

## DBMS ASSIGNMENT 4

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ROLL NO:-19BCS120

Q1)Write 5 Nested Queries for your respective database- the queries should not be very similar like just changing the where clause or just building all the queries on only one or two tables etc. The queries should make sense, it should cover most part of your database tables?

ANS)

QUERY:-

use iit

select \* from T1\_patient

where patient\_id in(select patient\_id from T1\_room where room\_type='SPECIAL')

select \* from T1\_patient

where patient\_id in(select patient\_id from T1\_room where room\_type='GENERAL')

select \* from T1\_patient

where patient\_id in(select patient\_id from T1\_room where d\_name='RAMESH')

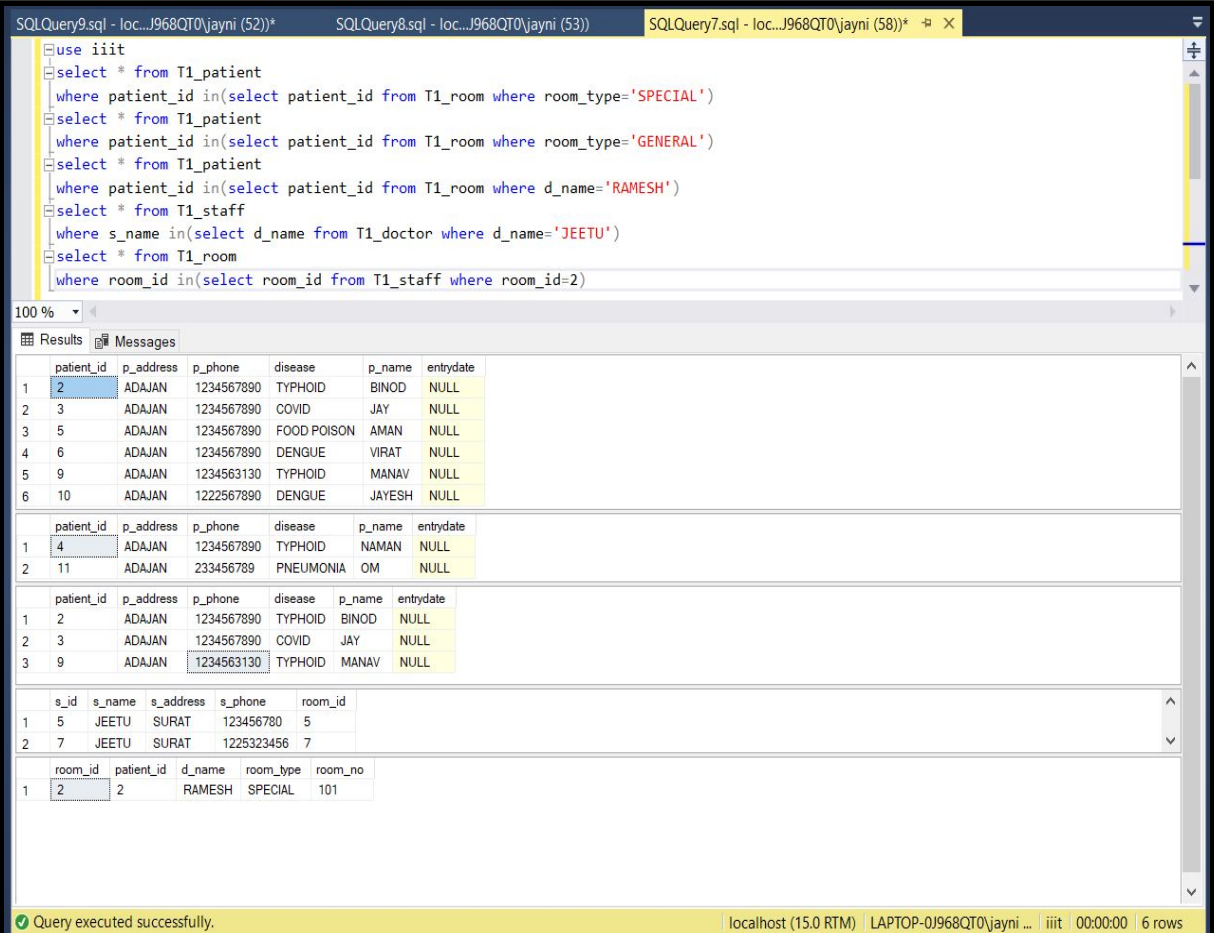
select \* from T1\_staff

where s\_name in(select d\_name from T1\_doctor where d\_name='JEETU')

select \* from T1\_room

where room\_id in(select room\_id from T1\_staff where room\_id=2)

## OUTPUT:-



```
SQLQuery9.sql - loc...J968QT0\jayni (52))*  SQLQuery8.sql - loc...J968QT0\jayni (53))  SQLQuery7.sql - loc...J968QT0\jayni (58))* X
```

```
use iit
select * from T1_patient
where patient_id in(select patient_id from T1_room where room_type='SPECIAL')
select * from T1_patient
where patient_id in(select patient_id from T1_room where room_type='GENERAL')
select * from T1_patient
where patient_id in(select patient_id from T1_room where d_name='RAMESH')
select * from T1_staff
where s_name in(select d_name from T1_doctor where d_name='JEETU')
select * from T1_room
where room_id in(select room_id from T1_staff where room_id=2)
```

100 %

Results Messages

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

	patient_id	p_address	p_phone	disease	p_name	entrydate
1	4	ADAJAN	1234567890	TYPHOID	NAMAN	NULL
2	11	ADAJAN	233456789	PNEUMONIA	OM	NULL

	patient_id	p_address	p_phone	disease	p_name	entrydate
1	2	ADAJAN	1234567890	TYPHOID	BINOD	NULL
2	3	ADAJAN	1234567890	COVID	JAY	NULL
3	9	ADAJAN	1234563130	TYPHOID	MANAV	NULL

	s_id	s_name	s_address	s_phone	room_id
1	5	JEETU	SURAT	123456780	5
2	7	JEETU	SURAT	1225323456	7

	room_id	patient_id	d_name	room_type	room_no
1	2	2	RAMESH	SPECIAL	101

Query executed successfully. localhost (15.0 RTM) | LAPTOP-0J968QT0\jayni ... | iit | 00:00:00 | 6 rows

Q2) Illustrate how we can use Concat and As operators in SQL (minimum 3 queries)?

ANS)

QUERY:-

use iiit

SELECT CONCAT(d\_name, ' ', department) AS d\_details from T1\_doctor

SELECT CONCAT(room\_type, ' ', room\_no) AS room\_details from T1\_room

SELECT CONCAT(patient\_id, ' ', p\_name) AS patient\_details from T1\_patient

OUTPUT:-

The screenshot shows a SQL query execution window with three queries and their results. The queries are:

```
use iiit
SELECT CONCAT(d_name, ' ', department) AS d_details from T1_doctor
SELECT CONCAT(room_type, ' ', room_no) AS room_details from T1_room
SELECT CONCAT(patient_id, ' ', p_name) AS patient_details from T1_patient
```

The results are displayed in three separate tables:

d_details	
1	HITEN AYURVEDIC
2	JEETU AYURVEDIC
3	MAHESH AYURVEDIC
4	rajesh AYURVEDIC
5	RAMESH HOMEOPATHIC

room_details	
1	deluxe 101
2	SPECIAL 101
3	SPECIAL 102
4	GENERAL 201
5	SPECIAL 103
6	SPECIAL 104
7	SPLIT SHARING 202
8	3-SHARING 301
9	SPECIAL 105
10	SPECIAL 106
11	GENERAL 201

patient_details	
1	1 VINOD
2	2 BINOD
3	3 JAY
4	4 NAMAN
5	5 AMAN
6	6 VIRAT
7	7 MANAN
8	8 MANAV
9	9 MANAV
10	10 JAYESH
11	11 OM

At the bottom, a status bar indicates: "Query executed successfully. localhost (15.0 RTM) LAPTOP-0J968QT0\jayni ... iiit 00:00:00 5 rows"

Q3) Illustrate all the Comparison operator (2 queries for each operator)?

ANS)

QUERY:-

use iiit

SELECT \* FROM T1\_patient WHERE patient\_id<=5

SELECT \* FROM T1\_patient WHERE disease='COVID'

SELECT \* FROM T1\_room WHERE room\_type!='SPECIAL'

SELECT \* FROM T1\_room WHERE d\_name!='RAMESH'

SELECT \* FROM T1\_room WHERE d\_name='JEETU'

SELECT \* FROM T1\_staff WHERE s\_id<=3

OUTPUT:-

The screenshot displays the SQL Developer interface with a query window and a results grid. The query window contains the following SQL statements:

```
use iiit
SELECT * FROM T1_patient WHERE patient_id<=5
SELECT * FROM T1_patient WHERE disease='COVID'
SELECT * FROM T1_room WHERE room_type!='SPECIAL'
SELECT * FROM T1_room WHERE d_name!='RAMESH'
SELECT * FROM T1_room WHERE d_name='JEETU'
SELECT * FROM T1_staff WHERE s_id<=3
```

The results grid shows the output of these queries, organized into several tables. The first table lists patient records with columns: patient\_id, p\_address, p\_phone, disease, p\_name, and entrydate. The second table shows a single patient record for patient\_id 3. The third table lists room records with columns: room\_id, patient\_id, d\_name, room\_type, and room\_no. The fourth table lists room records with columns: room\_id, patient\_id, d\_name, room\_type, and room\_no. The fifth table lists room records with columns: room\_id, patient\_id, d\_name, room\_type, and room\_no. The sixth table lists staff records with columns: s\_id, s\_name, s\_address, s\_phone, and room\_id.

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

patient_id	p_address	p_phone	disease	p_name	entrydate
3	ADAJAN	1234567890	COVID	JAY	NULL

room_id	patient_id	d_name	room_type	room_no
1	1	rajesh	deluxe	101
2	4	MAHESH	GENERAL	201
3	7	JEETU	SPLIT SHARING	202
4	8	HITEN	3-SHARING	301
5	11	JEETU	GENERAL	201

room_id	patient_id	d_name	room_type	room_no
1	1	rajesh	deluxe	101
2	4	MAHESH	GENERAL	201
3	5	JEETU	SPECIAL	103
4	6	MAHESH	SPECIAL	104
5	7	JEETU	SPLIT SHARING	202

room_id	patient_id	d_name	room_type	room_no
1	5	JEETU	SPECIAL	103
2	7	JEETU	SPLIT SHARING	202
3	11	JEETU	GENERAL	201

s_id	s_name	s_address	s_phone	room_id
1	rajesh	SURAT	1225323456	1
2	RAMESH	AHEMDABAD	1225323456	2
3	RAMESH	SURAT	123456780	3

Query executed successfully. | localhost (15.0 RTM) | LAPTOP-0J968QT0\jayni ... | iiit | 00:00:00 | 8 rows

Q4) Illustrate Logical operators except ANY, ALL and Like (2 queries for each operator)?

ANS)

QUERY:-

use iit

```
SELECT * FROM T1_patient WHERE disease IN('COVID','DENGUE');
SELECT * FROM T1_patient WHERE patient_id IN(2,5);
SELECT * FROM T1_patient WHERE disease NOT IN('TYPHOID','DENGUE');
SELECT * FROM T1_room WHERE d_name NOT IN('RAMESH','MAHESH');
SELECT * FROM T1_patient WHERE patient_id between 2 and 5;
SELECT * FROM T1_staff WHERE s_id between 1 and 4;
SELECT * FROM T1_doctor WHERE department='HOMEOPATHIC' OR
department='AYURVEDIC';
SELECT * FROM T1_patient WHERE p_name='VINOD' OR p_name='BINOD';
```

OUTPUT:-

patient_id	p_address	p_phone	disease	p_name	entrydate
3	ADAJAN	1234567890	COVID	JAY	NULL
6	ADAJAN	1234567890	DENGUE	VIRAT	NULL
10	ADAJAN	1222567890	DENGUE	JAYESH	NULL
20	ADAJAN	233456789	DENGUE	DILJIT	2021-02-19

patient_id	p_address	p_phone	disease	p_name	entrydate
2	ADAJAN	1234567890	TYPHOID	BINOD	NULL
5	ADAJAN	1234567890	FOOD POISON	AMAN	NULL

patient_id	p_address	p_phone	disease	p_name	entrydate
3	ADAJAN	1234567890	COVID	JAY	NULL
5	ADAJAN	1234567890	FOOD POISON	AMAN	NULL
11	ADAJAN	233456789	PNEUMONIA	OM	NULL
12	ADAJAN	1123456789	SURGERY	TOM	NULL
13	ADAJAN	1223567890	ASTHMA	BIPUL	NULL
14	ADAJAN	999956789	FRACTURE	SOUR...	NULL
16	ADAJAN	233456789	PNEUMONIA	LOY	2021-0...
17	ADAJAN	123456789	ASTHMA	TROY	2021-0...
18	ADAJAN	93456789	FRACTURE	LAMAR	2021-0...
19	ADAJAN	233456789	NAUSEA	JUSTIN	2021-0...

room_id	patient_id	d_name	room_type	room_no
1	1	rajesh	deluxe	101
5	5	JEETU	SPECIAL	103
7	7	JEETU	SPLIT S...	202
8	8	HITEN	3-SHARI...	301
11	11	JEETU	GENERAL	201

patient_id	p_address	p_phone	disease	p_name	entrydate
2	ADAJAN	1234567890	TYPHOID	BINOD	NULL
3	ADAJAN	1234567890	COVID	JAY	NULL
4	ADAJAN	1234567890	TYPHOID	NAMAN	NULL
5	ADAJAN	1234567890	FOOD ...	AMAN	NULL

s_id	s_name	s_address	s_phone	room_id
1	rajesh	SURAT	1225323456	1
2	RAMESH	AHEMDABAD	1225323456	2
3	RAMESH	SURAT	123456780	3
4	MAHESH	AHEMDABAD	1225323456	4

d_name	s_id	department
HITEN	8	AYURVEDIC
JEETU	5	AYURVEDIC
MAHE...	4	AYURVEDIC
rajesh	1	AYURVEDIC
RAME...	2	HOMEOP...

patient_id	p_address	p_phone	disease	p_name	entrydate
1	ADAJAN	1234567890	TYPHOID	VINOD	NULL
2	ADAJAN	1234567890	TYPHOID	BINOD	NULL

