

# HOTEL RESERVATION

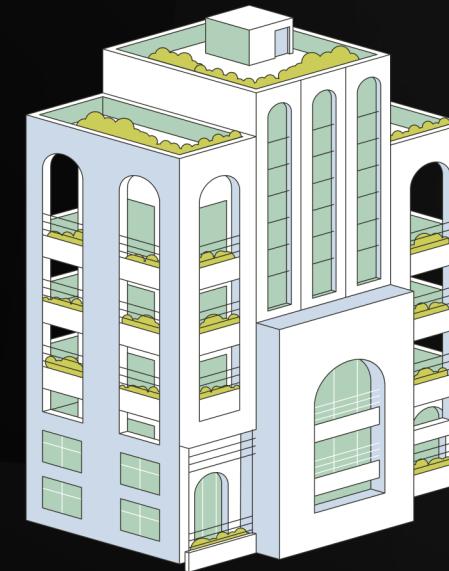
*Analysis with SQL*



A/X

# OVERVIEW

*The hotel industry relies on data to make informed decisions and provide a better guest experience. In this internship, you will work with a hotel reservation dataset to gain insights into guest preferences, booking trends, and other key factors that impact the hotel's operations. You will use SQL to query and analyze the data, as well as answer specific questions about the dataset.*



# DATASET DETAILS

## THE DATASET INCLUDES THE FOLLOWING COLUMNS

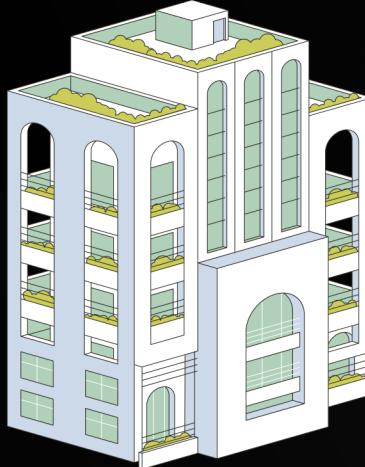
- *Booking\_ID*: A unique identifier for each hotel reservation.
- *no\_of\_adults*: The number of adults in the reservation.
- *no\_of\_children*: The number of children in the reservation.
- *no\_of\_weekend\_nights*: The number of nights in the reservation that fall on weekends.
- *no\_of\_week\_nights*: 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.
- *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.

# QUESTIONS & ANS

## 1. WHAT IS THE TOTAL NUMBER OF RESERVATIONS IN THE DATASET?

```
SELECT COUNT(*) AS  
TOTAL_RESERVATIONS  
FROM HOTEL;
```

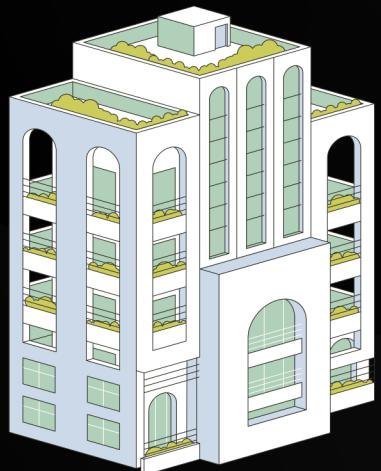
	total_reservation
▶	700



# QUESTIONS & ANS

## 2. WHICH MEAL PLAN IS THE MOST POPULAR AMONG GUESTS?

```
SELECT TYPE_OF_MEAL_PLAN, COUNT(*) AS  
COUNT FROM RESERVATIONS GROUP BY  
TYPE_OF_MEAL_PLAN ORDER BY COUNT DESC  
LIMIT 1;
```

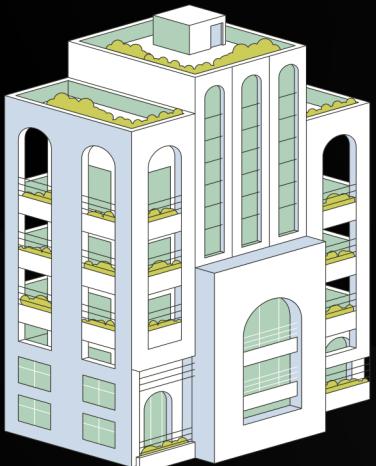


	type_of_meal_plan	count
▶	Meal Plan 2	64

# QUESTIONS & ANS

## 3. WHAT IS THE AVERAGE PRICE PER ROOM FOR RESERVATIONS INVOLVING CHILDREN?

```
SELECT AVG(AVG_PRICE_PER_ROOM) AS  
AVG_PRICE FROM RESERVATIONS WHERE  
NO_OF_CHILDREN > 0;
```

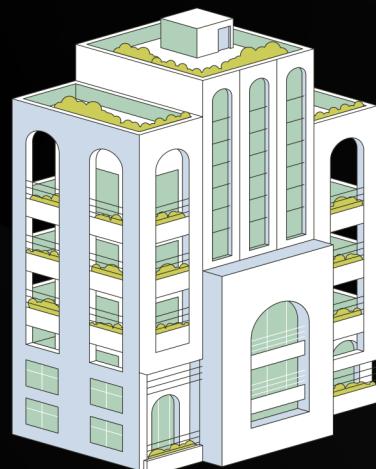


avg_price
144.56833333333336

# QUESTIONS & ANS

## 4. 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  
LIMIT 1;
```

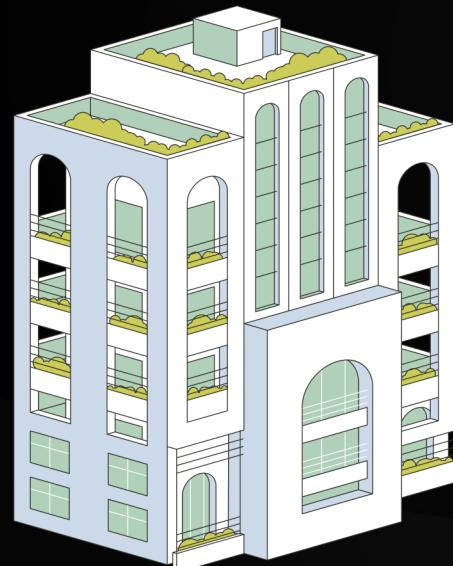


	room_type_reserved	count
▶	Room_Type 1	534

# QUESTIONS & ANS

5. 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;
```

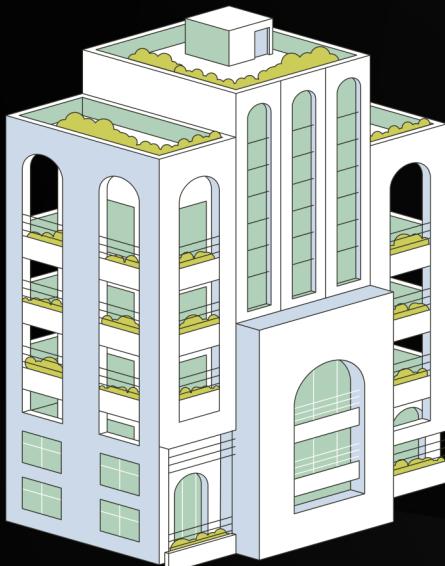


	weekend_reservations
383	

# QUESTIONS & ANS

## 6. 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;
```

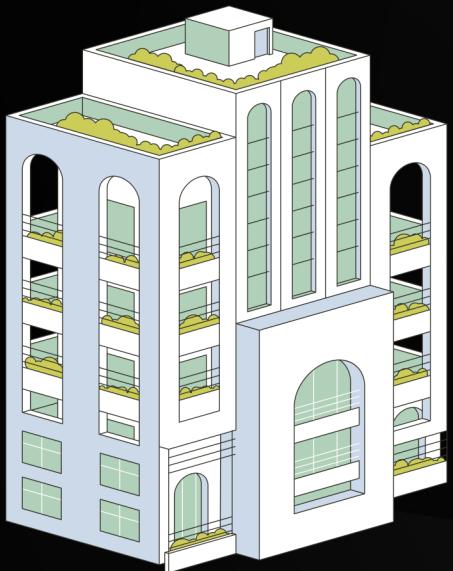


	highest_lead_time	lowest_lead_time
▶	443	0

# QUESTIONS & ANS

## 7. 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 LIMIT 1;
```

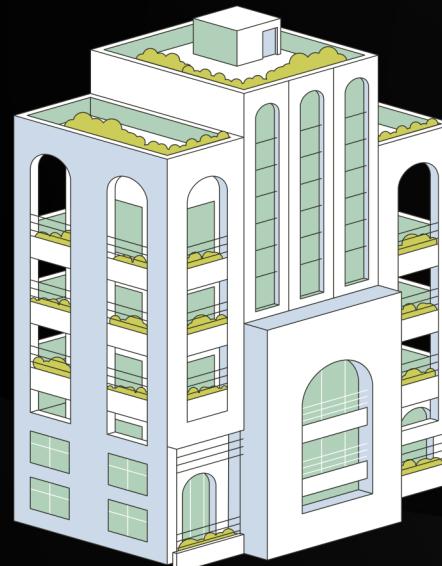


	market_segment_type	count
▶	Online	518

# QUESTIONS & ANS

8. HOW MANY RESERVATIONS HAVE A BOOKING STATUS OF "CONFIRMED"?

```
SELECT COUNT(*) AS CONFIRMED_RESERVATIONS  
FROM RESERVATIONS WHERE BOOKING_STATUS =  
'CONFIRMED';
```

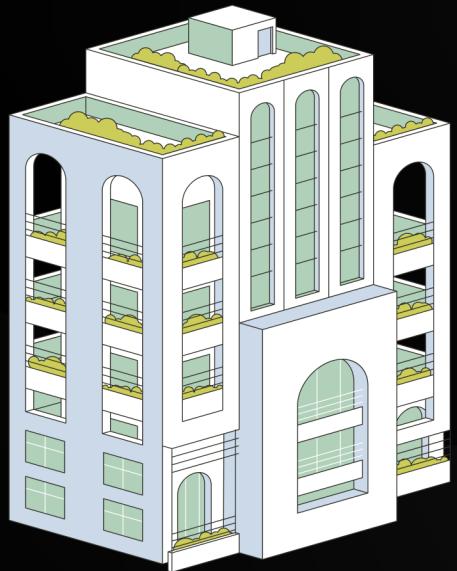


	confirmed_reservations
0	0

# QUESTIONS & ANS

9. 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;
```

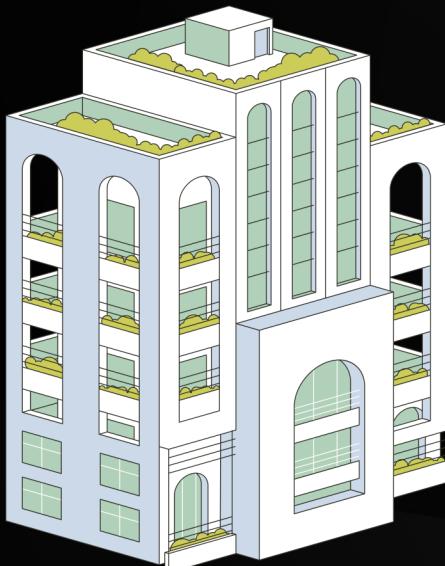


	total_adults	total_children
▶	1316	69

# QUESTIONS & ANS

10. WHAT IS THE AVERAGE NUMBER OF WEEKEND NIGHTS FOR RESERVATIONS INVOLVING CHILDREN?

```
SELECT AVG(NO_OF_WEEKEND_NIGHTS) AS  
AVG_WEEKEND_NIGHTS FROM RESERVATIONS  
WHERE NO_OF_CHILDREN > 0;
```

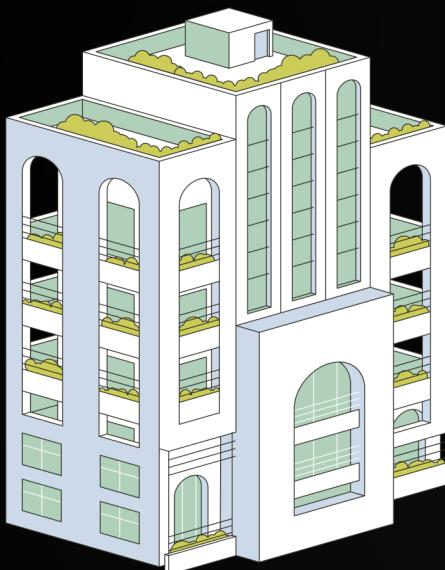


	avg_weekend_nights
▶	1.0000

# QUESTIONS & ANS

## 11. HOW MANY RESERVATIONS WERE MADE IN EACH MONTH OF THE YEAR?

```
SELECT MONTH(ARRIVAL_DATE) AS MONTH, COUNT(*) AS RESERVATIONS_COUNT FROM RESERVATIONS GROUP BY MONTH(ARRIVAL_DATE) ORDER BY MONTH;
```



	month	reservations_count
▶	NUL	700

# QUESTIONS & ANS

12. WHAT IS THE AVERAGE NUMBER OF NIGHTS (BOTH WEEKEND AND WEEKDAY) SPENT BY GUESTS FOR EACH ROOM TYPE?

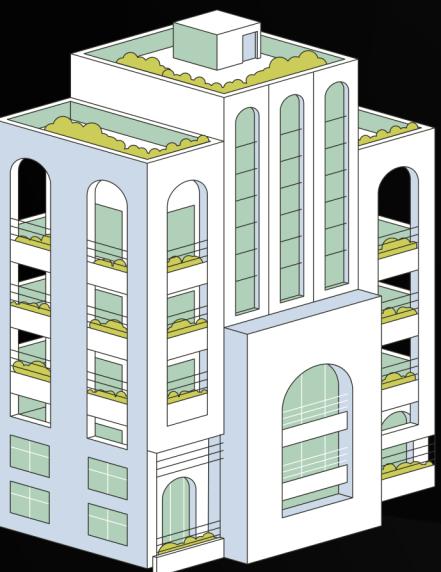
```
SELECT ROOM_TYPE_RESERVED,  
AVG(NO_OF_WEEKEND_NIGHTS +  
NO_OF_WEEK_NIGHTS) AS  
AVG_TOTAL_NIGHTS  
FROM RESERVATIONS  
GROUP BY ROOM_TYPE_RESERVED;
```

	room_type_reserved	avg_total_nights
▶	Room_Type 1	2.8783
	Room_Type 4	3.8000
	Room_Type 2	3.0000
	Room_Type 6	3.6111
	Room_Type 5	2.5000
	Room_Type 7	2.6667

# QUESTIONS & ANS

13. FOR RESERVATIONS INVOLVING CHILDREN, WHAT IS THE MOST COMMON ROOM TYPE, AND WHAT IS THE AVERAGE PRICE FOR THAT ROOM TYPE?

```
SELECT ROOM_TYPE_RESERVED,  
AVG(AVG_PRICE_PER_ROOM) AS AVG_PRICE FROM  
RESERVATIONS WHERE NO_OF_CHILDREN > 0 GROUP BY  
ROOM_TYPE_RESERVED ORDER BY COUNT(*) DESC LIMIT 1;
```

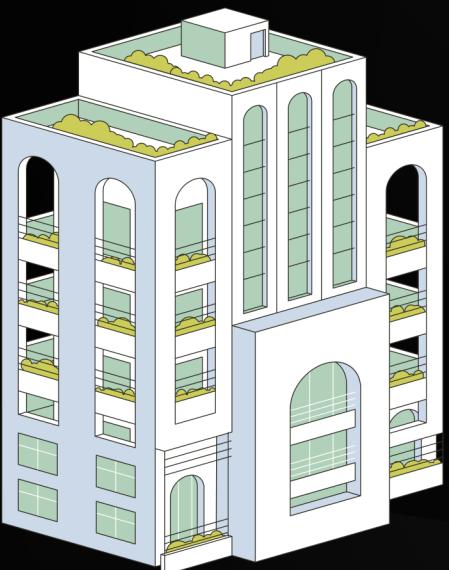


	room_type_reserved	avg_price
▶	Room_Type 1	123.1229166666665

# QUESTIONS & ANS

14. FIND THE MARKET SEGMENT TYPE THAT GENERATES THE HIGHEST AVERAGE PRICE PER ROOM.

```
SELECT MARKET_SEGMENT_TYPE,
      AVG(AVG_PRICE_PER_ROOM)
    AS AVG_PRICEFROM RESERVATIONS
GROUP BY MARKET_SEGMENT_TYPE
ORDER BY AVG_PRICE DESC LIMIT 1;
```



	market_segment_type	avg_price
▶	Online	112.45521235521232

# THANK YOU

