

## DBMS LAB ASSIGNMENT-3

NAME:-JAYNIT PATEL

ROLL NO:-19BCS120

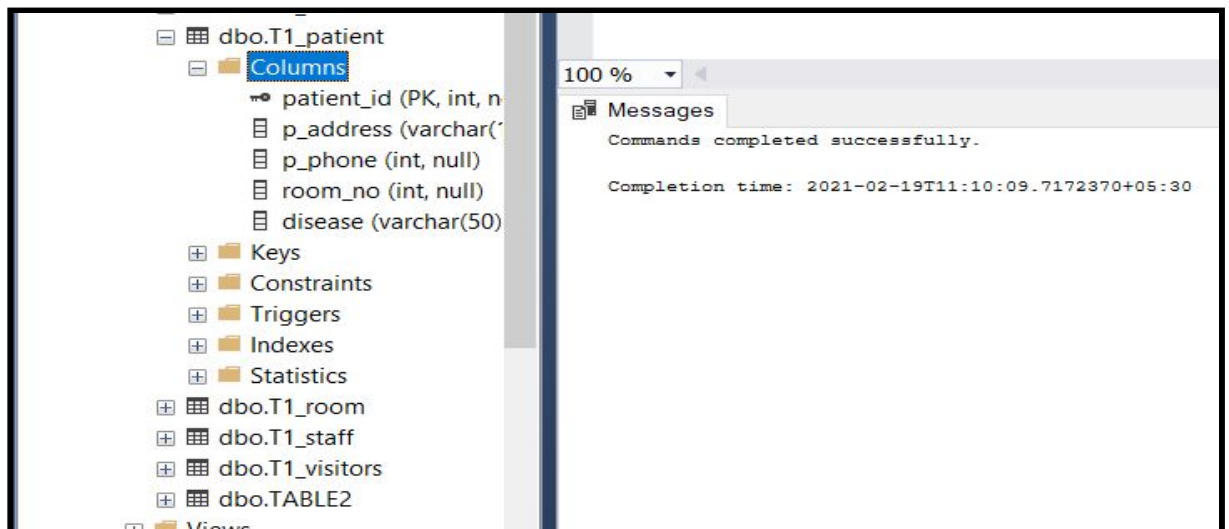
Q1)Add, Modify and Delete Column using Alter Command?

ANS)

QUERY:-

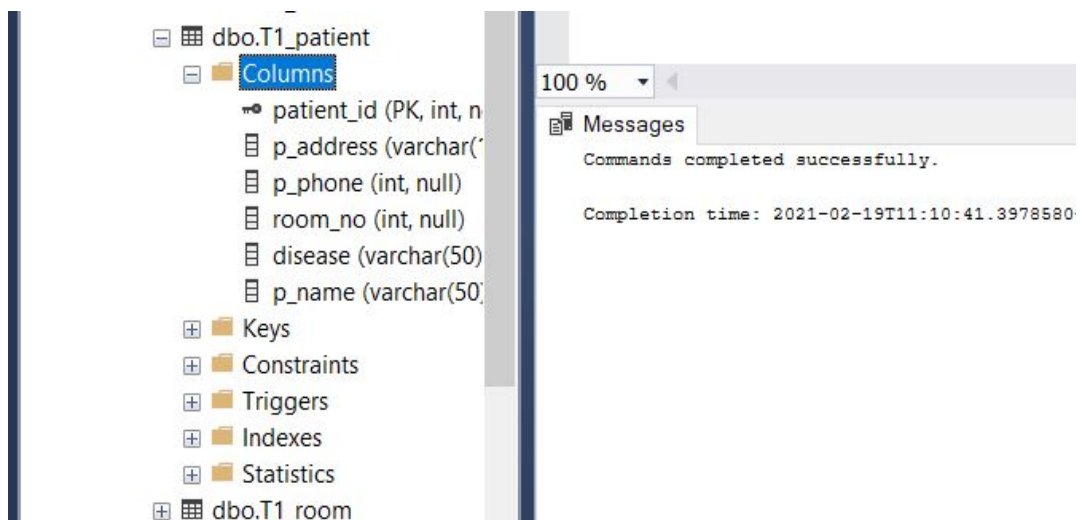
- DROP:-  
use iit  
ALTER TABLE T1\_patient  
DROP COLUMN p\_name

OUTPUT:-



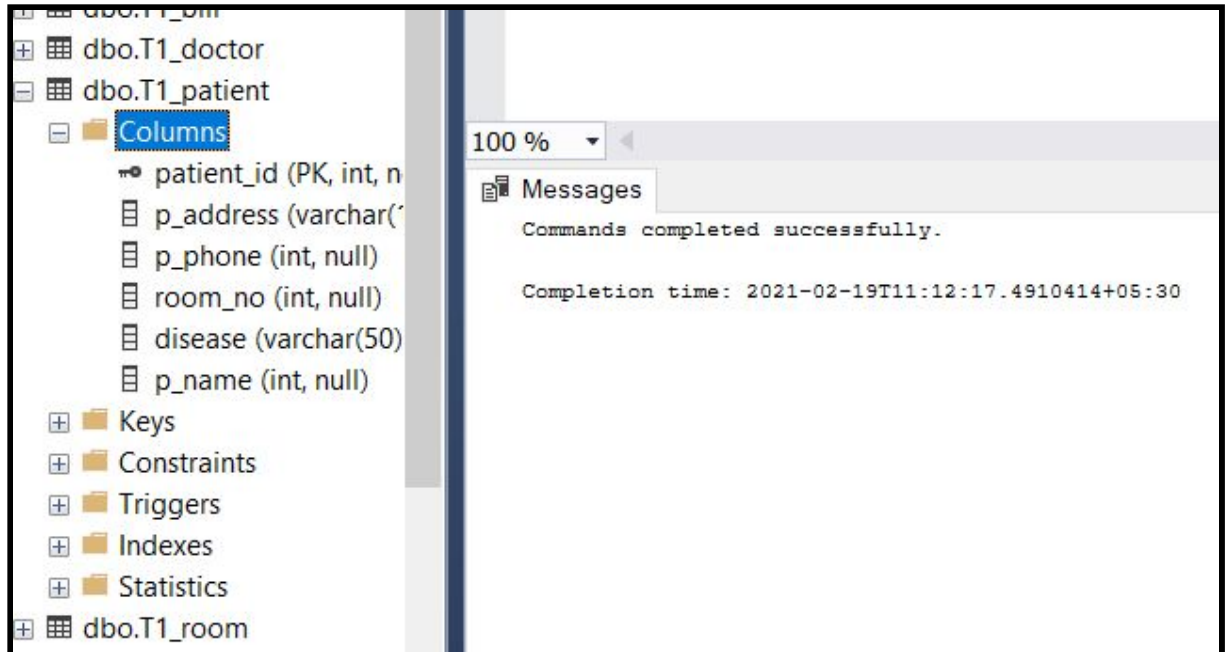
- ADD:-  
use iit  
ALTER TABLE T1\_patient  
ADD p\_name VARCHAR(50)

OUTPUT:-



- MODIFY:-  
use iit  
ALTER TABLE T1\_patient  
ALTER COLUMN p\_name INT

OUTPUT:-



Q2) Insert 20 Employees Data into all the tables. Use all the 3 methods that I have Showcased?

ANS)

QUERY:-

- COLUMN -WISE:-

use iit

```
INSERT INTO T1_patient(patient_id,p_address,p_phone,room_no,disease,p_name)
VALUES('1','ADAJAN','1234567890','101','TYPHOID','VINOD')
```

```
INSERT INTO T1_patient(patient_id,p_address,p_phone,room_no,disease,p_name)
VALUES('2','ADAJAN','1234567890','102','TYPHOID','BINOD')
```

```
INSERT INTO T1_patient(patient_id,p_address,p_phone,room_no,disease,p_name)
VALUES('3','ADAJAN','1234567890','103','COVID','JAY')
```

```
INSERT INTO T1_patient(patient_id,p_address,p_phone,room_no,disease,p_name)
VALUES('4','ADAJAN','1234567890','102','TYPHOID','NAMAN')
```

```
INSERT INTO T1_patient(patient_id,p_address,p_phone,room_no,disease,p_name)
VALUES('5','ADAJAN','1234567890','101','FOOD POISON','AMAN')
```

- ROW-WISE:-

use iit

```
INSERT INTO T1_patient VALUES('6','ADAJAN','1234567890','DENGUE','VIRAT')
```

```
INSERT INTO T1_patient VALUES ('7','ADAJAN','1234567890','TYPHOID','MANAN')
```

```
INSERT INTO T1_patient VALUES ('8','ADAJAN','1234567130','TYPHOID','MANAV')
```

```
INSERT INTO T1_patient VALUES ('9','ADAJAN','1234563130','TYPHOID','MANAV')
```

```
INSERT INTO T1_patient VALUES('10','ADAJAN','22567890','DENGUE','JAYESH')
```

```
INSERT INTO T1_patient VALUES ('11','ADAJAN','34567890','PNEUMONIA','OM')
```

```
INSERT INTO T1_patient VALUES ('12','ADAJAN','234567890','SURGERY','TOM')
```

```
INSERT INTO T1_patient VALUES ('13','ADAJAN','1223567890','ASTHMA','BIPUL')
```

```
INSERT INTO T1_patient VALUES('14','ADAJAN','99956789','FRACTURE','SORAB')
```

```
INSERT INTO T1_patient VALUES('15','ADAJAN','9656567890','TYPHOID','JAYNIT')
```

- FROM DIFF. TABLE:-

use iit

```
INSERT INTO T1_patient(patient_id,p_name,p_address,p_phone,disease)
```

```
(SELECT patient_id,p_name,p_address,p_phone,disease from patient_temp)
```

## OUTPUT:-

The screenshot displays the Microsoft SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 't (SQL Server 15.0.2000.5 - LAPTOP-0J968QT0)'. The 'Columns' section for 'dbo.patient\_temp' is expanded, showing fields like patient\_id, p\_name, p\_address, p\_phone, disease, and entrydate. The main window shows a SQL query in the 'SQLQuery4.sql' tab:

```
/****** Script for SelectTopNRows command from SSMS *****/
SELECT TOP (1000) [patient_id]
, [p_address]
, [p_phone]
, [disease]
, [p_name]
, [entrydate]
FROM [iiit].[dbo].[T1_patient]
```

Below the query editor, the 'Results' pane shows the output of the query, displaying 20 rows of patient data. The status bar at the bottom indicates 'Query executed successfully.' and 'localhost (15.0 RTM) LAPTOP-0J968QT0\jayni ... iiit 00:00:00 20 rows'.

	patient_id	p_address	p_phone	disease	p_name	entrydate
1	1	ADAJAN	1234567890	TYPHOID	VINOD	NULL
2	2	ADAJAN	1234567890	TYPHOID	BINOD	NULL
3	3	ADAJAN	1234567890	COVID	JAY	NULL
4	4	ADAJAN	1234567890	TYPHOID	NAMAN	NULL
5	5	ADAJAN	1234567890	FOOD POISON	AMAN	NULL
6	6	ADAJAN	1234567890	DENGUE	VIRAT	NULL
7	7	ADAJAN	1234567890	TYPHOID	MANAN	NULL
8	8	ADAJAN	1234567130	TYPHOID	MANAV	NULL
9	9	ADAJAN	1234563130	TYPHOID	MANAV	NULL
10	10	ADAJAN	1222567890	DENGUE	JAYESH	NULL
11	11	ADAJAN	233456789	PNEUMONIA	OM	NULL
12	12	ADAJAN	1123456789	SURGERY	TOM	NULL
13	13	ADAJAN	1223567890	ASTHMA	BIPUL	NULL
14	14	ADAJAN	999956789	FRACTURE	SOURAB	NULL
15	15	ADAJAN	965656789	TYPHOID	JAYNIT	NULL
16	16	ADAJAN	233456789	PNEUMONIA	LOY	2021-02-19
17	17	ADAJAN	123456789	ASTHMA	TROY	2021-02-19
18	18	ADAJAN	93456789	FRACTURE	LAMAR	2021-02-19
19	19	ADAJAN	233456789	NAUSEA	JUSTIN	2021-02-19
20	20	ADAJAN	233456789	DENGUE	DILJIT	2021-02-19

Q3) Show Violation of Primary Key, Unique Not Null and default key constraints through Insertion?

ANS)

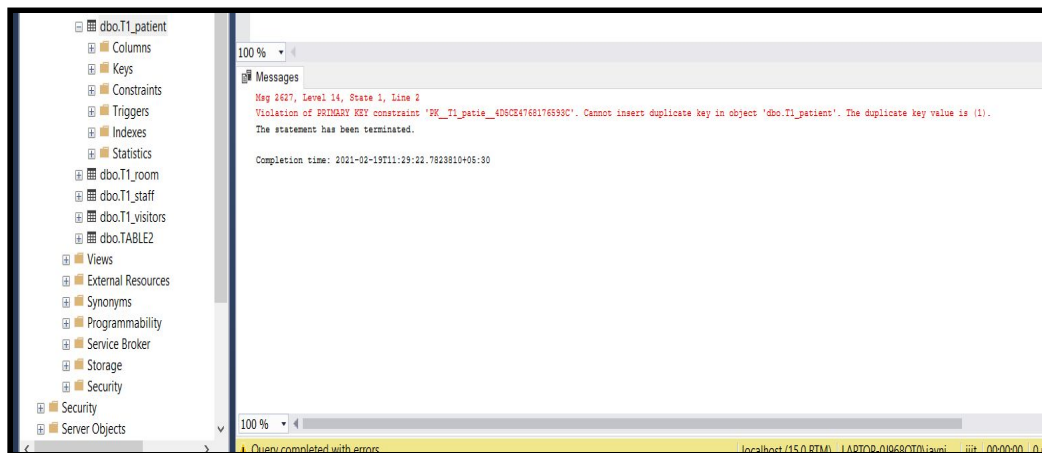
QUERY:-

- PRIMARY KEY:-

use iit

```
INSERT INTO T1_patient(patient_id,p_address,p_phone,room_no,disease,p_name)
VALUES('1','SURAT','1234567890','102','DENGUE','AMIT')
```

OUTPUT:-

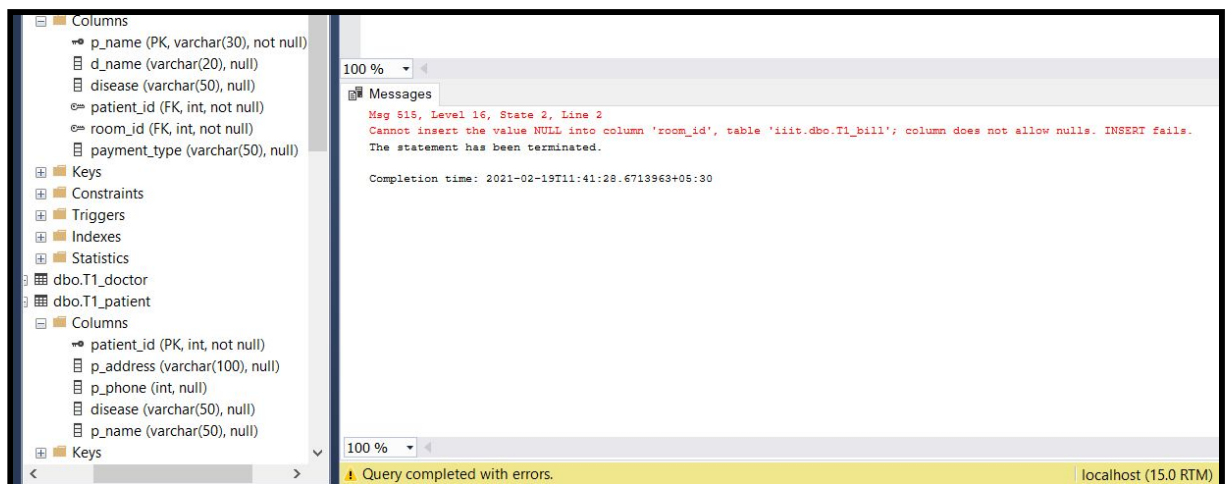


- UNIQUE NOT NULL:-

use iit

```
INSERT INTO T1_bill(patient_id,d_name,room_id,payment_type,disease,p_name)
VALUES('1','rajesh',null,'gpay','TYPHOID','VINOD')
```

OUTPUT:-

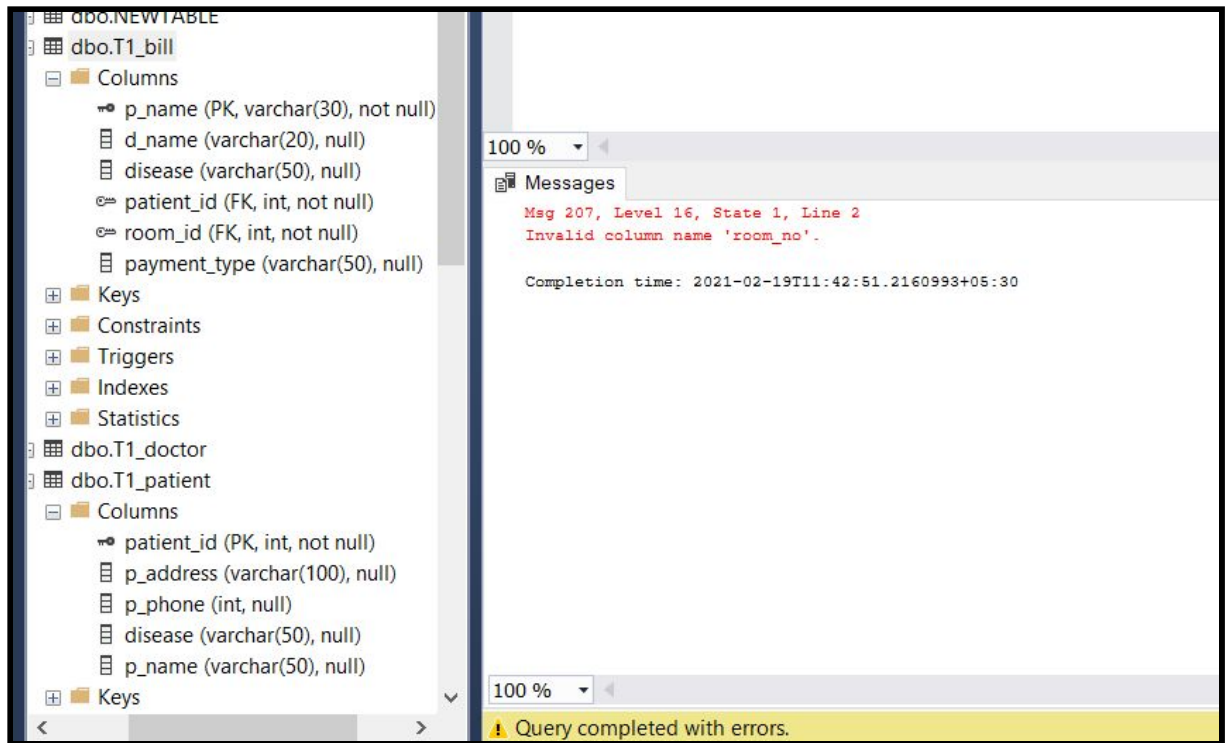


- DEFAULT KEY:-

use iit

```
INSERT INTO T1_patient(patient_id,p_address,p_phone,room_no,disease,p_name)  
VALUES('1','ADAJAN','1234567890','ADMIN','TYPHOID','VINOD')
```

OUTPUT:-



Q4) Insert tuples into the table and see how foreign key constraint works if you try to insert into dependent table first?

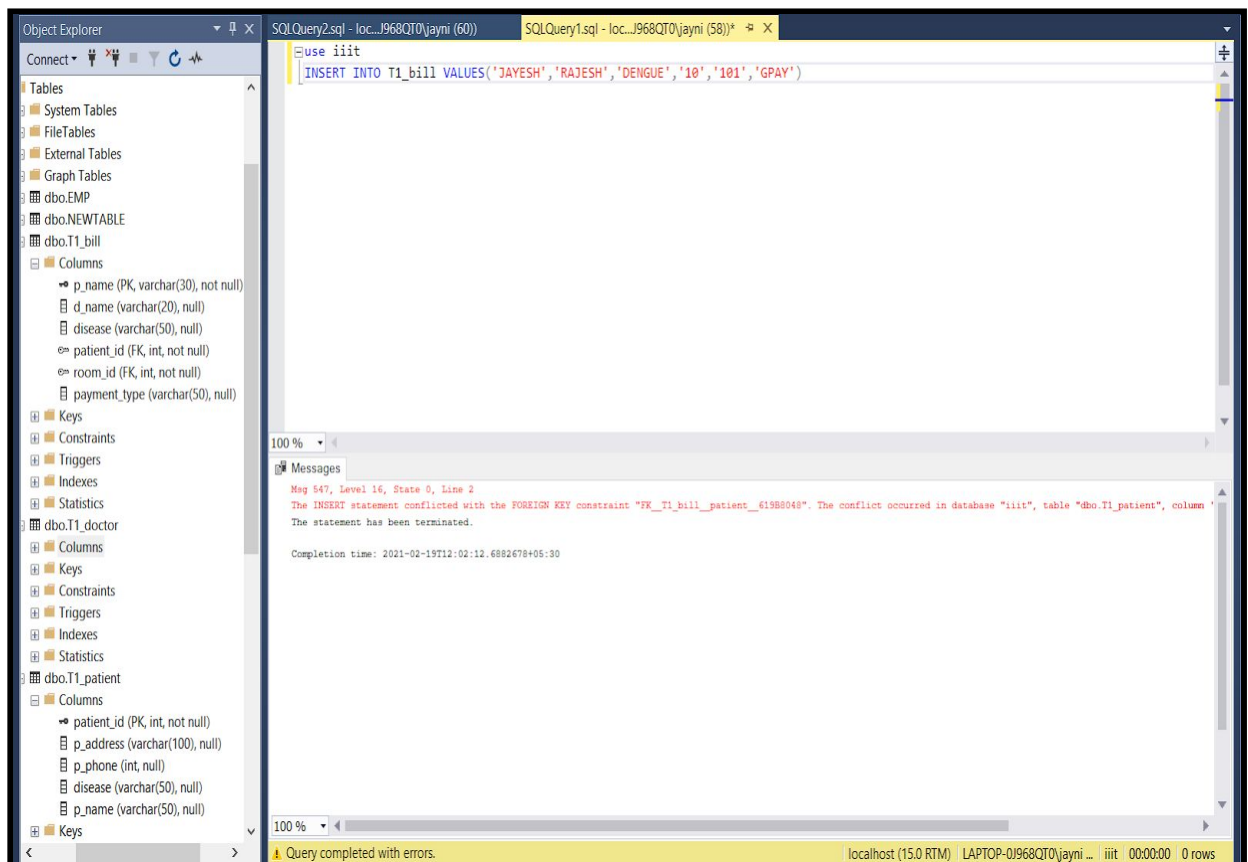
ANS)

QUERY:-

use iiit

INSERT INTO T1\_bill VALUES('JAYESH','RAJESH','DENGUE','10','101','GPAY')

OUTPUT:-



Q5) Show Violation of Foreign Key Constraint when you try to delete from a base table. If you get an error explain why deletion gives an error?  
ANS)

QUERY:-

```
use iiit
ALTER TABLE T1_patient
DROP COLUMN patient_id
```

OUTPUT:-

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 'iiit', including tables like 'T1\_patient' and 'T1\_doctor'. The main pane shows the execution of a query in 'SQLQuery2.sql'. The query is:

```
use iiit
ALTER TABLE T1_patient
DROP COLUMN patient_id
```

The Messages pane at the bottom shows the following error messages:

```
Msg 5074, Level 16, State 1, Line 2
The object 'FK_T1_patie_4D6CE47681765930' is dependent on column 'patient_id'.
Msg 5074, Level 16, State 1, Line 2
The object 'FK_T1_bill_patient_619B8048' is dependent on column 'patient_id'.
Msg 5074, Level 16, State 1, Line 2
The object 'FK_T1_visito_patie_5070F446' is dependent on column 'patient_id'.
Msg 5074, Level 16, State 1, Line 2
The object 'FK_T1_room_patient_47DBAE45' is dependent on column 'patient_id'.
Msg 4922, Level 16, State 9, Line 2
ALTER TABLE DROP COLUMN patient_id failed because one or more objects access this column.
```

The status bar at the bottom indicates: "Query completed with errors. localhost (15.0 RTM) | LAPTOP-0J968QT0\jayni ... iiit 00:00:00 0 rows".



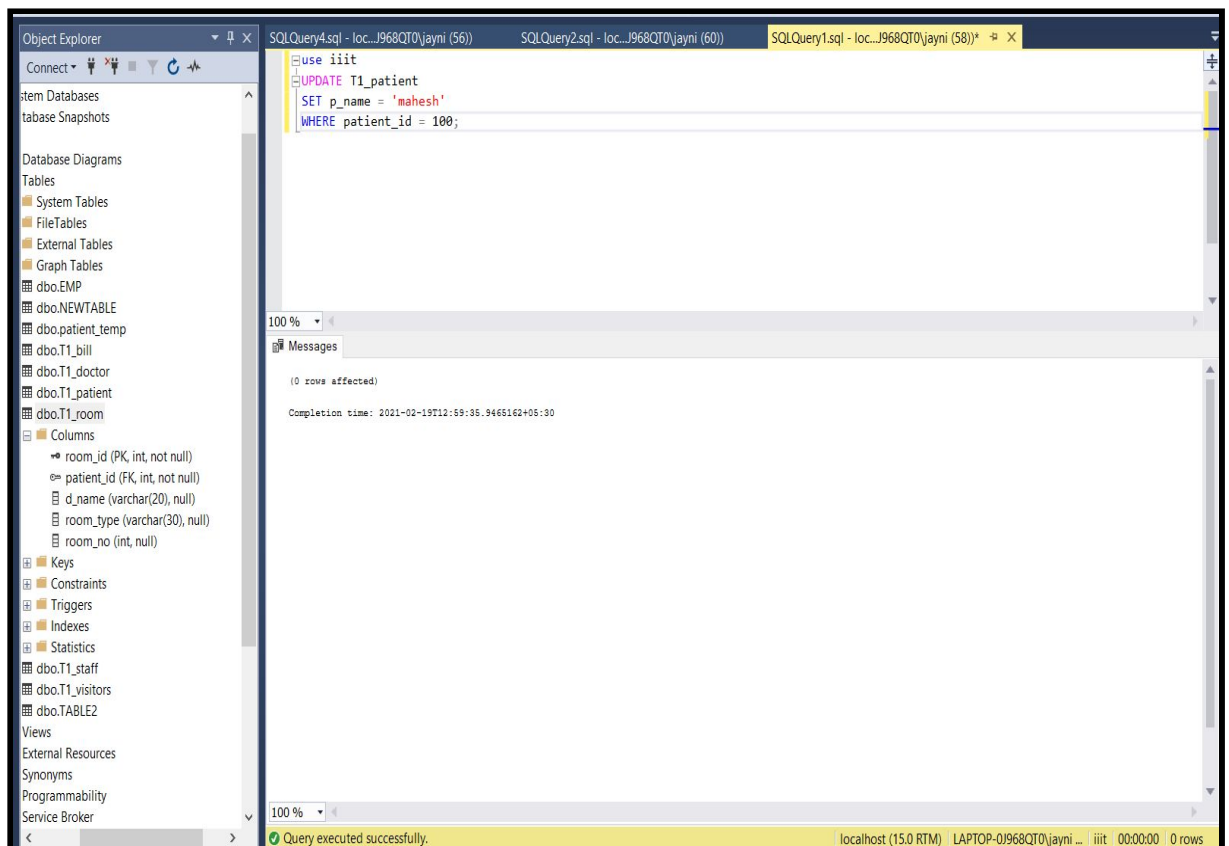
Q6) Try to update a non-existing entity data and check for error?

ANS)

QUERY:-

```
UPDATE T1_patient  
SET p_name = 'mahesh'  
WHERE patient_id = 100;
```

OUTPUT:-



Q7)Add a column which has default value?  
ANS)

QUERY:-

```
use iiit
ALTER TABLE T1_patient
ADD entrydate date default getdate()
```

OUTPUT:-

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 'iiit'. The 'Columns' section for 'T1\_patient' is expanded, listing columns: patient\_id (PK, int, not null), p\_address (varchar(100), null), p\_phone (int, null), disease (varchar(50), null), p\_name (varchar(50), null), and entrydate (date, null). The main query window shows the following SQL script:

```
use iiit
ALTER TABLE T1_patient
ADD entrydate date default getdate()
```

The Messages pane at the bottom indicates that the commands completed successfully. The status bar at the bottom shows 'Query executed successfully.' and 'localhost (15.0 RTM) LAPTOP-0J968QT0\jayni ... iiit 00:00:00 0 rows'.

Q8) 5 Simple Select queries to retrieve data from your database?  
ANS)

QUERY:-

1.) use iiit  
select \* from T1\_patient

OUTPUT:-

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the 'Columns' list for 'dbo.patient\_temp' is expanded, showing: patient\_id (PK, int, not null), p\_name (varchar(50), null), p\_address (varchar(100), null), p\_phone (int, null), and disease (varchar(50), null). The 'Results' pane on the right displays the data for 'T1\_patient' with 20 rows. The status bar at the bottom indicates 'Query executed successfully.' and '20 rows'.

patient_id	p_address	p_phone	disease	p_name	entrydate
1	ADAJAN	1234567890	TYPHOID	VINOD	NULL
2	ADAJAN	1234567890	TYPHOID	BINOD	NULL
3	ADAJAN	1234567890	COVID	JAY	NULL
4	ADAJAN	1234567890	TYPHOID	NAMAN	NULL
5	ADAJAN	1234567890	FOOD POISON	AMAN	NULL
6	ADAJAN	1234567890	DENGUE	VIRAT	NULL
7	ADAJAN	1234567890	TYPHOID	MANAN	NULL
8	ADAJAN	1234567130	TYPHOID	MANAV	NULL
9	ADAJAN	1234563130	TYPHOID	MANAV	NULL
10	ADAJAN	122567890	DENGUE	JAYESH	NULL
11	ADAJAN	233456789	PNEUMONIA	OM	NULL
12	ADAJAN	1123456789	SURGERY	TOM	NULL
13	ADAJAN	1223567890	ASTHMA	BIPUL	NULL
14	ADAJAN	999956789	FRACTURE	SOURAB	NULL
15	ADAJAN	965656789	TYPHOID	JAYNIT	NULL
16	ADAJAN	233456789	PNEUMONIA	LOY	2021-02-19
17	ADAJAN	123456789	ASTHMA	TROY	2021-02-19
18	ADAJAN	93456789	FRACTURE	LAMAR	2021-02-19
19	ADAJAN	233456789	NAUSEA	JUSTIN	2021-02-19
20	ADAJAN	233456789	DENGUE	DILJIT	2021-02-19

2.) select patient\_id,p\_name,disease from T1\_patient

OUTPUT:-

The screenshot shows the SQL Server Enterprise Manager interface with a query window open. The query is: `use iiit  
select patient_id,p_name,disease from T1_patient`. The 'Results' pane displays the output of the query, showing 20 rows with columns patient\_id, p\_name, and disease. The status bar at the bottom indicates 'Query executed successfully.' and '20 rows'.

patient_id	p_name	disease
1	VINOD	TYPHOID
2	BINOD	TYPHOID
3	JAY	COVID
4	NAMAN	TYPHOID
5	AMAN	FOOD POISON
6	VIRAT	DENGUE
7	MANAN	TYPHOID
8	MANAV	TYPHOID
9	MANAV	TYPHOID
10	JAYESH	DENGUE
11	OM	PNEUMONIA
12	TOM	SURGERY
13	BIPUL	ASTHMA
14	SOURAB	FRACTURE
15	JAYNIT	TYPHOID
16	LOY	PNEUMONIA
17	TROY	ASTHMA
18	LAMAR	FRACTURE
19	JUSTIN	NAUSEA
20	DILJIT	DENGUE

3.) use iiit

select p\_name,disease from T1\_patient where disease='TYPHOID'

OUTPUT:-

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the Object Explorer displays the database structure, including tables like T1\_patient. The central pane shows a SQL query: `use iiit; select p_name,disease from T1_patient where disease='TYPHOID'`. The bottom pane displays the results of the query, showing a list of patients with the disease TYPHOID.

p_name	disease
VINOD	TYPHOID
BINOD	TYPHOID
NAMAN	TYPHOID
MANAN	TYPHOID
MANAV	TYPHOID
MANAV	TYPHOID
JAYNIT	TYPHOID

4.) use iiit

select patient\_id,p\_name,disease from T1\_patient where p\_name='manav'

OUTPUT:-

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the Object Explorer displays the database structure. The central pane shows a SQL query: `use iiit; select patient_id,p_name,disease from T1_patient where p_name='manav'`. The bottom pane displays the results of the query, showing two patients named MANAV with the disease TYPHOID.

patient_id	p_name	disease
8	MANAV	TYPHOID
9	MANAV	TYPHOID

5.) use iiit

```
SELECT TOP (10) [patient_id] ,[p_address] ,[p_phone], [disease], [p_name],  
[entrydate] FROM [iiit].[dbo].[T1_patient]
```

OUTPUT:-

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 'iiit', including tables like 'dbo.NEWTABLE', 'dbo.patient\_temp', 'dbo.T1\_bill', 'dbo.T1\_doctor', 'dbo.T1\_patient', 'dbo.T1\_room', 'dbo.T1\_staff', 'dbo.T1\_visitors', and 'dbo.TABLE2'. The main window shows a query executed in the 'SQLQuery1.sql' file. The query is:   
`SELECT TOP (10) [patient_id] ,[p_address] ,[p_phone], [disease], [p_name], [entrydate] FROM [iiit].[dbo].[T1_patient]`  
The Results pane shows the output of the query, displaying 10 rows of patient data. The status bar at the bottom indicates 'Query executed successfully.' and '10 rows'.

	patient_id	p_address	p_phone	disease	p_name	entrydate
1	1	ADAJAN	1234567890	TYPHOID	VINOD	NULL
2	2	ADAJAN	1234567890	TYPHOID	BINOD	NULL
3	3	ADAJAN	1234567890	COVID	JAY	NULL
4	4	ADAJAN	1234567890	TYPHOID	NAMAN	NULL
5	5	ADAJAN	1234567890	FOOD POISON	AMAN	NULL
6	6	ADAJAN	1234567890	DENGUE	VIRAT	NULL
7	7	ADAJAN	1234567890	TYPHOID	MANAN	NULL
8	8	ADAJAN	1234567130	TYPHOID	MANAV	NULL
9	9	ADAJAN	1234563130	TYPHOID	MANAV	NULL
10	10	ADAJAN	1222567890	DENGUE	JAYESH	NULL

Q9) Show how Foreign key constraint effects Updating a dependent table when value is not existing and in Base table where the value is referred and you want to update it?

ANS)

QUERY:-

```
use iiit
UPDATE T1_room
SET patient_id = '100'
WHERE room_id = 1;
```

OUTPUT:-

