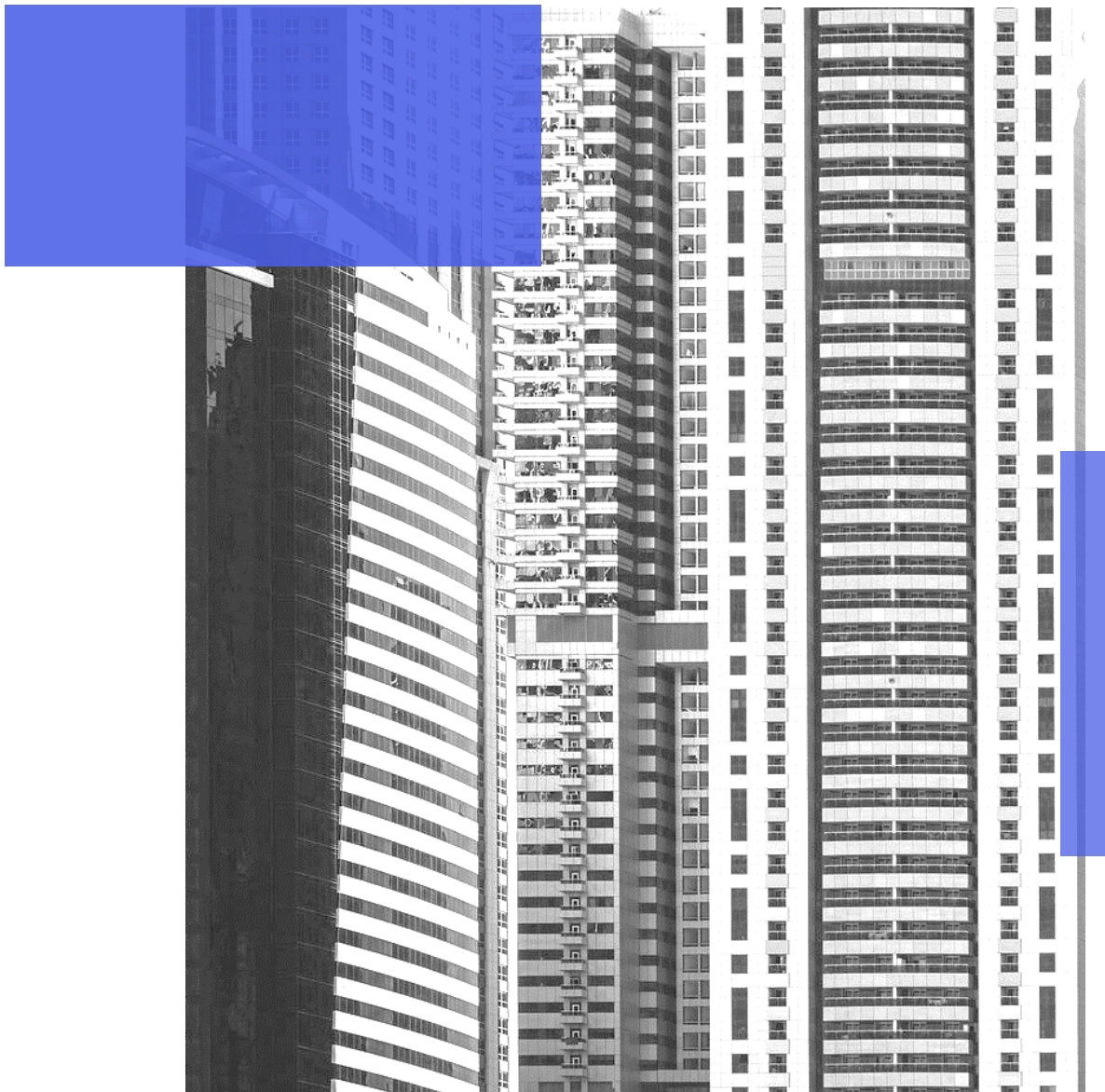


HOTEL RESERVATIONS ANALYSIS

MARIAM FATIMA

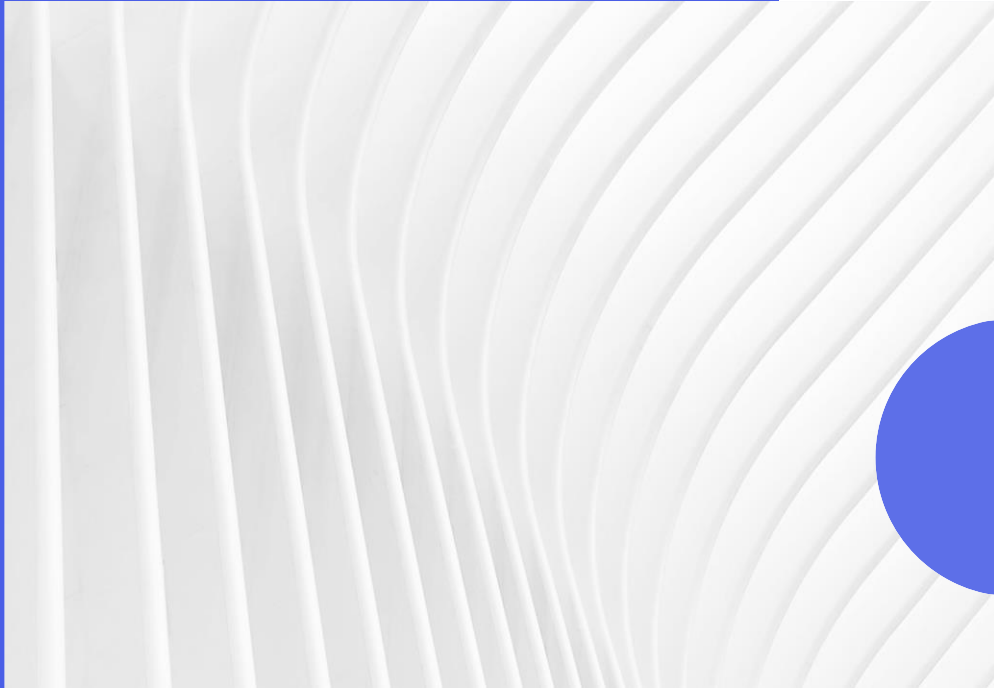
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AGENDA

- INTRODUCTION
- DATASET OVERVIEW
- SQL QUERIES
- CONCLUSION

INTRODUCTION



The hotel industry relies on data to make informed decisions and provide a better guest experience. In this project, I worked with a hotel reservation dataset to gain insights into guest preferences, booking trends, and other key factors that impact the hotel's operations.



DATASET OVERVIEW

DESCRIPTION OF THE DATASET

DESCRIPTION OF THE DATASET

- ❑ **Booking_ID**: A unique identifier for each hotel reservation.
- ❑ **no_of_adults**: The number of adults in the reservation.
- ❑ **no_of_children**: The number of children in the reservation.
- ❑ **no_of_weekend_nights**: The number of nights in the reservation that fall on weekends.
- ❑ **no_of_week_nights**: The number of nights in the reservation that fall on weekdays.
- ❑ **type_of_meal_plan**: The meal plan chosen by the guests.
- ❑ **room_type_reserved**: The type of room reserved by the guests.
- ❑ **lead_time**: The number of days between booking and arrival.
- ❑ **arrival_date**: The date of arrival.

DESCRIPTION OF THE DATASET

- ❑ **market_segment_type**: The market segment to which the reservation belongs.
- ❑ **avg_price_per_room**: The average price per room in the reservation.
- ❑ **booking_status**: The status of the booking.

HOTEL RESERVATIONS ANALYSIS

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TOTAL_RESERVATIONS
700

TYPE_OF_MEAL_PLAN	COUNT
Meal Plan 1	527
Not Selected	109
Meal Plan 2	64

[illegible]

SQL QUERIES

4. How many reservations were made for the year 2017

```
SELECT COUNT(*) AS total_reservations
FROM reservations
WHERE EXTRACT(YEAR FROM TO_DATE(arrival_date,
'MM/DD/YYYY')) = 2017;
```

TOTAL_RESERVATIONS
123

5. What is the most commonly booked room type?

```
SELECT room_type_reserved, COUNT(*) AS count
FROM reservations
GROUP BY room_type_reserved
ORDER BY count DESC;
```

ROOM_TYPE_RESERVED	COUNT
Room_Type 1	534

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

```
SELECT COUNT(*) AS weekend_reservations
FROM reservations
WHERE no_of_weekend_nights > 0;
```

WEEKEND_RESERVATIONS
383

SQL QUERIES

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

```
SELECT MAX(lead_time) AS highest_lead_time,  
MIN(lead_time) AS lowest_lead_time  
FROM reservations;
```

HIGHEST_LEAD_TIME	LOWEST_LEAD_TIME
443	0

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

```
SELECT market_segment_type, COUNT(*) AS count  
FROM reservations  
GROUP BY market_segment_type  
ORDER BY count DESC;
```

MARKET_SEGMENT_TYPE	COUNT
Online	518

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

```
SELECT COUNT(*) AS Confirmed  
FROM reservations  
WHERE booking_status = 'Not_Canceled';
```

CONFIRMED
493

SQL QUERIES

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

```
SELECT SUM(no_of_adults) AS total_adults,  
SUM(no_of_children) AS total_children  
FROM reservations;
```

TOTAL_ADULTS	TOTAL_CHILDREN
1316	69

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

```
SELECT AVG(no_of_weekend_nights) AS  
average_weekend_nights  
FROM reservations  
WHERE no_of_children > 0;
```

AVERAGE_WEEKEND_NIGHTS
1

SQL QUERIES

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

```
SELECT EXTRACT(MONTH FROM  
TO_DATE(arrival_date, 'MM/DD/YYYY')) AS  
month, COUNT(*) AS total_reservations  
FROM reservations  
GROUP BY EXTRACT(MONTH FROM  
TO_DATE(arrival_date, 'MM/DD/YYYY'))  
ORDER BY month;
```

MONTH	TOTAL_RESERVATIONS
1	11
2	28
3	52
4	67
5	55
6	84
7	44
8	70
9	80
10	103
More than 10 rows available. Increase rows selector to view more rows.	

HOTEL RESERVATIONS ANALYSIS

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12

HOTEL RESERVATIONS ANALYSIS

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ROOM_TYPE_RESERVED	COUNT	AVERAGE_PRICE
Room_Type 1	24	123.122916666666666666666666666667

MARKET_SEGMENT_TYPE	AVERAGE_PRICE
Online	112.455212355212355212355212355212

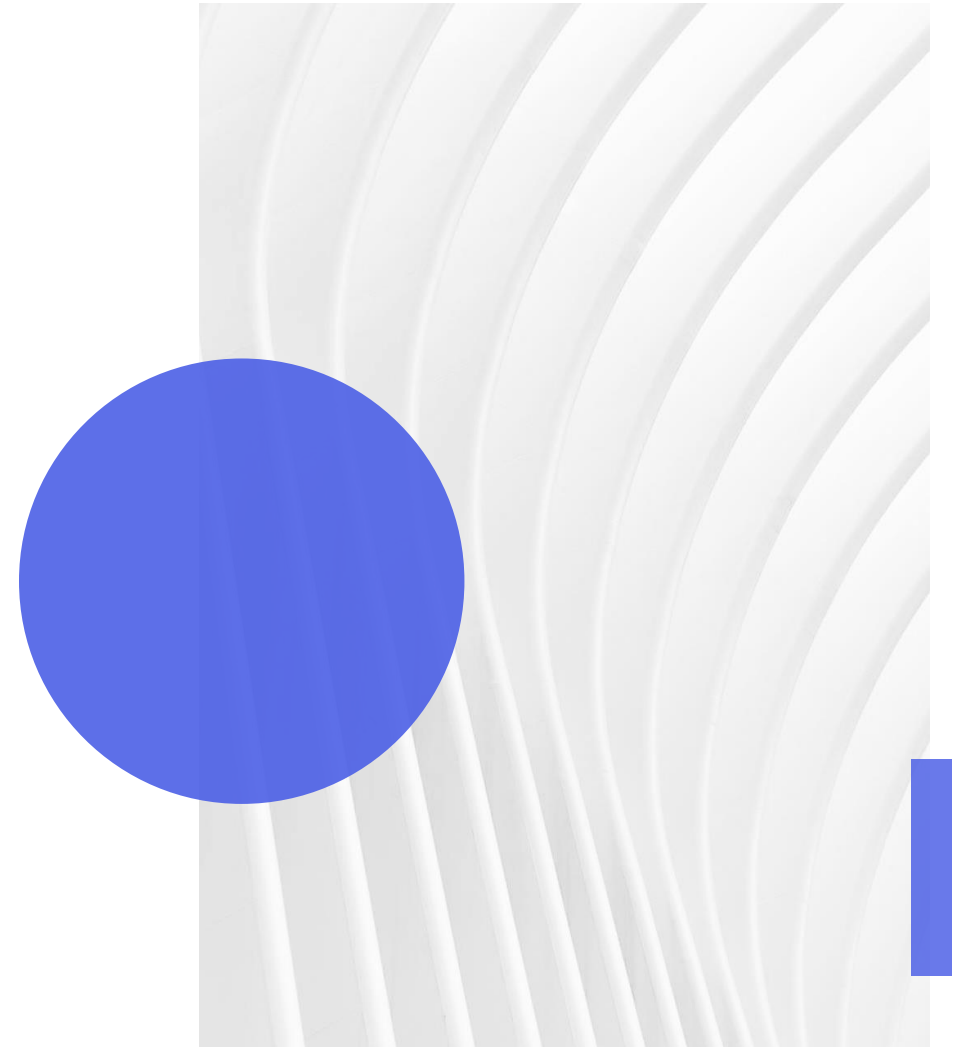
CONCLUSION

Popular Meal Plans and Room Types: Meal Plan 1 and Room Type 1 were the most preferred choices among guests.

Family Reservations: Families tend to book rooms at a slightly higher average price, with Room Type 4 being the most common choice.

Lead Time Variability: The lead time for reservations varied significantly, from last-minute bookings to those planned nearly a year in advance.

Market Segment Analysis: The Online market segment not only had the highest number of reservations but also generated the highest average room prices.





THANK YOU

Mariam Fatima

mariamfatima.connect@gmail.com

<https://github.com/mariamffatima/Hotel-Reservation-Analysiswith-SQL>