM Treatment

WHERE Admit\_Flag = 'Y'

AND TreatmentID NOT IN (SELECT TreatmentID FROM Admission)

ORDER BY TreatmentID;

-- Get the AdmissionReason from TreatmentName

SELECT @AdmissionReason = TreatmentName

FROM Treatment

WHERE TreatmentID = @TreatmentID;

--select @RoomID

-- Insert into Admission table

INSERT INTO Admission (TreatmentID, RoomID, AdmissionDate, DischargeDate, AdmissionReason, Status)

VALUES (

@TreatmentID,

@RoomID,

@AdmissionDate,

NULL,

@AdmissionReason,

'Admitted'

);

--Select \* from admission

-- Update RoomStatus to 'Occupied' for the assigned room

UPDATE Room

SET RoomStatus = 'Occupied'

WHERE RoomID = @RoomID;

-- Decrement the count

SET @TreatmentCount = @TreatmentCount - 1;

END;

END;

--exec InsertAdmissionFromTreatment

--truncate table admission

--update room set roomstatus='Available' where roomstatus='Occupied'

**1 DML TRIGGER**

DML Trigger

CREATE TRIGGER trgAfterUpdateOnPatient

ON PATIENT

AFTER UPDATE

AS

BEGIN

INSERT INTO AUDIT\_LOG (TableName, OperationType, ChangeDate)

SELECT 'PATIENT', 'UPDATE', GETDATE()

FROM inserted;

END;