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#### Project: Pizza Sales Data Analysis

This project explores the pizza sales dataset to uncover insights such as total orders, revenue generation, popular pizza types, and customer behavior patterns.



#### Basic:

- 1. Retrieve the total number of orders placed.
- 2. Calculate the total revenue generated from pizza sales.
- Identify the highest-priced pizza.
- 4. Identify the most common pizza size ordered.
- 5. List the top 5 most ordered pizza types along with their quantities.

#### Intermediate:

- 6. Join the necessary tables to find the total quantity of each pizza ordered.
- 7. Determine the distribution of orders by hour of the day.
- 8. Join relevant tables to find the category-wise distribution of pizzas.
- 9. Group the orders by date and calculate the average number of pizzas ordered per day.
- 10. Determine the top 3 most ordered pizza types based on revenue.

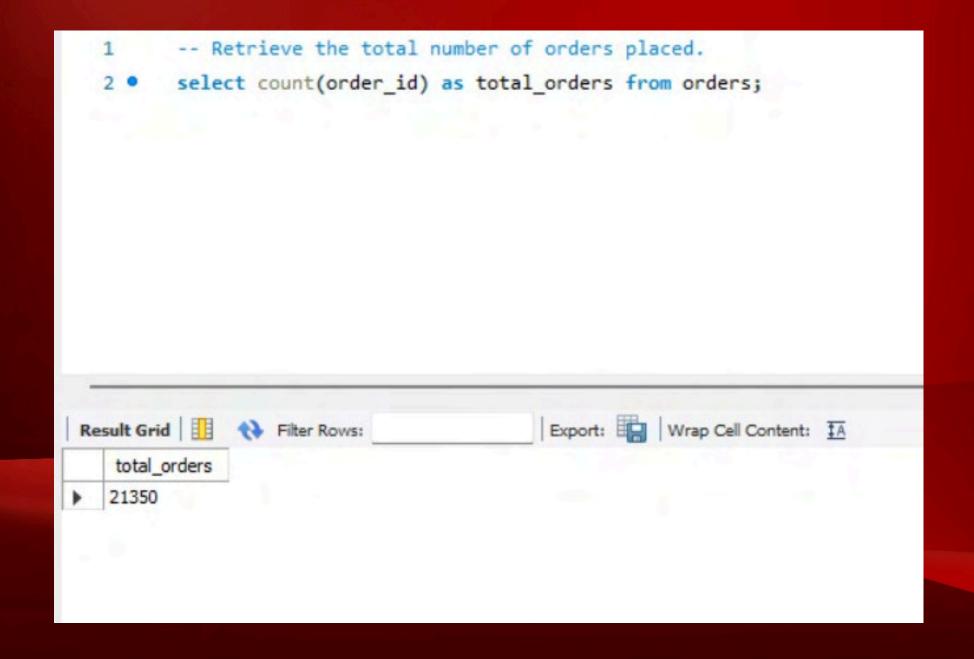
#### Advanced:

- 11. Calculate the percentage contribution of each pizza type to total revenue.
- 12. Analyze the cumulative revenue generated over time.
- 13. Determine the top 3 most ordered pizza types based on revenue for each pizza category.

```
create database pizzahut;
 2
 3
 4
    CREATE TABLE orders (
         order_id INT NOT NULL,
 6
         order_date DATE NOT NULL,
 7
         order time TIME NOT NULL,
8
         PRIMARY KEY (order_id)
9
10
11
12 • 

CREATE TABLE order_details(
         order_details_id INT NOT NULL,
13
         order_id INT NOT NULL,
14
        pizza id text NOT NULL,
15
         quantity int not null,
16
17
         PRIMARY KEY (order_details_id)
18
       );
19
```

• Retrieve the total number of orders placed.



#### Calculate the total revenue generated from pizza sales.





#### Identify the highest-priced pizza.

```
1 -- Find the highest-priced pizza
2 • SELECT pt.name, p.price
3 FROM pizza_types AS pt
4 JOIN pizzas AS p
5 ON pt.pizza_type_id = p.pizza_type_id
6 ORDER BY p.price DESC
7 LIMIT 1;
8

Result Grid  Filter Rows: Export: Wrap Cell Content: IA Fetch rows:

| Name | price |
| The Greek Pizza | 35.95
```

#### Identify the most common pizza size ordered.

```
-- Identify the most common size pizza orderd.
  1
        SELECT
            pizzas.size, COUNT(order_details.order_id) AS order_count
        FROM
            pizzas
            order_details ON pizzas.pizza_id = order_details.pizza_id
        GROUP BY pizzas.size
        ORDER BY order_count DESC;
                                         Export: Wrap Cell Content: IA
Result Grid  Filter Rows:
       order_count
        18526
        15385
        14137
        544
  XXL
        28
```

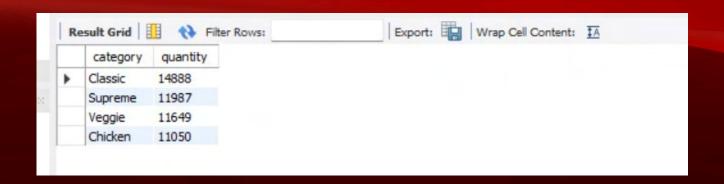
## List the top 5 most ordered pizza types along with their quantities.

```
-- list the top 5 most orederd pizza types along their quantities.
       SELECT
           pizza types.name, SUM(order details.quantity) AS quantity
       FROM
           pizza_types
               JOIN
           pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
               JOIN
           order_details ON order_details.pizza_id = pizzas.pizza_id
9
       GROUP BY pizza types.name
10
       ORDER BY quantity DESC
11
12
       LIMIT 5;
```

name	quantity			
The Classic Deluxe Pizza	2453			
The Barbecue Chicken Pizza	2432			
The Hawaiian Pizza	2422			
The Pepperoni Pizza	2418			
The Thai Chicken Pizza	2371			

## Join the necessary tables to find the total quantity of each pizza ordered.

```
-- Joining the tables to get quantity pizza type category ordered
       SELECT
           pizza types.category,
           SUM(order_details.quantity) AS quantity
       FROM
           pizza_types
               JOIN
           pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
               JOIN
10
           order details ON pizzas.pizza id = order details.pizza id
11
       GROUP BY pizza types.category
12
13
       ORDER BY quantity DESC;
```







# Join relevant tables to find the category-wise distribution of pizzas.

```
-- Joining the tables to get quantity pizza type category ordered

• SELECT
    pizza_types.category,
    SUM(order_details.quantity) AS quantity

FROM
    pizza_types
    JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
    JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id

GROUP BY pizza_types.category

ORDER BY quantity DESC;
```

category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050



```
-- Determine the distribution of by hours of the day

SELECT
HOUR(order_time) AS hour, COUNT(order_id) AS order_count

FROM
orders
GROUP BY HOUR(order_time)
```

	hour	order_count	
•	11	1231	
	12	2520	
	13	2455	
	14	1472	
	15	1468	
	16	1920	
	17	2336	
	18	2399	
	19	2009	
	20	1642	
	21	1198	
	22	663	
	23	28	



# join different tables to get category wise distribution of pizzas

```
-- join different tables to get category wise distribution of pizzas

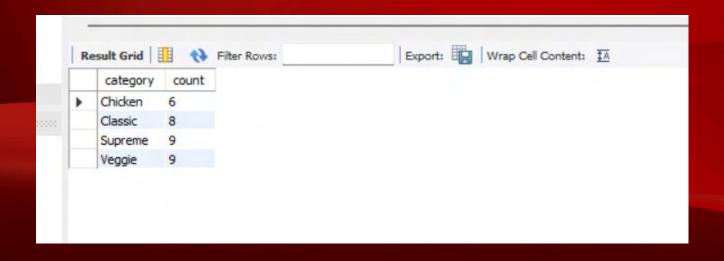
SELECT

category, COUNT(name) AS count

FROM

pizza_types

GROUP BY category
```



### Group the orders by date and calculate the average number of pizzas ordered per day.

```
-- Group the orders by date and calculate the average pizzas ordered per day

SELECT

ROUND(AVG(quantity), 0) as avg_pizzas_oredered_perday

FROM

(SELECT

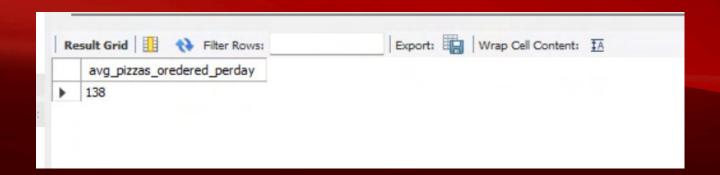
orders.order_date, SUM(order_details.quantity) AS quantity

FROM

orders

JOIN order_details ON orders.order_id = order_details.order_id

GROUP BY orders.order_date) AS order_quantity;
```



### Determine the top 3 most ordered pizza types based on revenue.

```
-- select the top 3 pizza types based on revenue

SELECT

pizza_types.name,

SUM(order_details.quantity * pizzas.price) AS revenue

FROM

pizza_types

JOIN

pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id

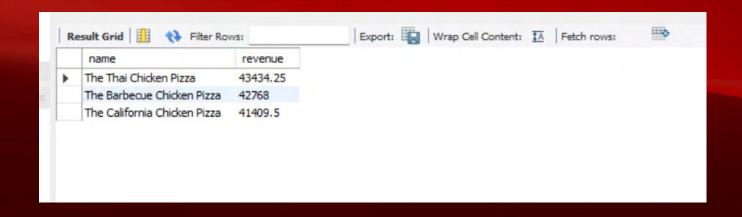
JOIN

order_details ON pizzas.pizza_id = order_details.pizza_id

GROUP BY pizza_types.name

ORDER BY revenue DESC

LIMIT 3
```



### Calculate the percentage contribution of each pizza type to total revenue.

```
-- calculate the percentage revenue of each type of pizza sale
2
       SELECT
           pizza_types.category,
           ROUND(SUM(order_details.quantity * pizzas.price) / (SELECT
                           ROUND(SUM(order_details.quantity * pizzas.price),
6
                                       2) AS total sales
7
8
                       FROM
                           order_details
9
10
                           pizzas ON order_details.pizza_id = pizzas.pizza_id) * 100,
11
12
                   2) AS revenue
13
           order_details
14
15
           pizzas ON order_details.pizza_id = pizzas.pizza_id
           pizza_types ON pizza_types.pizza_type_id = pizzas.pizza_type_id
19
       GROUP BY pizza_types.category
       ORDER BY revenue DESC
```

Re	esult Grid	H 🙌 Filt	er Rows:	Export:	Wrap Cell Content:	ĪA
	category	revenue				
Þ	Classic	26.91				
	Supreme	25.46				
	Chicken	23.96				
	Veggie	23.68				



#### Analyze the cumulative revenue generated over time.

```
-- Analyse the cumulative revenue generated over time
 2
       select order_date,
       sum(revenue) over(order by order_date) as cumulative_revenue
       from
     (select orders.order_date,
       sum(order_details.quantity * pizzas.price) as revenue
       from order_details join pizzas
       on order_details.pizza_id = pizzas.pizza_id
       join orders
10
       on orders.order_id = order_details.order_id
11
       group by orders.order_date) as sales;
12
13
```

Determine the top 3 most ordered pizza types based on revenue for each pizza category.

```
-- Determine the top 3 most ordered pizza types
      -- based on revenue for each pizza category.
      select name, revenue from
    rank() over(partition by category order by revenue desc) as rn
    sum((order_details.quantity) * pizzas.price) as revenue
10
      from pizza_types join pizzas
      on pizza_types.pizza_type_id = pizzas.pizza_type_id
      join order_details
12
      on order_details.pizza_id = pizzas.pizza_id
13
14
      group by pizza_types.category, pizza_types.name) as a) as b
15
      where rn <= 3;
```

	name	revenue	1		
	The Thai Chicken Pizza	43434.25			
	The Barbecue Chicken Pizza	42768			
	The California Chicken Pizza	41409.5			
	The Classic Deluxe Pizza	38180.5			
	The Hawaiian Pizza	32273.25			
	The Pepperoni Pizza	30161.75			
	The Spicy Italian Pizza	34831.25			
	The Italian Supreme Pizza	33476.75			
	The Sicilian Pizza	30940.5			
	The Four Cheese Pizza	32265.70000000065			
	The Mexicana Pizza	26780.75			
	The Five Cheese Pizza	26066.5			
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