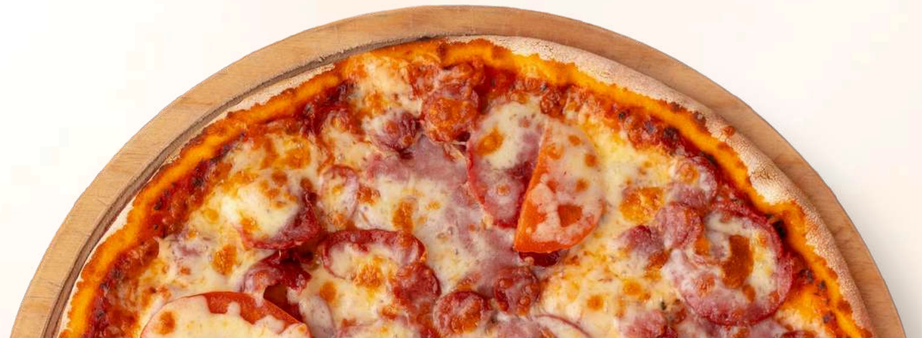
Pizza Sales Analysis

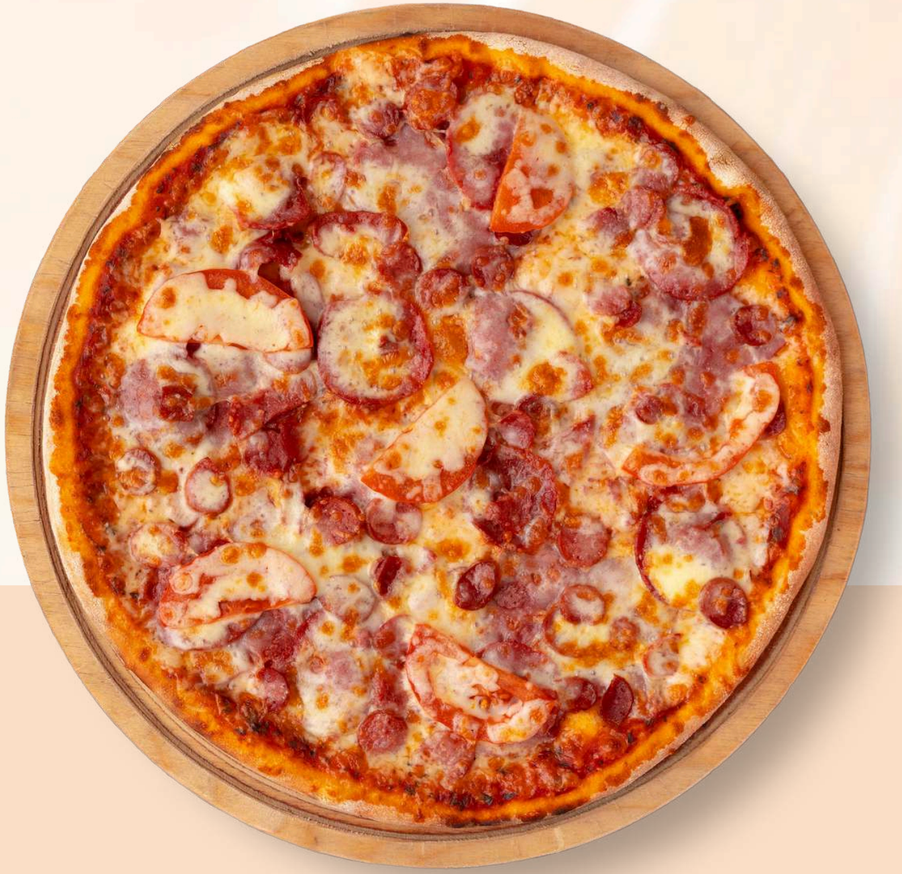
KEY INSIGHTS AND METRICS ON PIZZA SALES PERFORMANCE
USING SQL



BY SAHIL LOKHANDE

By Sahil Lokhande

Project Overview



- **Objective:** To analyze pizza sales data to understand sales patterns, revenue, customer preferences, and trends over time.

- **Data Scope:** Includes orders, revenue, pizza categories, sizes, and order timestamps.

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Retrieve the total number of orders placed

```sql
-- Retrieve the total number of orders placed.
SELECT COUNT(order_id) AS total_orders from orders;
```

	total_orders
▶	21350

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Calculate the total revenue generated from pizza sales

```sql
-- 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;
```

	total_sales
▶	817860.05

By Sahil Lokhande

Identify the highest-priced pizza

```sql
-- 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;
```

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

name	price
The Greek Pizza	35.95

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Identify the most common pizza size ordered

```sql
-- Identify the most common pizza size 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;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

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

By Sahil Lokhande

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

```sql
-- List the top 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;
```

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

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

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

```sql
-- 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;
```

	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

By Sahil Lokhande

Determine the distribution of orders by hour of the day

```sql
-- 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);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

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

Result 38

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

```
77      -- Join relevant tables to find the category-wise distribution of pizzas.
78  •   SELECT category, COUNT(NAME)
79      FROM pizza_types
80      GROUP BY category;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

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

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

```sql
-- Group the orders by date and calculate the average number of pizzas ordered per day.
SELECT
    AVG(quantity)
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(quantity)
▶	138.4749

By Sahil Lokhande

Determine the top 3 most ordered pizza types based on revenue

```sql
-- Determine the top 3 most ordered pizza types based on revenue.
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;
```

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

By Sahil Lokhande

Calculate the percentage contribution of each pizza type to total revenue

```sql
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	26.91
	Supreme	25.46
	Chicken	23.96
	Veggie	23.68

By Sahil Lokhande

Analyze the cumulative revenue generated over time

```sql
-- 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 | Filter Rows: | Export: | Wrap Cell Content:

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

Result 43

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

```sql
-- 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 ;
```

Result Grid | Filter Rows: | Expo

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

Result 44

Thank You!