



PIZZA SALES ANALYSIS



SQL ANALYSIS OF PIZZA SALES DATA

Welcome to Pizza Sales Analysis Project!

In this project we dive deep into the data of a pizza business to uncover meaningful insights and help them make strong business decisions for future growth. The objective of this project is to

- Identify top-selling menu items and understand peak sales periods.
- Analyze customer preferences by region to tailor marketing and inventory strategies.
- Highlight potential operational bottlenecks or trends impacting revenue.



A large pizza is served on a round wooden board. The pizza is cut into eight slices and topped with melted cheese, sliced ham, and small red pepper pieces. It sits on a dark surface with a light-colored cloth napkin visible at the top left.

PROBLEM STATEMENTS

- Sales Trends
- Customer Preference
- Inventory Management
- Revenue Insights

Retrieve the total number of orders placed.

```
SELECT  
    COUNT(order_id) AS total_orders  
FROM  
    orders;
```

Result Grid	
	total_orders
▶	21350

Calculate the total revenue generated from pizza sales.

```
SELECT  
    ROUND(SUM(order_details.quantity * pizzas.price)) AS total_sales  
FROM  
    order_details  
    JOIN  
    pizzas ON pizzas.pizza_id = order_details.pizza_id;
```

Result Grid	
	total_sales
▶	352105

Identify the highest priced pizza.

```
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;
```

name	price
The Greek Pizza	35.95

Identify the most common pizza ordered.

```
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;
```

	size	order_count
▶	L	8004
	M	6581
	S	6081
	XL	250
	XXL	15

List the 5 most ordered pizza types 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;
```

name	quantity
The Barbecue Chicken Pizza	1100
The Pepperoni Pizza	1057
The Hawaiian Pizza	1027
The Classic Deluxe Pizza	1018
The California Chicken Pizza	1002

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  
LIMIT 5;
```

category	quantity
Classic	6346
Supreme	5158
Veggie	5085
Chicken	4740

Determine the distribution 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
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
10	8
9	1

Joint the relative tables to find the category wise distribution of pizzas.

```
SELECT  
    category, COUNT(name)  
FROM  
    pizza_types  
GROUP BY category;
```

category	COUNT(name)
Chicken	6
Classic	8
Supreme	9
Veggie	9

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

```
SELECT  
    ROUND(AVG(quantity), 0) AS avg_pizza_ordered_per_day  
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;
```

	avg_pizza_ordered_per_day
	139

Calculate the percentage contribution of each pizza type to total 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;
```

category	revenue
Classic	26.63
Supreme	25.48
Veggie	23.99
Chicken	23.9

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;
```

order_date	cum_revenue
2015-01-01	2713.850000000004
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.6
2015-01-05	11929.55

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
limit 3;
```

NAME	revenue
The Barbecue Chicken Pizza	19389
The Thai Chicken Pizza	18009
The California Chicken Pizza	17595.5

INSIGHTS

- The analysis revealed that a **Large(L) size** pizza is most commonly ordered.
- **The Barbecue Chicken Pizza(\$19,389), The Thai Chicken Pizza(\$18,009) and The California Chicken Pizza(\$17,595.5)** generate the highest revenue.
- The most ordered pizza types based on quantities are **The Barbecue Chicken Pizza(1100), The Pepperoni Pizza(1057) and The Hawaiian Pizza(1027)**.
- The highest priced pizza is **The Greek Pizza(\$35.95)** contributing significantly to the revenue.
- The Average number of pizzas ordered per day is 139.
- Cumulative revenue trends provide a long term view of performance.
- Understanding the percentage contribution of each pizza type to total revenue helps in indentifying customer performance.





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THANK YOU