

***A Project Report***  
***On***  
***Hospital Management System***



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***“Designing a Hospital – Based  
Management System”***

***Submitted By***

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## ***Abstract***

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Hospital Management System provides the benefits of streamlined operations, enhanced administration & control, superior patient care, strict cost control and improved profitability. HMS is powerful, flexible, and easy to use and is designed and developed to deliver real conceivable benefits to hospitals. More importantly it is backed by reliable and dependable support. The project 'Hospital Management System' is based on the database techniques. As there are many areas where we keep the records in database for which we are using MY SQL software which is one of the best and the easiest software to keep our information. Hospital Management System is custom built to meet the specific requirement of the mid and large size hospitals across the globe. All the required modules and features have been particularly built to just fit in to your requirement. The sound database of the application makes it more users friendly and expandable. The package is highly customizable and can be modified as per the needs and requirements of our clients. Prolonged study of the functionalities of the hospital and its specific requirement has given it a wonderful shape both technically and usability wise. It covers all the required modules right from Patient Registration, Medicine details, Doctor, Wards, Admin, Store, Patient appointment, bill payment, record modification, discharge details etc.

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# **1.INTRODUCTION:**

## ***1.1 What is Database:***

Database is an arranged collection of structured information, or data, typically stored electronically in a computer system. A database is normally controlled by a database management system (DBMS). Together, the data and the DBMS, along with the applications that are associated with them, are referred to as a database system, often abbreviated to just database.

It is set up for easy access, management and updating. Computer databases typically store aggregations of data records or files that contain information, such as patients data, doctors data, Admin and financial information.

Databases are used for storing, maintaining and accessing any sort of data. Database collect information on people, places or things. That information is gathered in one place so that it can be observed and analyzed.

## ***1.2 Why do we need Database:***

Databases collect items on which the user can carry out various operations such as viewing, navigating, creating tables, and searching. Databases can be seen as a symbolic form of the computer age.

We use databases for various reasons. Such as,

1. We use database because we can easily manipulate, edit or delete data.
2. Data are kept organized in a database so we can easily retrieve data.
3. Easy to find out desired data.
4. Data are secured.

## ***1.3 Advantages of Database:***

1. Reduced Data Redundancy.
2. Reduced updating errors and increased consistency.
3. Greater data integrity and independence from applications programs.
4. Improved data access to users through use of host and query languages.
5. Improved data security.
6. Reduced data entry, storage, and retrieval costs.
7. Facilitated development of new application programs.

## **2. THE DATABASE MANAGEMENT SYSTEM:**

### ***2.1 What is Database Management System :***

A DBMS enables users to create and manage a database. It also helps users create, read, update and delete data in a database, and it assists with logging and auditing functions.

The DBMS provides physical and logical independence from data. Users and applications do not need to know either the physical or logical locations of data. A DBMS can also limit and control access to the database and provide different views of the same database schema to multiple users. It's a software for storing and retrieving users' data while considering appropriate security measures. It consists of a group of programs which manipulate the database. The DBMS accepts the request for data from an application and instructs the operating system to provide the specific data. The term "DBMS" includes the user of the database and other application programs. It provides an interface between the data and the software application.

### ***2.2 Importance of DBMS:***

The importance of collecting, evaluating, and managing the data has significantly increased with time. The concept of data is constantly evolving and transforming in the business world. It has not only introduced new depths for the companies but has also made it more challenging to operate. However, precise data recording, monitoring, and storing can help organizations in addressing those challenges.

The database management systems are highly essential for organizations in managing different databases and retrieving relevant information. This management system is used in various organizations as an interface that helps users in forming a connection with the databases. Additionally, it helps in organizing data in a way that it can be accessed easily.

The data obtained and stored by the organizations play a crucial role in targeting their goals and help in forming their business strategy. A database management system can store, organize, and monitor big or small information, just by using one software application. The use and implementation of a data system can help businesses in performing well and allows them to save overall costs.

The database management system not just helps in storing data efficiently, but also helps in sharing the data within the organization. The people who are involved in such an environment are programmers, system administrators, and end-users. In the database environment, there are five components: data, hardware, software, people, and procedures. Multiple users can have quick access to the data and share it with other users without going through extra effort. The system helps in searching the required information from a large database in just a few seconds. Therefore, it is highly

effective for businesses to manage various types of data such as student records, employee information, inventory, payroll, project management, etc.

In the absence of database management systems, the data collection and storing tasks were conducted manually and it was a time-consuming process. However, after the invention of the management system, users can access and work on data by a single click. For instance, in a sales organization, managers can identify high-performing employees by tracking their personnel files and sales performance file. The database management system can help in relating both data files at one time to access the employee's performance.

### **3. ER-DIAGRAM:**

#### ***3.1 What is ER –diagram:***

ER Diagram stands for Entity Relationship Diagram, also known as ERD is a diagram that displays the relationship of entity sets stored in a database. In other words, ER diagrams help to explain the logical structure of databases. ER diagrams are created based on three basic concepts: entities, attributes and relationships.

ER Diagrams contain different symbols that use rectangles to represent entities, ovals to define attributes and diamond shapes to represent relationships.

#### ***3.2 Use of ER-diagram:***

- ***Database design:***

ER diagrams are used to model and design relational databases, in terms of logic and business rules and in terms of the specific technology to be implemented. In computer engineering, an ER diagram is often an initial step in determining requirements for an information systems project. It's also later used to model a particular database or databases. A relational database has an equivalent relational table and can potentially be expressed that way as needed.

- ***Database troubleshooting:***

ER diagrams are used to analyze existing databases to find and resolve problems in logic or deployment. Drawing the diagram should reveal where it's going wrong.

- ***Business information systems:***

The diagrams are used to design or analyze relational databases used in business processes. Any business process that uses fielded data involving entities, actions and interplay can potentially benefit from a relational database. It can streamline processes, uncover information more easily and improve results.

- ***Business process re-engineering (BPR):***

ER diagrams help in analyzing databases used in business process re-engineering and in modeling a new database setup.

- ***Education:***

Databases are today's method of storing relational information for educational purposes and later retrieval, so ER Diagrams can be valuable in planning those data structures.

- ***Research:***

Since so much research focuses on structured data, ER diagrams can play a key role in setting up useful databases to analyze the data.

### ***3.3 The components and features of an ER diagram:***

ER Diagrams are composed of entities, relationships and attributes. They also depict cardinality, which defines relationships in terms of numbers.

**Here's a short description:**

#### **>Entity:**

An entity is something that has a distinct, separate existence, though it need not be a material existence. In particular, abstractions and legal fictions are usually regarded as entities. In general, there is also no presumption that an entity is animate. Entities are used in system developmental models that display communications and internal processing of documents compared to order processing. It could be viewed as a set containing subsets. A DBMS entity is either a thing in the modeled world or a drawing element in an Entity Relationship Diagram(ERD).

#### **>Entity type:**

A group of definable things, such as students or athletes, whereas the entity would be the specific student or athlete. Other examples: customers, cars or products.

Entity set: Same as an entity type, but defined at a particular point in time, such as students enrolled in a class on the first day. Other examples: Customers who purchased last month, cars currently registered in Florida. A related term is instance, in which the specific person or car would be an instance of the entity set.



### **>Entity categories:**

Entities are categorized as strong, weak or associative. A strong entity can be defined solely by its own attributes, while a weak entity cannot. An associative entity associates entities (or elements) within an entity set.

### **>Entity keys:**

Refers to an attribute that uniquely defines an entity in an entity set. Entity keys can be super, candidate or primary. Super key: A set of attributes (one or more) that together define an entity in an entity set.

**Candidate key:** A minimal super key, meaning it has the least possible number of attributes to still be a super key. An entity set may have more than one candidate key.

**Primary key:** A candidate key chosen by the database designer to uniquely identify the entity set.

**Foreign key:** Identifies the relationship between entities.

### **>Relationships:**

How entities act upon each other or are associated with each other. Think of relationships as verbs. For example, the named student might register for a course. The two entities would be the student and the course, and the relationship depicted is the act of enrolling, connecting the two entities in that way. Relationships are typically shown as diamonds or labels directly on the connecting lines.

### **>Attributes:**

An attribute is a specification that defines a property of an object, element, or file. It may also refer to or set the specific value for a given instance of such. Attributes should more correctly be considered metadata. It is frequently and generally a property of an entity. An attribute of an object usually consists of a name and a value; of an element, a type or class name; of a file, a name and extension.

## **4. SCHEMA:**

### ***4.1 What is Schema Design:***

A database schema is an abstract design that represents the storage of your data in a database. It describes both the organization of data and the relationships between tables in a given database.

## **5.REQUIREMENT SPECIFICATION:**

### **5.1 Hardware Requirements:**

Processor : Intel dual Core, i3.

RAM : 1GB.

Hard Disk: 80GB.

### **5.2 Software Requirements:**

Software name: Microsoft SQL server management studio.

Operating System: Windows X.

Database: ms sql.

## **6.OVERVIEW OF PROJECT(Hospital Management System):**

The hospital management system is designed for any hospital to replace their existing manual , paper based system. The new system is to control the following information; doctors information, patient information, nurse information , medicine info, medical history, operating room schedules etc. These services are to be provided in an efficient, cost effective manner, with the goal of reducing the time and resources currently required for such tasks.

HMS was introduced to solve the complications coming from managing all the paper works of every patient associated with the various departments of hospitalization with confidentiality. HMS provides the ability to manage all the paperwork in one place, reducing the work of staff in arranging and analyzing the paperwork of the patients. HMS does many works like:

- Maintain the medical records of the patient
- Maintain the contact details of the patient
- Keep track of the appointment dates
- Save the insurance information for later reference
- Tracking the bill payments.

The advantages of HMS can be pinpointed to the following:

- Time-saving Technology
- Improved Efficiency by avoiding human errors
- Reduces scope for Error

- Data security and correct data retrieval made possible
- Cost effective and easily manageable
- Easy access to patient data with correct patient history
- Improved patient care made possible
- Easy monitoring of supplies in inventory
- Reduces the work of documentation
- Better Audit controls and policy compliance.

### **Appointment Management**

For hospitals having their own site, appointment widgets will be integrated onto the site. Patients visiting the hospital's website can book online appointments with ease.

### **Billing Management**

Integrated Billing with treatments, Lab and Radiology. Alerts will be sent on Discount Authorisation. Automatic due capture, Option to bill before and after consultation.

### **Prescription Management**

Manage commonly and recently used medicines. Option to show medicines available in the pharmacy. SMS prescriptions to Patients.

### **Discharge Summary**

Template based Discharge Summary. Option to prevent discharge summary till IP bill is closed.

### **Operation Theatre Management**

Automatic notification can be sent to customers on test results. Lab notifications like email, SMS of the test reports sent from the Automated Lab notification module.

### **Pharmacy Management**

Comprehensive Pharmacy Management handles stock, Prescription Integration, Ward Request, Stock Management, Stock Moment and intelligent reports.

### **Lab Management**

Comprehensive Lab Management handles complete order management, Custom Reports, Smart Notifications, Credit Settlement, detailed MIS Reports, Analytics and App for Phlebotomist.

### **Master Information Systems**

Lets you access entire MIS data from your palm.

### **Manage Multiple Locations**

Any number of branches can be added and managed using a single account.

The hospital database includes all the necessary patient data. The disease history, lab reports, prescribed treatment can be accessed by doctors without much delay in order to make an accurate diagnosis and monitor the patient's health. It enables lower risks of mistakes.

### **The project maintains two levels of users:**

- Administrator.
- User Level-Data Entry Operator.

### **The main facilities in this project are discussed below:**

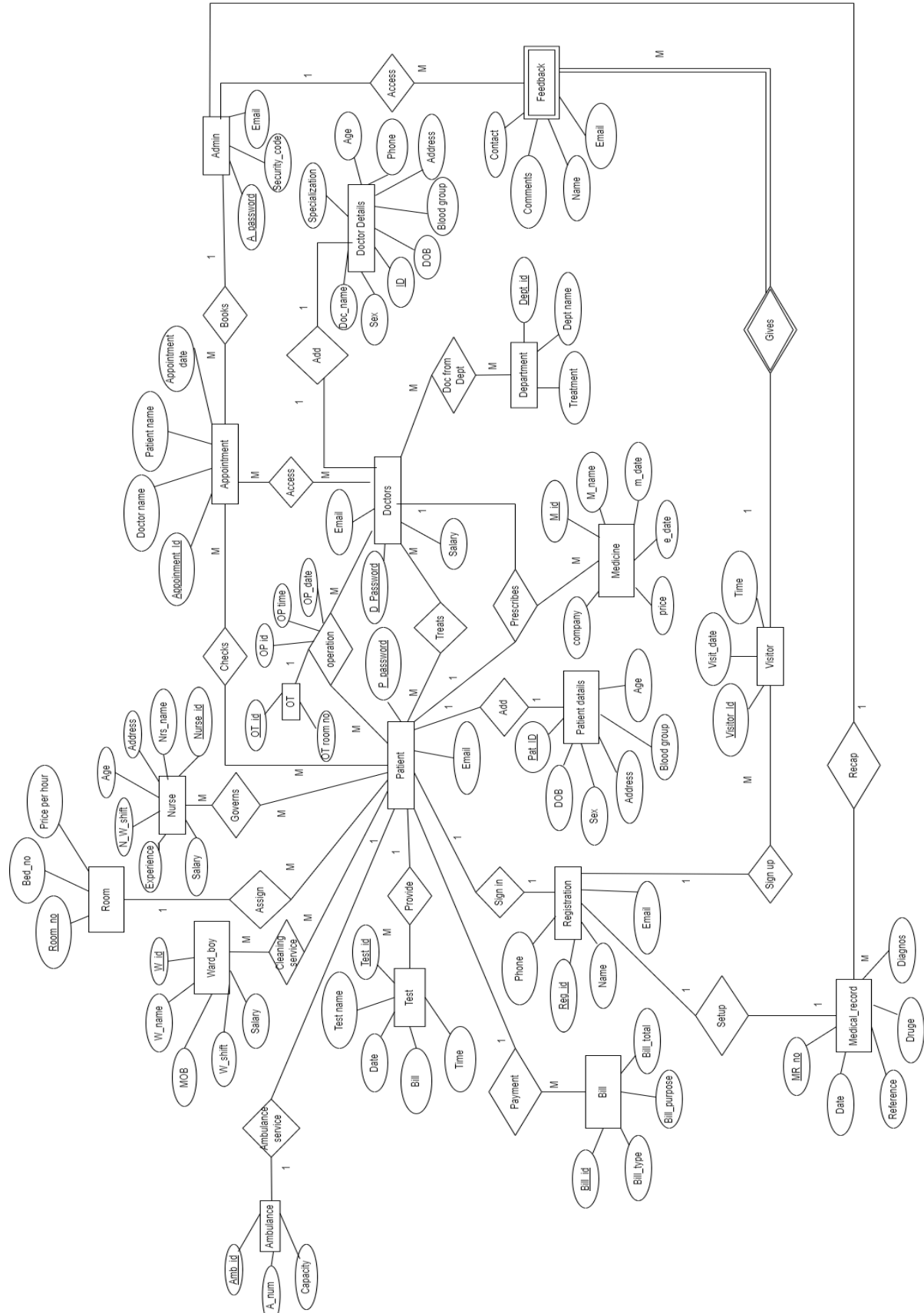
>Maintaining records of doctors.

- >Maintaining records of indoor/outdoor patients.
- >Maintaining info about nurse.
- >Providing Appointment details.
- >Providing billing details for indoor/outdoor patients.
- > Maintaining patient's prescription and medicine
- >Maintaining patient's test and examinations details.
- >Providing different test facilities to a Doctor for doctor for diagnosis of a patients.
- >Related test reports, patient's details report, billing reports can be generated as per user requirements

## **7.DESIGNING E-R DIAGRAM:**

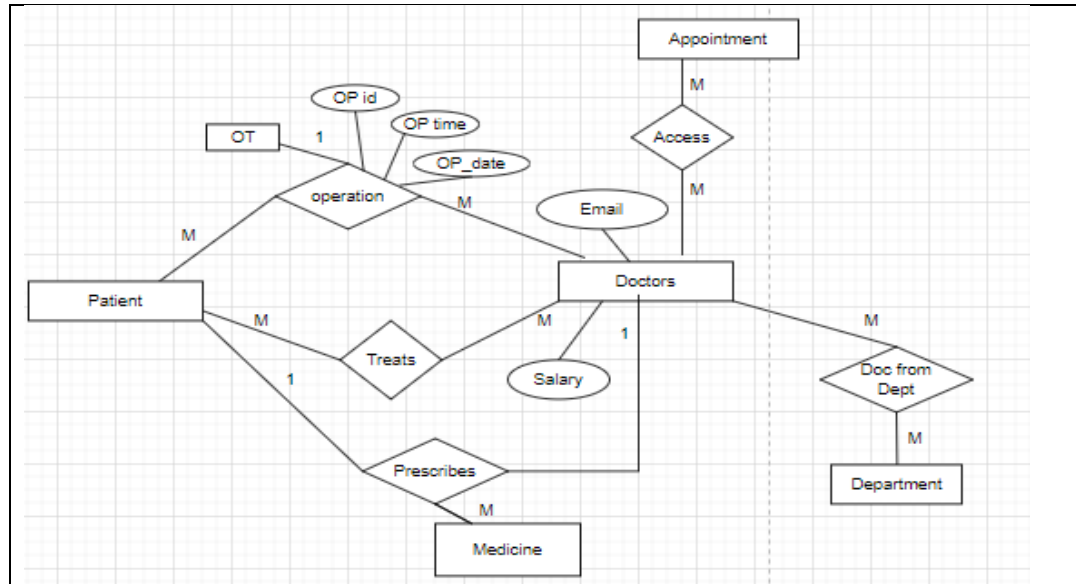
### **7.1 ER-diagram:**

Our project Hospital Management system includes registration of patients, storing their records, disease history etc details into medical records. It will also show nurses, wardboy, rooms, ambulance's information and their communication with patient and hospital system. There are also doctor's information and whole billing system. The relation between doctor and patient about treatment , appointment , prescription etc. How Admin take care of everything, there is also a facility of visitors to give feedback about hospital and their management, facilities.



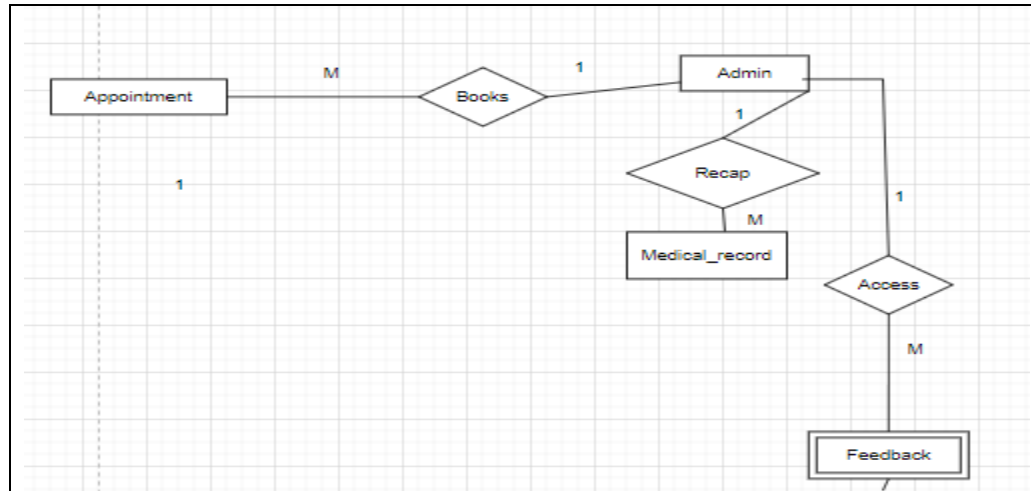
## 7.2 Description of cardinality relationship between entities:

Here, Doctor entity is connected with Department, Appointment, Patient, Medicine, OT.



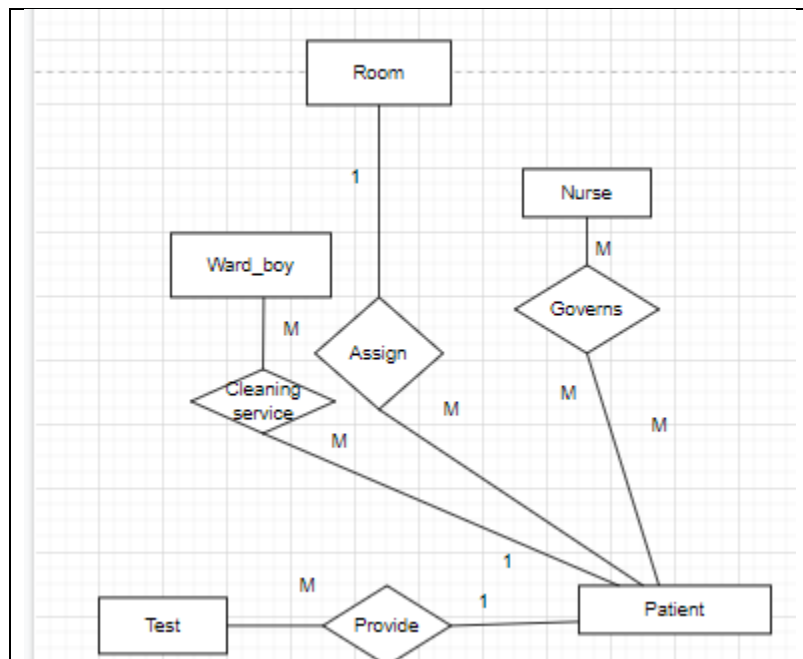
- 1 doctor gives 1 or more medicine to 1 patient.
- 1 or more patient got treatment by 1 or more doctors
- 1 or more doctor have appointment with many patient .
- Many or 1 doctor can operate on 1 patient.
- Many or 1 patient can be operate by 1 doctor.
- 1 doctor can be from many departments.
- 1 department may have one or more doctors.
- One or more doctor can operate from 1 OT.

Here, Admin entity is connected with Appointment, Medical\_record, Feedback.



- Admin can book one or more appointment.
- Admin can access one or more Feedback given by visitors.
- Admin can check one or more medical report.

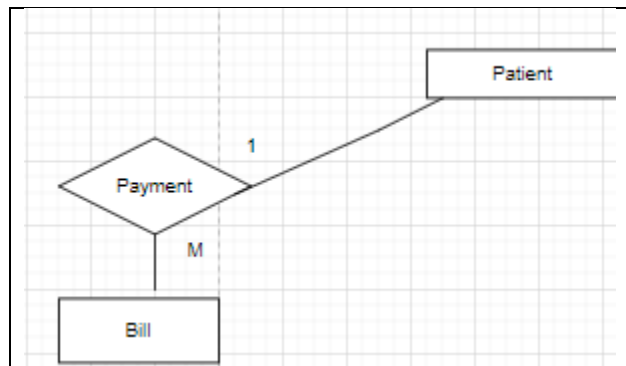
Here, admin has 1 to many relationship with others.



Here, patient entity is connected with Test, Ward\_boy, Room, Nurse.

- 1 patient can have multiple test.
- 1 or more patient can get 1 room (suppose general or single room).
- 1 or more patient can get cleaning service from one or more ward boy.
- 1 or more ward boy gives cleaning service to 1 or more patient.
- 1 or more patient can get service from one or more nurse.
- 1 or more nurse services 1 or more patient.

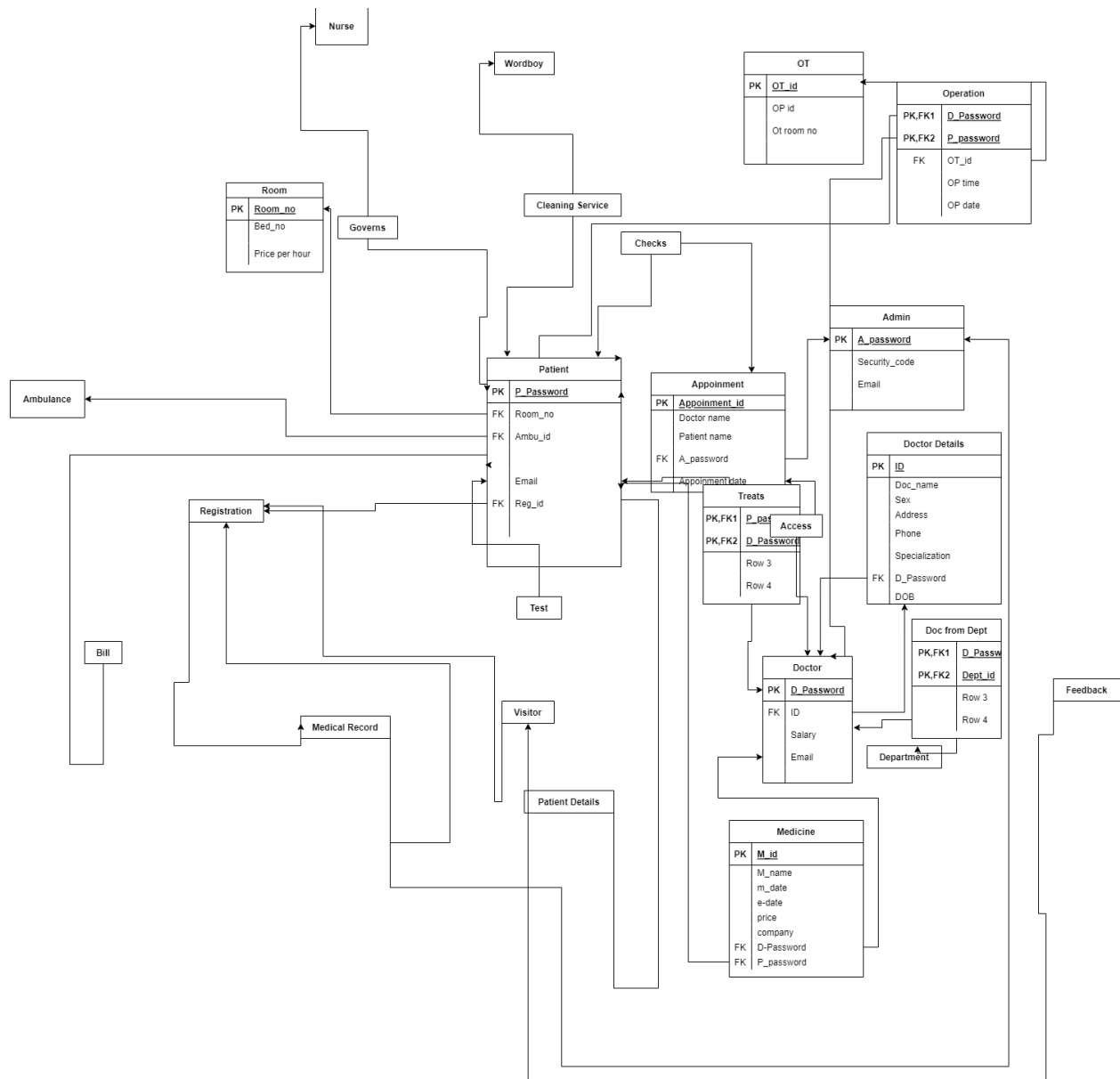
Here are some other entity's connected with patient entity. Ambulance, Bill, Registration. 1 to many relationship with bill. Ambulance have 1 to 1 relation with patient. 1 patient can have 1 ambulance service. Patient and Registration have many to many relation. 1 patient needs to sign in 1 registration.



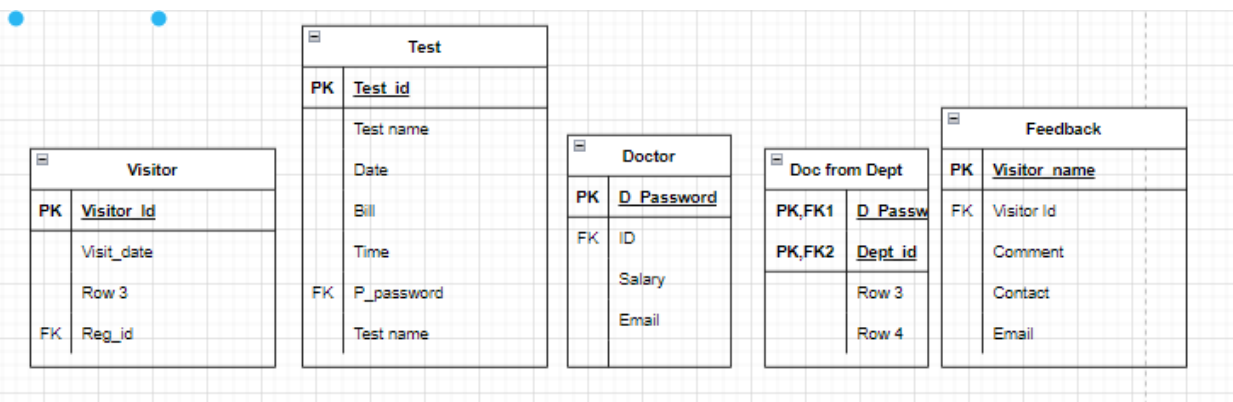
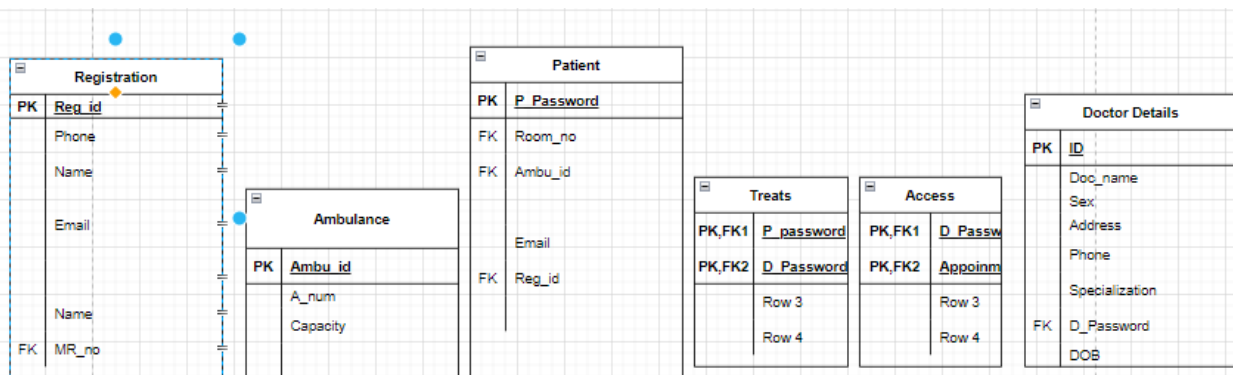
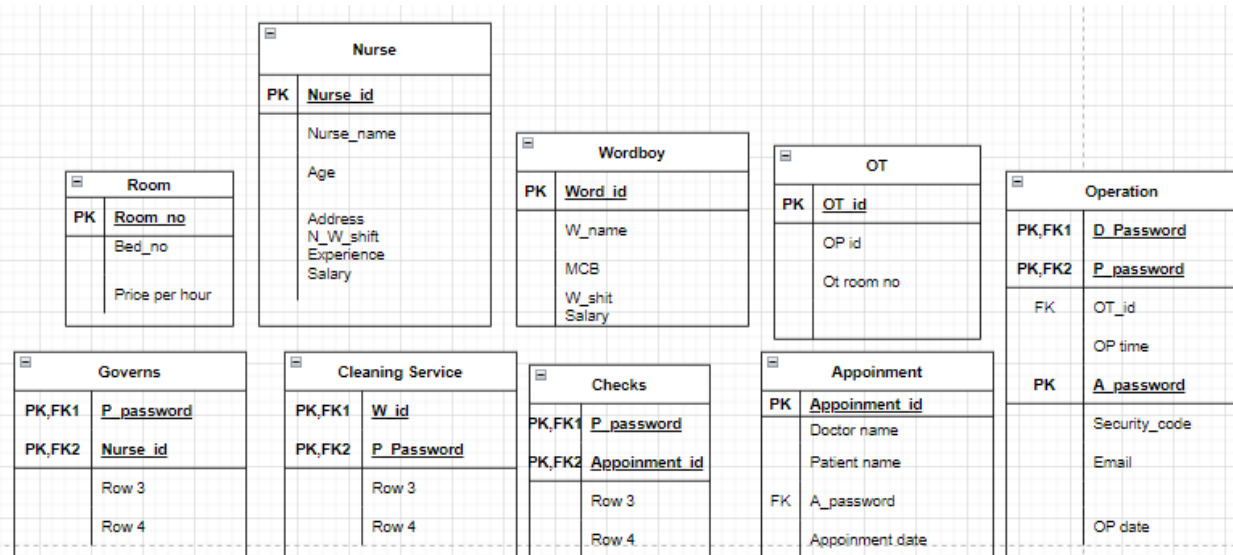
Here, 1 patient can have one bill or more bill.

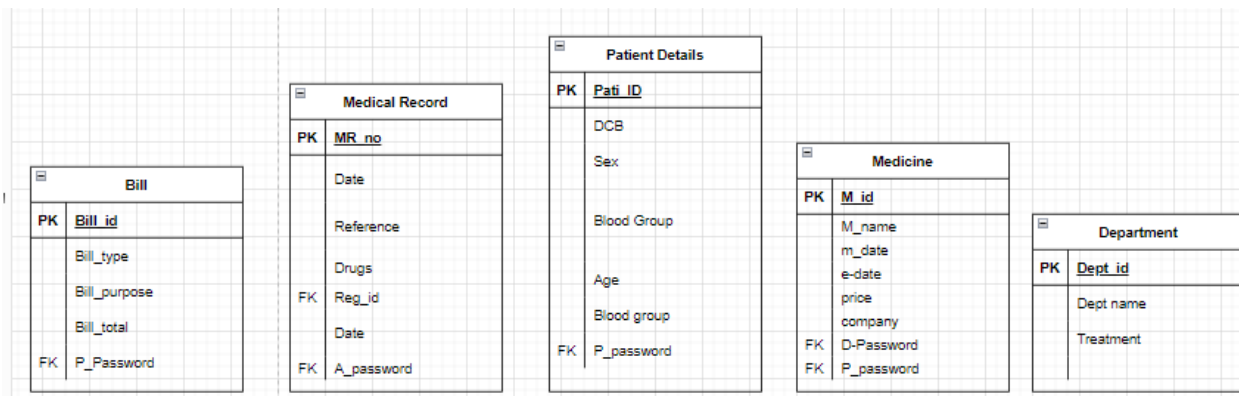


## **8. SCHEMA DESIGN:**



## 8.1 Tables from schema:





Here, we design the schema based on e-r model. At first for each entity we created a table. For weak entity 'Feedback' we created a table and we declare its primary key of the table 'visitor'. as Feedback depend on Visitor table. For many to many relation created a new table and include the primary keys from the two participating entities. Both of these column or keys become foreign keys in the new table. Here, treats table is an example for many to many relationship between doctor and patient table. For one to many relationship or many to one relationship, choose the many side table. We include a copy of primary key of the entity on the 1-side table. Thus we design for 1 to m or m to 1. For one to one relationship we copy the primary key from the first table into the other table. The primary key from first table become a foreign key for the other table. Any record tied to the relationship will go to the table with the foreign key. Thus these for cardinality relationship have been handled.

## **9. NORMALIZATION:**

To organize the data in database we do the process of normalization.

For 1<sup>st</sup> normalization;- For a relation to be in first normal form all the attribute need to be atomic, no sets.

So, we tried to make all the attribute atomic. For these we remove all the composite attribute.

For patient\_details table; (patient\_id, patient\_name, Nationality, sex, address)

Thus we implement 1<sup>st</sup> normal form.

For 2<sup>nd</sup> normalization;- A relation to be in 2<sup>nd</sup> NF every non- primary-key attribute is fully functionally dependent on the primary key of the relation.

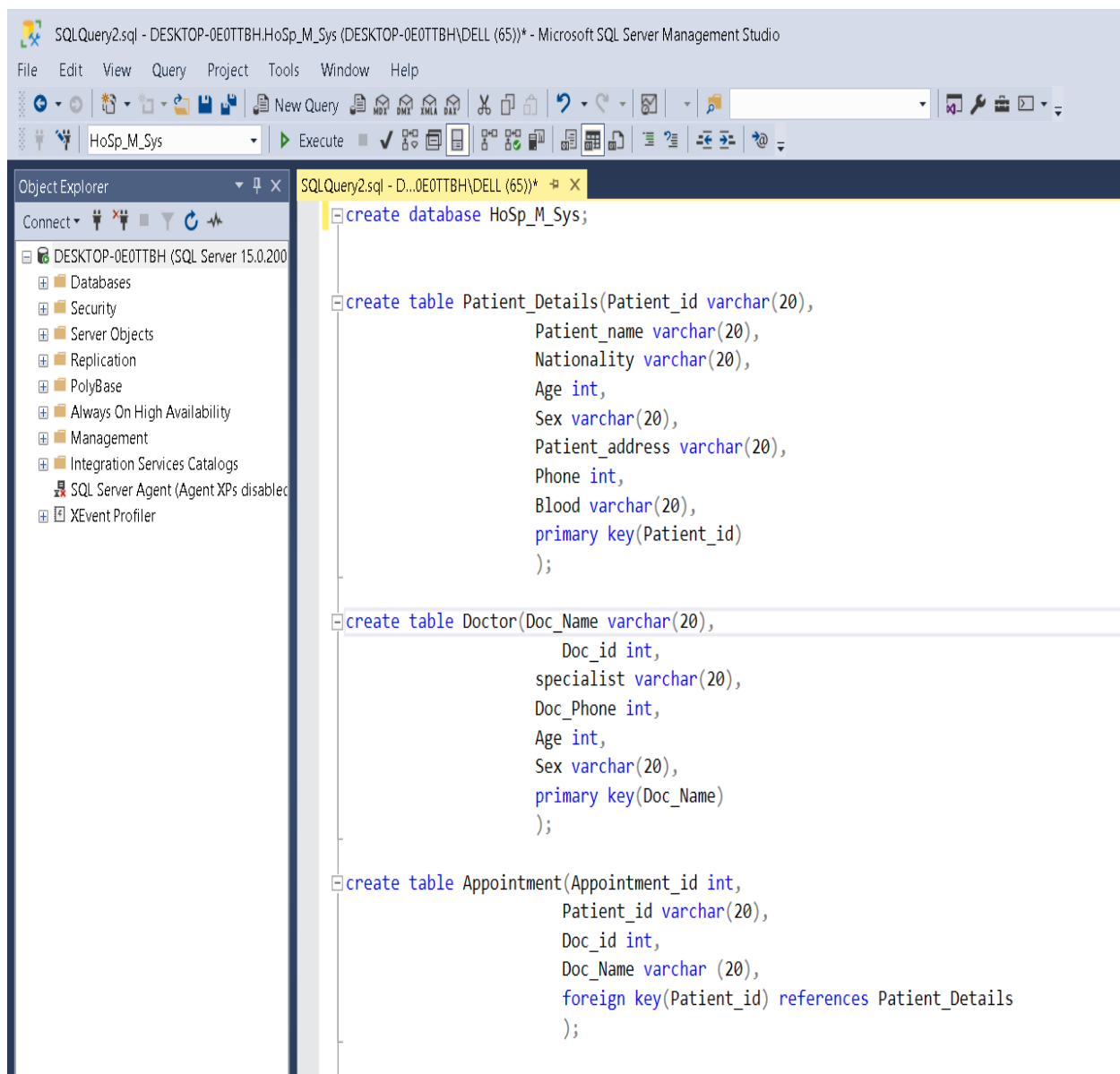
For 3<sup>rd</sup> normalization;- Here if  $X \rightarrow Y$  in a relation R, then R contains the set of attribute. For this transitive functional dependency of non-prime attribute on any superkey should be removed.

For BCNF;- A relation is in BCNF if every determinant is a candidate key. No part of the primary key is fully functional dependent in the non primary key.

Here, we could not normalize all the tables. There were data redundancy. We failed many times in doing this. So we tried to implement some tables in the sql.

## **10. IMPLEMENTATION :**

### ***10.1 Source Code:***

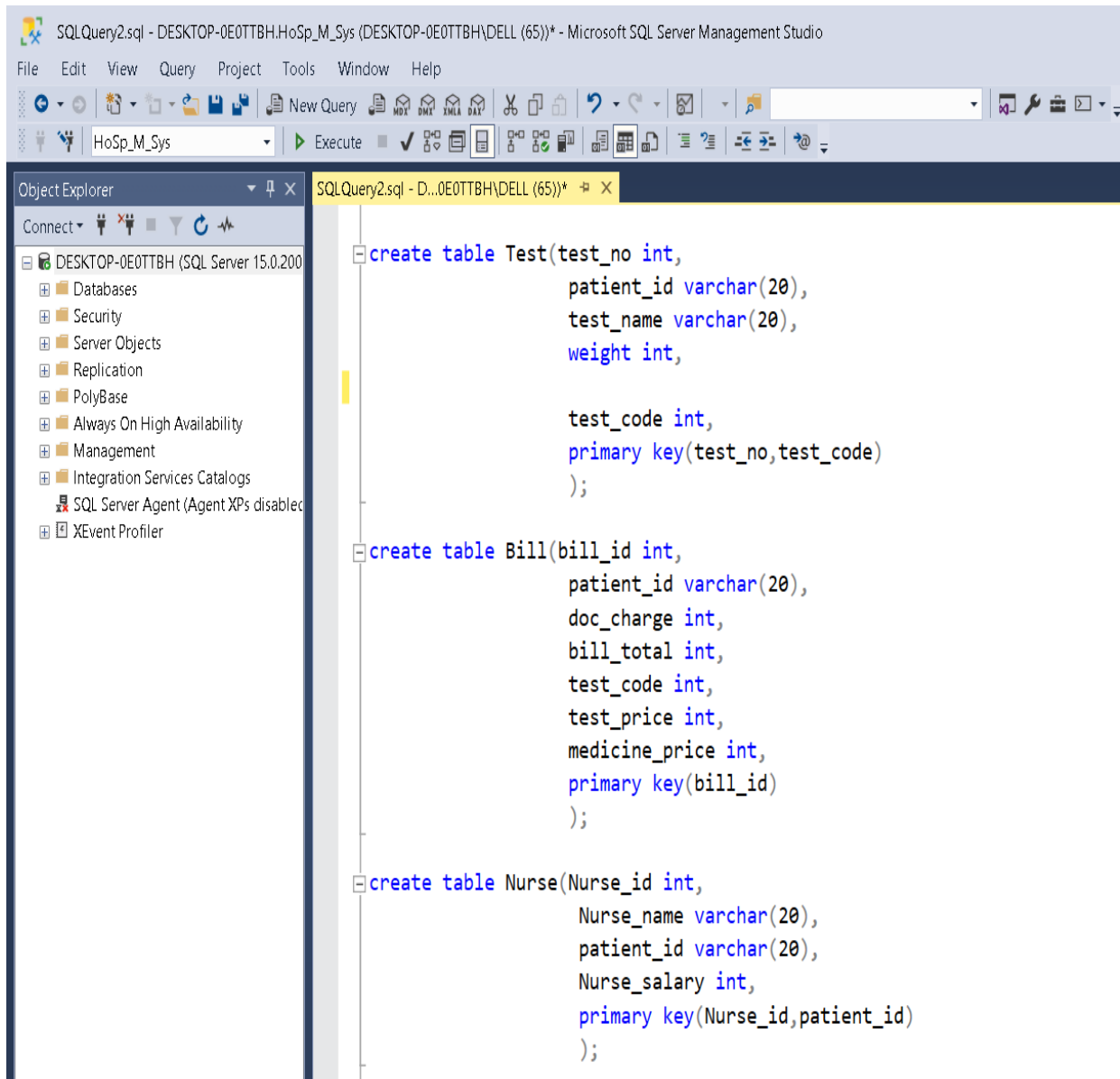


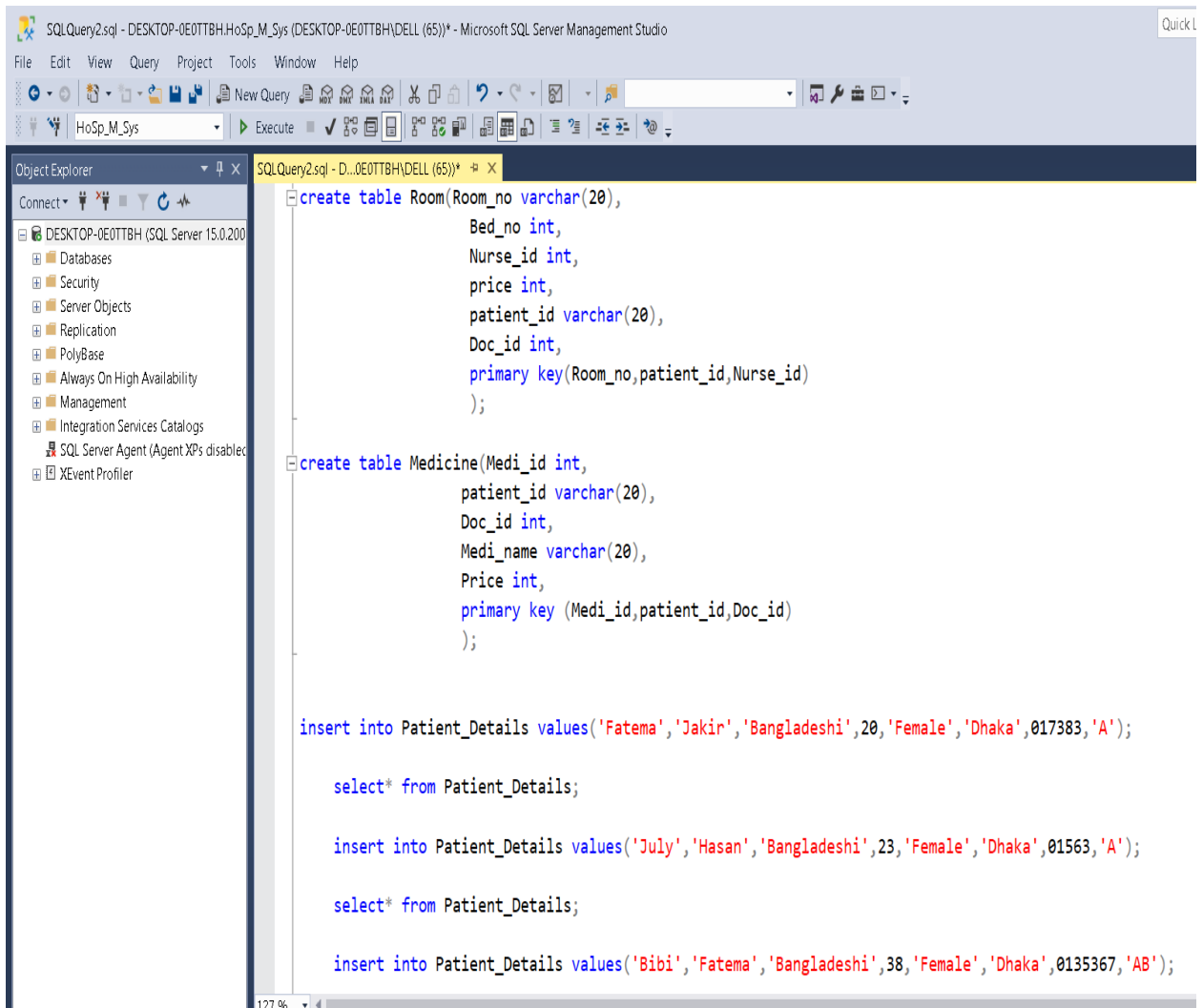
```
SQLQuery2.sql - DESKTOP-0E0TTBH.HoSp_M_Sys (DESKTOP-0E0TTBH\DELL (65))* - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
New Query
HoSp_M_Sys Execute
Object Explorer
Connect
DESKTOP-0E0TTBH (SQL Server 15.0.200
Databases
Security
Server Objects
Replication
PolyBase
Always On High Availability
Management
Integration Services Catalogs
SQL Server Agent (Agent XPs disabled)
XEvent Profiler
SQLQuery2.sql - D...0E0TTBH\DELL (65))*
create database HoSp_M_Sys;

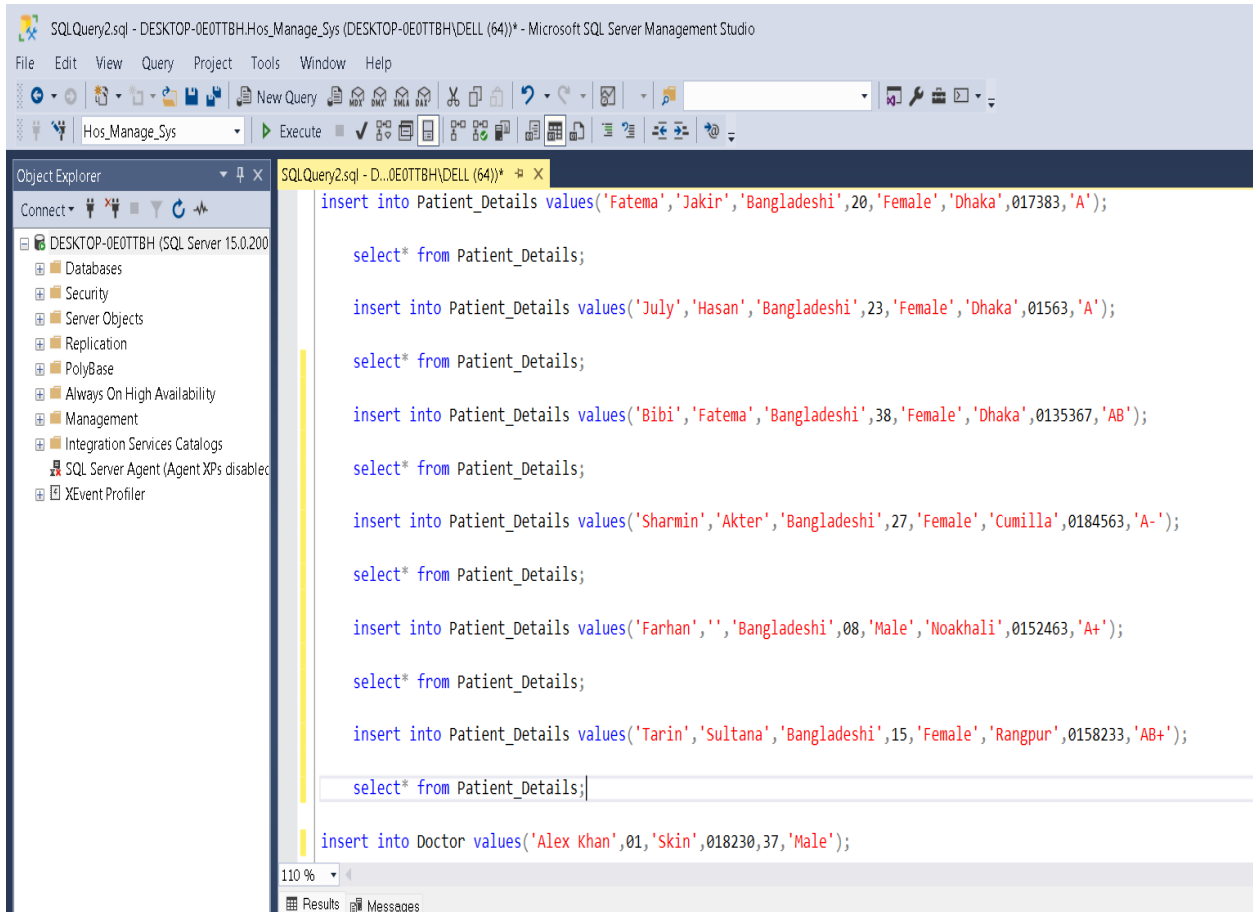
create table Patient_Details(Patient_id varchar(20),
                             Patient_name varchar(20),
                             Nationality varchar(20),
                             Age int,
                             Sex varchar(20),
                             Patient_address varchar(20),
                             Phone int,
                             Blood varchar(20),
                             primary key(Patient_id)
                             );

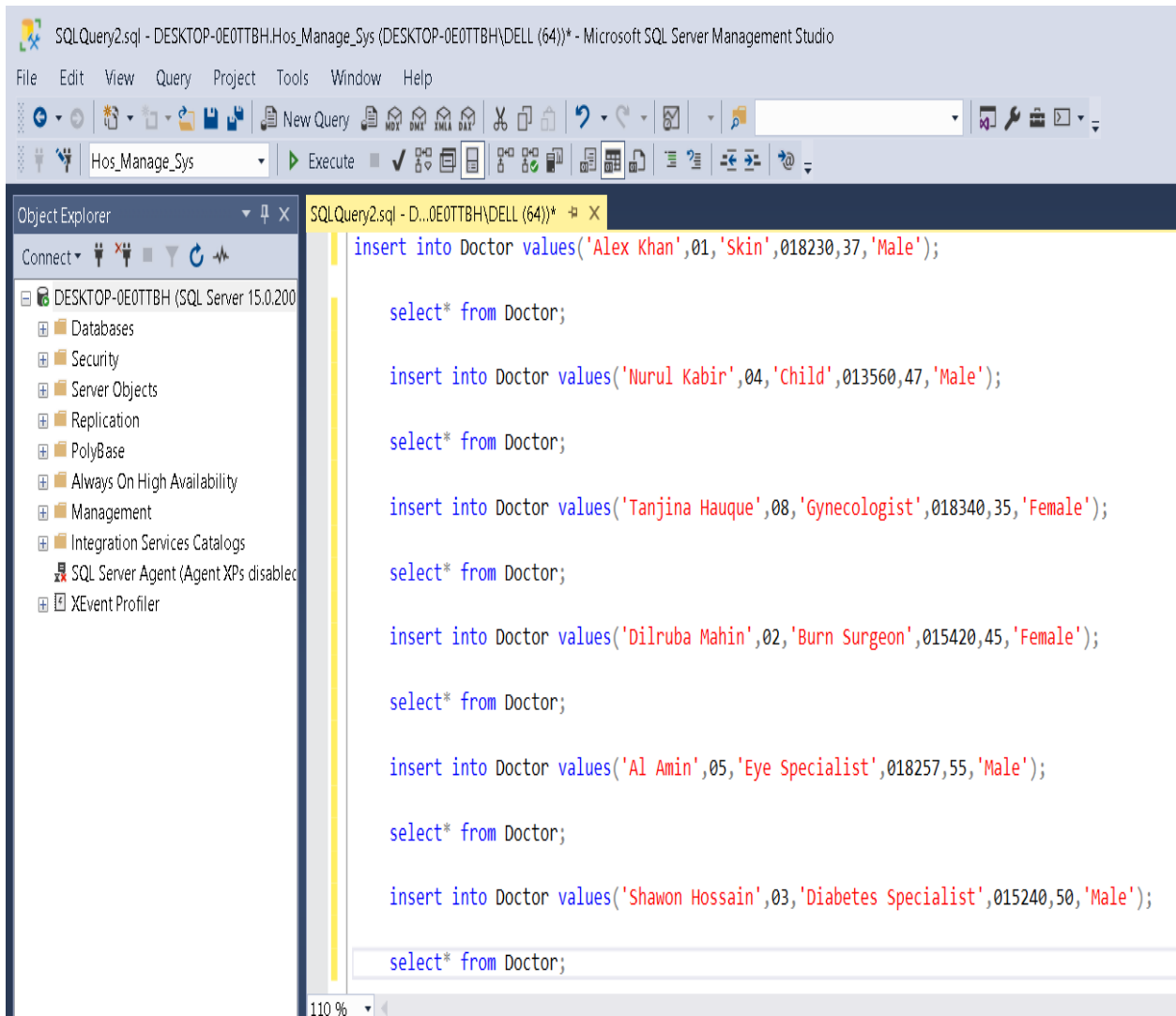
create table Doctor(Doc_Name varchar(20),
                   Doc_id int,
                   specialist varchar(20),
                   Doc_Phone int,
                   Age int,
                   Sex varchar(20),
                   primary key(Doc_Name)
                   );

create table Appointment(Appointment_id int,
                        Patient_id varchar(20),
                        Doc_id int,
                        Doc_Name varchar (20),
                        foreign key(Patient_id) references Patient_Details
                        );
```

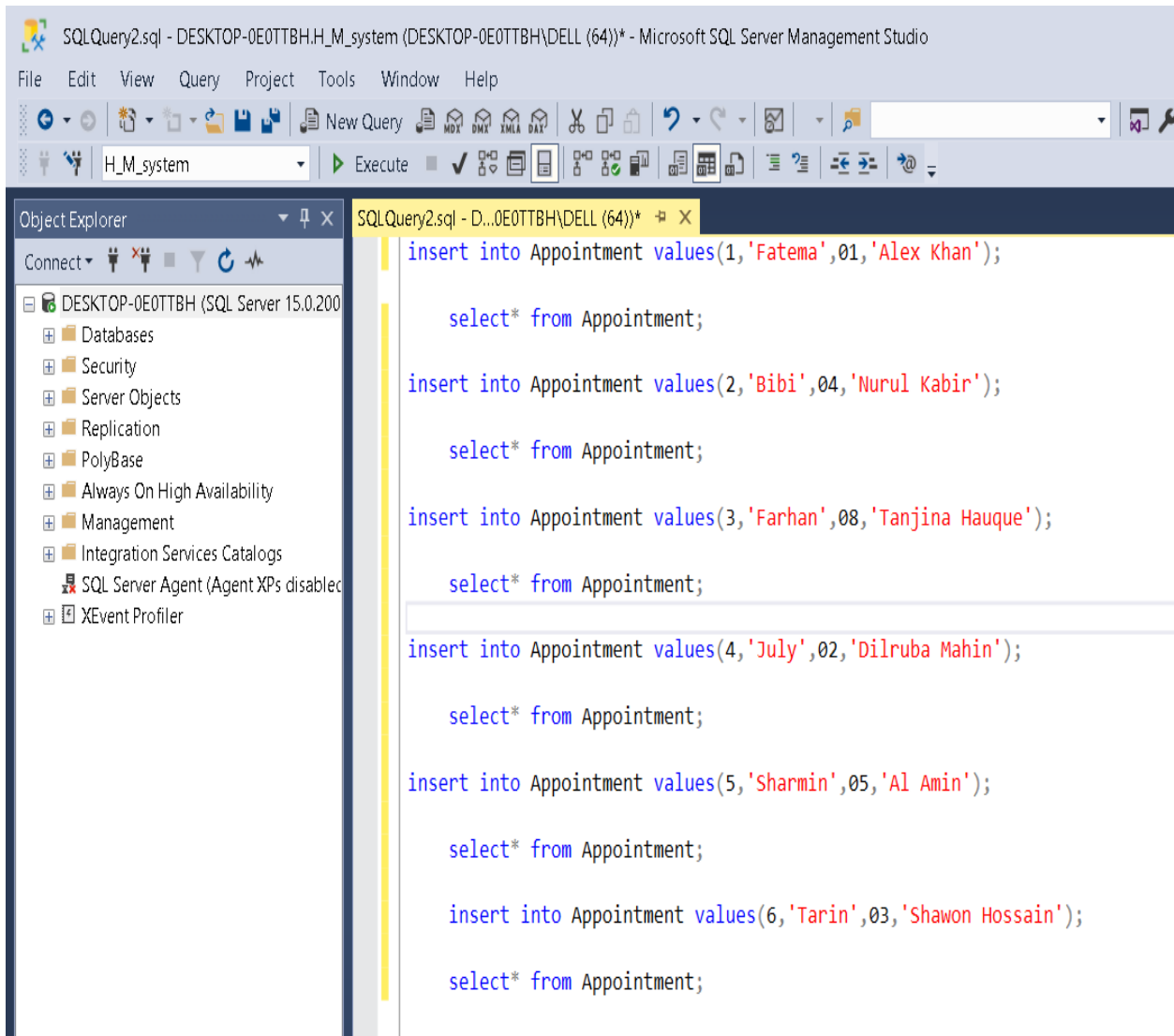


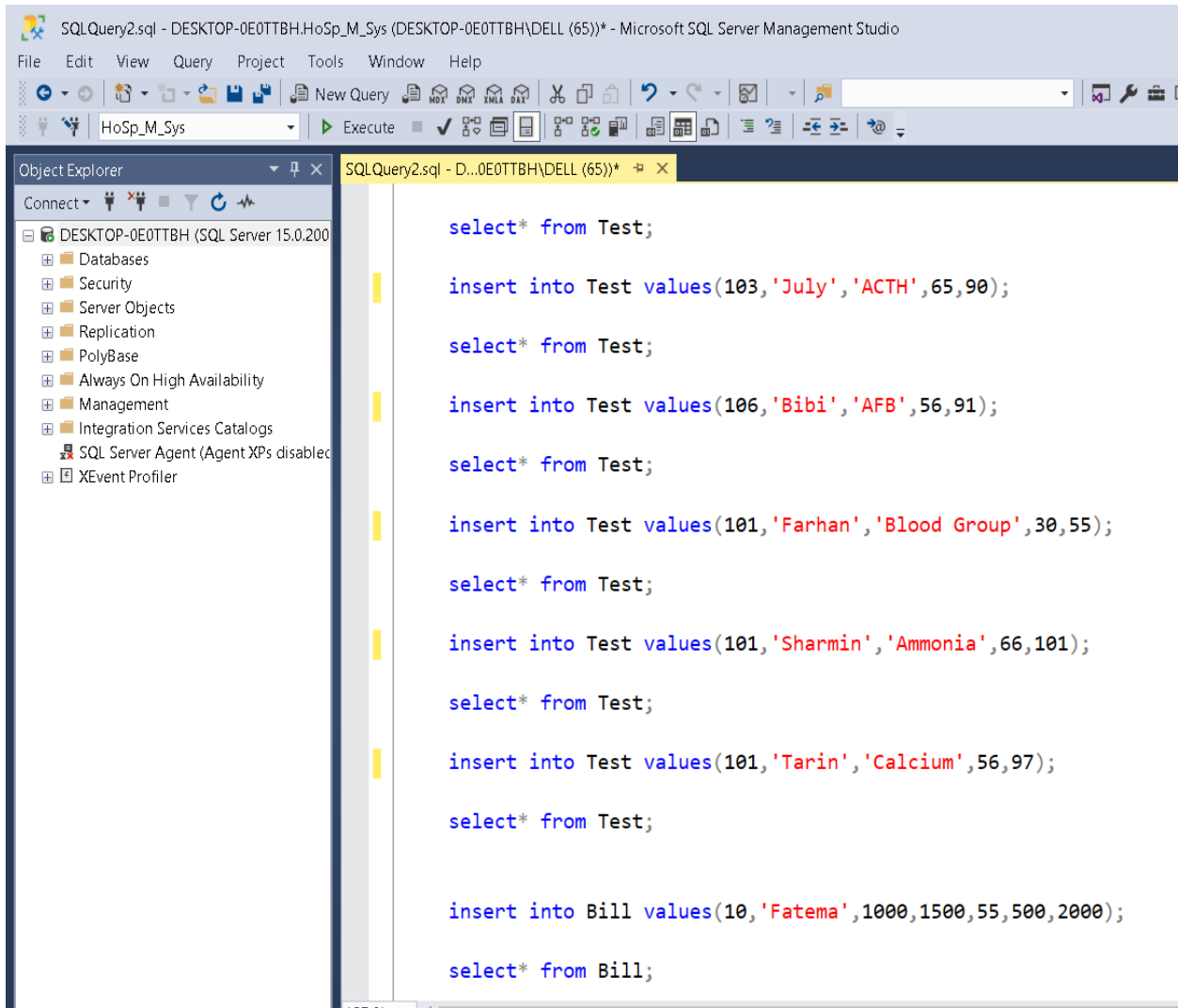


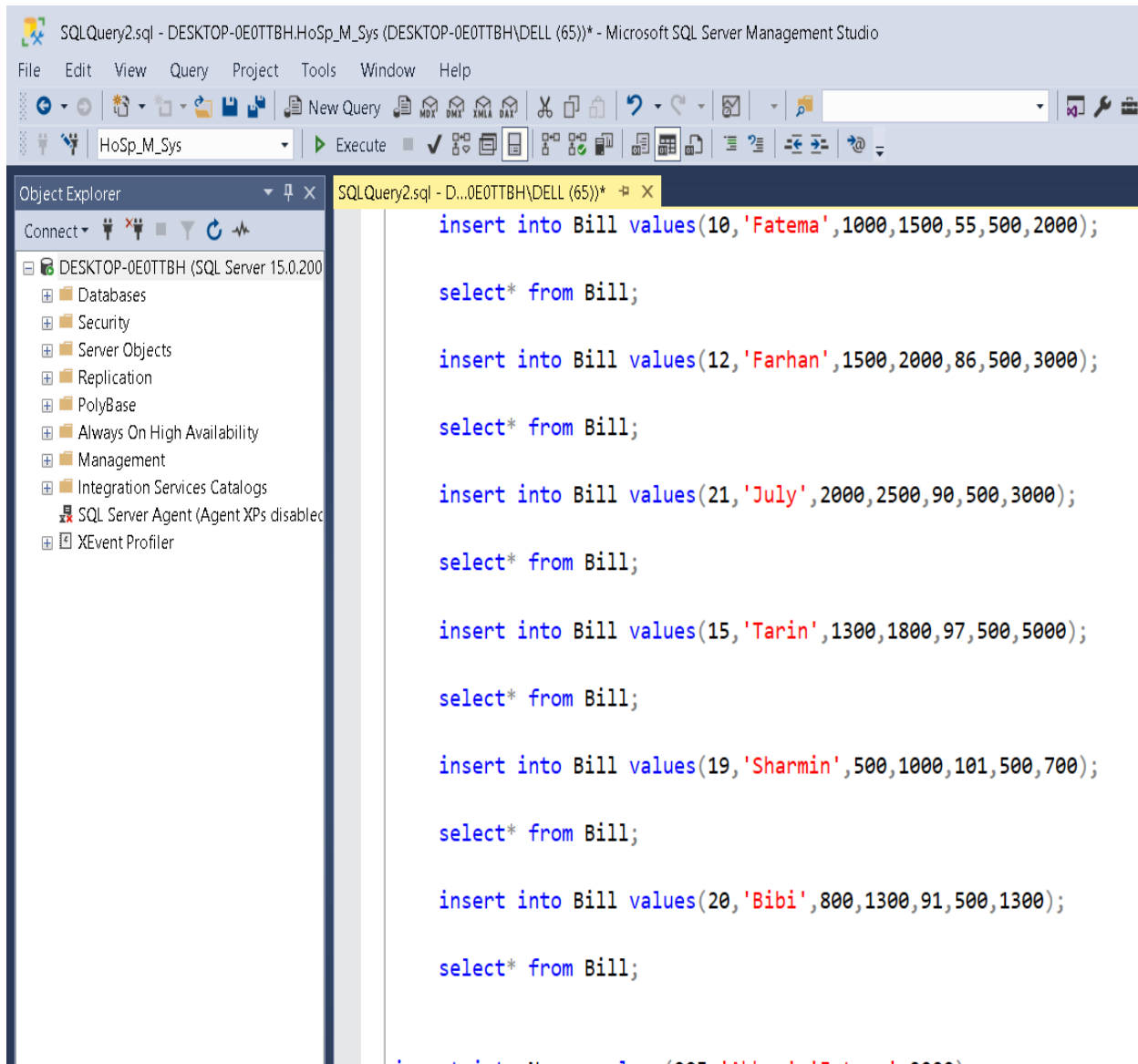


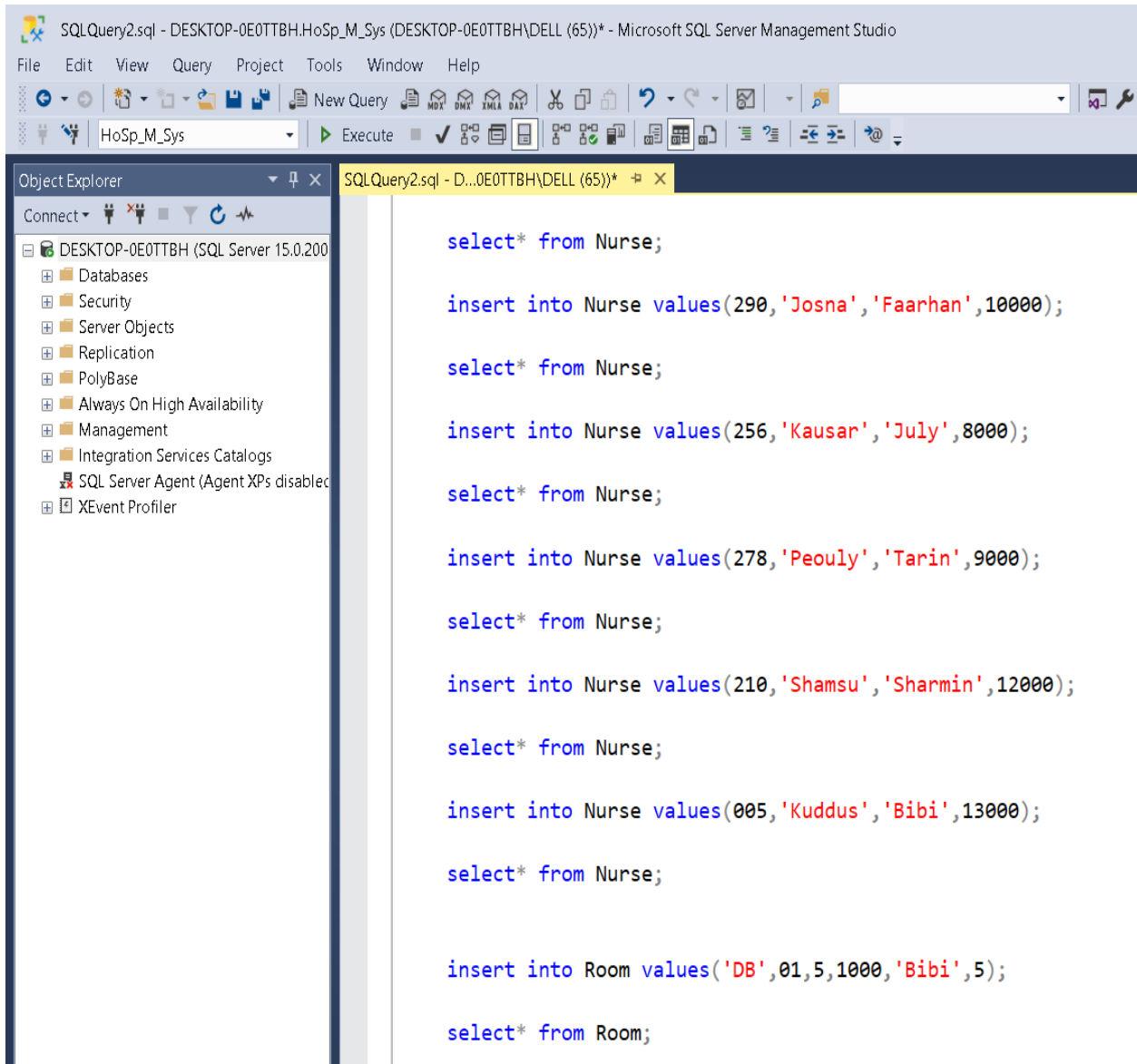


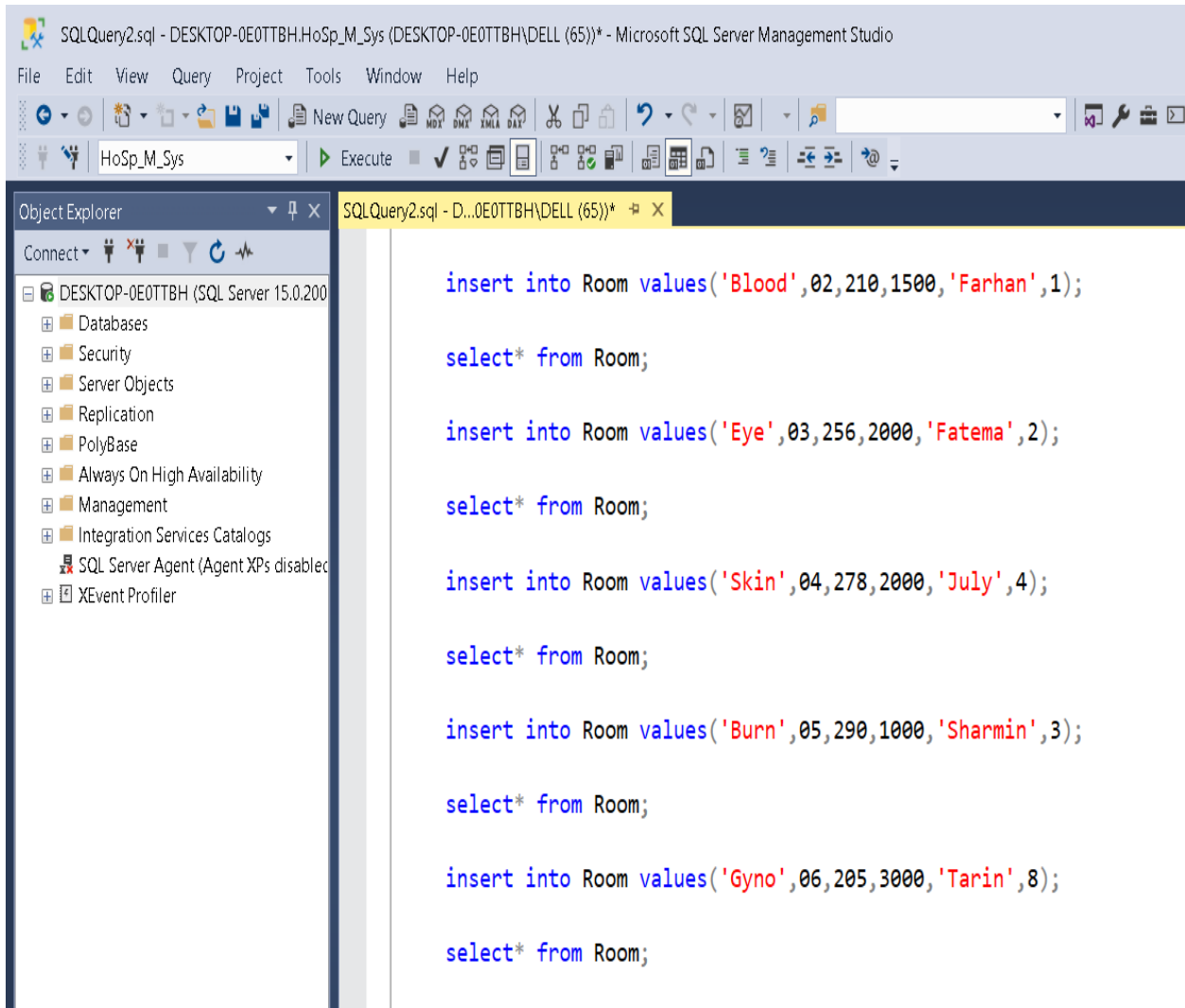


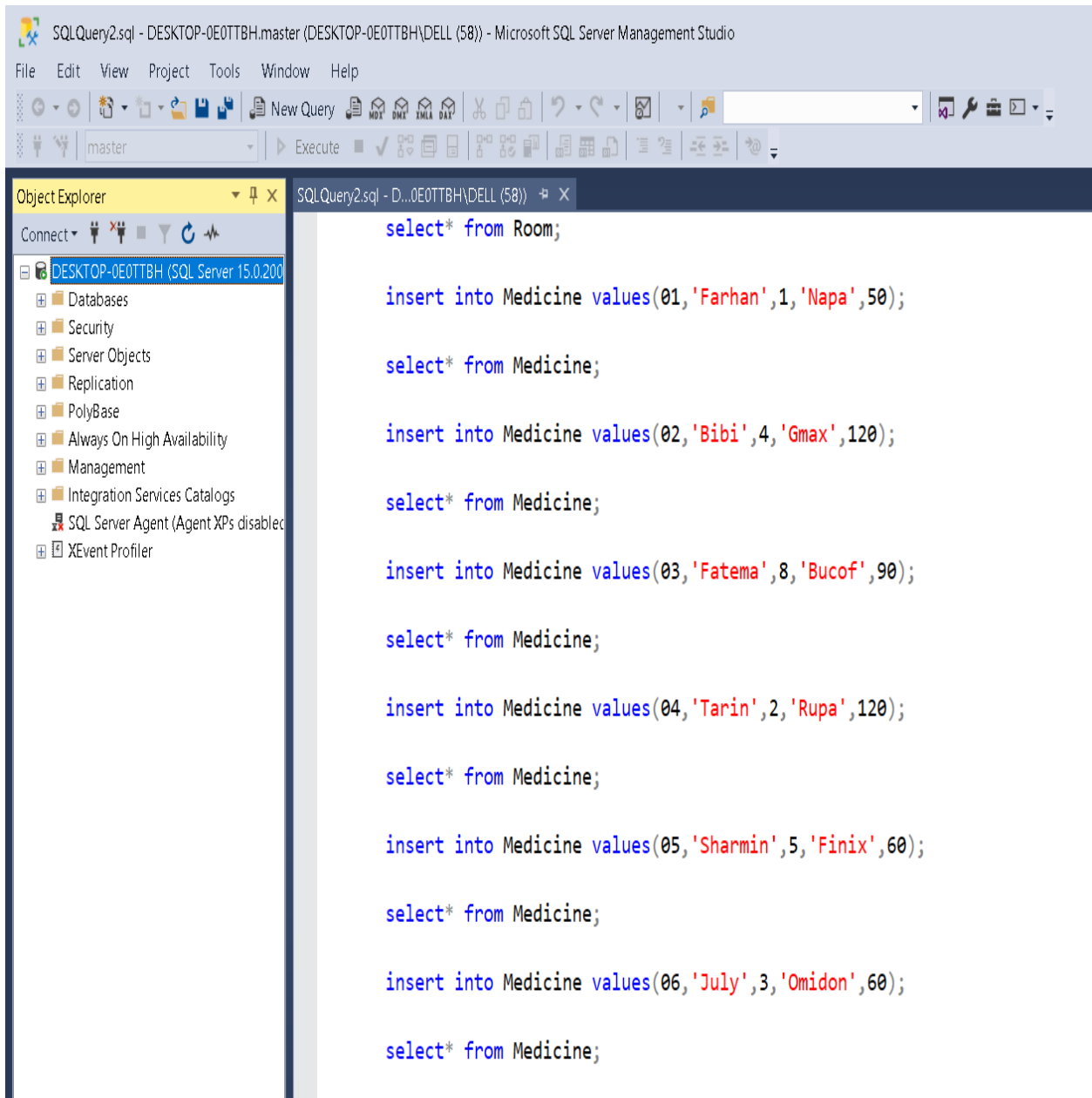












## 11. RESULT:

### 11.1 Sample screenshots:

The screenshot displays the Microsoft SQL Server Management Studio (SSMS) interface. The title bar indicates the connection is to 'SQLQuery2.sql - DESKTOP-0E0TTBH.HoSp\_M\_Sys (DESKTOP-0E0TTBH\DELL (65))\* - Microsoft SQL Server Management Studio'. The menu bar includes File, Edit, View, Query, Project, Tools, Window, and Help. The toolbar contains various icons for file operations, query execution, and formatting. The Object Explorer on the left shows the server structure for 'DESKTOP-0E0TTBH (SQL Server 15.0.2000)', including Databases, Security, Server Objects, Replication, PolyBase, Always On High Availability, Management, Integration Services Catalogs, SQL Server Agent (Agent XPs disabled), and XEvent Profiler. The Query Editor at the top shows the query file 'SQLQuery2.sql - D...0E0TTBH\DELL (65))\*'. The Results pane on the right displays the query results in a table format. The table has columns: Patient\_id, Patient\_name, Nationality, Age, Sex, Patient\_address, Phone, and Blood. The results are grouped into three sections, each with a header row. The first section contains two rows, the second section contains three rows, and the third section contains five rows. The status bar at the bottom indicates 'Query executed successfully.'

Patient_id	Patient_name	Nationality	Age	Sex	Patient_address	Phone	Blood	
1	Fatema	Jakir	Bangladeshi	20	Female	Dhaka	17383	A
1	Fatema	Jakir	Bangladeshi	20	Female	Dhaka	17383	A
2	July	Hasan	Bangladeshi	23	Female	Dhaka	1563	A
1	Bibi	Fatema	Bangladeshi	38	Female	Dhaka	135367	AB
2	Fatema	Jakir	Bangladeshi	20	Female	Dhaka	17383	A
3	July	Hasan	Bangladeshi	23	Female	Dhaka	1563	A
1	Bibi	Fatema	Bangladeshi	38	Female	Dhaka	135367	AB
2	Fatema	Jakir	Bangladeshi	20	Female	Dhaka	17383	A
3	July	Hasan	Bangladeshi	23	Female	Dhaka	1563	A
4	Sharmin	Akter	Bangladeshi	27	Female	Cumilla	184563	A-
1	Bibi	Fatema	Bangladeshi	38	Female	Dhaka	135367	AB
2	Farhan		Bangladeshi	8	Male	Noakhali	152463	A+
3	Fatema	Jakir	Bangladeshi	20	Female	Dhaka	17383	A
4	July	Hasan	Bangladeshi	23	Female	Dhaka	1563	A
5	Sharmin	Akter	Bangladeshi	27	Female	Cumilla	184563	A-
6	Tarin	Sultana	Bangladeshi	15	Female	Rangpur	158233	AB+
1	Alex Khan	1	Skin	18230	37	Male		
1	Alex Khan	1	Skin	18230	37	Male		
2	Nurul Kabir	4	Child	13560	47	Male		
1	Alex Khan	1	Skin	18230	37	Male		

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- Databases
- Security
- Server Objects
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- PolyBase
- Always On High Availability
- Management
- Integration Services Catalogs
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- XEvent Profiler

SQLQuery2.sql - D...0E0TTBH\DELL (65))\*

400 %

Results Messages

	Doc_Name	Doc_id	specialist	Doc_Phone	Age	Sex
1	Al Amin	5	Eye Specialist	18257	55	Male
2	Alex Khan	1	Skin	18230	37	Male
3	Dilruba M...	2	Burn Surgeon	15420	45	Fe...
4	Nurul Kabir	4	Child	13560	47	Male
5	Shawon ...	3	Diabetes Sp...	15240	50	Male
6	Tanjina H...	8	Gynecologist	18340	35	Fe...

	Appointment_id	Patient_id	Doc_id	Doc_Name
1	1	Fatema	1	Alex Khan

	Appointment_id	Patient_id	Doc_id	Doc_Name
1	1	Fatema	1	Alex Khan
2	2	Bibi	4	Nurul Kabir

	Appointment_id	Patient_id	Doc_id	Doc_Name
1	1	Fatema	1	Alex Khan
2	2	Bibi	4	Nurul Kabir
3	3	Farhan	8	Tanjina H...

	Appointment_id	Patient_id	Doc_id	Doc_Name
1	1	Fatema	1	Alex Khan
2	2	Bibi	4	Nurul Kabir
3	3	Farhan	8	Tanjina H...
4	4	July	2	Dilruba M...

	Appointment_id	Patient_id	Doc_id	Doc_Name
1	1	Fatema	1	Alex Khan
2	2	Bibi	4	Nurul Kabir
3	3	Farhan	8	Tanjina H...
4	4	July	2	Dilruba M...
5	5	Sharmin	5	Al Amin

	Appointment_id	Patient_id	Doc_id	Doc_Name
1	1	Fatema	1	Alex Khan
2	2	Bibi	4	Nurul Kabir
3	3	Farhan	8	Tanjina H...
4	4	July	2	Dilruba M...
5	5	Sharmin	5	Al Amin
6	6	Tarin	3	Shawon ...

Query executed successfully.



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SQLQuery2.sql - D...0E0TTBH\DELL (65))\*

400 %

Results Messages

	Appointment_id	Patient_id	Doc_id	Doc_Name
1	1	Fatema	1	Alex Khan
2	2	Bibi	4	Nurul Kabir
3	3	Farhan	8	Tanjina H...
4	4	July	2	Dilruba M...
5	5	Sharmin	5	Al Amin
6	6	Tarin	3	Shawon ...

	test_no	patient_id	test_name	weight	test_code
1	101	Fatema	APTT	46	86

	test_no	patient_id	test_name	weight	test_code
1	101	Fatema	APTT	46	86
2	103	July	ACTH	65	90

	test_no	patient_id	test_name	weight	test_code
1	101	Fatema	APTT	46	86
2	103	July	ACTH	65	90
3	106	Bibi	AFB	56	91

	test_no	patient_id	test_name	weight	test_code
1	101	Farhan	Blood Group	30	55
2	101	Fatema	APTT	46	86
3	103	July	ACTH	65	90
4	106	Bibi	AFB	56	91

	test_no	patient_id	test_name	weight	test_code
1	101	Farhan	Blood Group	30	55
2	101	Fatema	APTT	46	86
3	101	Sharmin	Ammonia	66	101
4	103	July	ACTH	65	90
5	106	Bibi	AFB	56	91

	test_no	patient_id	test_name	weight	test_code
1	101	Farhan	Blood Group	30	55
2	101	Fatema	APTT	46	86
3	101	Tarin	Calcium	56	97
4	101	Sharmin	Ammonia	66	101
5	103	July	ACTH	65	90
6	106	Bibi	AFB	56	91

Query executed successfully.

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SQLQuery2.sql - D...0E0TTBH\DELL (65))\*

400 %

Results Messages

	bill_id	patient_id	doc_charge	bill_total	test_code	test_price	medicine_price
1	10	Fatema	1000	1500	55	500	2000

	bill_id	patient_id	doc_charge	bill_total	test_code	test_price	medicine_price
1	10	Fatema	1000	1500	55	500	2000
2	12	Farhan	1500	2000	86	500	3000

	bill_id	patient_id	doc_charge	bill_total	test_code	test_price	medicine_price
1	10	Fatema	1000	1500	55	500	2000
2	12	Farhan	1500	2000	86	500	3000
3	21	July	2000	2500	90	500	3000

	bill_id	patient_id	doc_charge	bill_total	test_code	test_price	medicine_price
1	10	Fatema	1000	1500	55	500	2000
2	12	Farhan	1500	2000	86	500	3000
3	15	Tarin	1300	1800	97	500	5000
4	21	July	2000	2500	90	500	3000

	bill_id	patient_id	doc_charge	bill_total	test_code	test_price	medicine_price
1	10	Fatema	1000	1500	55	500	2000
2	12	Farhan	1500	2000	86	500	3000
3	15	Tarin	1300	1800	97	500	5000
4	19	Sharmin	500	1000	101	500	700
5	21	July	2000	2500	90	500	3000

	bill_id	patient_id	doc_charge	bill_total	test_code	test_price	medicine_price
1	10	Fatema	1000	1500	55	500	2000
2	12	Farhan	1500	2000	86	500	3000
3	15	Tarin	1300	1800	97	500	5000
4	19	Sharmin	500	1000	101	500	700
5	20	Bibi	800	1300	91	500	1300
6	21	July	2000	2500	90	500	3000

	Nurse_id	Nurse_name	patient_id	Nurse_salary
1	205	Abbas	Fatema	9000

	Nurse_id	Nurse_name	patient_id	Nurse_salary
1	205	Abbas	Fatema	9000
2	290	Josna	Faarhan	10000

	Nurse_id	Nurse_name	patient_id	Nurse_salary
1	205	Abbas	Fatema	9000

Query executed successfully.

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SQLQuery2.sql - D...0E0TTBH\DELL (65))\*

400 %

Results Messages

	Nurse_id	Nurse_name	patient_id	Nurse_salary
1	205	Abbas	Fatema	9000
2	256	Kausar	July	8000
3	290	Josna	Faarhan	10000

	Nurse_id	Nurse_name	patient_id	Nurse_salary
1	205	Abbas	Fatema	9000
2	256	Kausar	July	8000
3	278	Peouly	Tarin	9000
4	290	Josna	Faarhan	10000

	Nurse_id	Nurse_name	patient_id	Nurse_salary
1	205	Abbas	Fatema	9000
2	210	Shamsu	Sharmin	12000
3	256	Kausar	July	8000
4	278	Peouly	Tarin	9000
5	290	Josna	Faarhan	10000

	Nurse_id	Nurse_name	patient_id	Nurse_salary
1	5	Kuddus	Bibi	13000
2	205	Abbas	Fatema	9000
3	210	Shamsu	Sharmin	12000
4	256	Kausar	July	8000
5	278	Peouly	Tarin	9000
6	290	Josna	Faarhan	10000

	Room_no	Bed_no	Nurse_id	price	patient_id	Doc_id
1	DB	1	5	1000	Bibi	5

	Room_no	Bed_no	Nurse_id	price	patient_id	Doc_id
1	Blood	2	210	1500	Farhan	1
2	DB	1	5	1000	Bibi	5

	Room_no	Bed_no	Nurse_id	price	patient_id	Doc_id
1	Blood	2	210	1500	Farhan	1
2	DB	1	5	1000	Bibi	5
3	Eye	3	256	2000	Fatema	2

	Room_no	Bed_no	Nurse_id	price	patient_id	Doc_id
1	Blood	2	210	1500	Farhan	1
2	DB	1	5	1000	Bibi	5

Query executed successfully.

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Results Messages

	Room_no	Bed_no	Nurse_id	price	patient_id	Doc_id
1	Blood	2	210	1500	Farhan	1
2	Burn	5	290	1000	Sharmin	3
3	DB	1	5	1000	Bibi	5
4	Eye	3	256	2000	Fatema	2
5	Skin	4	278	2000	July	4

	Room_no	Bed_no	Nurse_id	price	patient_id	Doc_id
1	Blood	2	210	1500	Farhan	1
2	Burn	5	290	1000	Sharmin	3
3	DB	1	5	1000	Bibi	5
4	Eye	3	256	2000	Fatema	2
5	Gyno	6	205	3000	Tarin	8
6	Skin	4	278	2000	July	4

	Medi_id	patient_id	Doc_id	Medi_name	Price
1	1	Farhan	1	Napa	50

	Medi_id	patient_id	Doc_id	Medi_name	Price
1	1	Farhan	1	Napa	50
2	2	Bibi	4	Gmax	120

	Medi_id	patient_id	Doc_id	Medi_name	Price
1	1	Farhan	1	Napa	50
2	2	Bibi	4	Gmax	120
3	3	Fatema	8	Bucof	90

	Medi_id	patient_id	Doc_id	Medi_name	Price
1	1	Farhan	1	Napa	50
2	2	Bibi	4	Gmax	120
3	3	Fatema	8	Bucof	90
4	4	Tarin	2	Rupa	120

	Medi_id	patient_id	Doc_id	Medi_name	Price
1	1	Farhan	1	Napa	50
2	2	Bibi	4	Gmax	120
3	3	Fatema	8	Bucof	90
4	4	Tarin	2	Rupa	120
5	5	Sharmin	5	Finix	80

	Medi_id	patient_id	Doc_id	Medi_name	Price
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Query executed successfully.

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SQLQuery2.sql - D...0E0TTBH\DELL (65))\*

400 %

Results Messages

	Room_no	Bed_no	Nurse_id	price	patient_id	Doc_id
1	Blood	2	210	1500	Farhan	1
2	Burn	5	290	1000	Sharmin	3
3	DB	1	5	1000	Bibi	5
4	Eye	3	256	2000	Fatema	2
5	Gyno	6	205	3000	Tarin	8
6	Skin	4	278	2000	July	4

	Medi_id	patient_id	Doc_id	Medi_name	Price
1	1	Farhan	1	Napa	50

	Medi_id	patient_id	Doc_id	Medi_name	Price
1	1	Farhan	1	Napa	50
2	2	Bibi	4	Gmax	120

	Medi_id	patient_id	Doc_id	Medi_name	Price
1	1	Farhan	1	Napa	50
2	2	Bibi	4	Gmax	120
3	3	Fatema	8	Bucof	90

	Medi_id	patient_id	Doc_id	Medi_name	Price
1	1	Farhan	1	Napa	50
2	2	Bibi	4	Gmax	120
3	3	Fatema	8	Bucof	90
4	4	Tarin	2	Rupa	120

	Medi_id	patient_id	Doc_id	Medi_name	Price
1	1	Farhan	1	Napa	50
2	2	Bibi	4	Gmax	120
3	3	Fatema	8	Bucof	90
4	4	Tarin	2	Rupa	120
5	5	Sharmin	5	Finix	60

	Medi_id	patient_id	Doc_id	Medi_name	Price
1	1	Farhan	1	Napa	50
2	2	Bibi	4	Gmax	120
3	3	Fatema	8	Bucof	90
4	4	Tarin	2	Rupa	120
5	5	Sharmin	5	Finix	60
6	6	July	3	Omidon	60

Query executed successfully.

## **12. CONCLUSION :**

Our project Hospital Management system is about patient details, Appointment details, the test patient are taking, includes registration of patients, storing their disease details into the system. It will also maintain doctor's information and will process billing system. It also show the medicine details and room are patient using. Nurses giving service to patients . We can get each information about doctor nurse and patient with the help of these database.

## **References:**

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