



# SQL CASE STUDY

Major Travel Company

*Created  
By*  
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1	Input: Booking_table				Input: User_table	
2	Booking_id	Booking_date	User_id	Line_of_business	User_id	Segment
3	b1	2022-03-23	u1	Flight	u1	s1
4	b2	2022-03-27	u2	Flight	u2	s1
5	b3	2022-03-28	u1	Hotel	u3	s1
6	b4	2022-03-31	u4	Flight	u4	s2
7	b5	2022-04-02	u1	Hotel	u5	s2
8	b6	2022-04-02	u2	Flight	u6	s3
9	b7	2022-04-06	u5	Flight	u7	s3
10	b8	2022-04-06	u6	Hotel	u8	s3
11	b9	2022-04-06	u2	Flight	u9	s3
12	b10	2022-04-10	u1	Flight	u10	s3
13	b11	2022-04-12	u4	Flight		
14	b12	2022-04-16	u1	Flight		
15	b13	2022-04-19	u2	Flight		
16	b14	2022-04-20	u5	Hotel		
17	b15	2022-04-22	u6	Flight		
18	b16	2022-04-26	u4	Hotel		
19	b17	2022-04-28	u2	Hotel		
20	b18	2022-04-30	u1	Hotel		
21	b19	2022-05-04	u4	Hotel		
22	b20	2022-05-06	u1	Flight		

# QUESTIONS

1. WRITE A SQL QUERY THAT GIVES A BELOW OUTPUT

Segment	TOTAL_COUNT	FLIGHT_BOOKED_IN_APRIIL
s1	3	2
s2	2	2
s3	5	1

# QUERY

```
1 SELECT U.Segment  
2      ,COUNT(DISTINCT(U.User_id)) AS TOTAL_COUNT  
3      ,COUNT(DISTINCT(CASE  
4                      WHEN B.Line_of_business = "Flight"  
5                      AND  
6                      B.Booking_date BETWEEN "2022-04-01" AND "2022-04-30"  
7                      THEN U.User_id END)) AS FLIGHT_BOOKED_IN_APRI  
8 FROM user_table AS U  
9 LEFT JOIN booking_table AS B USING(User_id)  
10 GROUP BY U.Segment;
```

# QUESTIONS

## 2.WRITE A QUERY TO IDENTIFY USERS WHOSE FIRST BOOKING WAS A HOTEL BOOKING ?

```
1 SELECT User_id  
2 FROM (  
3     SELECT *, RANK() OVER (PARTITION BY User_id ORDER BY Booking_date) AS RN  
4     FROM booking_table  
5 ) AS ranking  
6 WHERE RN = 1 AND Line_of_business = "Hotel";
```

# OUTPUT

User_id
u6

# QUESTIONS

3.WRITE A QUERY TO CALCULATE THE DAYS BETWEEN FIRST AND LAST BOOKING OF EACH USERS ?

```
1 SELECT User_id  
2      ,MIN(Booking_date)  
3      ,MAX(Booking_date)  
4      ,DATEDIFF(day, MIN(Booking_date), MAX(Booking_date)) AS NO_OF_DAYS  
5 FROM booking_table  
6 GROUP BY User_id;
```

# OUTPUT

	user_id	(No column name)	(No column name)	no_of_days
1	u1	2022-03-23	2022-05-06	44
2	u2	2022-03-27	2022-04-28	32
3	u4	2022-03-31	2022-05-04	34
4	u5	2022-04-06	2022-04-20	14
5	u6	2022-04-06	2022-04-22	16

# QUESTIONS

4.WRITE A QUERY TO COUNT THE NUMBER OF FLIGHT AND HOTEL BOOKINGS IN EACH OF THE USER SEGMENTS OF THE YEAR 2022 ?

```
1 SELECT U.Segment  
2 ,SUM(CASE WHEN B.Line_of_business ="Flight" THEN 1 ELSE 0 END) AS FLIGHT_BOOKINGS  
3 ,SUM(CASE WHEN B.Line_of_business ="Hotel" THEN 1 ELSE 0 END) AS HOTEL_BOOKINGS  
4 FROM booking_table AS B  
5 JOIN user_table AS U USING(User_id)  
6 GROUP BY U.Segment;
```

# OUTPUT

Segment	FLIGHT_BOOKINGS	HOTEL_BOOKINGS
s1	8	4
s2	3	3
s3	1	1

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*Thank  
You*

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