

# PIZZA SALE'S REPORT



# Introduction

This project aims to analyze pizza sales data to uncover valuable insights about customer preferences and business performance. By examining detailed order information, we can identify trends in pizza sizes, popular types, and revenue distribution. The goal is to leverage this data to optimize marketing strategies, improve inventory management, and enhance overall customer satisfaction. This analysis will provide a comprehensive understanding of sales patterns and inform data-driven decision-making to drive business growth.



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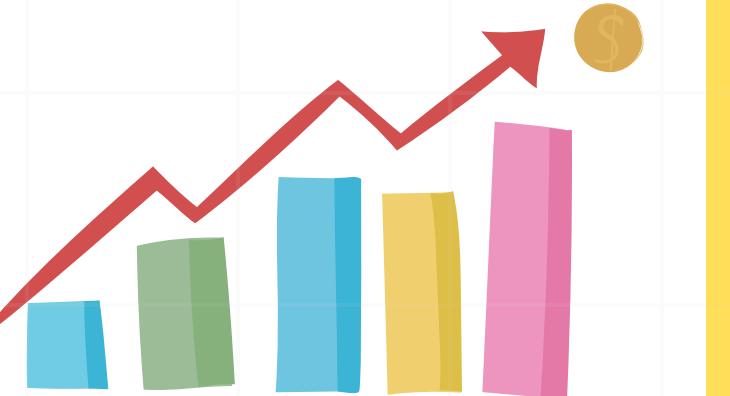
- Retrieve the total number of orders placed.
- Calculate the total revenue generated from pizza sales.
- Identify the highest-priced pizza.
- Identify the most common pizza size ordered.
- List the top 5 most ordered pizza types along with their quantities.
- Join the necessary tables to find the total 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
```

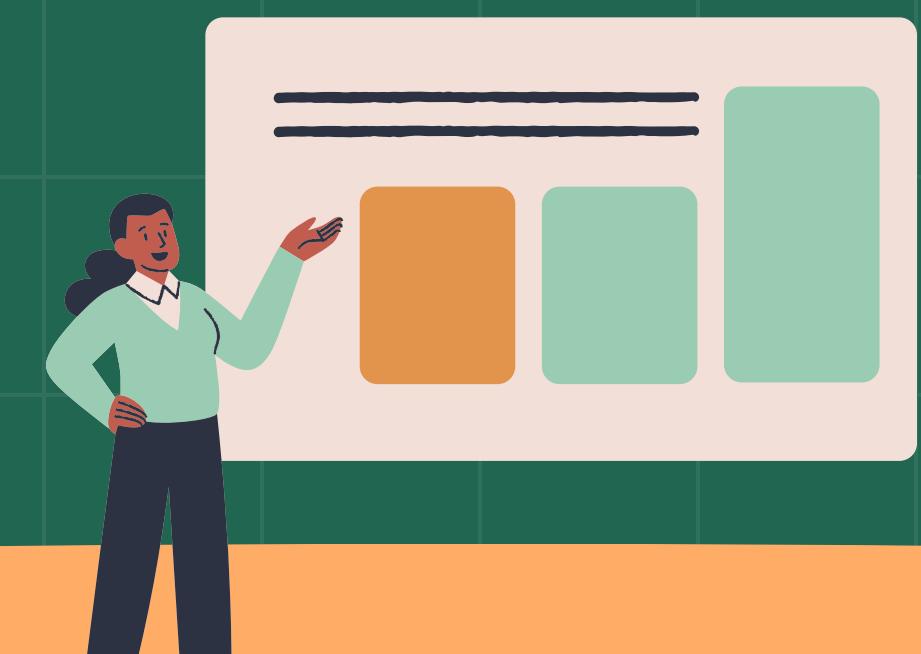


Total\_Sales  
817860.05



# \* 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;
```

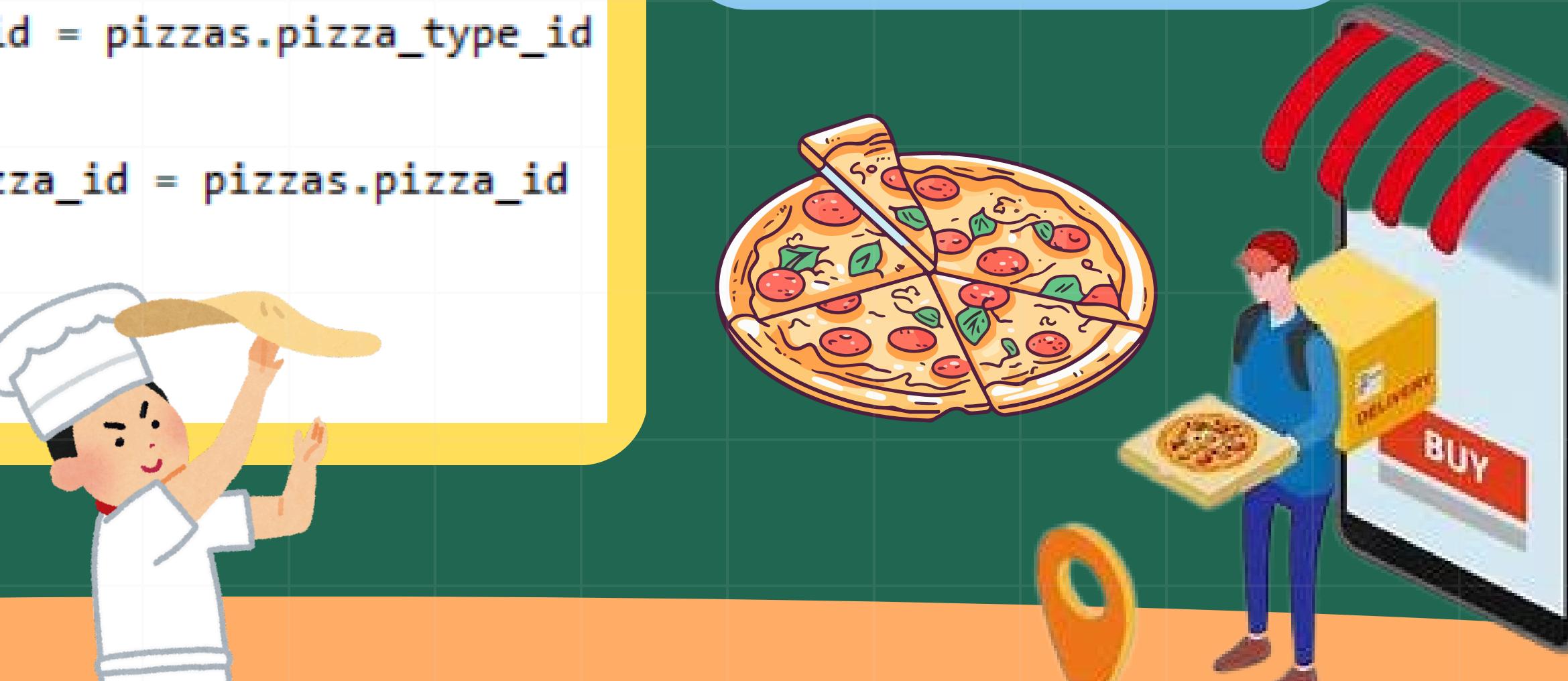
size	order_count
L	18526
M	15385
S	14137
XL	544
XXL	28



# 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.



category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

```
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;
```

# Determine the distribution of orders by hour of the day.

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



```
SELECT  
    HOUR(order_time) AS hour, COUNT(order_id) AS order_count  
FROM  
    orders  
GROUP BY HOUR(order_time);
```



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



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

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

# Group the orders by date and calculate the 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;
```

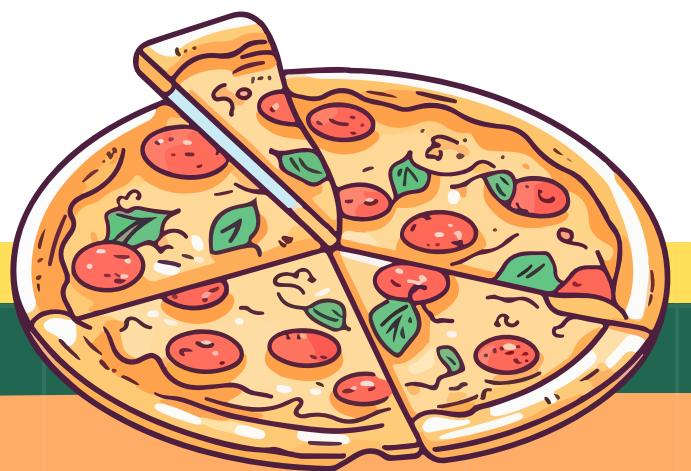
avg_pizza_ordered_per_day
138



# 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.



category	revenue
Classic	26.91
Supreme	25.46
Chicken	23.96
Veggie	23.68

```
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;
```

# 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	2713.8500000000004
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
2015-01-07	16560.7
2015-01-08	19399.05
2015-01-09	21526.4
2015-01-10	23990.35000000002
2015-01-11	25862.65
2015-01-12	27781.7
2015-01-13	29831.30000000003
2015-01-14	32358.70000000004
2015-01-15	34343.50000000001
2015-01-16	36937.65000000001
2015-01-17	39001.75000000001



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

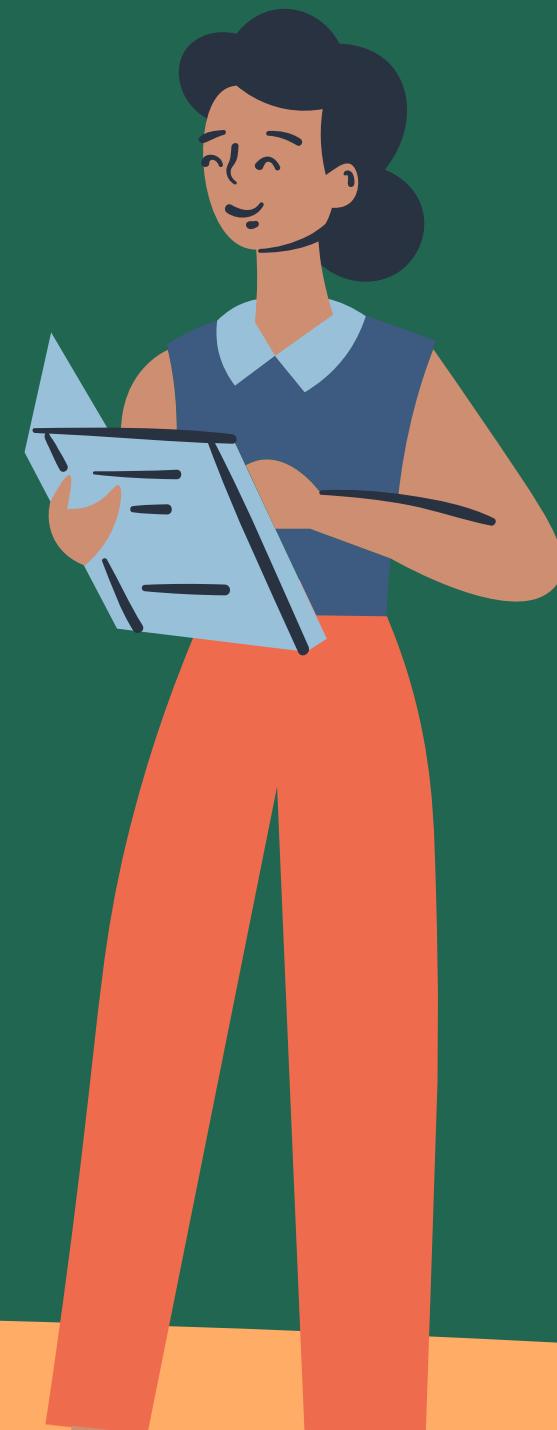
name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5
The Classic Deluxe Pizza	38180.5
The Hawaiian Pizza	32273.25
The Pepperoni Pizza	30161.75
The Spicy Italian Pizza	34831.25
The Italian Supreme Pizza	33476.75
The Sicilian Pizza	30940.5
The Four Cheese Pizza	32265.70000000065
The Mexicana Pizza	26780.75
The Five Cheese Pizza	26066.5

```
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;
```

# CONCLUSION

From the analysis, it is evident that:

- The total number of orders and total revenue indicate a substantial volume of business.
- The highest-priced pizza is a specialty item, the Greek XXL.
- Large-sized pizzas are the most popular, suggesting a preference for larger portions.
- The Big Meat Small, Thai Chicken Large, and Five Cheese Large are among the top favorites.
- Understanding the distribution of orders by time and category helps optimize business operations.
- Focusing on top revenue-generating pizzas can guide marketing and promotional efforts.
- The analysis highlights a significant preference for large-sized pizzas and identifies key revenue-generating pizzas, providing valuable insights for optimizing sales and marketing strategies.



# THANK YOU

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