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REG.NO. :19BCS104

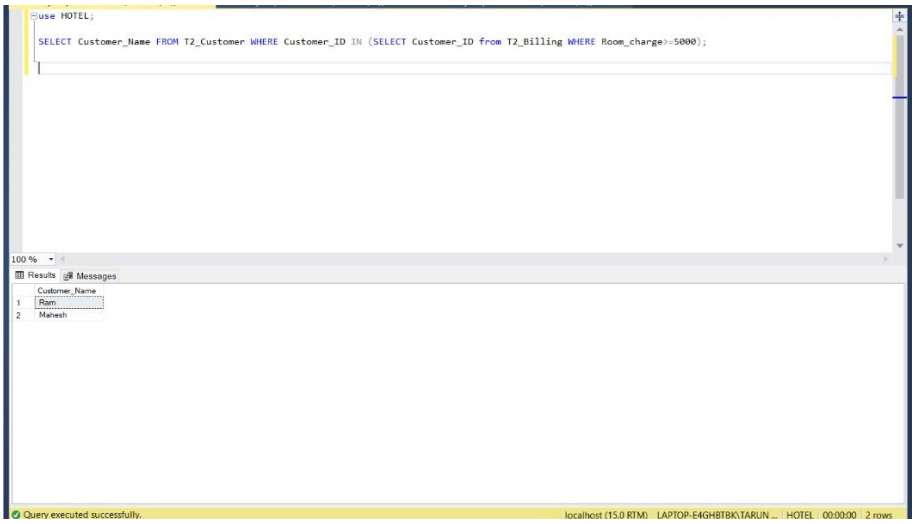
SUBJECT : DBMS LAB ASSIGNMENT

GROUP NUMBER: 2

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.

SQL QUERIES OUTPUT:

QUERY 1 :



```
use HOTEL;

SELECT Customer_Name FROM T2_Customer WHERE Customer_ID IN (SELECT Customer_ID from T2_Billing WHERE Room_charge>=5000);

SELECT CONCAT(Check_in_date,',',Check_out_date) AS Stay_in_hotel FROM T2_Reservation WHERE Room_number IN
(SELECT Room_number FROM T2_Rooms WHERE Room_Type='Deluxe');
```

100 %

Results | Messages

	Stay_in_hotel
1	1999-02-03,1999-02-22
2	1999-04-03,1999-04-04

QUERY 3 :

```
use HOTEL;

SELECT Customer_Name FROM T2_Customer WHERE Customer_ID IN (SELECT Customer_ID from T2_Billing WHERE Room_charge>=5000);

SELECT CONCAT(Check_in_date,',',Check_out_date) AS Stay_in_hotel FROM T2_Reservation WHERE Room_number IN
(SELECT Room_number FROM T2_Rooms WHERE Room_Type='Deluxe');


SELECT Reservation_date FROM T2_Reservation WHERE Reservation_number IN (SELECT Reservation_number FROM T2_SERVICES WHERE Service_cost > 3000);
```

100 %

Results | Messages

	Reservation_date
1	1999-02-03
2	1999-04-01

```sql
use HOTEL;

SELECT Customer_Name FROM T2_Customer WHERE Customer_ID IN (SELECT Customer_ID from T2_Billing WHERE Room_charge>=5000);

SELECT CONCAT(Check_in_date,',',Check_out_date) AS Stay_in_hotel FROM T2_Reservation WHERE Room_number IN
(SELECT Room_number FROM T2_Rooms WHERE Room_Type='Deluxe');


SELECT Reservation_date FROM T2_Reservation WHERE Reservation_number IN (SELECT Reservation_number FROM T2_SERVICES WHERE Service_cost > 3000);


SELECT Customer_Name FROM T2_Customer WHERE Customer_ID IN
(SELECT Customer_ID FROM T2_Rooms WHERE Room_number IN
(SELECT Room_number FROM T2_Reservation));
```

100 %

Results | Messages

	Customer_Name
1	Loftin
2	Ram
3	Prabha

QUERY 5

```sql
use HOTEL;

SELECT Customer_Name FROM T2_Customer WHERE Customer_ID IN (SELECT Customer_ID from T2_Billing WHERE Room_charge>=5000);

SELECT CONCAT(Check_in_date,',',Check_out_date) AS Stay_in_hotel FROM T2_Reservation WHERE Room_number IN
(SELECT Room_number FROM T2_Rooms WHERE Room_Type='Deluxe');


SELECT Reservation_date FROM T2_Reservation WHERE Reservation_number IN (SELECT Reservation_number FROM T2_SERVICES WHERE Service_cost > 3000);


SELECT Customer_Name FROM T2_Customer WHERE Customer_ID IN
(SELECT Customer_ID FROM T2_Rooms WHERE Room_number IN
(SELECT Room_number FROM T2_Reservation));

SELECT COUNT(Customer_ID) AS Ordered_customers FROM T2_Reservation WHERE  Reservation_number IN (SELECT Reservation_number FROM T2_SERVICES);
```

100 %

Results | Messages

	Ordered_customers
1	3

SQL QUERIES

QUERY FOR CONACT

QUERY FOR AS

```
USE HOTEL;

SELECT CONCAT(DNO,',',Street,',',City,',',State) AS Customer_permanent_address FROM T2_CUSTOMER_ADDRESS;
```

Results | Messages

	Customer_permanent_address
1	7-11,RP NAGAR,Nagpur,Madhya pradesh
2	9-12,Sriram nagar,hyderabad,Telengana
3	7-13,JS Nagar,Lucknow,Utter pradesh
4	7-8-12,Indira NAGAR,Bengaluru,Karnataka

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

The comparison operators are =,>,<,>=,<=,<>(not)

QUERIES FOR =

```
USE HOTEL;

SELECT * FROM T2_Rooms WHERE Room_location='block-2';

SELECT * FROM T2_CUSTOMER_ADDRESS WHERE Customer_ID='3';
```

Results | Messages

	Room_number	Room_Type	Room_location	number_of_beds	Customer_ID
1	1	Deluxe	block-2	1	2
2	3	Deluxe	block-2	1	4

	Customer_ID	Street	DNO	City	State
1	3	JS Nagar	7-13	Lucknow	Utter pradesh

```
SELECT * FROM T2_Billing WHERE Room_charge > '2500';

SELECT * FROM T2_Reservation WHERE Number_of_guests > '3';
```

100 %

Results | Messages

	Billing_#	Room_charge	Credit_card	Payment_date	Customer_ID
1	2	5000	9876543211	2021-05-05	2
2	3	6000	1234987655	2021-09-30	3
3	4	3000	5546666666	2021-12-11	4

	Reservation_number	Check_in_date	Check_out_date	Number_of_guests	Reservation_date	Customer_ID	Room_number
1	1	1999-02-03	1999-02-22	5	1999-02-01	2	1
2	2	1999-02-03	1999-02-22	4	1999-02-03	1	2

QUERIES FOR <

```
SELECT * FROM T2_Billing WHERE Room_charge > '2500';

SELECT * FROM T2_Reservation WHERE Number_of_guests > '3';

SELECT * FROM T2_Customer WHERE Zipcode < '534203';

SELECT * FROM T2_CUSTOMER_ADDRESS WHERE Customer_ID < '4';
```

100 %

Results | Messages

	Customer_ID	Customer_Name	Phone_number	City	State	Zipcode	Email_ID
1	1	Lofflin	8688543748	Nagpur	MP	534201	loff@gmail.com
2	4	Prabha	8688543766	Bengaluru	Karnataka	534201	prab@gmail.com

	Customer_ID	Street	DNO	City	State
1	1	RP NAGAR	7-11	Nagpur	Madhya pradesh
2	2	Sriram nagar	9-12	hyderabad	Telengana
3	3	JS Nagar	7-13	Lucknow	Utter pradesh

```
SELECT * FROM T2_Billing WHERE Room_charge > '2500';

SELECT * FROM T2_Reservation WHERE Number_of_guests > '3';

SELECT * FROM T2_Customer WHERE Zipcode < '534203';

SELECT * FROM T2_CUSTOMER_ADDRESS WHERE Customer_ID < '4';

SELECT * FROM T2_SERVICES WHERE Reservation_number >= '2';

SELECT Customer_ID, Reservation_number FROM T2_Reservation WHERE Check_in_date >= '1999-02-03';
```

100 %

Results | Messages

	Service_ID	Service_name	Service_cost	Reservation_number
1	2	Transport	8000	3
2	3	Room	4000	2

	Customer_ID	Reservation_number
1	2	1
2	1	2
3	4	3

QUERIES FOR <=

```
SELECT * FROM T2_Billing WHERE Room_charge > '2500';

SELECT * FROM T2_Reservation WHERE Number_of_guests > '3';

SELECT * FROM T2_Customer WHERE Zipcode < '534203';

SELECT * FROM T2_CUSTOMER_ADDRESS WHERE Customer_ID < '4';

SELECT * FROM T2_SERVICES WHERE Reservation_number >= '2';

SELECT Customer_ID, Reservation_number FROM T2_Reservation WHERE Check_in_date >= '1999-02-03';

SELECT  Customer_Name FROM T2_Customer WHERE Customer_ID <= '3';
SELECT * FROM emp_info WHERE age<=35;
```

100 %

Results | Messages

	Customer_Name
1	Loffin
2	Ram
3	Mahesh

	empid	empname	dob	age
1	1	Max	1999-03-21	22
2	3	Nax	1992-07-07	29

```sql
SELECT * FROM T2_Reservation WHERE Number_of_guests > '3';

SELECT * FROM T2_Customer WHERE Zipcode < '534203';

SELECT * FROM T2_CUSTOMER_ADDRESS WHERE Customer_ID < '4';

SELECT * FROM T2_SERVICES WHERE Reservation_number >= '2';

SELECT Customer_ID, Reservation_number FROM T2_Reservation WHERE Check_in_date >= '1999-02-03';

SELECT  Customer_Name FROM T2_Customer WHERE Customer_ID <= '3';
SELECT * FROM emp_info WHERE age<=35;

SELECT * FROM emp_info WHERE empname <> 'Jax';
SELECT * FROM T2_Rooms WHERE Room_Type <> 'Deluxe';
```

100 %

Results | Messages

	empid	empname	dob	age
1	1	Max	1999-03-21	22
2	3	Nax	1992-07-07	29

	Room_number	Room_Type	Room_location	number_of_beds	Customer_ID
1	2	Economic	block-1	3	1

Q4) Illustrate Logical operators except ANY, ALL and Like (2 queries for each operator) The logical operators are AND,OR,IN,BETWEEN,NOT

QUERIES FOR AND

```sql
SELECT * FROM T2_SERVICES WHERE Service_cost > '2000' AND Service_ID >= 2;
SELECT * FROM T2_Rooms WHERE number_of_beds = '1' AND Room_location = 'block-2';
```

100 %

Results | Messages

	Service_ID	Service_name	Service_cost	Reservation_number
1	2	Transport	8000	3
2	3	Room	4000	2

	Room_number	Room_Type	Room_location	number_of_beds	Customer_ID
1	1	Deluxe	block-2	1	2
2	3	Deluxe	block-2	1	4

```
SELECT * FROM T2_SERVICES WHERE Service_cost > '2000' AND Service_ID >= 2;
SELECT * FROM T2_Rooms WHERE number_of_beds = '1' AND Room_location = 'block-2';

SELECT Reservation_number FROM T2_Reservation WHERE Reservation_date > '1999-02-02' OR Room_number = '1';
SELECT Customer_ID FROM T2_CUSTOMER_ADDRESS WHERE Street='JS Nagar' OR DNO = '9-12';
```

100 %

Results | Messages

	Reservation_number
1	1
2	2
3	3

	Customer_ID
1	2
2	3

QUERIES FOR IN

```
SELECT * FROM T2_SERVICES WHERE Service_cost > '2000' AND Service_ID >= 2;
SELECT * FROM T2_Rooms WHERE number_of_beds = '1' AND Room_location = 'block-2';

SELECT Reservation_number FROM T2_Reservation WHERE Reservation_date > '1999-02-02' OR Room_number = '1';
SELECT Customer_ID FROM T2_CUSTOMER_ADDRESS WHERE Street='JS Nagar' OR DNO = '9-12';

SELECT * FROM T2_Customer WHERE City IN ('hyderabad', 'Bengaluru');
SELECT * FROM T2_Billing WHERE Payment_date IN('2021-05-05');
```

100 %

Results | Messages

	Customer_ID	Customer_Name	Phone_number	City	State	Zipcode	Email_ID
1	2	Ram	8688543744	hyderabad	TN	534204	Ram@gmail.com
2	4	Prabha	8688543766	Bengaluru	Karnataka	534201	prab@gmail.com

	Billing_#	Room_charge	Credit_card	Payment_date	Customer_I
1	2	5000	9876543211	2021-05-05	2

```
SELECT * FROM T2_SERVICES WHERE Service_cost > '2000' AND Service_ID >= 2;
SELECT * FROM T2_Rooms WHERE number_of_beds = '1' AND Room_location = 'block-2';

SELECT Reservation_number FROM T2_Reservation WHERE Reservation_date > '1999-02-02' OR Room_number = '1';
SELECT Customer_ID FROM T2_CUSTOMER_ADDRESS WHERE Street='JS Nagar' OR DNO = '9-12';

SELECT * FROM T2_Customer WHERE City IN ('hyderabad', 'Bengaluru');
SELECT * FROM T2_Billing WHERE Payment_date IN('2021-05-05');

SELECT * FROM T2_Reservation WHERE NOT Reservation_number = '2';
SELECT * FROM Customer_Backup WHERE NOT Customer_Name='Lofflin';

SELECT empname FROM emp_info WHERE AGE BETWEEN 25 AND 70;
SELECT Service_ID,Service_name,Service_cost FROM T2_SERVICES WHERE Reservation_number BETWEEN 2 AND 3
```

100 %

Results | Messages

	empname
1	Jax
2	Nax

	Service_ID	Service_name	Service_cost
1	2	Transport	8000
2	3	Room	4000

QUERIES FOR NOT

```
SELECT * FROM T2_SERVICES WHERE Service_cost > '2000' AND Service_ID >= 2;
SELECT * FROM T2_Rooms WHERE number_of_beds = '1' AND Room_location = 'block-2';

SELECT Reservation_number FROM T2_Reservation WHERE Reservation_date > '1999-02-02' OR Room_number = '1';
SELECT Customer_ID FROM T2_CUSTOMER_ADDRESS WHERE Street='JS Nagar' OR DNO = '9-12';

SELECT * FROM T2_Customer WHERE City IN ('hyderabad', 'Bengaluru');
SELECT * FROM T2_Billing WHERE Payment_date IN('2021-05-05');

SELECT * FROM T2_Reservation WHERE NOT Reservation_number = '2';
SELECT * FROM Customer_Backup WHERE NOT Customer_Name='Lofflin';
```

100 %

Results | Messages

	Reservation_number	Check_in_date	Check_out_date	Number_of_guests	Reservation_date	Customer_ID	Room_number
1	1	1999-02-03	1999-02-22	5	1999-02-01	2	1
2	3	1999-04-03	1999-04-04	2	1999-04-01	4	3

	Customer_ID	Customer_Name	Phone_number	City	State	Zipcode	Email_ID
1	2	Ram	8688543744	hyderabad	TN	534204	Ram@gmail.com
2	3	Mahesh	8688543746	Lucknow	UP	534205	mah@gmail.com
3	4	Prabha	8688543766	Bengaluru	Karnataka	534201	prab@gmail.com

THANK YOU