



PIZZA RESTAURANT

SQl PIZZA SALES ANALYSIS

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OBJECTIVES

The objective of the Pizza Sales Analysis project is to derive actionable insights from sales data using SQL. This includes evaluating key metrics like total orders and revenue, identifying popular pizza sizes and types, and analyzing order distribution to optimize operations. The project also aims to track cumulative revenue and identify top-performing pizzas, enabling data-driven decisions to improve sales strategies and customer satisfaction.

Q1. Retrieve the total number of orders placed.

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

Result Grid | Filter Rows:

	total_orders
→	21350

Q2. Calculate the total revenue generated from pizza sales.

```
-- Calculate the total revenue generated from pizza sales.  
  
SELECT  
    ROUND(SUM(order_details.quantity * pizzas.price),  
        2)  
  
FROM  
    order_details  
    JOIN  
    pizzas ON order_details.pizza_id = pizzas.pizza_id;
```

Result Grid		Filter Rows:	Export:
	ROUND(SUM(order_details.quantity*pizzas.price), 2)		
▶	817860.05		

Q3. Identify the highest-priced pizza.

```
-- 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:

	name	price
.	The Greek Pizza	35.95

Q4.Identify the most common pizza size ordered.

```
-- 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

Q5. List the top 5 most ordered pizza types along with their quantities.

```
-- 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

Q6. Join the necessary tables to find the total quantity of each pizza category ordered.

```
-- 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

Q7. 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

```
-- 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);
```

Q8. Join relevant tables to find the category-wise distribution of pizzas.

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

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

	category	COUNT(name)
1	Chicken	6
2	Classic	8
3	Supreme	9
4	Veggie	9

Q9. Group the orders by date and calculate the average number of pizzas ordered per day.

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

SELECT
    ROUND(AVG(quantity), 0) AS 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:
pizza_ordered_per_day 138	



Q10. Determine the top 3 most ordered pizza types based on revenue.

```
-- 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

Q11. Calculate the percentage contribution of each pizza type to total revenue.

```
-- Calculate the percentage contribution of each pizza type to total revenue.  
SELECT pizza_types.category,  
       ROUND(SUM(order_details.quantity * pizzas.price) /  
             (SELECT SUM(order_details.quantity * pizzas.price) FROM order_details  
              JOIN pizzas ON pizzas.pizza_id = order_details.pizza_id) * 100, 2)  
             AS revenue_percentage  
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  
ORDER BY revenue_percentage DESC;
```

	category	revenue_percentage
▶	Classic	26.91
	Supreme	25.46
	Chicken	23.96
	Veggie	23.68

Q12. Analyze the cumulative revenue generated over time.

```
-- 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 BY order_date;
```

order_date	cum_revenue
2015-01-01	2713.850000000004
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.6
2015-01-05	11929.55

Q13.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;
```

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



SUMMARY REPORT

HIGHLIGHTS

- Most common pizza size: Large
Total orders: 18,526
- Average number of pizzas ordered per day:
138
- Top 3 Most Ordered Pizza Types by Revenue:
 - Thai Chicken Pizza: \$43,434.25
 - Barbecue Chicken Pizza: \$42,768
 - California Chicken Pizza: \$41,409.50



- Highest Priced Pizza:
Greek Pizza: \$35.95
- Revenue Contribution by Pizza Type:

Pizza Type	Revenue Contribution (%)
Classic	26.91%
Supreme	25.46%
Chicken	23.96%
Veggie	23.68%
- Top 5 Ordered Pizzas:

Pizza Type	Number of Orders
Classic Deluxe Pizza	2,453 orders
Barbecue Chicken Pizza	2,432 orders
Hawaiian Pizza	2,422 orders
Pepperoni Pizza	2,418 orders
Thai Chicken Pizza	2,371 orders



- Total Orders: 21,350

- Category-Wise Distribution of Pizzas:

- Chicken: 6

- Classic: 8

- Supreme: 9

- Veggie: 9

- Order Distribution by Hour:

- 12:00 PM: 2,520 orders

- 1:00 PM: 2,455 orders

- 5:00 PM: 2,336 orders

- 6:00 PM: 2,399 orders

- 7:00 PM: 2,009 orders



CONCLUSION

Our analysis reveals that the **large size pizza** is the most popular, and peak hours between **12 PM** and **7 PM** are crucial for sales. The top three revenue-generating pizzas—**Thai Chicken, Barbecue Chicken, and California Chicken**—should be prioritized for stock and promotions. Focusing on stock management, optimizing peak hours, running targeted promotions, and gathering customer feedback will enhance customer satisfaction and boost sales, driving sustained growth in the competitive pizza market.



CONTACT FOR MORE INFORMATION



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THANK
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