DBMS_LAB_ASSIGNMENT_4

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Roll No: 19BCS099

Team No: 2

Database: Hotel

Q1) Write 5 Nested Queries for your respective database (HOTEL).

Query:

```sql
USE team_2_hotel;
SELECT *FROM  team_2_billing
WHERE customer_id IN (SELECT DISTINCT customer_id FROM team_2_menu WHERE order_amount = 250 );

SELECT *FROM team_2_billing
WHERE customer_id = (SELECT customer_id FROM team_2_rooms WHERE room_number = 210)
ORDER BY payment_date;

SELECT *FROM team_2_customer
WHERE email_id IN (SELECT email_id FROM T2_DB_HOTEL.dbo.T2_customer WHERE city = 'DHARWAD' or city = 'PUNE');

SELECT *FROM team_2_menu
WHERE order_date = (SELECT payment_date FROM team_2_billing WHERE credit_card = 'RS15438');

SELECT *FROM team_2_rooms
WHERE customer_id IN ((SELECT customer_id FROM team_2_customer WHERE customer_name IN
(SELECT customer_name FROM T2_DB_HOTEL.dbo.T2_customer WHERE zip_code = 124)));

SELECT AVG(room_charge) AS Avg_RoomCharge FROM team_2_billing
WHERE payment_date IN(SELECT order_date FROM team_2_menu WHERE order_idno = 902 or order_idno = 905);
```

Output:

Results | Messages

	customer_id	billing_number	room_charge	payment_date	credit_card
1	1004	40014	15000	2021-02-15	MS10430
2	1005	40015	15000	2021-02-17	RT98740
3	1004	40016	10000	2021-02-16	LK18043
4	1007	40018	5000	2021-02-14	QW16043
5	1011	40022	12000	2021-02-08	CV15700

	customer_id	billing_number	room_charge	payment_date	credit_card
1	1010	40024	4000	2021-01-29	MN19873
2	1010	40021	10000	2021-02-11	DC10203

	customer_id	customer_name	ph_number	city	zip_code	reservation_no	email_id	Telegram_ID
1	1006	Tom	7666622245	PUNE	234	15	Tom@yahoo.com	Not Available
2	1007	Ram	9070662224	PUNE	235	16	Ram@yahoo.com	Not Available
3	1010	Rohit	7778822245	PUNE	237	19	Rohit_S@gmail.com	Not Available
4	1014	Rocky	7066650245	DHARWAD	623	23	randheer@yahoo.com	Not Available
5	1019	Aakash	9866622000	PUNE	245	28	AK@gmail.com	Not Available
6	1020	Rocky	9210620645	DHARWAD	645	29	James@outlook.com	Not Available

	customer_id	order_idno	order_date	order_amount
1	1001	902	2021-02-19	150

	room_number	room_type	room_location	number_of_beds	customer_id
1	201	AC	floor3	2	1002
2	204	AC	floor3	3	1004

	Avg_RoomCharge
1	15000

✔ Query executed successfully.   localhost (15.0 RTM)

Q2) Illustrate how we can use CONCAT and AS operators in SQL.

Query:

```sql
USE team_2_hotel;
SELECT TOP 10 CONCAT(room_type,' @ ',room_location) AS room_info FROM team_2_rooms;

SELECT TOP 5 CONCAT('Paid Rs ',order_amount,order_date) AS bill_details FROM team_2_menu WHERE customer_id IN
(SELECT customer_id FROM team_2_customer WHERE city = 'MUMBAI')
ORDER BY order_amount desc;

SELECT TOP 10 CONCAT('Rs ',room_charge,'--',credit_card) AS Transaction_Det FROM team_2_billing WHERE payment_date
= '2021-02-11';
```

Output:

Results | Messages

	room_info
1	AC @ floor3
2	AC @ floor3
3	NonAC @ floor2
4	AC @ floor3
5	NonAC @ floor1
6	AC @ floor3
7	AC @ floor2
8	NonAC @ floor1

	bill_details	
1	Paid Rs 250	2021-02-13
2	Paid Rs 250	2021-02-11
3	Paid Rs 250	2021-02-08
4	Paid Rs 200	2021-02-18
5	Paid Rs 150	2021-02-19

	Transaction_Det
1	Rs 10000--DC10203
2	Rs 30000--ML19021

✅ Query executed successfully.

Q3) Illustrate all the comparison operators.

Query:

```sql
USE team_2_hotel;
/*=*/
SELECT *FROM team_2_customer WHERE customer_name = 'Rocky';

SELECT count(DISTINCT room_charge) AS count_info FROM team_2_billing WHERE customer_id = 1010;

SELECT *FROM team_2_menu
WHERE order_date = (SELECT payment_date FROM team_2_billing WHERE credit_card = 'RS15438');

/*<=*/
SELECT *FROM team_2_rooms WHERE number_of_beds <=2 ORDER BY number_of_beds desc;

SELECT *FROM team_2_billing WHERE customer_id <=(SELECT customer_id FROM team_2_menu WHERE order_idno = 904 )
ORDER BY customer_id;

/*>=*/
SELECT *FROM team_2_menu WHERE order_amount >= 200 and order_idno > 906;

SELECT count(customer_name) AS name_count FROM team_2_customer WHERE reservation_no >= 25;

SELECT SUM(room_charge) FROM team_2_billing WHERE billing_number >= 40025;

/*!=*/
SELECT *FROM team_2_rooms WHERE room_location != 'floor1' and room_type != 'NonAC' and number_of_beds != 2 ORDER BY
room_location;

SELECT TOP 5 customer_name FROM T2_DB_HOTEL.dbo.T2_customer WHERE city != (SELECT city FROM
team_2_hotel.dbo.team_2_customer WHERE zip_code = 126);
```

Output:

Results | Messages

	customer_id	customer_name	ph_number	city	zip_code	reservation_no	email_id	Telegram_ID
1	1014	Rocky	7066650245	DHARWAD	623	23	randheer@yahoo.com	Not Available
2	1017	Rocky	8336022245	DHARWAD	603	26	NULL	Not Available
3	1020	Rocky	9210620645	DHARWAD	645	29	James@outlook.com	Not Available

	count_info
1	2

	customer_id	order_idno	order_date	order_amount
1	1001	902	2021-02-19	150

	room_number	room_type	room_location	number_of_beds	customer_id
1	200	AC	floor3	2	1001
2	201	AC	floor3	2	1002
3	203	NonAC	floor2	2	1003
4	208	NonAC	floor1	2	1008
5	211	AC	floor1	2	1011
6	214	AC	floor4	2	1014
7	220	AC	floor3	2	1020
8	218	NonAC	floor3	1	1018
9	212	NonAC	floor2	1	1012
10	205	NonAC	floor1	1	1005

	customer_id	billing_number	room_charge	payment_date	credit_card
1	1001	40010	10000	2021-02-19	RS15438
2	1002	40011	15000	2021-02-19	RS15401
3	1002	40013	10500	2021-02-17	PQ15430
4	1003	40012	12000	2021-02-18	RA14587
5	1004	40014	15000	2021-02-15	MS10430
6	1004	40016	10000	2021-02-16	LK18043
7	1005	40015	15000	2021-02-17	RT98740

	customer_id	order_idno	order_date	order_amount
1	1007	907	2021-02-11	250
2	1010	909	2021-02-08	200
3	1011	910	2021-02-08	250

	name_count
1	5

	(No column name)
1	87000

	room_number	room_type	room_location	number_of_beds	customer_id
1	207	AC	floor2	3	1007
2	209	AC	floor3	4	1009
3	204	AC	floor3	3	1004
4	206	AC	floor3	3	1006
5	215	AC	floor4	3	1015
6	217	AC	floor5	4	1017
7	219	AC	floor5	4	1019

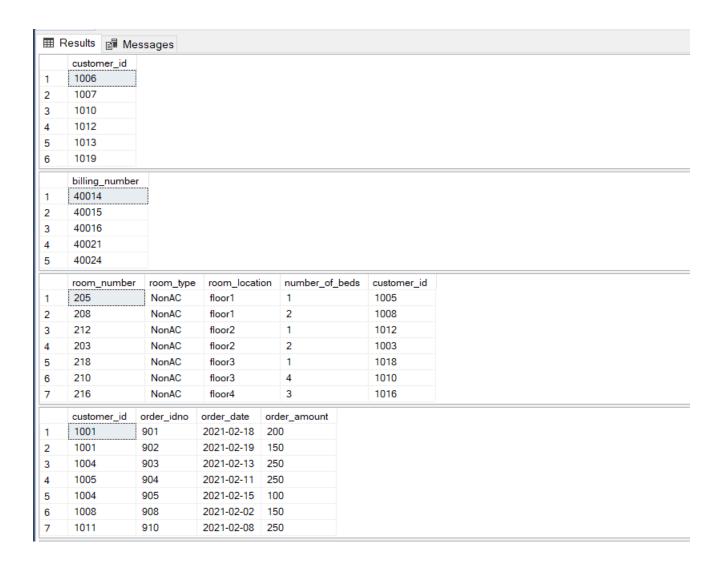|	customer_name
1	Tom
2	Ram
3	Arjun
4	Param
5	Rohit

✅ Query executed successfully.

Q4) Illustrate Logical operators except ANY, ALL and LIKE.

Query:

```sql
USE team_2_hotel;
/*IN*/
SELECT customer_id FROM team_2_customer WHERE city IN('PUNE','HUBLI');

SELECT billing_number FROM team_2_billing WHERE customer_id IN(SELECT customer_id FROM team_2_menu WHERE order_idno IN(903,904,909));
/*NOT IN*/
SELECT *FROM team_2_rooms WHERE room_type NOT IN('AC') ORDER BY room_location;

SELECT *FROM team_2_menu WHERE customer_id NOT IN
(SELECT customer_id FROM T2_DB_HOTEL.dbo.T2_customer WHERE city NOT IN('HUBLI','MUMBAI','BANGLORE'));
/*BETWEEN*/
SELECT *FROM team_2_billing WHERE room_charge BETWEEN 5000 and 12000 ORDER BY room_charge;

SELECT order_idno FROM team_2_menu WHERE order_date BETWEEN '2021-02-06' and '2021-02-13' and order_amount BETWEEN 220 and 250;

SELECT *FROM team_2_rooms WHERE room_number BETWEEN 201 and 206 and number_of_beds NOT IN(2);
/*OR*/
SELECT customer_name FROM team_2_customer WHERE reservation_no = 15 or reservation_no = 20;

SELECT COUNT(billing_number) AS CountB_No FROM team_2_billing WHERE room_charge = 15000 or room_charge = 30000;

SELECT customer_id, count(order_amount) AS oa_count_info FROM team_2_menu
WHERE order_amount = 200 or order_amount = 150 GROUP BY customer_id;
/*AND*/

SELECT ph_number FROM team_2_customer WHERE customer_name = 'Ram' and city = 'Pune';

SELECT *FROM team_2_menu WHERE order_date = '2021-02-08' and order_amount = 250;
```

Output:

Results | Messages

	customer_id
1	1006
2	1007
3	1010
4	1012
5	1013
6	1019

	billing_number
1	40014
2	40015
3	40016
4	40021
5	40024

	room_number	room_type	room_location	number_of_beds	customer_id
1	205	NonAC	floor1	1	1005
2	208	NonAC	floor1	2	1008
3	212	NonAC	floor2	1	1012
4	203	NonAC	floor2	2	1003
5	218	NonAC	floor3	1	1018
6	210	NonAC	floor3	4	1010
7	216	NonAC	floor4	3	1016

	customer_id	order_idno	order_date	order_amount
1	1001	901	2021-02-18	200
2	1001	902	2021-02-19	150
3	1004	903	2021-02-13	250
4	1005	904	2021-02-11	250
5	1004	905	2021-02-15	100
6	1008	908	2021-02-02	150
7	1011	910	2021-02-08	250

	customer_id	billing_number	room_charge	payment_date	credit_card
1	1007	40018	5000	2021-02-14	QW16043
2	1010	40021	10000	2021-02-11	DC10203
3	1014	40026	10000	2021-01-13	JK12430
4	1001	40010	10000	2021-02-19	RS15438
5	1004	40016	10000	2021-02-16	LK18043
6	1002	40013	10500	2021-02-17	PQ15430
7	1006	40017	12000	2021-02-10	YU01243
8	1003	40012	12000	2021-02-18	RA14587
9	1015	40027	12000	2021-02-04	SE04143
10	1011	40022	12000	2021-02-08	CV15700

	order_idno
1	903
2	904
3	907
4	910

	room_number	room_type	room_location	number_of_beds	customer_id
1	204	AC	floor3	3	1004
2	205	NonAC	floor1	1	1005
3	206	AC	floor3	3	1006

	customer_name
1	Tom
2	Ash

	CountB_No
1	7

	customer_id	oa_count_info
1	1001	2
2	1006	1
3	1008	1
4	1010	1

	ph_number
1	9070662224

	customer_id	order_idno	order_date	order_amount
1	1011	910	2021-02-08	250

✔ Query executed successfully.