

# Pizza Sales Data Analysis Using SQL

Hello,

#### My name is Bhairavi Thakare.

In this project, I have utilized my SQL skills to analyze and interpret pizza sales data. This project is designed to demonstrate my proficiency in SQL, from basic to advanced query techniques. By exploring various pizza-related data, I have crafted complex queries to extract valuable insights that could aid in business decision-making.



### Retrieve the totel number of orders placed?

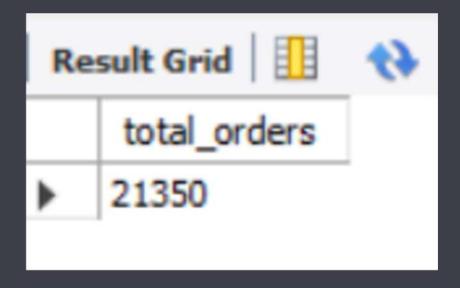
```
-- Retrieve the total number of orders placed.?

SELECT

COUNT(order_id) AS total_orders

FROM

orders;
```



# calculate the total revenue generated from pizza sales?

```
-- calculate the total revenue generated from pizza sales?

SELECT

ROUND(SUM(order_details.quantity * pizzas.price),

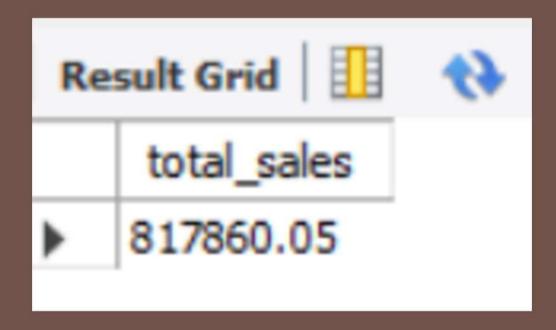
2) AS total_sales

FROM

order_details

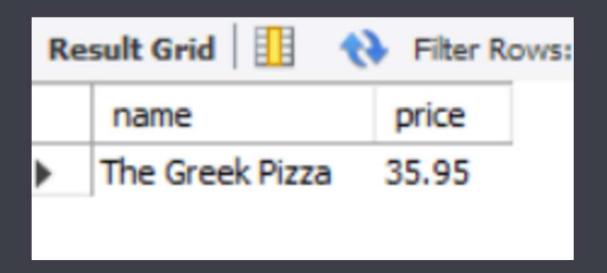
JOIN

pizzas ON pizzas.pizza_id = order_details.pizza_id
```



#### identify the heighest pizza price?

```
-- identify the heighest pizza price?
SELECT
    pizza_types.name, pizzas.price
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
ORDER BY pizzas.price DESC
LIMIT 1;
```



# identify the most common pizza size ordered.alter?

```
SELECT

pizzas.size,

COUNT(order_details.order_details_id) AS order_count

FROM

pizzas

JOIN

order_details ON pizzas.pizza_id = order_details.pizza_id

GROUP BY pizzas.size

ORDER BY order_count DESC:
```

Result Grid			
	size	order_count	
•	L	18526	
	M	15385	
	S	14137	
	XL	544	
	XXL	28	

## list the top 5 most ordered pizza type -- along with their quantities

```
-- list the top 5 most ordered pizza type
-- along with 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

GROUP BY pizza_types.name

ORDER BY quantity DESC

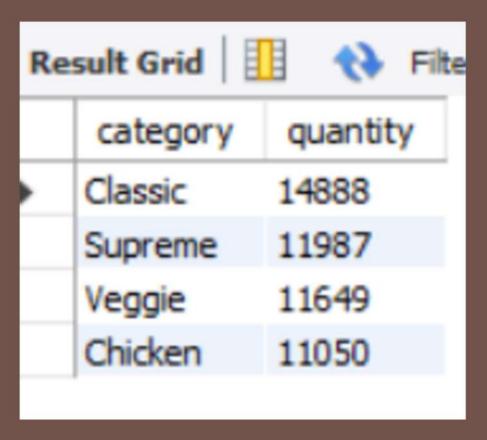
LIMIT 5;
```

Result Grid		
quantity		
2453		
2432		
2422		
2418		
2371		

#### join the necessary tables to find the

-- total quantity of each pizza 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 order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY quantity DESC;
```



#### determine the distribution of orders by hour 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
9	1
10	8
23	28
22	663
21	1198
11	1231
15	1468
14	1472
20	1642
16	1920
19	2009
17	2336
18	2399
13	2455
12	2520

## join the relavent tables to find the -- category-wise distribution of pizzas?

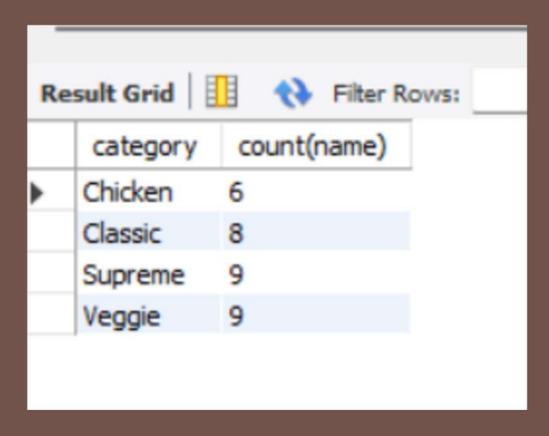
```
SELECT

category, COUNT(name)

FROM

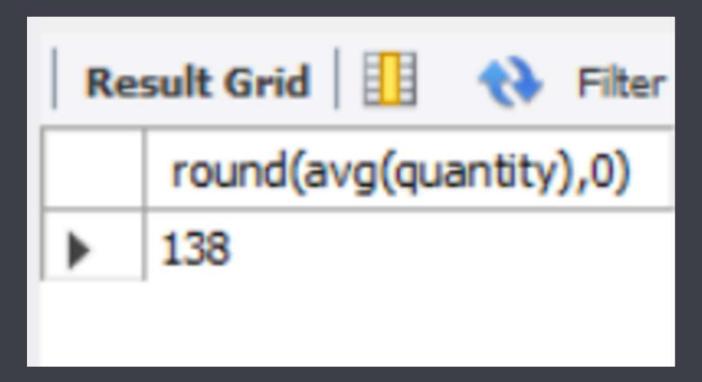
pizza_types

GROUP BY category;
```



#### number of pizzas ordered per day.

```
SELECT
    ROUND(AVG(quantity), 0)
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.alter

```
SELECT

pizza_types.name,

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

FROM

pizza_types

JOIN

pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id

JOIN

order_details ON order_details.pizza_id = pizzas.pizza_id

GROUP BY pizza_types.name

ORDER BY revenue DESC

LIMIT 3;
```

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

## calculate the percentage contribution of each -- piza type to toal revenue.

```
SELECT
    pizza_types.category,
    ROUND(SUM(order_details.quantity * pizzas.price) / (SELECT
                    ROUND(SUM(order_details.quantity * pizzas.price),
                                2) AS total_sales
                FROM
                    order_details
                        JOIN
                    pizzas ON pizzas.pizza_id = order_details.pizza_id) * 100,
           2) AS revenue
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
GROUP BY pizza_types.category
ORDER BY revenue DESC;
```

Result Grid   11 (1) Filte		
	category	revenue
•	Classic	26.91
	Supreme	25.46
	Chicken	23.96
	Veggie	23.68

#### -- analyze the cumulative revenue generated over time.

```
select order_date,
sum(revenue) over(order by order_date) as cum_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
on orders.order_id = order_details.order_id
group by orders.order_date) as sales;
```

Result Grid   1		Tilter Rows:
	order_date	cum_revenue
	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	23990.350000000002
	2015-01-11	25862.65
	2015-01-12	27781.7
	2015-01-13	29831.300000000003
	2015-01-14	32358.700000000004
	2015-01-15	34343.50000000001
	2015-01-16	36937.65000000001
	2015-01-17	39001.75000000001

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

```
select name, revenue from
(select category, name, revenue,
rank() over(partition by category order by revenue desc) as rn
from
(select pizza_types.category, 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 order_details.pizza_id = pizzas.pizza_id
group by pizza_types.category, pizza_types.name) as a) as b
where rn <= 3;</pre>
```

Result Grid		
	name	revenue
	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

