

PIZZA SALES ANALYSIS



OBJECTIVE

To conduct a comprehensive analysis of pizza sales data using SQL queries to uncover key insights and trends, and to provide actionable recommendations to increase sales and drive business growth.

TECHNOLOGIES USED

MYSQL

PROCESS

- Dataset collected from online
- Import Dataset on MY SQL
- Create Database and Tables
- Understand the data and solve queries



A top-down photograph of a pizza on a wooden board. The pizza is cut into eight slices and topped with melted cheese, ham, and small red pepper pieces. It sits on a dark wooden board, which is placed on a light-colored cloth.

Queries of the project

- Retrieve the total number of orders placed.
- Calculate the total revenue generated from pizza sales.
- Identify the highest-priced pizza.
- Identify the most common pizza size ordered.
- List the top 5 most ordered pizza types along with their quantities.
- Join the necessary tables to find the total quantity of each pizza category ordered.
- Determine the distribution of orders by hour of the day.
- Join relevant tables to find the category-wise distribution of pizzas.
- Group the orders by date and calculate the average number of pizzas ordered per day.
- Determine the top 3 most ordered pizza types based on revenue.
- Calculate the percentage contribution of each pizza type to total revenue.
- Analyze the cumulative revenue generated over time.
- Determine the top 3 most ordered pizza types based on revenue for each pizza category.

Retrieve the total number of orders placed.

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

	total_orders
▶	21350

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

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 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;
```

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



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

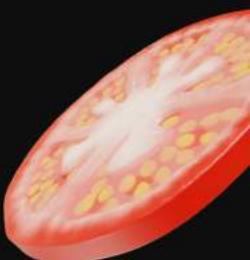
```
SELECT
    pizza_types.name, SUM(order_details.quantity) AS quantity
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY quantity DESC
LIMIT 5;
```

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

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;
```

category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050



Determine the distribution of orders by hour of the day.

```
select hour(order_time), count(order_id) from orders  
group by hour(order_time);
```

hour(order_time)	count(order_id)
23	28
22	663
21	1198
20	1642
19	2009
18	2399
17	2336
16	1920
15	1468
14	1472
13	2455
12	2520
11	1231
10	8
9	1

Join relevant 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 the average number of pizzas ordered per day.

```
SELECT  
    ROUND(AVG(quantity), 0) as avg_pizzas_order_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_pizzas_order_per_day

138

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



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	26.91
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;
```

order_date	cum_revenue
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

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

```
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,
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.category, pizza_types.name) as revenue_table) as total_revenue_rank_table
where rn <= 3;
```

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	32265.70000000065
Veggie	The Mexicana Pizza	26780.75
Veggie	The Five Cheese Pizza	26066.5



INSIGHTS

- Total orders placed – 21350
- Total revenue generated - 817860
- Highest priced pizza – The Greek Pizza – 35.95
- Most common size pizza ordered and order number - Large and 18526
- Most ordered pizza name - The classic deluxe pizza
- Most ordered pizza category and quantity - Classic, 148888
- Average orders per day – 138
- Type and percentage of top selling pizza - Classic, 26.91%
- Top 3 pizza types by revenue

The thai chicken pizza

The barbecue chicken pizza

The california chicken pizza



PRATIK BHABAD

THANK YOU!

