

Hexaware Foundation Training

Python Coding Challenge

NAME: Aathirainathan P

DATE: 09-10-2024

1)Sql Schema:

-- Table 1 Patients

```
CREATE TABLE Patients (  
    PatientId INT IDENTITY(1,1) PRIMARY KEY,  
    FirstName NVARCHAR(100) NOT NULL,  
    LastName NVARCHAR(100) NOT NULL,  
    DateOfBirth DATE NOT NULL,  
    Gender NVARCHAR(10) NOT NULL,  
    ContactNumber NVARCHAR(15) NOT NULL,  
    Address NVARCHAR(255) NOT NULL  
);
```

--Table 2 Doctors

```
CREATE TABLE Doctors (  
    DoctorId INT IDENTITY(1,1) PRIMARY KEY,  
    FirstName NVARCHAR(100) NOT NULL,  
    LastName NVARCHAR(100) NOT NULL,  
    Specialization NVARCHAR(100) NOT NULL,  
    ContactNumber NVARCHAR(15) NOT NULL  
);
```

-- Table 3 Appointments

CREATE TABLE Appointments (

AppointmentId INT IDENTITY(1,1) PRIMARY KEY,

PatientId INT NOT NULL FOREIGN KEY REFERENCES Patients(PatientId),

DoctorId INT NOT NULL FOREIGN KEY REFERENCES Doctors(DoctorId),

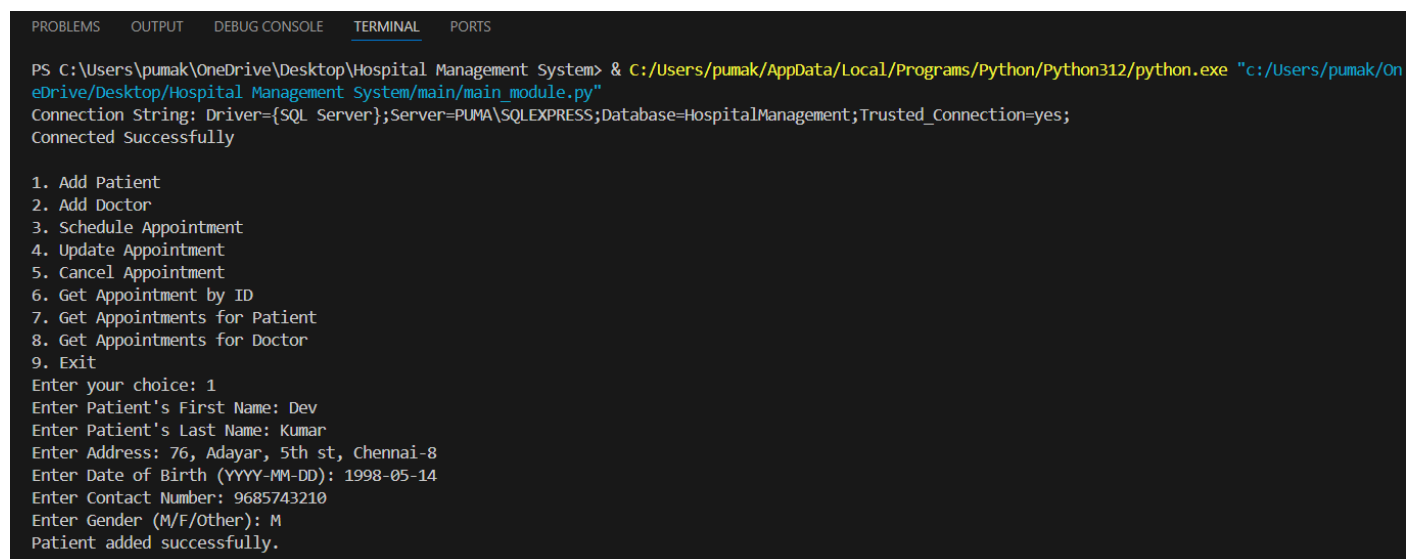
AppointmentDate DATE NOT NULL,

Description NVARCHAR(255) NULL

);

Output Screenshots:

1. Add Patient to the database:



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\pumak\OneDrive\Desktop\Hospital Management System> & C:/Users/pumak/AppData/Local/Programs/Python/Python312/python.exe "c:/Users/pumak/OneDrive/Desktop/Hospital Management System/main/main_module.py"
Connection String: Driver={SQL Server};Server=PUMA\SQLEXPRESS;Database=HospitalManagement;Trusted_Connection=yes;
Connected Successfully

1. Add Patient
2. Add Doctor
3. Schedule Appointment
4. Update Appointment
5. Cancel Appointment
6. Get Appointment by ID
7. Get Appointments for Patient
8. Get Appointments for Doctor
9. Exit
Enter your choice: 1
Enter Patient's First Name: Dev
Enter Patient's Last Name: Kumar
Enter Address: 76, Adayar, 5th st, Chennai-8
Enter Date of Birth (YYYY-MM-DD): 1998-05-14
Enter Contact Number: 9685743210
Enter Gender (M/F/Other): M
Patient added successfully.
```

13	14	Rahul	K	2001-08-15	M	8523697410	3, CVb street, Katpadi-5
14	15	Dev	Kumar	1998-05-14	M	9685743210	76, Adayar, 5th st, Chennai-8

A patient got added to the databse table - Patients.

2. Add Doctor to the database:

```
1. Add Patient
2. Add Doctor
3. Schedule Appointment
4. Update Appointment
5. Cancel Appointment
6. Get Appointment by ID
7. Get Appointments for Patient
8. Get Appointments for Doctor
9. Exit
Enter your choice: 2
Enter Doctor's First Name: Dr. Kevin
Enter Doctor's Last Name: K
Enter Specialty: Neurology
Enter Contact Number: 8657493021
Doctor added successfully.
```

100 %

Results					
	DoctorId	FirstName	LastName	Specialization	ContactNumber
1	15	Dr. Kevin	K	Neurology	8657493021

A Doctor got added to the database table - Doctors

3. Schedule Appointment:

```
1. Add Patient
2. Add Doctor
3. Schedule Appointment
4. Update Appointment
5. Cancel Appointment
6. Get Appointment by ID
7. Get Appointments for Patient
8. Get Appointments for Doctor
9. Exit
Enter your choice: 3
Enter Patient's First Name: Dev
Enter Doctor's First Name: Dr. Kevin
Enter Appointment Date (YYYY-MM-DD): 2024-10-12
Enter Appointment Description: Chronic Headache
Appointment scheduled successfully.
```

100 %

Results

Messages

	AppointmentId	PatientId	DoctorId	AppointmentDate	Description
1	4	1	1	2024-10-06	Allergy
2	8	9	12	2024-10-10	Cold
3	9	1	2	2024-10-14	Allergy
4	10	15	15	2024-10-12	Chronic Headache

An appointment for Dev for consulting Dr. Kevin was created by referencing the PatientId and DoctorID to the Appointments table.

4. Update Appointment:(Change Appointment Date):

```

1. Add Patient
2. Add Doctor
3. Schedule Appointment
4. Update Appointment
5. Cancel Appointment
6. Get Appointment by ID
7. Get Appointments for Patient
8. Get Appointments for Doctor
9. Exit
Enter your choice: 4
Enter Appointment ID to update: 10
Enter new Doctor's First Name: Dr. Kevin
Enter new Appointment Date (YYYY-MM-DD): 2024-10-13
Enter new Appointment Description: Chronic Headache
Appointment updated successfully.
  
```

100 %

Results

Messages

	AppointmentId	PatientId	DoctorId	AppointmentDate	Description
1	10	15	15	2024-10-13	Chronic Headache

A change in the AppointmentDate for the doctor has been made. There are also options in the console to change the patient's name, doctor's name, appointment date and description.

5. Cancel Appointment:

```
1. Add Patient
2. Add Doctor
3. Schedule Appointment
4. Update Appointment
5. Cancel Appointment
6. Get Appointment by ID
7. Get Appointments for Patient
8. Get Appointments for Doctor
9. Exit
Enter your choice: 5
Enter Appointment ID to cancel: 10
Appointment canceled successfully.
```

Appointment Deleted From the database

100 %					
Results Messages					
	AppointmentId	PatientId	DoctorId	AppointmentDate	Description
1	4	1	1	2024-10-06	Allergy
2	8	9	12	2024-10-10	Cold
3	9	1	2	2024-10-14	Allergy

When an appointment id is entered to delete, the row gets deleted from the database.

6. Get Appointment by ID:

```
1. Add Patient
2. Add Doctor
3. Schedule Appointment
4. Update Appointment
5. Cancel Appointment
6. Get Appointment by ID
7. Get Appointments for Patient
8. Get Appointments for Doctor
9. Exit
Enter your choice: 6
Enter Appointment ID: 4
Appointment ID: 4
Patient ID: 1
Doctor ID: 1
Appointment Date: 2024-10-06
Description: Allergy
```

Retrieves Appointment by Appointment Id.

7. Get Appointments for Patient:

```
1. Add Patient
2. Add Doctor
3. Schedule Appointment
4. Update Appointment
5. Cancel Appointment
6. Get Appointment by ID
7. Get Appointments for Patient
8. Get Appointments for Doctor
9. Exit
Enter your choice: 7
Enter Patient's First Name: Ravi
Appointment ID: 8
Patient ID: 9
Doctor ID: 12
Date: 2024-10-10
Description: Cold
```

Retrieves All Appointments for a particular patient.

8. Get Appointments for Doctor:

```
1. Add Patient
2. Add Doctor
3. Schedule Appointment
4. Update Appointment
5. Cancel Appointment
6. Get Appointment by ID
7. Get Appointments for Patient
8. Get Appointments for Doctor
9. Exit
Enter your choice: 8
Enter Doctor's First Name: Dr. Neha
Appointment ID: 9
Patient ID: 1
Doctor ID: 2
Date: 2024-10-14
Description: Allergy

Appointment ID: 11
Patient ID: 7
Doctor ID: 2
Date: 2024-10-09
Description: Dandruff Treatment

Appointment ID: 12
Patient ID: 2
Doctor ID: 2
Date: 2024-10-12
Description: Acne Treatment
```

Retrieves All Appointments for a particular doctor.

9. Patient Number Not Found Exception:

```
1. Add Patient
2. Add Doctor
3. Schedule Appointment
4. Update Appointment
5. Cancel Appointment
6. Get Appointment by ID
7. Get Appointments for Patient
8. Get Appointments for Doctor
9. Exit
Enter your choice: 7
Enter Patient's First Name: Ganguly
Patient number not found.
```

*When a Patient's name is not in the database and PatientId is not found
PatientNumberNotFoundException throws the following statement.*