



SQL PROJECT

# PIZZA SALES ANALYSIS

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# INTRODUCTION

Welcome to our Pizza Sales Analysis presentation, where we explore key insights from our sales data using SQL. By leveraging SQL's powerful data querying capabilities, we analyzed sales trends, customer preferences, and revenue patterns to identify opportunities for growth and efficiency improvements. This analysis highlights peak sales periods, popular pizza varieties, and revenue trends, offering actionable insights to enhance our operations and boost customer satisfaction.

# KEY POINTS OF ANALYSIS

- 01 Total revenue generated from pizza sales.
- 02 The highest-priced pizza.
- 03 The most common pizza size ordered.
- 04 The top 5 most ordered pizza types along with their quantities.
- 05 The total quantity of each pizza category ordered
- 06 The distribution of orders by hour of the day.
- 07 The category-wise distribution of pizzas.
- 08 The average number of pizzas ordered per day
- 09 The top 3 most ordered pizza types based on revenue.
- 10 The percentage contribution of each pizza type to total revenue
- 11 The cumulative revenue generated over time.
- 12 The top 3 most ordered pizza types based on revenue for each pizza category.



# TOTAL REVENUE GENERATED FROM PIZZA SALES.

```
-- Calculate the total revenue generated from pizza sales.  
SELECT  
    ROUND(SUM(od.quantity * p.price), 2) AS Revenue  
FROM  
    order_details AS od  
    INNER JOIN  
    pizzas AS p USING (pizza_id);
```

Result Grid   Filter Rows:  Search Export: 

Revenue	
	817860.05



# THE HIGHEST-PRICED PIZZA.

```
-- Identify the highest-priced pizza.  
SELECT  
    pt.name, p.price, p.pizza_id  
FROM  
    pizza_type AS pt  
    INNER JOIN  
    pizzas AS p ON pt.pizza_type_id = p.pizza_type_id  
ORDER BY p.price DESC  
LIMIT 1;
```

Result Grid    Filter Rows:    Search    Export:    Fetch rows:

name	price	pizza_id
The Greek Pizza	35.95	the_greek_xxL



# THE MOST COMMON PIZZA SIZE ORDERED.

```
1  -- Identify the most common pizza size ordered.
2 • SELECT
3      pizzas.size,
4      rank() over(order by (COUNT(order_details.order_details_id) )desc ) as size_rank
5  FROM
6      pizzas
7      INNER JOIN
8          order_details ON pizzas.pizza_id = order_details.pizza_id
9  group by pizzas.size;
10
```

Result Grid   Filter Rows:  Search Export: 

size	size_rank
L	1
M	2
S	3
XL	4
XXL	5



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

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

select pizza_type.name ,
sum(order_details.quantity) as total_quantity,
rank() over (order by (sum(order_details.quantity)) desc) as Pizza_type_Rank
from order_details join pizzas
on order_details.pizza_id=pizzas.pizza_id
join pizza_type
on pizzas.pizza_type_id=pizza_type.pizza_type_id
group by pizza_type.name
limit 5;
```

Result Grid Filter Rows: Search Export:

name	total_quant...	Pizza_type_Rank
The Classic Deluxe Pizza	2453	1
The Barbecue Chicken Pizza	2432	2
The Hawaiian Pizza	2422	3
The Pepperoni Pizza	2418	4
The Thai Chicken Pizza	2371	5



# THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED

```
-- Join the necessary tables to find the total quantity of each pizza category ordered.  
SELECT  
    pizza_type.category,  
    SUM(order_details.quantity) AS Total_quantity  
FROM  
    order_details  
        JOIN  
    pizzas ON order_details.pizza_id = pizzas.pizza_id  
        JOIN  
    pizza_type ON pizzas.pizza_type_id = pizza_type.pizza_type_id  
GROUP BY pizza_type.category  
ORDER BY Total_quantity DESC;
```

Result Grid Filter Rows: Search Export:

category	Total_quant...
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050



# THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY.

```
-- Determine the distribution of orders by hour of the day.  
SELECT  
    HOUR(order_time) AS HOURS,  
    COUNT(order_id) Order_distribution  
FROM  
    orders  
GROUP BY HOURS  
ORDER BY Order_distribution DESC;
```

Result Grid Filter Rows: Search Export:

HOURS	Order_distributi...
12	2520
13	2455
18	2399
17	2336
19	2009
16	1920
20	1642
14	1472
15	1468
11	1231
21	1198
22	663
23	28
10	8
9	1



# THE CATEGORY-WISE DISTRIBUTION OF PIZZAS.

```
-- Join relevant tables to find the category-wise distribution of pizzas.  
SELECT  
    pizza_type.category,  
    COUNT(order_details.order_id) AS order_distribution  
FROM  
    order_details  
        JOIN  
    pizzas ON order_details.pizza_id = pizzas.pizza_id  
        JOIN  
    pizza_type ON pizzas.pizza_type_id = pizza_type.pizza_type_id  
GROUP BY pizza_type.category  
ORDER BY order_distribution DESC;
```

Result Grid    Filter Rows:  Search    Export:

category	order_distribution
Classic	14579
Supreme	11777
Veggie	11449
Chicken	10815



# THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY

```
-- Group the orders by date and calculate the average number of pizzas ordered per day.  
SELECT  
    AVG(sum_quantity) AS average_quatity  
FROM  
    (SELECT  
        DATE(orders.order_date) AS ORDER_DATE,  
        SUM(order_details.quantity) AS sum_quantity  
    FROM  
        order_details  
    JOIN orders ON order_details.order_id = orders.order_id  
    GROUP BY ORDER_DATE) AS order_quantity;
```

average_quatity
138.4749



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

```
-- Determine the top 3 most ordered pizza types based on revenue.  
select pizza_type.name,  
rank() over(order by sum(order_details.quantity*pizzas.price) desc ) as revenue_rank  
from order_details  
JOIN  
pizzas ON order_details.pizza_id = pizzas.pizza_id  
JOIN  
pizza_type ON pizzas.pizza_type_id = pizza_type.pizza_type_id  
group by pizza_type.name  
limit 3;
```

Result Grid Filter Rows: Search Export:

name	revenue_rank
The Thai Chicken Pizza	1
The Barbecue Chicken Pizza	2
The California Chicken Pizza	3



# THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE

```
-- Calculate the percentage contribution of each pizza type to total revenue.  
select pizza_type.category,  
       ((sum(order_details.quantity*pizzas.price)/(SELECT  
              ROUND(SUM(od.quantity * p.price), 2) AS Revenue  
           FROM  
              order_details AS od  
              INNER JOIN  
              pizzas AS p USING (pizza_id))*100) as total_revenue  
  from order_details  
  JOIN  
  pizzas ON order_details.pizza_id = pizzas.pizza_id  
  JOIN  
  pizza_type ON pizzas.pizza_type_id = pizza_type.pizza_type_id  
 group by pizza_type.category  
 order by total_revenue desc;
```

Result Grid Filter Rows: Search Export:

category	total_revenue
Classic	26.90596025566967
Supreme	25.45631126009862
Chicken	23.955137556847287
Veggie	23.682590927384577



# THE CUMULATIVE REVENUE GENERATED OVER TIME.

```
-- Analyze the cumulative revenue generated over time.  
• select order_date,  
      sum(revenue) over (order by order_date) as cum_sales  
    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  
          pizza_type ON pizzas.pizza_type_id = pizza_type.pizza_type_id  
       join orders on order_details.order_id=orders.order_id  
      group by orders.order_date) as sales;
```

Result Grid    Filter Rows:  Search    Export:

order_date	cum_sales
2015-12-22	803771.0
2015-12-23	805415.9
2015-12-24	807553.75
2015-12-26	809196.8
2015-12-27	810615.8
2015-12-28	812253
2015-12-29	813606.25
2015-12-30	814944.05
2015-12-31	817860.05



# 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 category, name, revenue_rank  
from  
(select pizza_type.name, pizza_type.category ,  
rank() over(partition by pizza_type.category order by  
sum(order_details.quantity*pizzas.price) desc ) as revenue_rank  
from order_details  
JOIN pizzas ON order_details.pizza_id = pizzas.pizza_id  
JOIN pizza_type ON pizzas.pizza_type_id = pizza_type.pizza_type_id  
group by pizza_type.category ,pizza_type.name  
) as pizza_rank  
where revenue_rank<=3;
```

Result Grid    Filter Rows:  Search    Export:

category	name	revenue_rank
Chicken	The Thai Chicken Pizza	1
Chicken	The Barbecue Chicken Pizza	2
Chicken	The California Chicken Pizza	3
Classic	The Classic Deluxe Pizza	1
Classic	The Hawaiian Pizza	2
Classic	The Pepperoni Pizza	3
Supreme	The Spicy Italian Pizza	1
Supreme	The Italian Supreme Pizza	2
Supreme	The Sicilian Pizza	3
Veggie	The Four Cheese Pizza	1
Veggie	The Mexicana Pizza	2
Veggie	The Five Cheese Pizza	3

# THANK YOU