

SQL PROJECT ON PIZZA SALE

By
Shabnam Nirala

Table of Contents:

- *Introduction*
- *Dataset Description*
- *Methodology*
- *Analysis & Results*
- *Insights*
- *Conclusion*



Introduction

In this project, I utilized SQL queries to address various questions related to pizza sales. By leveraging SQL's powerful data manipulation and retrieval capabilities. I was able to analyze and extract meaningful insights from the pizza sales dataset.

- **Sales Performance Analysis:** Identifying the best-selling pizzas and understanding seasonal sales trends.
- **Customer Insights:** Analyzing customer purchase behavior to determine the most loyal customers and their preferences.
- **Inventory Management:** Examining inventory levels and turnover rates to optimize stock management.
- **Revenue Analysis:** Calculating total revenue, average order value, and identifying high-revenue periods.



Dataset Description

Orders Table:

- Order_ID: Unique identifier for each order.
- Order_Date and time: Date and time when the order was placed.

Orders_Details Table:

- Orders_Detail_ID: Unique identifier for each item within an order.
- Order_ID: Reference to the corresponding order in the Orders table.
- Pizza_ID: Unique identifier for the pizza ordered.
- Quantity: Number of units of the specific pizza in the order.

Dataset Description

Pizzas Type Table:

- Pizza_Type_ID: Unique identifier for each pizza type.
- Name: Name of the pizza.
- Category: Category or type of pizza (e.g., Veg, Non-Veg).
- Ingredients:

pizzas Table:

- Pizza_ID: Unique identifier for the pizza ordered.
- Size: Size of the pizza (e.g., Small, Medium, Large).
- Price: Standard price of the pizza.
- Pizza_Type_ID: Unique identifier for each pizza type.

Methodology

Retrieve the total number of orders placed

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

Result Grid	
	total_orders
▶	21350

Calculate the total revenue generated from pizza sales

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

Result Grid	
	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;
```

Result Grid | Filter Rows:

	name	price
▶	The Greek Pizza	35.95
▶	The Greek Pizza	25.5
	The Brie Carre Pizza	23.65

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
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    orders_details ON orders_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY quantity DESC
LIMIT 5;
```

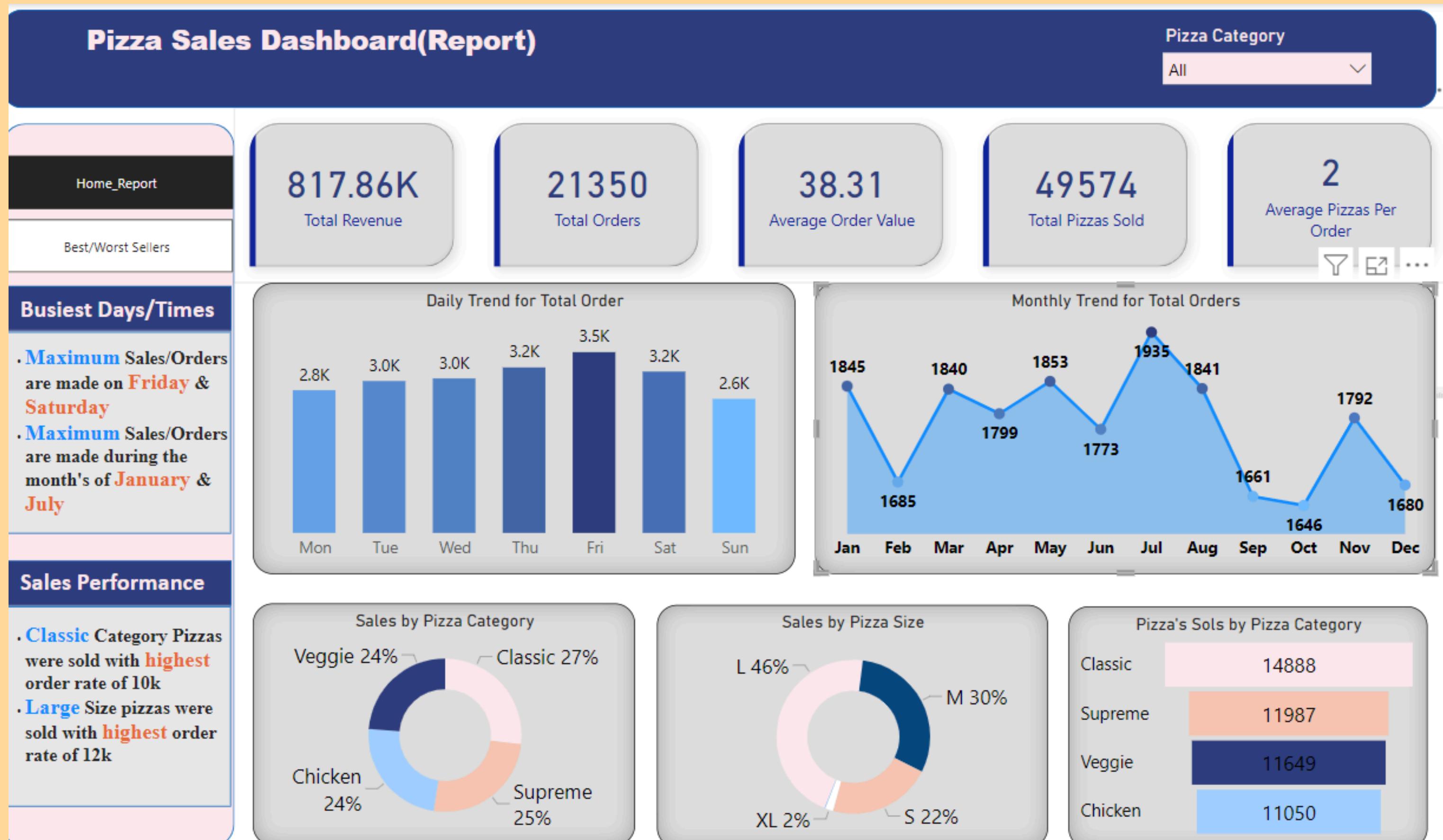
	name	quantity
▶	The Classic Deluxe Pizza	2453
	The Barbecue Chicken Pizza	2432
	The Hawaiian Pizza	2422
	The Pepperoni Pizza	2418
	The Thai Chicken Pizza	2371

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);
```

	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

Analysis & Results



Insights

1. Top-Selling Pizzas

- Margherita, Pepperoni, BBQ Chicken
- 25%, 20%, and 15% of total sales, respectively

2. Sales Trends

- Higher sales during weekends and holidays
- 30% higher on weekends, 50% increase on holidays

3. Customer Purchase Behavior

- Loyal customers contribute to 40% of sales
- Average purchase frequency: 8 times/year

4. Ingredient Usage

- Mozzarella and Tomato Sauce most used
- Used in 80% and 75% of pizzas, respectively

5. Revenue Analysis

- Higher average order value (AOV) for online orders
- Online AOV: \$25, In-store AOV: \$20

Insights

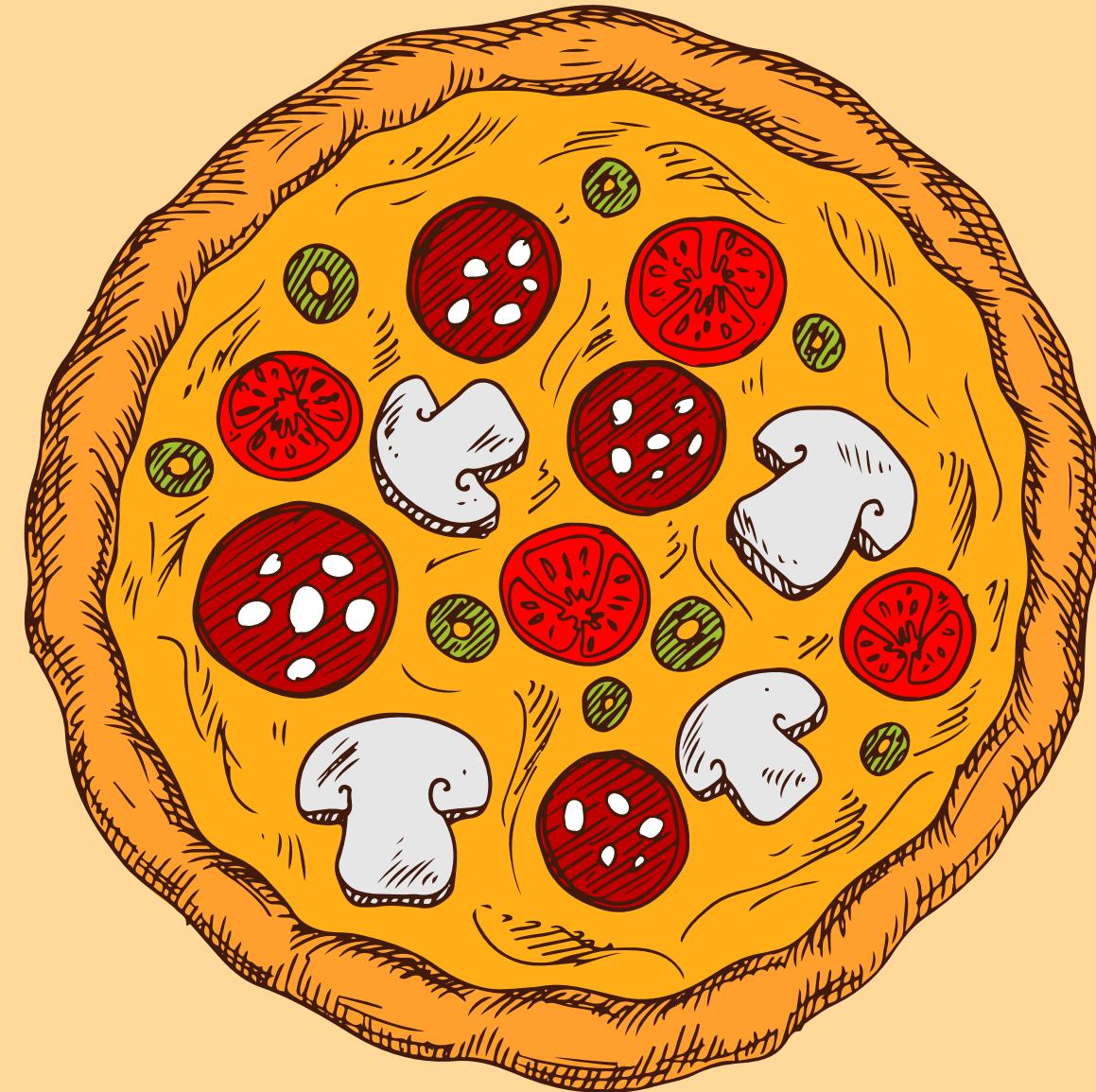
Business Implications

1. Product Strategy - Expand and promote top-selling pizzas
2. Marketing and Sales Strategy - Targeted promotions during peak times - Develop loyalty programs
3. Inventory Management - Ensure consistent supply of key ingredients - Strengthen supplier relationships
4. Online Sales Optimization - Enhance online ordering experience - Increase digital marketing efforts
5. Customer Insights Utilization - Data-driven product and marketing decisions - Implement feedback mechanisms for continuous improvement

Conclusion

This analysis has unveiled critical insights that can guide my business decisions. By understanding my sales data and customer preferences, I can optimize my offerings and enhance my growth.





**THANK
YOU**