Project 1: Hotel Reservation Analysis with SQL

(Source code of Project 1 – by Suvodeep Chakraborty of MIP-DA-04 Batch)

1. **What is the total number of reservations in the dataset?**

SQL Query: SELECT COUNT(Booking_ID) FROM hotel.`hotel reservation  dataset`;

2. **Which meal plan is the most popular among guests?**

SQL Query: SELECT type_of_meal_plan, COUNT(type_of_meal_plan) AS type_of_meal_plan FROM hotel.`hotel reservation dataset` GROUP BY type_of_meal_plan HAVING COUNT(type_of_meal_plan) > 1;

3. **What is the average price per room for reservations involving children?**

SQL Query: SELECT avg_price_per_room FROM hotel.`hotel reservation dataset` WHERE no_of_children > 0;

4. **How many reservations were made for the year 2018?**

SQL Query: SELECT COUNT(Booking_ID) FROM hotel.`hotel reservation dataset`

WHERE arrival_date BETWEEN '01-01-2018' AND '31-12-2018' GROUP BY arrival_date;

5. **What is the most commonly booked room type?**

SQL Query: SELECT room_type_reserved, COUNT(room_type_reserved) AS room_type_reserved FROM hotel.`hotel reservation dataset` GROUP BY room_type_reserved HAVING COUNT(room_type_reserved) > 1;

6. **How many reservations fall on a weekend(no_of_weekend_nights > 0)?**

SQL Query: SELECT COUNT(Booking_ID) FROM hotel.`hotel reservation dataset` WHERE no_of_weekend_nights > 0;

7. **What is the highest and lowest lead time for reservations?**

SQL Query: SELECT MIN(lead_time), MAX(lead_time) FROM hotel.`hotel reservation dataset`;

8. **What is the most common market segment type for reservations?**

SQL Query: SELECT market_segment_type, COUNT(market_segment_type) AS market_segment_type FROM hotel.`hotel reservation dataset` GROUP BY market_segment_type HAVING COUNT(market_segment_type) > 1;

9. **How many reservations have a booking status of "Confirmed"?**

SQL Query: SELECT COUNT(Booking_ID) FROM hotel.`hotel reservation dataset` WHERE booking_status = 'Confirmed';

10. **What is the total number of adults and children across all reservations?**

SQL Query: SELECT SUM(no_of_adults), SUM(no_of_children) FROM hotel.`hotel reservation dataset`;

11. **What is the average number of weekend nights for reservations involving children?**

SQL Query: SELECT ROUND(AVG(no_of_weekend_nights), 1) FROM hotel.`hotel reservation dataset` WHERE no_of_children > 0;

12. **How many reservations were made in each month of the year?**

SQL Query: SELECT arrival_date, COUNT(Booking_ID) FROM hotel.`hotel reservation dataset` GROUP BY arrival_date ORDER BY arrival_date;

13. **What is the average number of nights (both weekend and weekday) spent by guests for each room type?**

SQL Query: SELECT room_type_reserved, ROUND(AVG(no_of_week_nights + no_of_weekend_nights), 2) FROM hotel.`hotel reservation dataset` GROUP BY room_type_reserved ORDER BY room_type_reserved;

14. **For reservations involving children, what is the most common room type, and what is the average price for that room type?**

SQL Query: SELECT room_type_reserved, ROUND(AVG(avg_price_per_room), 2), COUNT(room_type_reserved) AS no_of_room_type_reserved FROM hotel.`hotel reservation dataset` WHERE no_of_children > 0 GROUP BY room_type_reserved HAVING COUNT(room_type_reserved) > 1 ORDER BY room_type_reserved;

15. Find the market segment type that generates the highest average price per room?

SQL Query: SELECT market_segment_type, MAX(avg_price_per_room) FROM hotel.`hotel reservation dataset` GROUP BY market_segment_type;