

# PIZZA STORE SALES ANALYSIS SQL PROJECT

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# PROJECT OVERVIEW



This SQL project focuses on analyzing and understanding key business metrics for a pizza store, using its sales and order data.

The goal of this analysis was to uncover insights related to customer behavior, product performance, and overall store revenue. By leveraging SQL queries and joining various tables such as `orders`, `order_details`, `pizzas`, and `pizza_types`, we were able to extract meaningful insights that address both basic and advanced problem statements, helping the business optimize its operations and product offerings.

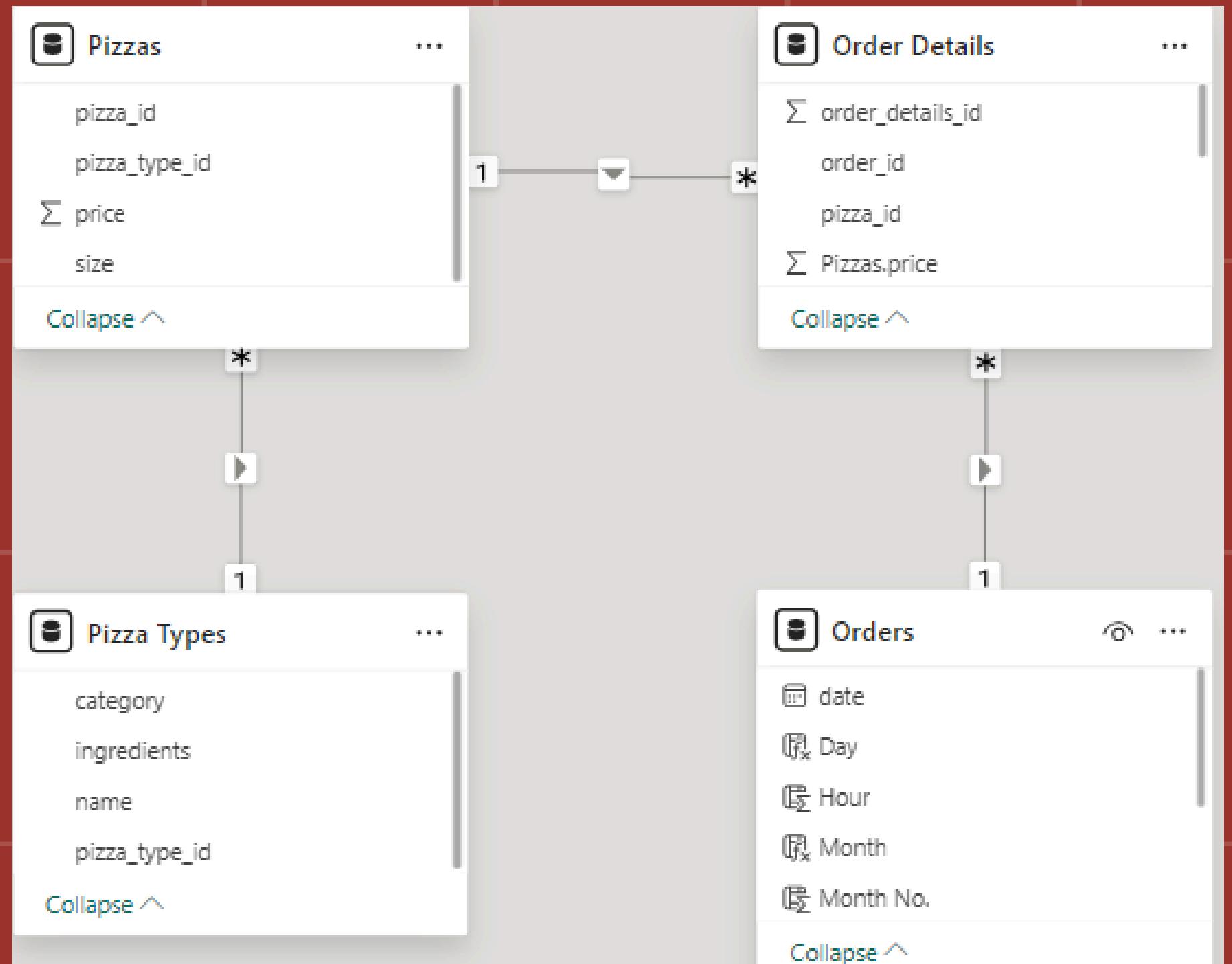
**Let's start our adventure in the world of pizza!**

# KEY AREAS OF ANALYSIS



- **Total Orders and Revenue:** Calculating the total number of orders and the revenue generated from pizza sales.
- **Pizza Pricing and Preferences:** Identifying the highest-priced pizza and determining the most popular pizza sizes and types ordered by customers.
- **Category and Time-based Analysis:** Exploring the distribution of orders across different categories, as well as peak order times during the day, to better understand customer preferences and optimize store operations.
- **Advanced Revenue Insights:** Determining the contribution of each pizza category to overall revenue, analyzing the cumulative revenue over time, and identifying the top-performing pizzas in each category based on sales.

# SCHEMA



# CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE

```
• select category,
      (sum(quantity*price) / (select sum(quantity*price)
                                from pizzas as p
                                join order_details as od
                                on p.pizza_id=od.pizza_id)*100) as perc
        from pizzas as p
        join pizza_types as t
        on p.pizza_type_id=t.pizza_type_id
        join order_details as od
        on p.pizza_id=od.pizza_id
        group by category
        order by perc desc;
```

	category	perc
▶	Classic	26.905960255669903
	Supreme	25.45631126009884
	Chicken	23.955137556847493
	Veggie	23.682590927384783

# ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME

```
• select d, sum(revenue) over(order by d) as cum_rev
    from
    (select order_date as d, sum(quantity*price) as revenue
      from order_details as od
      join pizzas as p
      on p.pizza_id=od.pizza_id
      join orders as o
      on o.order_id=od.order_id
      group by d) as sales;
```

d	cum_rev
2015-01-01	2713.8500000000004
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.6
2015-01-05	11929.55
2015-01-06	14358.5
2015-01-07	16560.7
2015-01-08	19399.05
2015-01-09	21526.4
2015-01-10	23990.35000000002

# DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR EACH PIZZA CATEGORY



```
• select c,n,r  
  from  
    (select c, n, r, rank() over(partition by c order by r desc) as rn  
     from  
       (select category as c, name as n, sum(quantity*price) as r  
        from pizzas as p  
        join pizza_types as t  
        on p.pizza_type_id=t.pizza_type_id  
        join order_details as od  
        on p.pizza_id=od.pizza_id  
        group by c,n) as a) as b  
  where rn<=3;
```

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

## RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED

```
select count(order_id) as no_of_orders  
from orders;
```

	no_of_orders
▶	21350

## IDENTIFY THE HIGHEST-PRICED PIZZA

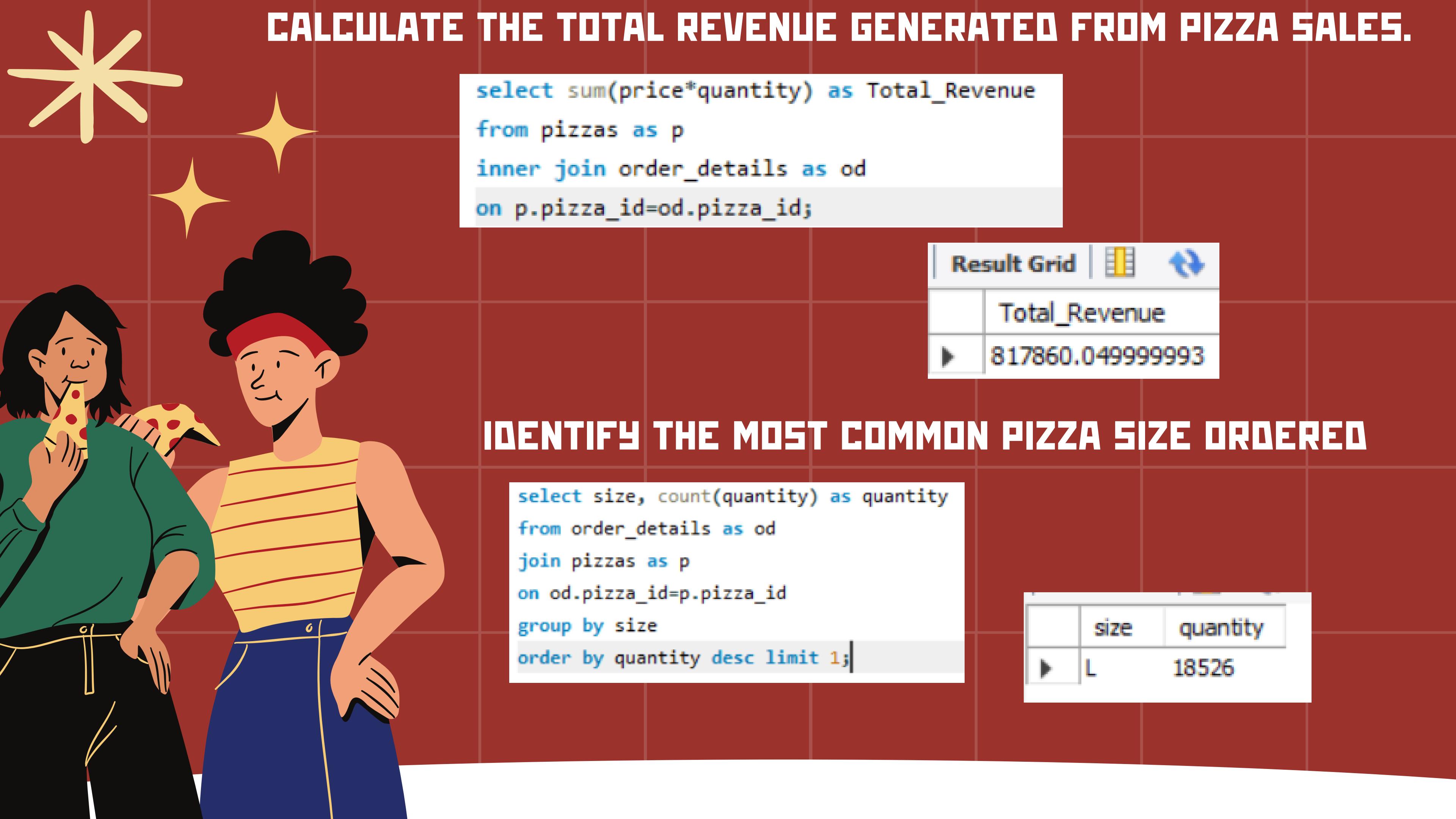
```
select max(price) as price  
from pizzas;
```

Result Grid	
	price
▶	35.95

## LIST THE TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES.

```
select pizza_id as pizza, count(quantity) as quantity  
from order_details  
group by pizza  
order by quantity desc limit 5;
```

	pizza	quantity
▶	big_meat_s	1811
	thai_dkn_l	1365
	five_cheese_l	1359
	four_cheese_l	1273
	dassic_dlx_m	1159



# CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES.

```
select sum(price*quantity) as Total_Revenue  
from pizzas as p  
inner join order_details as od  
on p.pizza_id=od.pizza_id;
```

Total_Revenue
817860.049999993

## IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED

```
select size, count(quantity) as quantity  
from order_details as od  
join pizzas as p  
on od.pizza_id=p.pizza_id  
group by size  
order by quantity desc limit 1;
```

size	quantity
L	18526



## JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED

```
select category, sum(quantity) as quantity
from pizzas as p
join pizza_types as t
on p.pizza_type_id=t.pizza_type_id
join order_details as od
on p.pizza_id=od.pizza_id
group by category
order by quantity desc;
```

category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

## DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE

```
select name, sum(quantity*price) as revenue
from pizzas as p
join pizza_types as t
on p.pizza_type_id=t.pizza_type_id
join order_details as od
on p.pizza_id=od.pizza_id
group by name
order by revenue desc limit 3;
```

name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5

## DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY

```
select hour(order_time) as time_order, sum(quantity) as quantity
from orders as os
join order_details as od
on os.order_id=od.order_id
group by time_order
order by quantity desc;
```

time_order	quantity
12	6776
13	6413
18	5417
17	5211
19	4406
16	4239
14	3613
20	3534
15	3216
11	2728

## GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY

```
select avg(q) from
(select order_date, sum(quantity) as q
from orders as o
join order_details as od
on o.order_id=od.order_id
group by o.order_date) as order_quantity;
```

Result Grid
avg(q)

138.4749

A festive illustration set against a red background with a white grid. In the center, the words "THANK YOU" are written in large, bold, white capital letters. To the left, a person with dark curly hair and a green sweater holds a slice of pizza. To the right, another person with glasses and a green sweater holds a small wrapped gift. Above them, a reindeer with a yellow and orange patterned collar and a bell hangs from its neck. The reindeer has large, expressive eyes and a small smile. The background is decorated with yellow stars and a large yellow starburst at the bottom.

THANK YOU