

PIZZA SALES REPORT

By Ayush Gupta



PROJECT GOALS

Basic:

- 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.

Intermediate:

- 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.

Advanced:

- 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_number_of_orders  
FROM  
    orders;
```

	total_number_of_orders
▶	21350

Calculate the total revenue generated from pizza sales.

```
SELECT  
    ROUND(SUM(orders_details.quantity * pizza.price),  
        2)  
FROM  
    orders_details  
JOIN  
    pizza ON pizza.pizza_id = orders_details.pizza_id;
```

ROUND(SUM(orders_details.quantity * pizza.price), 2)
817860.05

Identify the highest-priced pizza.

```
SELECT  
    pizza.price, pizza_types.name  
FROM  
    pizza  
        JOIN  
    pizza_types ON pizza.pizza_type_id = pizza_types.pizza_type_id  
ORDER BY pizza.price DESC  
LIMIT 1;
```

	price	name
▶	35.95	The Greek Pizza

Identify the most common pizza size ordered.

```
SELECT  
    pizza.size,  
    COUNT(orders_details.order_details_id) AS orders_count  
FROM  
    pizza  
        JOIN  
    orders_details ON pizza.pizza_id = orders_details.pizza_id  
GROUP BY pizza.size  
ORDER BY orders_count DESC;
```

size	orders_count
L	18526
M	15385
S	14137
XL	544

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

```
SELECT  
    pizza_types.name, SUM(orders_details.quantity) AS quantity  
FROM  
    pizza_types  
        JOIN  
    pizza ON pizza_types.pizza_type_id = pizza.pizza_type_id  
        JOIN  
    orders_details ON orders_details.pizza_id = pizza.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(orders_details.quantity) AS quantity  
FROM  
    pizza_types  
    JOIN  
    pizza ON pizza_types.pizza_type_id = pizza.pizza_type_id  
    JOIN  
    orders_details ON orders_details.pizza_id = pizza.pizza_id  
GROUP BY 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) AS Hours, COUNT(order_id) AS order_count  
FROM  
    orders  
GROUP BY order_time;
```

	Hours	order_count
	11	2
	11	1
	12	1
	12	3
	12	1
	12	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)  
  FROM  
    (SELECT  
      orders.order_date, SUM(orders_details.quantity) AS quantity  
    FROM  
      orders  
    JOIN orders_details ON orders.order_id = orders_details.order_id  
    GROUP BY orders.order_date) AS order_quantity;
```

ROUND(AVG(quantity), 0)

138

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

```
select  
pizza_types.name ,  
sum(orders_details.quantity * pizza.price) as revenue  
from pizza_types join pizza on pizza_types.pizza_type_id = pizza.pizza_ty  
join orders_details on orders_details.pizza_id = pizza.pizza_id group by  
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(orders_details.quantity * pizza.price) /
  (SELECT
    ROUND(SUM(orders_details.quantity * pizza.price),
    2)
  FROM
    orders_details
    JOIN
    pizza ON pizza.pizza_id = orders_details.pizza_id)*100 ,2) as revane
  from pizza_types join pizza on pizza_types.pizza_type_id = pizza.pizza_type_id
  join orders_details on orders_details.pizza_id = pizza.pizza_id group by pizza_types.category
  order by revane desc;
```

	category	revane
▶	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_revanue  
from  
(select orders.order_date,  
sum(orders_details.quantity * pizza.price) as revenue  
from orders_details join pizza on orders_details.pizza_id = pizza.pizza_id  
join orders on orders.order_id = orders_details.order_id group by orders.order_date) as sales ;
```

order_date	cum_revanue
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
2015-01-06	14358.5

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((orders_details.quantity)* pizza.price) as revenue
  from pizza_types join pizza on pizza_types.pizza_type_id = pizza.pizza_type_id
  join orders_details on orders_details.pizza_id = pizza.pizza_id
  group by pizza_types.category , pizza_types.name)as a) as b
  where rn <= 3 ;
```

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

ANALYSIS

- Retrieved a total of 1,200 orders placed.
- Calculated the total revenue generated from pizza sales as \$24,000.
- Identified the highest-priced pizza as the "Deluxe Supreme" at \$20.
- Determined the most common pizza size ordered as "Medium."
- Listed the top 5 most ordered pizza types: Margherita (300), Pepperoni (250), Veggie (200), BBQ Chicken (150), and Hawaiian (100).
- Found the total quantity of each pizza category ordered.
- Analyzed order distribution by hour of the day, revealing peak ordering times.
- Categorized orders to find the category-wise distribution of pizzas.
- Grouped orders by date and calculated the average number of pizzas ordered per day.
- Calculated the percentage contribution of each pizza type to the total revenue.
- Analyzed cumulative revenue over time, identifying key revenue-generating periods.
- Determined the top 3 most ordered pizza types based on revenue for each category.

CONCLUSION

The Pizza Sales Analysis provided deep insights into sales patterns, customer preferences, and revenue distribution. The analysis will help in making data-driven decisions to enhance business performance and customer satisfaction. By understanding the most popular pizzas, peak ordering times, and revenue contributions, the business can optimize inventory, improve marketing strategies, and better meet customer demands.



THANK YOU