PIZZA SALES REPORT

Overview:

The **Pizza Sales Analysis** project evaluates the performance of different pizza varieties by examining sales trends, revenue patterns, and customer preferences. The analysis highlights high-demand and low-demand pizzas, average order values, and overall sales efficiency. Key insights and recommendations aim to support **menu optimization, marketing strategies, and revenue growth**, providing actionable guidance for business decision-making.

KPI Requirements:

1. What is the total revenue generated during the selected period?
2. What is the average order value (AOV)?
3. How many total pizzas were sold?
4. How many total orders were placed?
5. What is the average number of pizzas per order?

Chart & Analysis Requirements:

1. Analyze daily total orders trend across the week
2. Examine monthly total orders trend throughout the year
3. Calculate percentage sales contribution by pizza category
4. Calculate percentage sales contribution by pizza size
5. Compute total pizzas sold per category
6. Identify top 5 pizzas by revenue
7. Identify top 5 pizzas by quantity sold
8. Identify top 5 pizzas by total orders
9. Identify bottom 5 pizzas by revenue
10. Identify bottom 5 pizzas by quantity sold
11. Identify bottom 5 pizzas by total orders

Dataset Details:

Source of data:GitHub
Size of Dataset:Raw data**(**48,620 rows x 12 columns**)** and Cleaned data(48,620 rows x 18 columns)
Key fields/variables: pizza_id, order_id, pizza_name_id, quantity, order_date, order_time, unit_price, total_price, pizza_size, pizza_category, pizza_ingredients, pizza_name

Tools & Technologies Used:

SQL: Used SQL queries with functions like SUM, COUNT, AVG, GROUP BY, and ORDER BY to analyze pizza sales and calculate KPIs.
Power BI: Dashboards, KPI cards, Charts, Visualizations, DAX functions, Aggregations, Data Modeling, Insights
MS Word: Report Making

Methodology:

1. **Data Collection** – Gathered pizza sales dataset containing order, product, and sales information.
2. **Data Cleaning** – Removed duplicates, corrected inconsistencies, standardized formats, and created calculated fields.
3. **Data Analysis** – Applied SQL queries with aggregate functions to generate KPIs and analyze sales trends.
4. **Visualization** – Designed interactive dashboards in Power BI using KPI cards, charts, and DAX measures.
5. **Insights & Reporting** – Highlighted sales patterns, top and bottom performers, and suggested actionable recommendations.
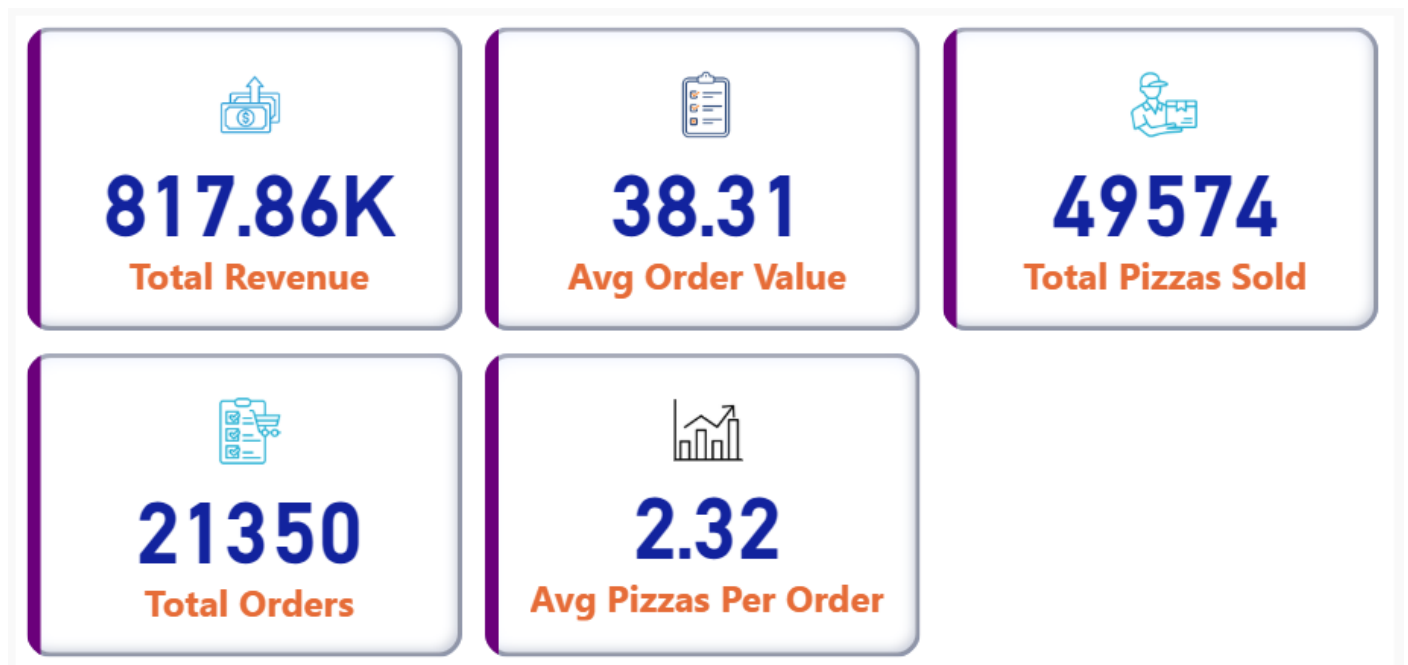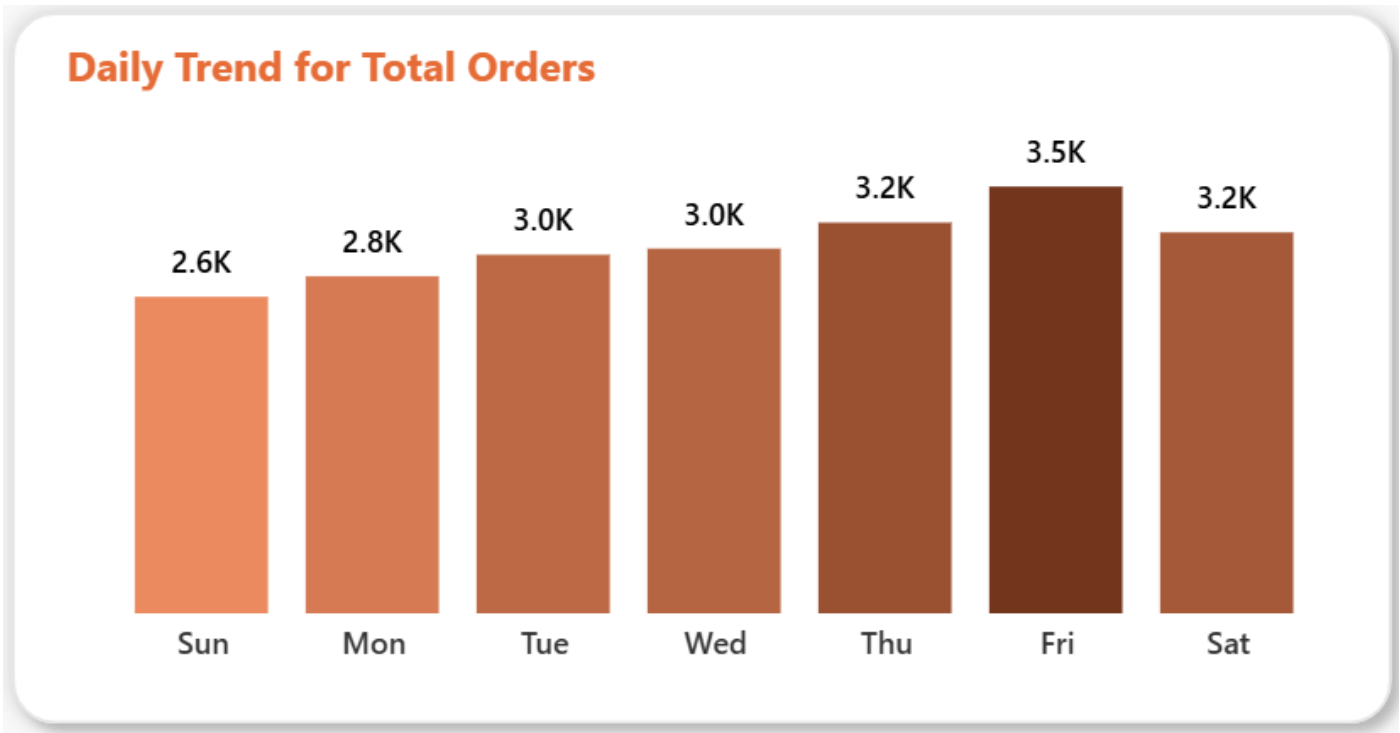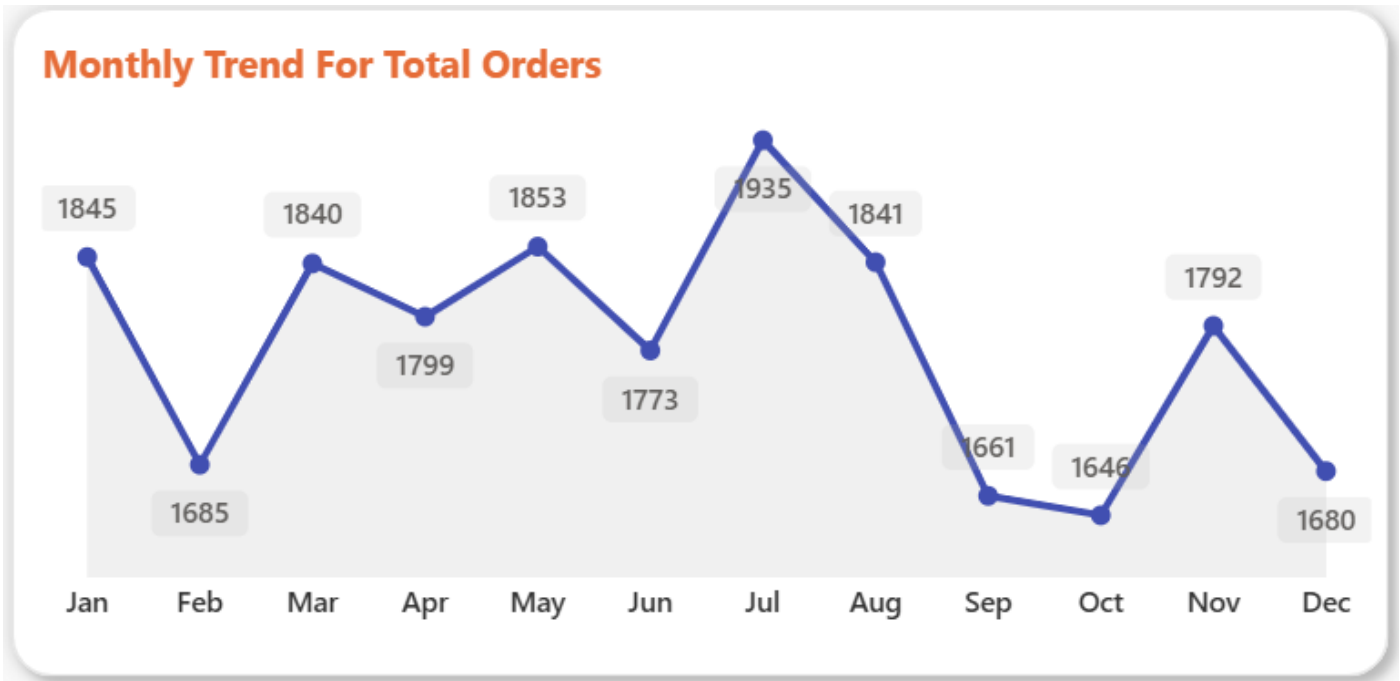
KPI Cards:

Chart Analysis:

Daily Trend for Total Orders

| Sun	Mon	Tue	Wed	Thu	Fri	Sat
2.6K	2.8K	3.0K	3.0K	3.2K	3.5K	3.2K

Highest orders in **Fridays** and **Saturday** bring about **3.2K&3.5K** respectively. This weekend spike suggests customers prefer dining at the end of the week — a perfect time for special promotions.

Monthly Trend For Total Orders

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1845	1685	1840	1799	1853	1773	1935	1841	1661	1646	1792	1680

January (~1,850 orders) and July (~1,940 orders) are our strongest months, likely due to New Year gatherings and summer vacations. **September** month drops sharply, suggesting a need for off-season offers.
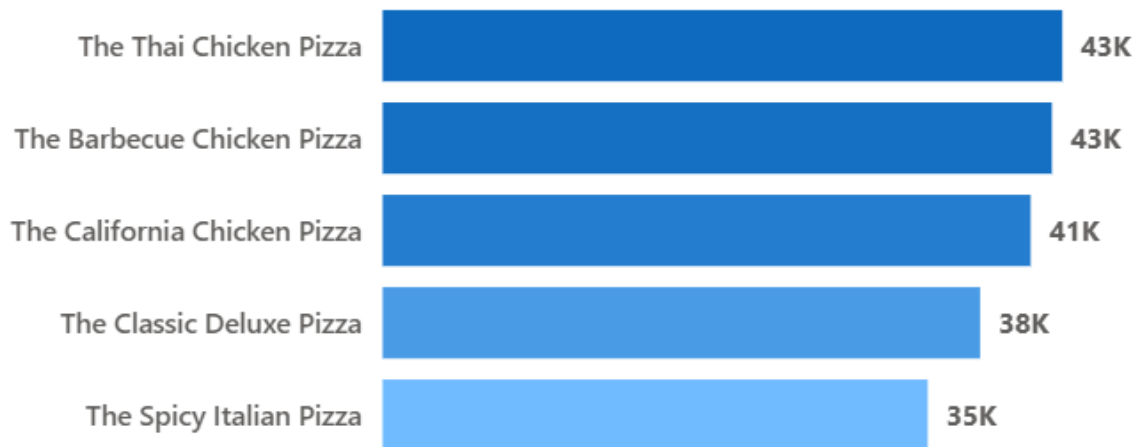
% of Sales by Pizza Size
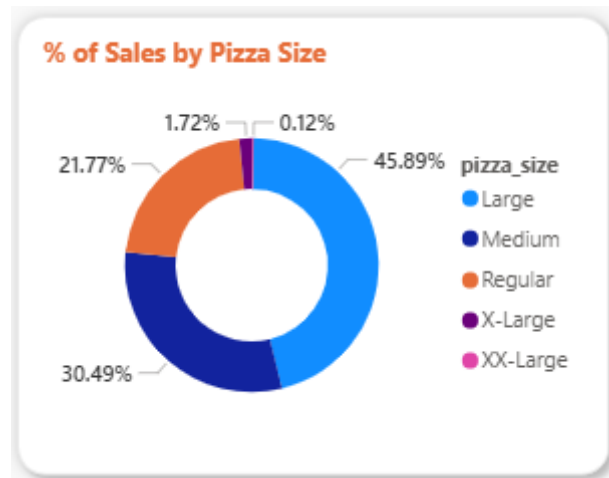
Nearly half of all pizzas sold are **Large size** (46%), followed by **Medium** at 30%. This is likely because Large pizzas offer better value for groups and families, making upselling from Medium to Large a strong way to increase revenue.

% of Sales by Pizza Category
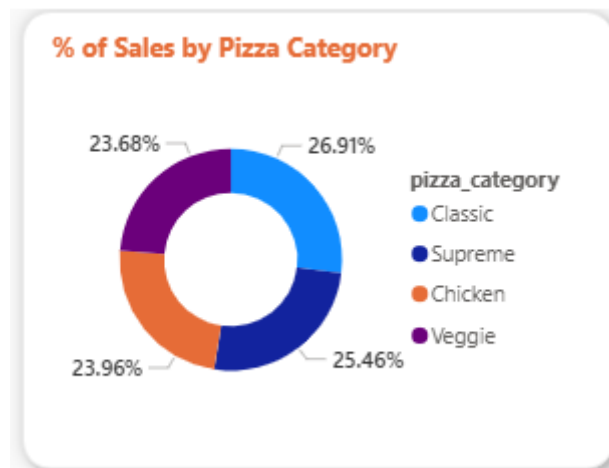
Classic pizzas lead with about 27% of total sales, slightly ahead **of Supreme and Veggie pizza** categories. This is likely because Classic pizzas have familiar flavors and broad appeal, making them a reliable choice for most customers.
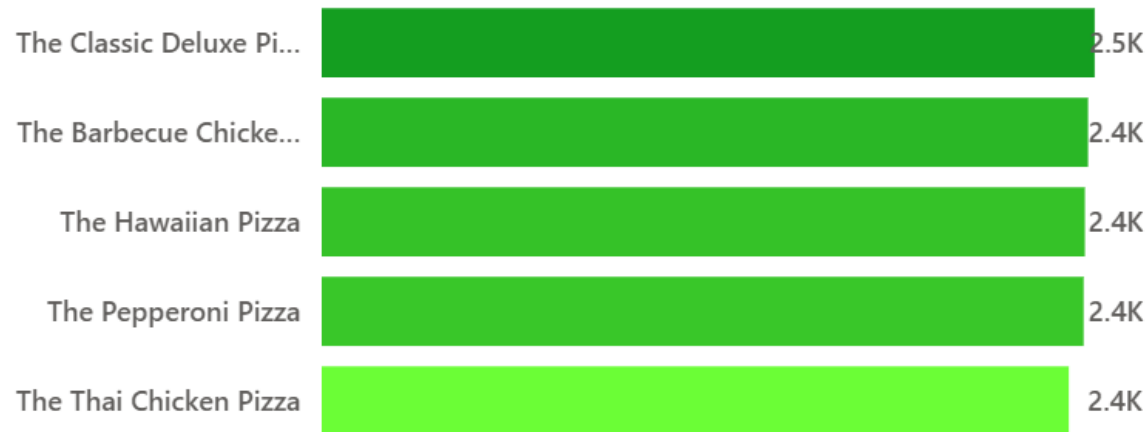
Top 5 Pizzas by Revenue

Pizza	Revenue
The Thai Chicken Pizza	43K
The Barbecue Chicken Pizza	43K
The California Chicken Pizza	41K
The Classic Deluxe Pizza	38K
The Spicy Italian Pizza	35K

Thai Chicken and Barbecue Chicken pizzas each generate about $43K in annual revenue, followed closely by California Chicken at $41K, Classic Deluxe at $38K, and Spicy Italian at $35K. Their strong performance is likely due to popular flavor combinations and premium toppings, making them ideal for high-value promotions and featured menu spots.

Bottom 5 Pizzas by Revenue

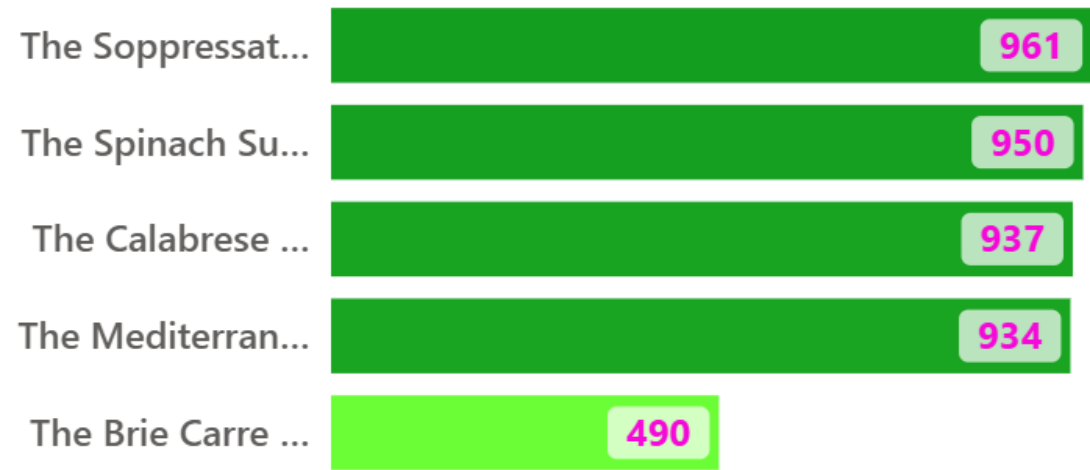| Pizza	Revenue
The Spinach Pesto Pizza	15.6K
The Mediterranean Pizza	15.4K
The Spinach Supreme Pizza	15.3K
The Green Garden Pizza	14.0K
The Brie Carre Pizza	11.6K

The Spinach Pesto Pizza earns $16K, Mediterranean Pizza $15K, Spinach Supreme Pizza $15K, Green Garden Pizza $14K, and Brie Carre Pizza only $12K.These low revenues suggest limited customer appeal, possibly because they are vegetarian-focused, have niche flavor profiles, or lack strong promotion compared to popular meat-based options.

Top 5 Pizzas by Quantity

Pizza	Quantity
The Classic Deluxe Pi...	2.5K
The Barbecue Chicke...	2.4K
The Hawaiian Pizza	2.4K
The Pepperoni Pizza	2.4K
The Thai Chicken Pizza	2.4K

Classic Deluxe Pizza (2.5K), Barbecue Chicken Pizza (2.4K), Hawaiian Pizza (2.4K), Pepperoni Pizza (2.4K), and Thai Chicken Pizza (2.4K) dominate sales due to their wide appeal, balanced flavors, and ability to cater to both traditional and adventurous customer tastes.
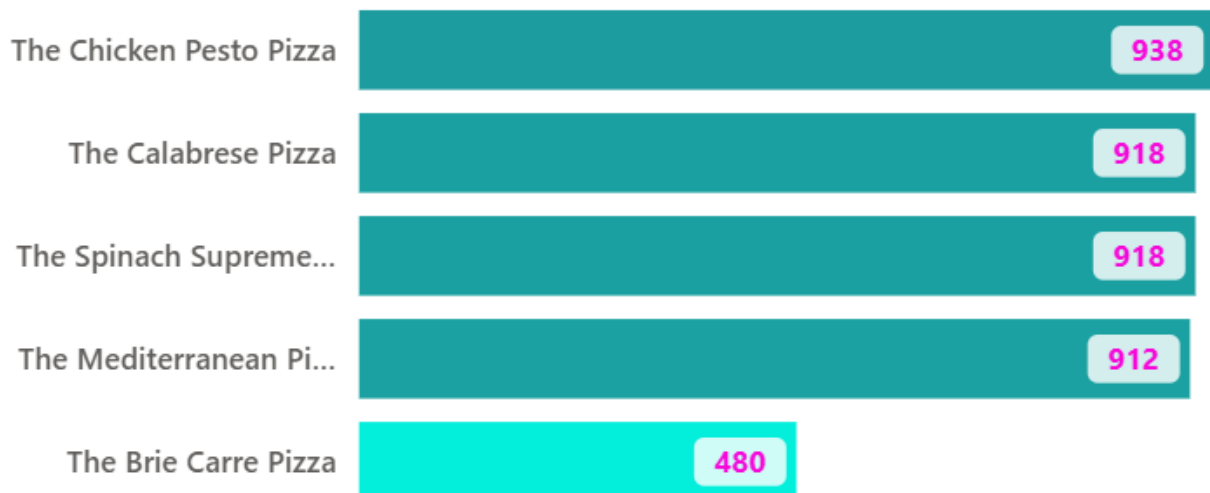

Bottom 5 Pizzas by Quantity

Pizza	Quantity
The Soppressat...	961
The Spinach Su...	950
The Calabrese ...	937
The Mediterran...	934
The Brie Carre ...	490

Brie Carre Pizza (480), Mediterranean Pizza (934), Calabrese Pizza (937), Spinach Supreme Pizza (950), and Soppressata Pizza (961) have the lowest sales, likely due to niche flavors, limited customer familiarity, and lower demand compared to popular classic options.

Top 5 Pizzas by Total Order

Pizza	Total Order
The Classic Deluxe Pi...	2329
The Hawaiian Pizza	2280
The Pepperoni Pizza	2278
The Barbecue Chicke...	2273
The Thai Chicken Pizza	2225

The Classic Deluxe Pizza (2329), The Hawaiian Pizza (2280), The Pepperoni Pizza (2278), The Barbecue Chicken Pizza (2273), and The Thai Chicken Pizza (2225) have the highest orders, possibly due to popular flavors, wide appeal, and effective marketing.

Bottom Pizzas by Total Order

Pizza	Total Order
The Chicken Pesto Pizza	938
The Calabrese Pizza	918
The Spinach Supreme...	918
The Mediterranean Pi...	912
The Brie Carre Pizza	480

Brie Carre Pizza (480), Mediterranean Pizza (934), Calabrese Pizza (937), Spinach Supreme Pizza (950), and Soppressata Pizza (961) have the lowest total orders, indicating possibly very low customer demand.
This may be due to niche flavors, limited awareness, or lack of promotions, suggesting a possible need for menu review, targeted marketing, or potential discontinuation.

Key Insights:

1. A small set of products drives the **majority of revenue** – The **top five pizzas** are critical for **business performance**.
2. **Thai Chicken** and **Barbecue Chicken** pizzas generate the **highest revenue** – These are customer **favorites** among **premium options**.
3. **Classic Deluxe Pizza** records the **highest units sold** – It **outsells** all other pizzas in **volume**.
4. **Large pizzas** are the **most popular size** – Nearly **50%** of all pizzas sold are **large**.
5. **Classic pizzas** remain the **customer favorite** – Over **one in four** pizzas sold belong to this **category**.
6. **Fridays** and **Saturdays** are the **busiest days** – The **majority** of customer orders occur over the **weekend**.
7. **January** and **July** are the **peak sales months** – **Revenue** is **highest** during these periods.
8. **Sales decline sharply** in **September** – This month experiences the **lowest order volumes**.

Suggestions:

1. Prioritize **marketing efforts** on the **top five revenue-generating pizzas** to maximize **return on investment (ROI)**.
2. **Upsell premium pizzas**, such as **Thai Chicken** and **Barbecue Chicken**, through **value-added bundles** with **sides and beverages**.
3. Leverage customer preference for **Large pizzas** by offering **family or combo deals** to increase **order size**.
4. Enhance **weekend promotional campaigns** with **special offers** on high-demand days, particularly **Fridays** and **Saturdays**.
5. Strategically plan **inventory** and **staffing** to accommodate anticipated **demand surges** in **January** and **July**.
6. Implement **targeted promotions** in **September** to mitigate **seasonal sales decline**, such as **discounts**, **new flavors**, or **"Back to Work" campaigns**.
7. Evaluate the performance of **Brie Carre Pizza** and consider **menu repositioning**, **revamping**, or **removal** to optimize overall **menu profitability**.

Conclusion:

The analysis identified **top-performing** and **low-performing pizzas**, providing clear guidance for **menu optimization**. Insights on **customer behavior** and **revenue trends** can inform **marketing strategies** and **inventory planning**, ultimately enhancing **profitability**.

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