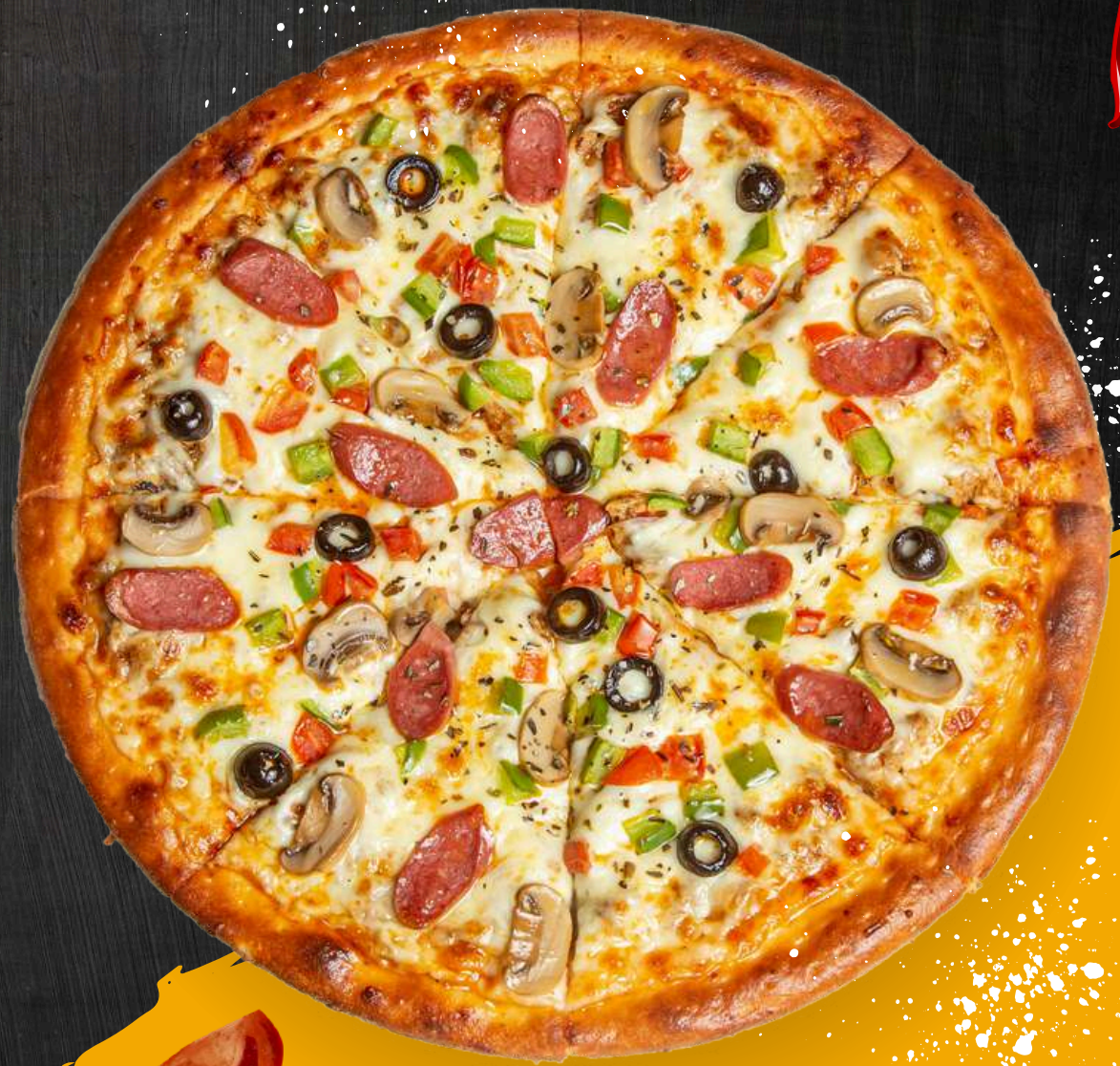
PIZZA SALES ANALYSIS USING SQL



PRESENTED BY
AMAAN

INTRODUCTION

"THIS PROJECT FOCUSES ON ANALYZING PIZZA SALES DATA USING SQL TO UNCOVER KEY INSIGHTS AND TRENDS"

DESCRIPTION

THIS PROJECT INVOLVES RETRIEVING KEY METRICS SUCH AS THE TOTAL ORDERS, TOTAL REVENUE GENERATED, AND IDENTIFYING POPULAR PIZZA TYPES, SIZES, AND CATEGORIES. ADVANCED ANALYSIS INCLUDES EXPLORING REVENUE CONTRIBUTIONS BY EACH PIZZA TYPE, IDENTIFYING ORDER PATTERNS BY TIME OF DAY, AND CALCULATING AVERAGE DAILY ORDERS. THE PROJECT PROVIDES A VIEW OF SALES PERFORMANCE AND CUSTOMER PREFERENCES, ENABLING DECISION-MAKING TO ENHANCE BUSINESS STRATEGIES.

DATASET OVERVIEW

Orders Table

Columns: order_id, order_date, order_time.
Insight:Helps track the number of orders placed daily, peak order times, and customer ordering patterns.

Order_Details Table

Columns: order_detail_id, order_id, pizza_id, quantity.
Insight:Enables analysis of the total quantity sold for each pizza type and size

Pizzas Table

Columns: pizza_id, pizza_type_id, size, price.
Insight:Useful for identifying high-priced pizzas and understanding sales by pizza type and size.

Pizza_types Table

Columns: pizza_type_id, name, category, ingredients
Insight:Enables analysis of the total quantity sold for each pizza type and size

Total number of orders placed.

```sql
SELECT
    COUNT(order_id) AS Total_Orders
FROM
    orders;
```

Result Grid

	Total_Orders
▶	21350

Total revenue generated from pizza sales.

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

Result Grid

	Total_Revenue
▶	817860.05

The highest-priced pizza.

```sql
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 Ro

	name	price
▶	The Greek Pizza	35.95

The most common pizza size ordered.

```sql
SELECT
    pizzas.size,
    COUNT(order_details.order_detail_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 | Filte

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

The top 5 most ordered pizza types along with their quantities.

```sql
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:

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

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;
```

Result Grid

	category	Quantity
▶	Classic	14888
	Supreme	11987
	Veggie	11649
	Chicken	11050

The distribution of orders by hour of the day.

```sql
SELECT
    HOUR(order_time) AS Hours, COUNT(order_id) AS Order_count
FROM
    orders
GROUP BY HOUR(order_time);
```

Result Grid | Filte

Hours	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

The category-wise distribution of pizzas

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

Result Grid | Filte

	category	count
▶	Chicken	6
	Classic	8
	Supreme	9
	Veggie	9

The average number of pizzas ordered per day

```sql
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;
```

Result Grid | Filter Rows:

	AVG_Pizza_Ordered_Per_Day
▶	138

The top 3 most ordered pizza types based on revenue.

```sql
SELECT
    pizza_types.name AS 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 Name
ORDER BY revenue DESC
LIMIT 3;
```

Result Grid | Filter Rows:

Name	Revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5

The percentage contribution of each category type to total revenue.

```sql
SELECT
    pizza_types.category AS Category,
    ROUND(SUM(order_details.quantity * pizzas.price) / (SELECT
                SUM(order_details.quantity * pizzas.price)
            FROM
                order_details
                    JOIN
                pizzas ON order_details.pizza_id = pizzas.pizza_id) * 100,
        2) AS Revenue_In_Percentage
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_In_Percentage DESC;
```

Result Grid | Filter Rows:

Category	Revenue_In_Percentage
Classic	26.91
Supreme	25.46
Chicken	23.96
Veggie	23.68

The cumulative revenue generated over date

```
select order_date,
 round(sum(revenue) over(order by order_date),2) as Cumulative_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:

order_date	Cumulative_Revenue
2015-01-01	2713.85
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

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

```sql
select  category ,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 ,
round(sum(order_details.quantity * pizzas.price),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, pizza_types. name) as a) as b
where rn<=3 ;
```

Result Grid | Filter Rows:

category	name	revenue
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	32265.7
Veggie	The Mexicana Pizza	26780.75
Veggie	The Five Cheese Pizza	26066.5

THANK YOU!