



# Hotel Reservation Analysis



# Introduction



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**Hey,i am Nandini Gupta and in this project i have utilize sql queries to solve questions that where related to Hotel Reservation Analysis**



# overview

**A hotel reservation dataset in SQL involves identifying the tables, understanding their structure, examining sample data, and writing queries to extract meaningful information. This approach allows you to analyze and derive insights about reservations, customers, revenue, and hotel operations.**

# What is the total number of reservations in the dataset?

```
select count(Booking_ID) from mentorless.hotel;
```

Result Grid	
	count(Booking_ID)
▶	700



# Which meal plan is the most popular among guests?

SELECT

```
type_of_meal_plan,  
COUNT(Booking_id) AS number_of_guests  
from  
hotel  
GROUP BY  
type_of_meal_plan  
ORDER BY  
number_of_guests DESC limit 1;
```

Result Grid | Filter Rows:

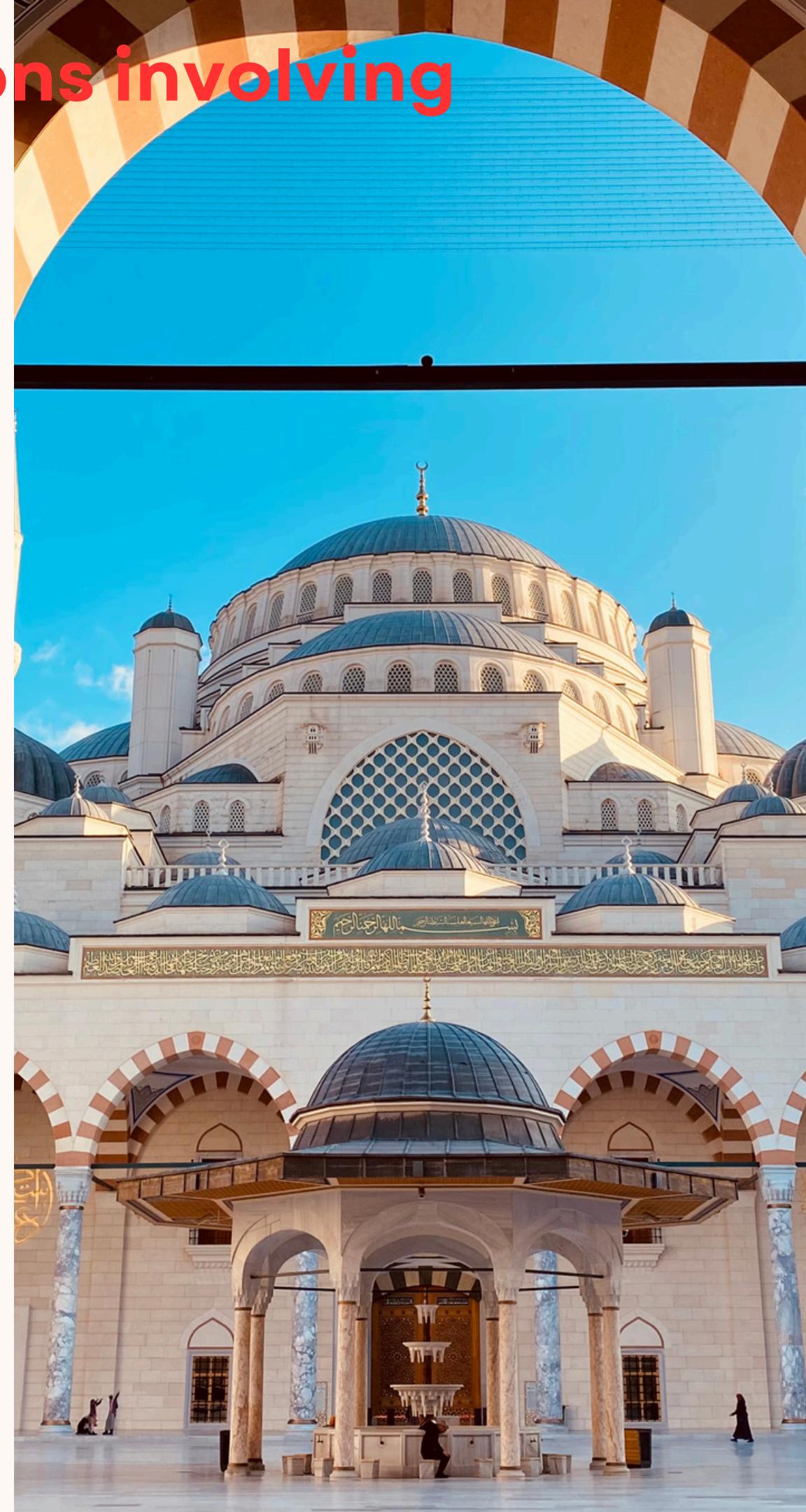
	type_of_meal_plan	number_of_guests
▶	Meal Plan 1	527



# What is the average price per room for reservations involving children?

```
select avg_price_per_room from hotel  
where no_of_children >0;
```

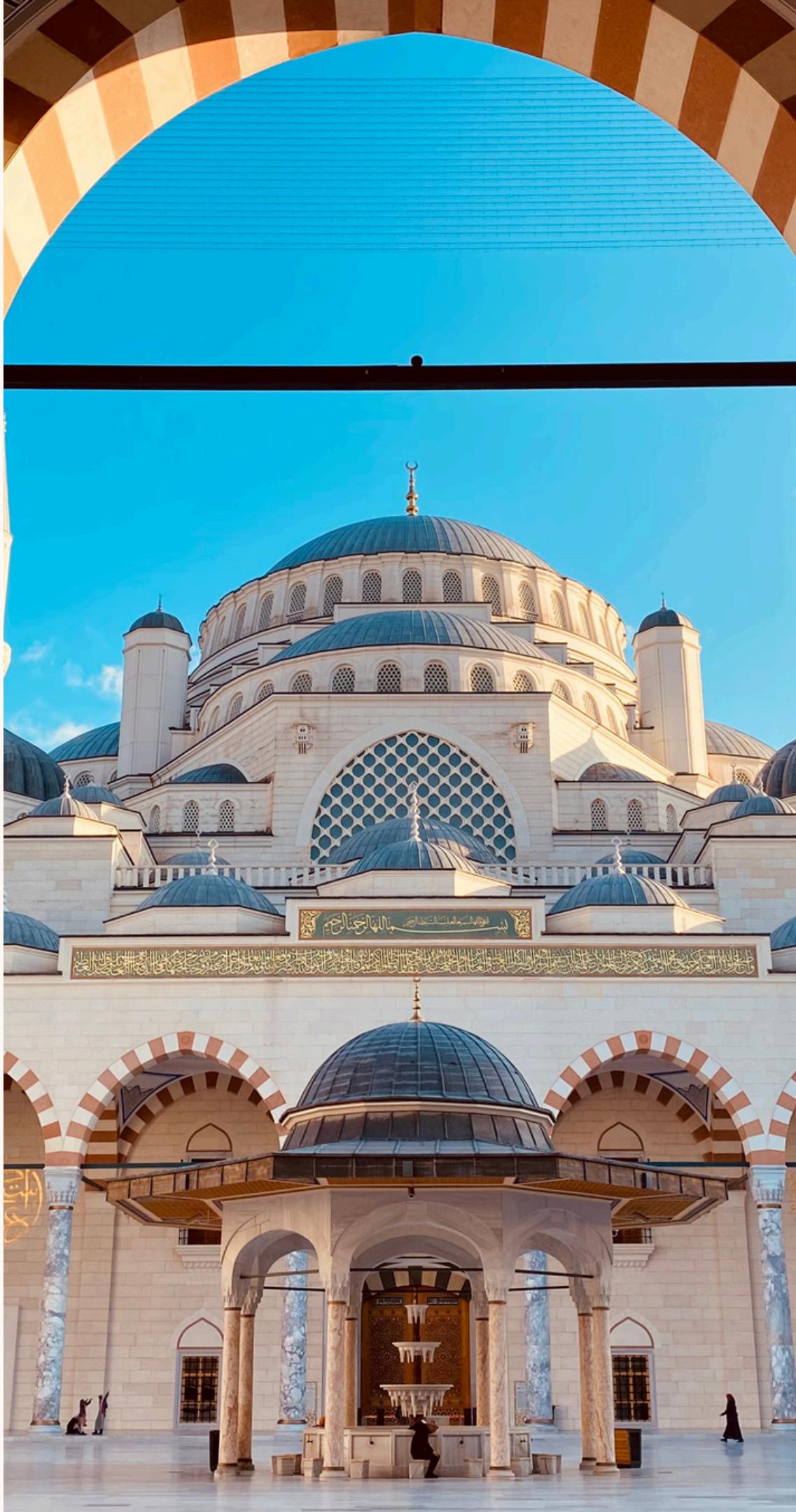
Result Grid	
	avg_price_per_room
▶	82.44
	258
	159.3
	130.5
	156.9
	184.24
	102.83
	190.8
	121.5
	87.4
	150
	87.78
	86.32
	177.65
	200.75
	107



## How many reservations were made for the year 20XX

```
select count(*) from hotel  
where year(arrival_date) =2017;
```

Result Grid	
	count(*)
▶	0



# What is the most commonly booked room type?

```
SELECT room_type_reserved, COUNT(*) AS bookings_count  
FROM hotel  
GROUP BY room_type_reserved  
ORDER BY bookings_count DESC  
LIMIT 1;
```

Result Grid | Filter Rows:

	room_type_reserved	bookings_count
▶	Room_Type 1	534



How many reservations fall on a weekend  
(no\_of\_weekend\_nights > 0)?

```
select count(no_of_weekend_nights) from hotel  
where  
no_of_weekend_nights>0;
```

	Result Grid			Filter Rows:	
	count(no_of_weekend_nights)				
▶	383				

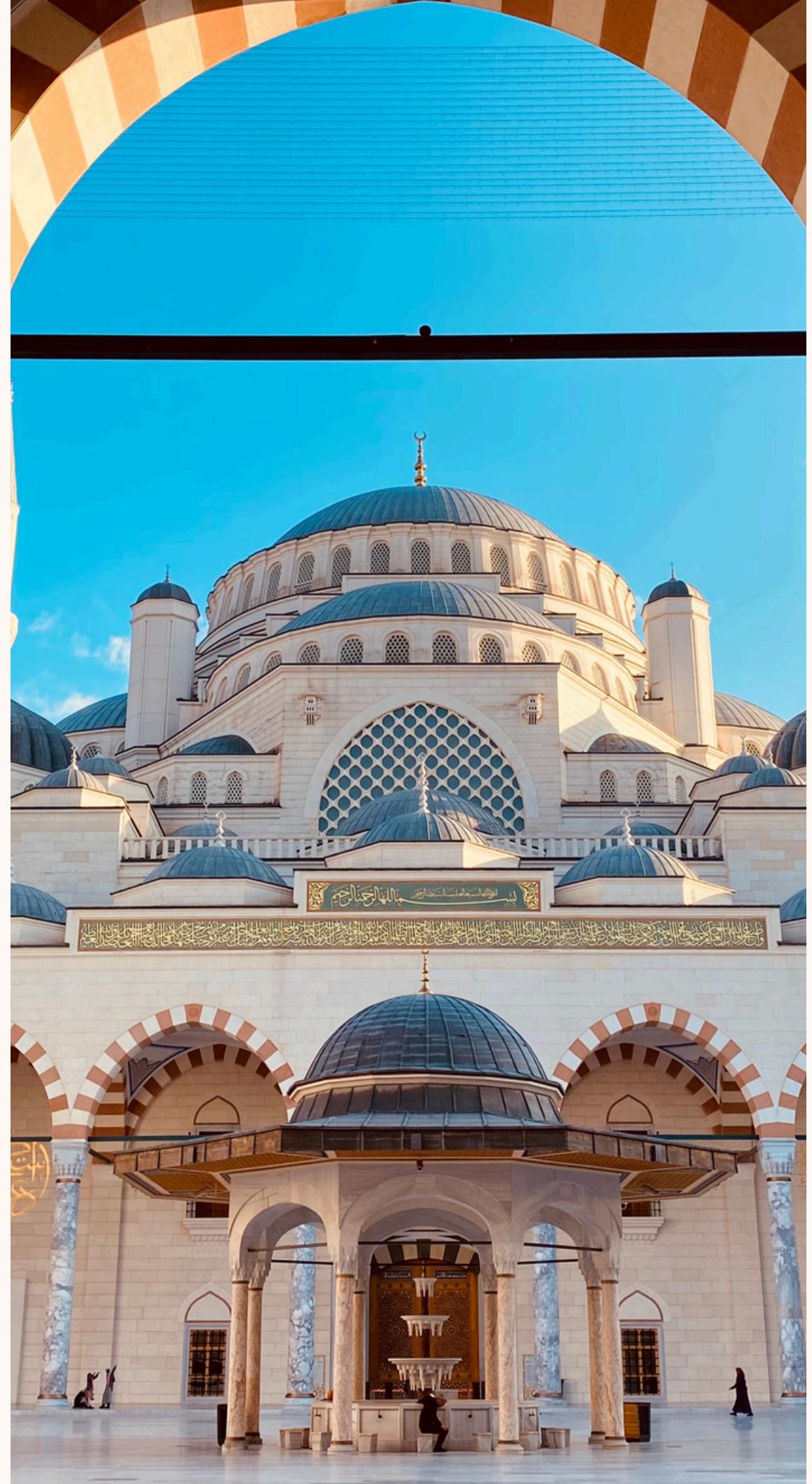


- What is the highest and lowest lead time for reservations?

```
select max(lead_time),min(lead_time) from hotel;
```

Result Grid | Filter Rows:

	max(lead_time)	min(lead_time)
▶	443	0

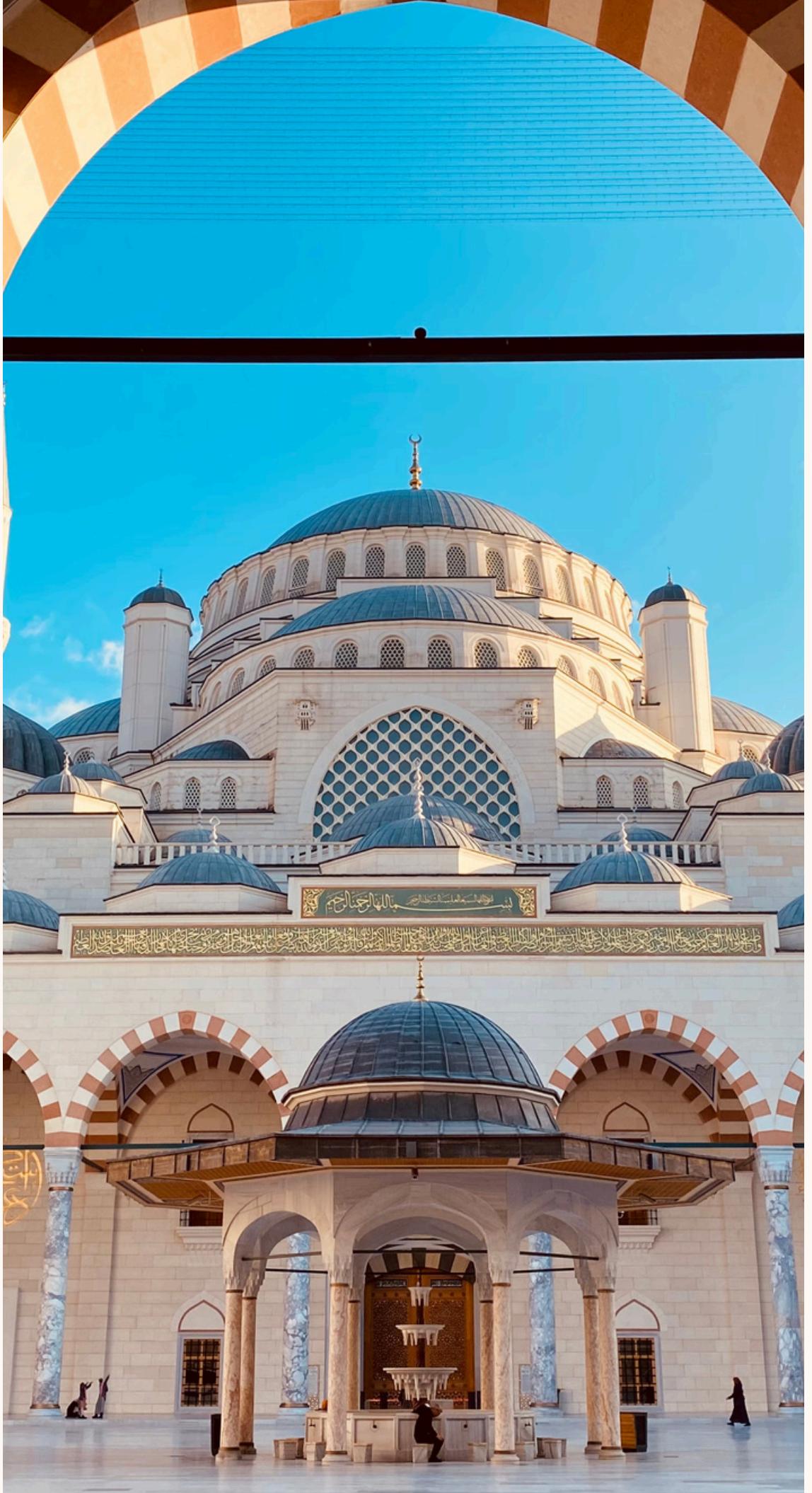


# What is the most common market segment type for reservations?

```
SELECT market_segment_type, COUNT(*) AS count_of_reservations  
FROM hotel  
GROUP BY market_segment_type  
ORDER BY count_of_reservations DESC  
LIMIT 1;
```

Result Grid | Filter Rows:

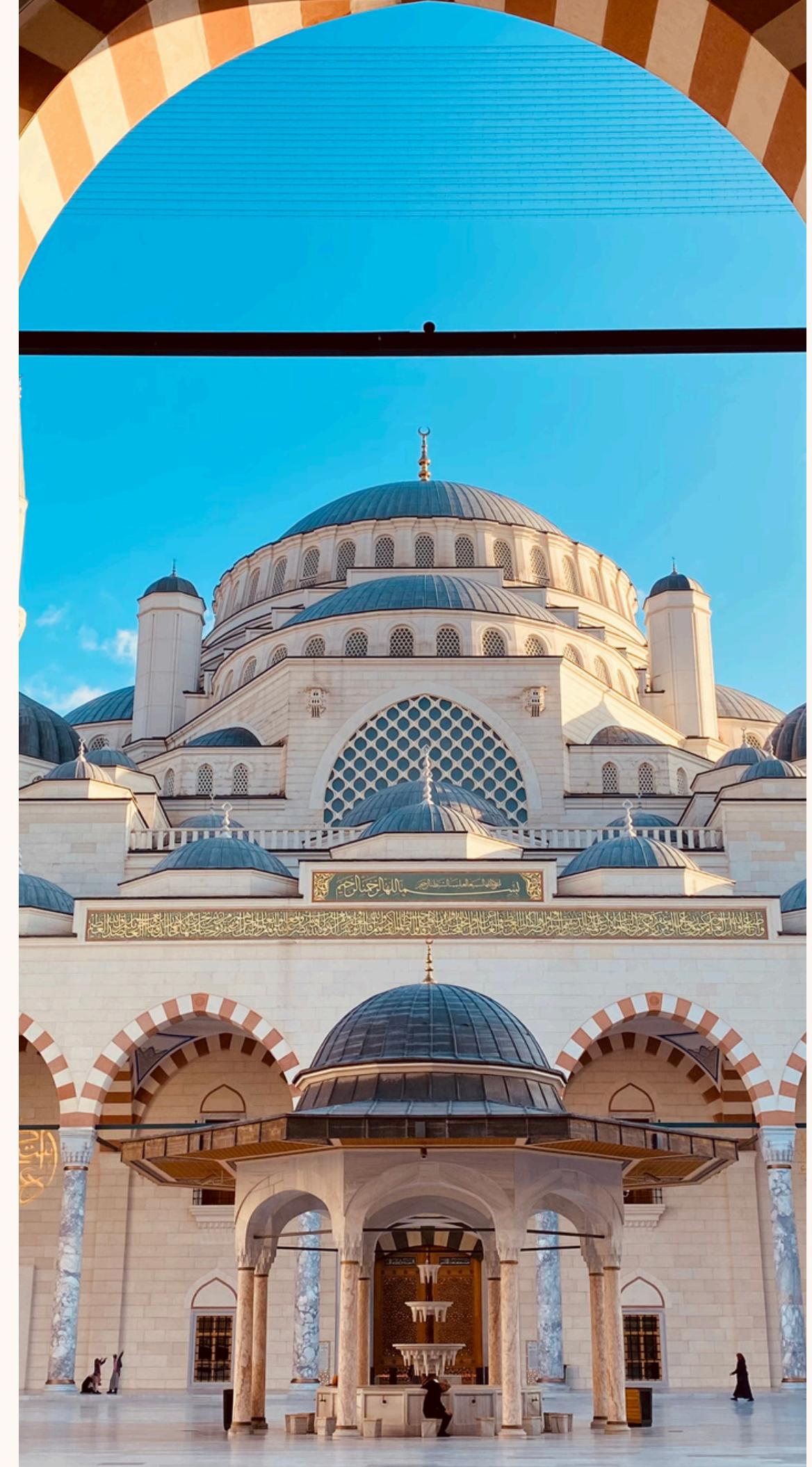
	market_segment_type	count_of_reservations
▶	Online	518



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

```
select count(Booking_ID) from hotel  
where booking_status="confirmed";
```

	Result Grid	Filter
	count(Booking_ID)	



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

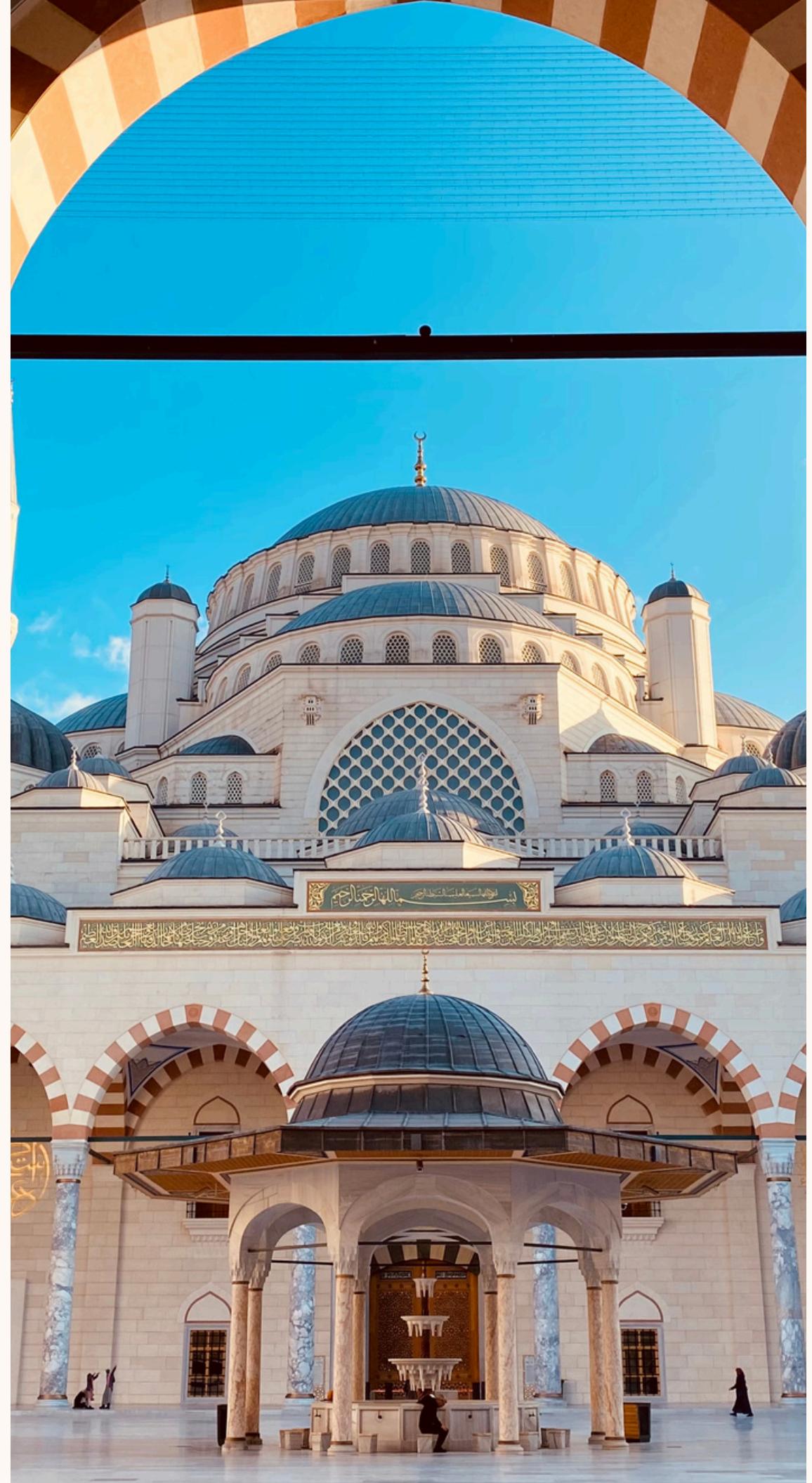
SELECT

```
SUM(no_of_adults) AS total_adults,  
SUM(no_of_children) AS total_children
```

```
FROM hotel;
```

Result Grid | Filter Rows:

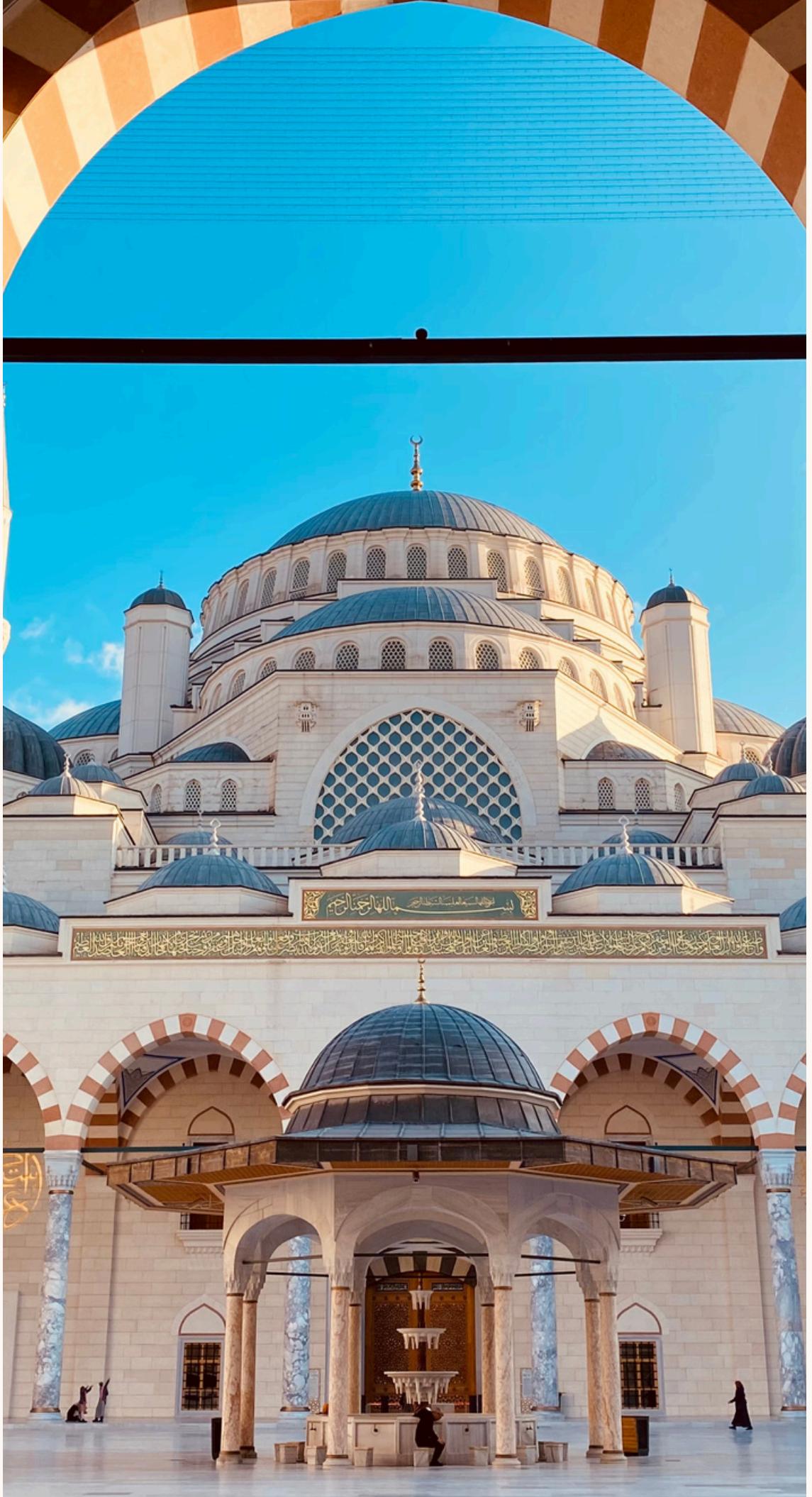
	total_adults	total_children
▶	1316	69



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

```
select avg(no_of_weekend_nights) from hotel  
where no_of_children>0;
```

	Result Grid	Filter Rows:
	avg(no_of_weekend_nights)	
▶	1.0000	

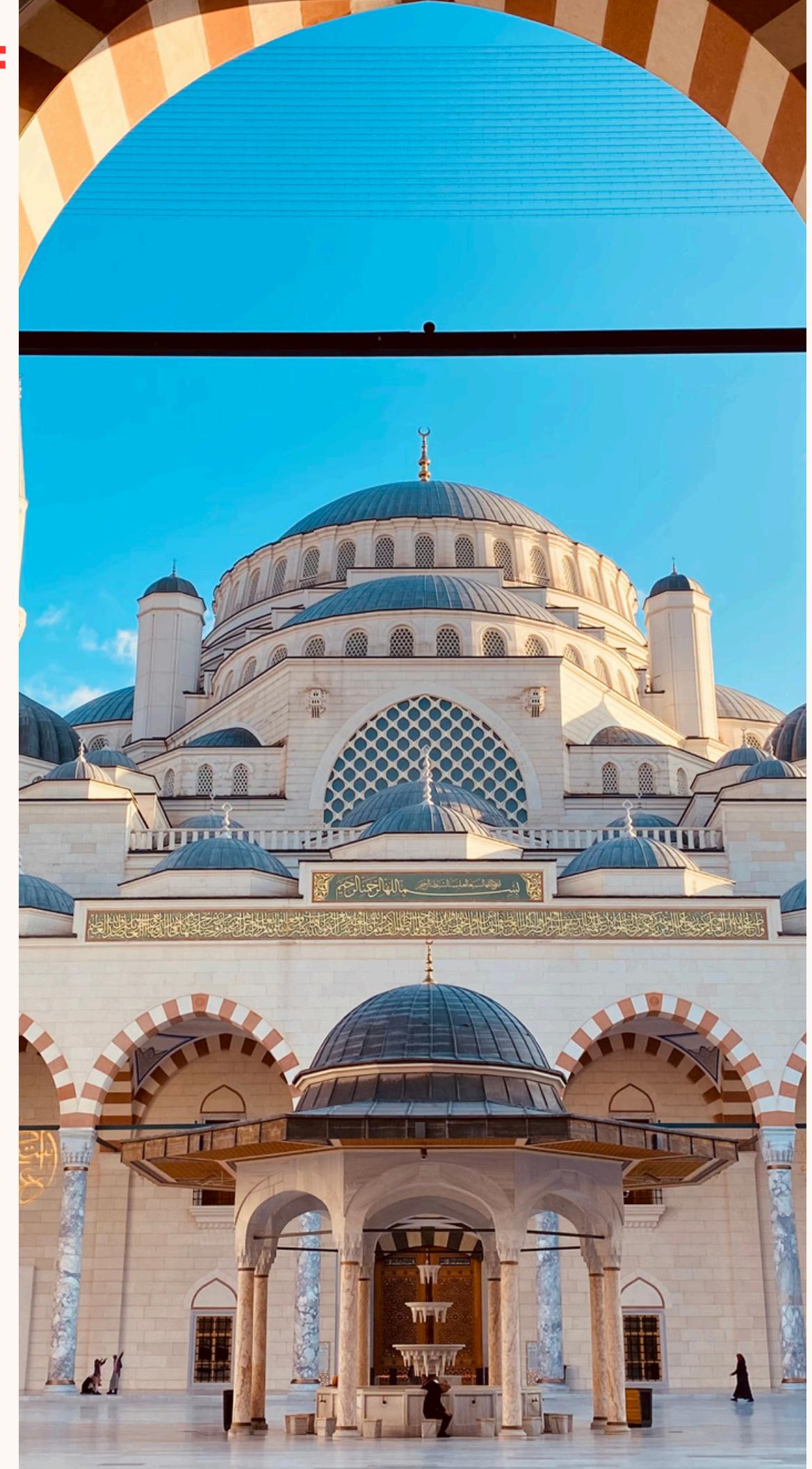


# How many reservations were made in each month of the year?

```
SELECT  
    MONTH(arrival_date) AS month,  
    COUNT(*) AS number_of_reservations  
FROM hotel  
GROUP BY MONTH(arrival_date)  
ORDER BY month;
```

Result Grid | Filter Rows:

	month	number_of_reservations
	HULL	700

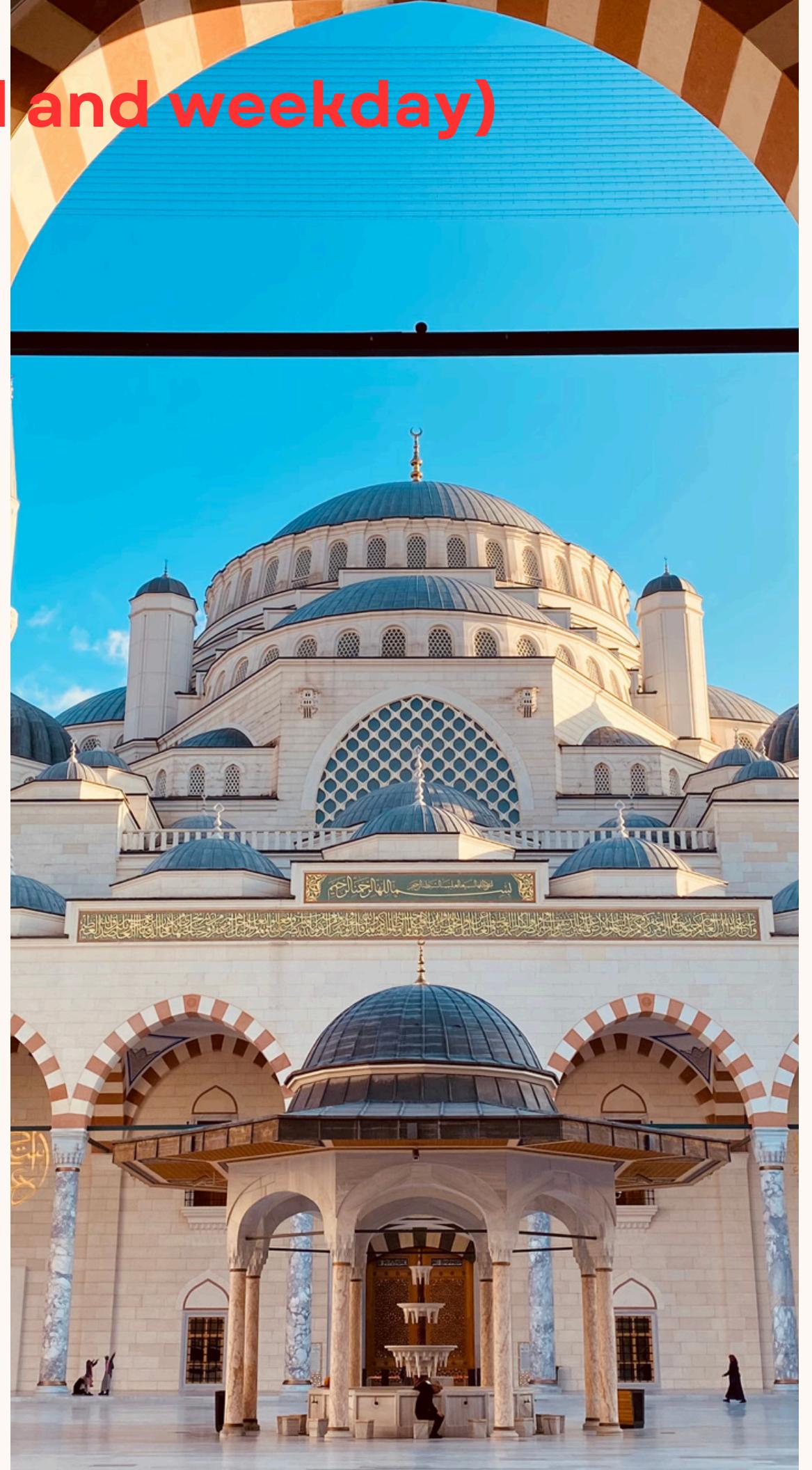


# What is the average number of nights (both weekend and weekday) spent by guests for each room type?

```
SELECT
    room_type_reserved,
    AVG(total_nights) AS average_nights_per_stay
FROM (
    SELECT
        room_type_reserved,
        (no_of_week_nights + no_of_weekend_nights) AS total_nights
    FROM
        hotel
    ) AS stay_nights
GROUP BY
    room_type_reserved;
```

Result Grid | Filter Rows:

	room_type_reserved	average_nights_per_stay
▶	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

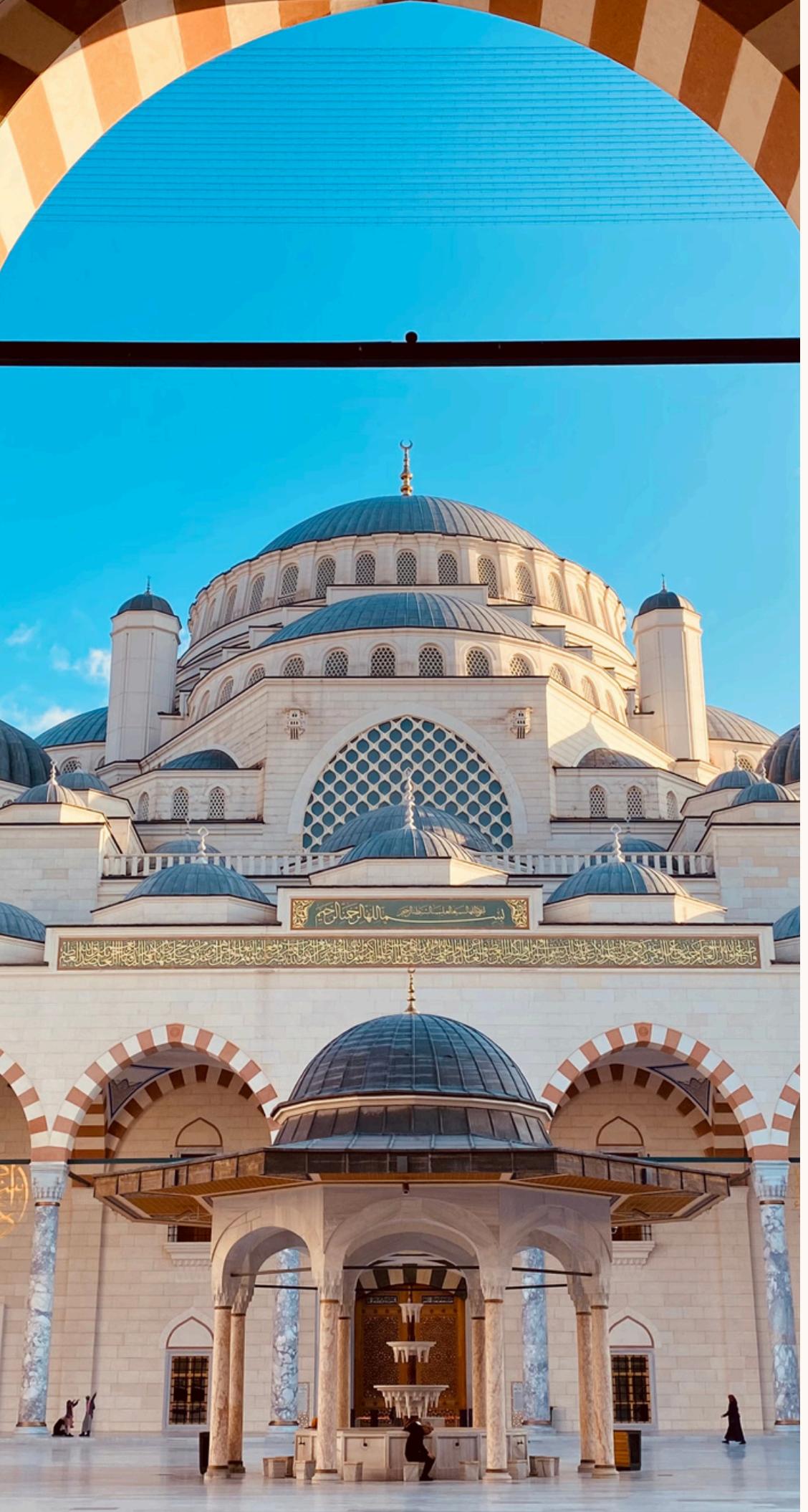


For reservations involving children, what is the most common room type, and what is the average -- price for that room type?

```
WITH common_room_type AS (
    SELECT
        room_type_reserved, avg_price_per_room,
        reservation_count
    FROM (
        SELECT
            room_type_reserved, avg_price_per_room,
            COUNT(*) AS reservation_count
        FROM
            hotel
        WHERE
            no_of_children > 0
    )
```

Result Grid | Filter Rows:  Export: Wrap

	room_type_reserved	avg_price_per_room	reservation_count
▶	Room_Type 1	121.5	2

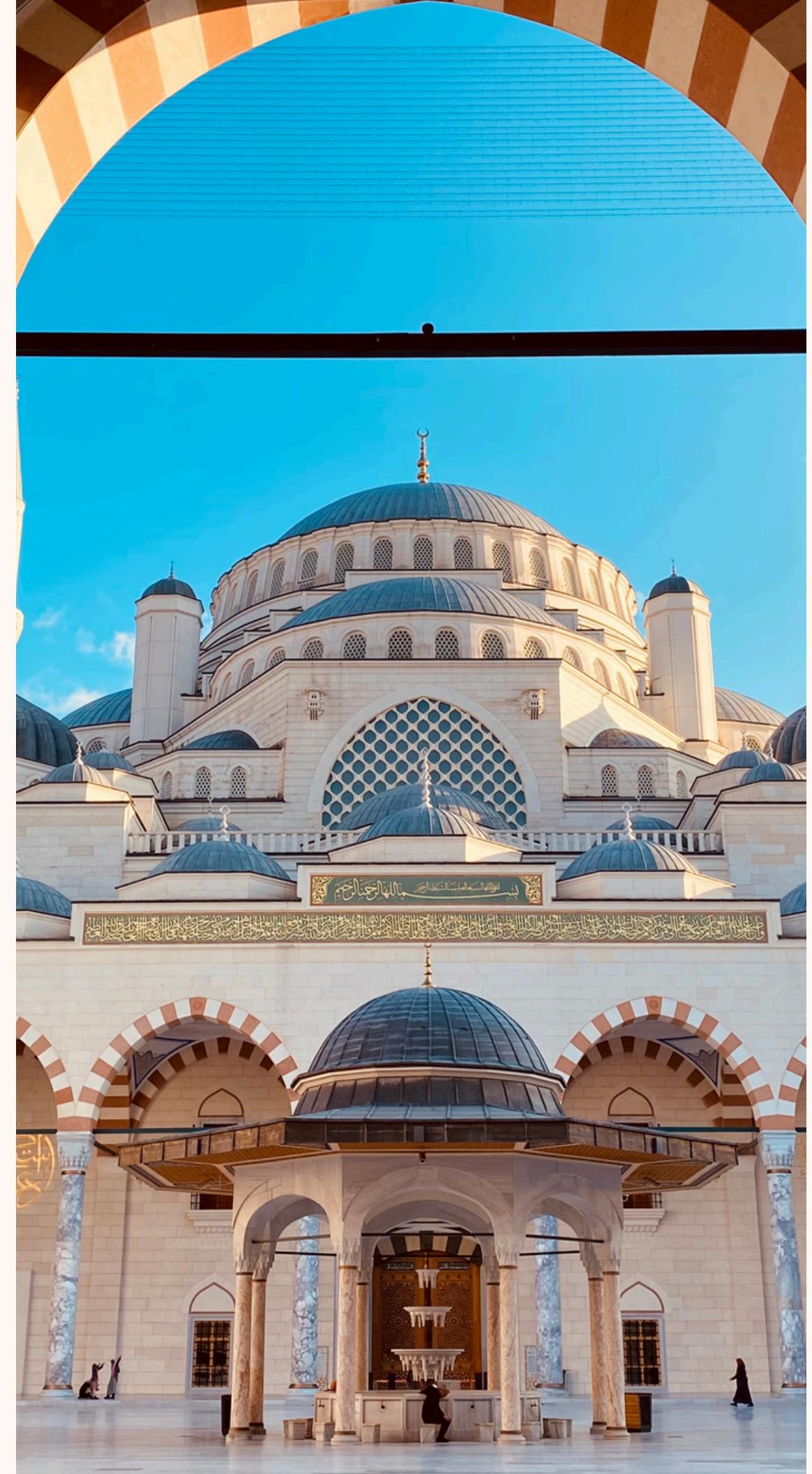


Ve

```
SELECT
    market_segment_type,
    AVG(avg_price_per_room) AS avg_price_per_room
FROM
    hotel
GROUP BY
    market_segment_type
ORDER BY
    avg_price_per_room DESC
LIMIT 1;
```

Result Grid | Filter Rows:

	market_segment_type	average_price
▶	Online	112.45521235521232



# *Thank You for watching*

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‘’<https://github.com/Nandini-0406>

