

# PIZZA SALES ANALYSIS

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# Intorduction

- The purpose of this project was to analyze and optimize sales data for a pizzeria. The analysis was conducted using SQL queries to extract actionable insights, and the findings were visualized on an interactive dashboard built with Power BI.



# Objectives

- Identify Key Performance Indicators (KPIs) such as total revenue, total pizzas sold, and average order value.
- Analyze trends in orders based on time (daily and monthly).
- Categorize sales performance by pizza size and category.
- Highlight top and bottom-performing pizzas by revenue, quantity, and orders.

# Methodology

## A. DATA ANALYSIS

SQL queries were used to process the data and generate insights. Below are some highlights:

- **KPI Calculation:** Key metrics such as total revenue and average order value were derived using aggregate functions.
- **Trend Analysis:** Daily and monthly trends for orders were analyzed to identify patterns.
- **Performance by Category:** Pizza category and size contributions were calculated.
- **Top/Bottom Performers:** Identified top and bottom pizzas in terms of revenue, quantity, and orders.

# Methodology

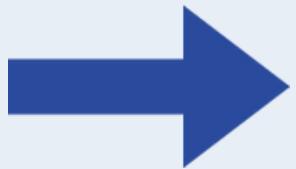
## B. DASHBOARD DESIGN

The results were visualized using Power BI. The dashboard was designed to be user-friendly and provided filters for pizza size and category for detailed analysis.

# What is the total revenue generated from pizza sales?



```
SELECT Round(SUM(total_price), 2) AS Total_Revenue  
FROM pizza_sales;
```



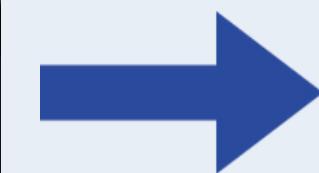
Total_Revenue
817860.05

The total revenue generated from pizza sales is \$817,860.05.

# What is the average revenue per order?



```
SELECT Round((SUM(total_price) / COUNT(DISTINCT order_id)), 2) AS Avg_Order_Value  
FROM pizza_sales;
```

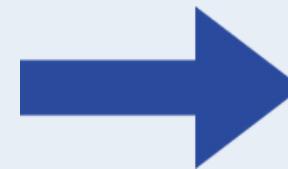


	Avg_Order_Value
▶	38.31

The average revenue per order is **\$38.31**.

# How many pizzas were sold in total?

```
SELECT SUM(quantity) AS Total_Pizza_Sold  
FROM pizza_sales;
```

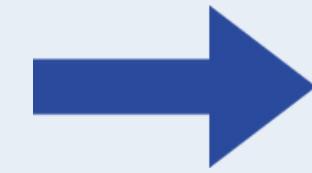


	Total_Pizza_Sold
▶	49574

A total of **49,574** pizzas were sold.

# How many unique orders were placed?

```
SELECT COUNT(DISTINCT order_id) AS Total_Orders  
FROM pizza_sales;
```



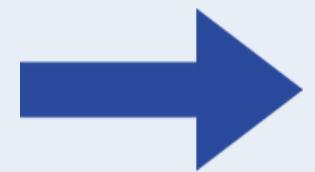
Total_Orders
21350

There were 21,350 unique orders placed.

# What is the average number of pizzas sold per order?



```
SELECT ROUND(SUM(quantity)/COUNT(DISTINCT order_id), 2) AS Avg_Pizza_per_Order  
FROM pizza_sales;
```



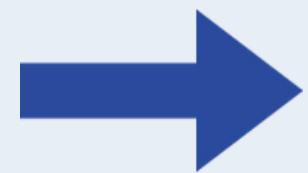
	Avg_Pizza_per_Order
▶	2.32

On average, 2.32 pizzas were sold per order.

# What is the daily trend of total orders placed?



```
SELECT DAYNAME(order_date) AS order_day, COUNT(DISTINCT order_id) as total_orders  
FROM pizza_sales  
GROUP BY order_day  
ORDER BY total_orders DESC;
```



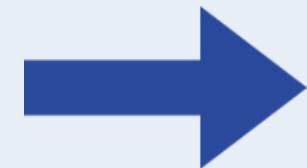
	order_day	total_orders
▶	Friday	3538
	Thursday	3239
	Saturday	3158
	Wednesday	3024
	Tuesday	2973
	Monday	2794
	Sunday	2624

The daily trend shows a peak in orders on **Fridays**, with a total of **3,538** orders, followed by **Thursdays** with **3,239** orders. **Saturdays** also perform well, with an average of **3,158** orders.

# How do total orders vary across months?



```
SELECT MONTHNAME(order_date) as month_name, COUNT(DISTINCT order_id) as total_orders  
FROM pizza_sales  
GROUP BY month_name  
ORDER BY total_orders DESC;
```



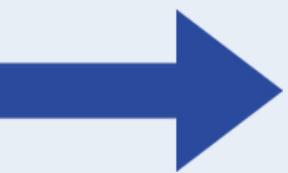
	month_name	total_orders
▶	July	1935
	May	1853
	January	1845
	August	1841
	March	1840
	April	1799
	November	1792
	June	1773
	February	1685
	December	1680
	September	1661
	October	1646

The monthly trend shows a peak in orders during **July**, with a total of **1,953** orders, followed by **May** with **1,853** orders and **January** with **1,845** orders. Other months like **August** and **March** also perform well, each with totals exceeding **1,800** orders.

# What percentage of total revenue comes from each pizza category?



```
SELECT pizza_category, CAST(SUM(total_price) AS DECIMAL(10,2)) AS total_revenue,  
      CAST(SUM(total_price) * 100 / (SELECT SUM(total_price) FROM pizza_sales) AS DECIMAL(10,2)) AS PCT  
  FROM pizza_sales  
 GROUP BY pizza_category;
```



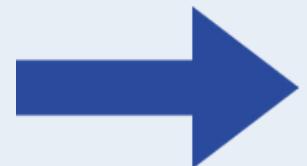
	pizza_category	total_revenue	PCT
▶	Classic	220053.10	26.91
	Veggie	193690.45	23.68
	Supreme	208197.00	25.46
	Chicken	195919.50	23.96

The **Classic** category generates the highest revenue at **26.91%**, followed by **Supreme** at **25.46%**, with **Chicken** and **Veggie** contributing **23.96%** and **23.68%**, respectively.

# What percentage of total revenue is contributed by each pizza size?



```
SELECT pizza_size, CAST(SUM(total_price) AS DECIMAL(10,2)) AS total_revenue,  
       CAST(SUM(total_price)*100/(SELECT SUM(total_price) FROM pizza_sales) AS DECIMAL(10,2)) AS PCT  
FROM pizza_sales  
GROUP BY pizza_size;
```



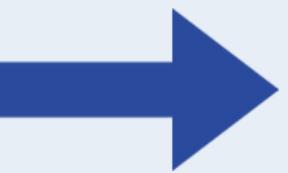
	pizza_size	total_revenue	PCT
▶	M	249382.25	30.49
	L	375318.70	45.89
	S	178076.50	21.77
	XL	14076.00	1.72
	XXL	1006.60	0.12

The **Large (L)** size generates the highest revenue at **45.89%**, followed by **Medium (M)** at **30.49%**, and **Small (S)** at **21.77%**. Other sizes, such as **XL** and **XXL**, contribute minimally.

Which pizza category has the highest total number of pizzas sold overall?



```
SELECT pizza_category, SUM(quantity) AS total_pizzas_sold  
FROM pizza_sales  
GROUP BY pizza_category  
ORDER BY total_pizzas_sold DESC;
```

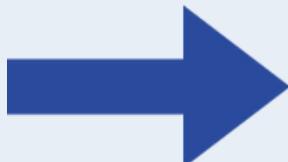


	pizza_category	total_pizzas_sold
▶	Classic	14888
	Supreme	11987
	Veggie	11649
	Chicken	11050

The **Classic** pizza category has the highest total number of pizzas sold overall, with a total of **14,388** pizzas sold.

# Which are the top 5 pizzas contributing the highest revenue?

```
SELECT pizza_name, SUM(total_price) AS total_revenue
FROM pizza_sales
GROUP BY pizza_name
ORDER BY total_revenue DESC
LIMIT 5;
```

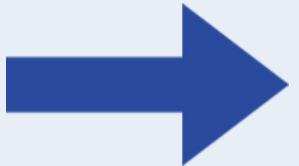


	pizza_name	total_revenue
▶	The Thai Chicken Pizza	43434.25
	The Barbecue Chicken Pizza	42768
	The California Chicken Pizza	41409.5
	The Classic Deluxe Pizza	38180.5
	The Spicy Italian Pizza	34831.25

The **top 5** pizzas contributing the **highest revenue** are: The Thai Chicken Pizza, The Barbecue Chicken Pizza, The California Chicken Pizza, The Classic Deluxe Pizza, The Spicy Italian Pizza.

# Which are the bottom 5 pizzas contributing the least revenue?

```
SELECT pizza_name, SUM(total_price) AS total_revenue  
FROM pizza_sales  
GROUP BY pizza_name  
ORDER BY total_revenue ASC  
LIMIT 5;
```

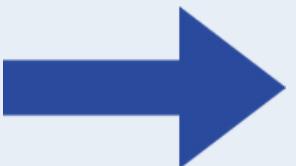


	pizza_name	total_revenue
▶	The Brie Carre Pizza	11588.49999999999
	The Green Garden Pizza	13955.75
	The Spinach Supreme Pizza	15277.75
	The Mediterranean Pizza	15360.5
	The Spinach Pesto Pizza	15596

The **bottom 5** pizzas contributing the **least revenue** are: The Brie Carre Pizza, The Green Garden Pizza, The Spinach Supreme Pizza, The Mediterranean Pizza, The Spinach Presto Pizza.

# Which are the top 5 pizzas sold in the highest quantities?

```
SELECT pizza_name, SUM(quantity) AS total_pizza_sold  
FROM pizza_sales  
GROUP BY pizza_name  
ORDER BY total_pizza_sold DESC  
LIMIT 5;
```



	pizza_name	total_pizza_sold
▶	The Classic Deluxe Pizza	2453
	The Barbecue Chicken Pizza	2432
	The Hawaiian Pizza	2422
	The Pepperoni Pizza	2418
	The Thai Chicken Pizza	2371

The **top 5** pizzas sold in the **highest quantities** are: The Classic Deluxe Pizza, The Barbecue Chicken Pizza, The Hawaiian Pizza, The Pepperoni Pizza, The Thai Chicken Pizza.

# Which are the bottom 5 pizzas sold in the lowest quantities?

```
SELECT pizza_name, SUM(quantity) AS total_pizza_sold  
FROM pizza_sales  
GROUP BY pizza_name  
ORDER BY total_pizza_sold ASC  
LIMIT 5;
```

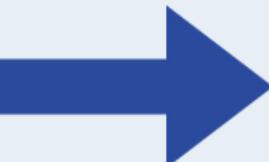


	pizza_name	total_pizza_sold
▶	The Brie Carre Pizza	490
	The Mediterranean Pizza	934
	The Calabrese Pizza	937
	The Spinach Supreme Pizza	950
	The Soppressata Pizza	961

The **bottom 5** pizzas sold in the **lowest quantities** are: The Brie Carre Pizza, The Mediterranean Pizza, The Calabrese Pizza, The Spinach Supreme Pizza, The Soppressata Pizza.

# Which are the top 5 pizzas with the highest number of orders?

```
SELECT pizza_name, COUNT(DISTINCT order_id) AS total_orders
FROM pizza_sales
GROUP BY pizza_name
ORDER BY total_orders DESC
LIMIT 5;
```

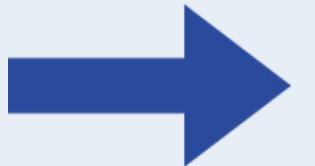


	pizza_name	total_orders
▶	The Classic Deluxe Pizza	2329
	The Hawaiian Pizza	2280
	The Pepperoni Pizza	2278
	The Barbecue Chicken Pizza	2273
	The Thai Chicken Pizza	2225

The **top 5** pizzas with the **highest number of orders** are: The Classic Deluxe Pizza, The Hawaiian Pizza, The Pepperoni Pizza, The Barbecue Chicken Pizza, The Thai Chicken Pizza.

Which are the bottom 5 pizzas with the lowest number of orders?

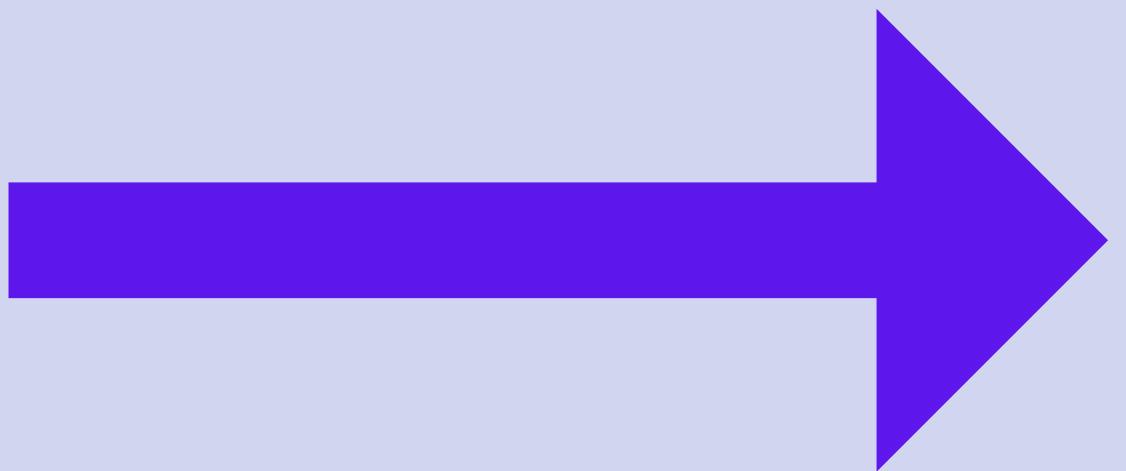
```
SELECT pizza_name, COUNT(DISTINCT order_id) AS total_orders  
FROM pizza_sales  
GROUP BY pizza_name  
ORDER BY total_orders ASC  
LIMIT 5;
```



	pizza_name	total_orders
▶	The Brie Carre Pizza	480
	The Mediterranean Pizza	912
	The Calabrese Pizza	918
	The Spinach Supreme Pizza	918
	The Chicken Pesto Pizza	938

The **bottom 5** pizzas with the **lowest number of orders** are: The Brie Carre Pizza, The Mediterranean Pizza, The Calabrese Pizza, The Spinach Supreme Pizza, The Chicken Pesto Pizza.

# DASHBOARD





# PIZZA SALES REPORT

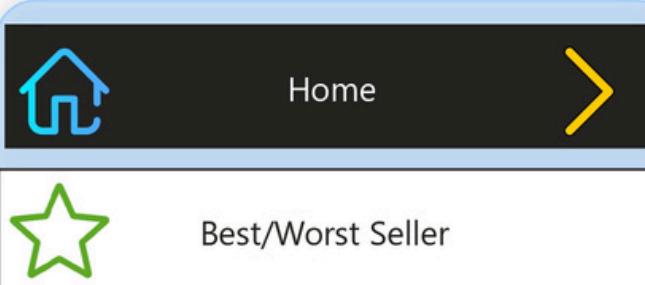
Jan/15-Dec/15

Pizza Category

1/1/2015

12/31/2015

All



## BUSIEST DAYS AND TIMES

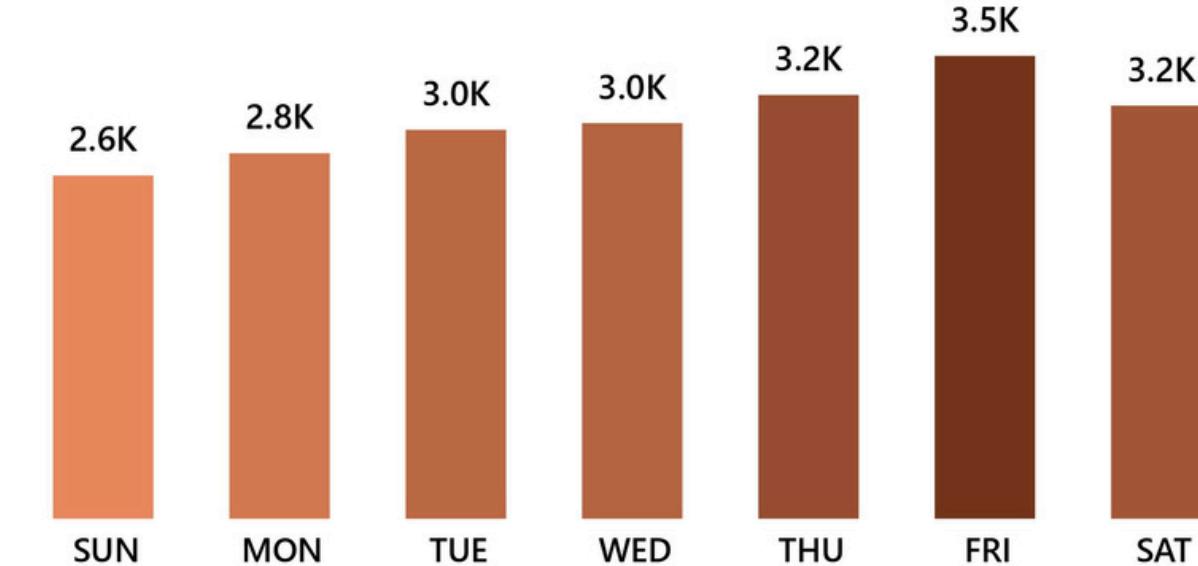
### DAY

Orders are **highest** on weekends, **Friday/Saturday evenings**.

### MONTHLY

Their are **maximum** orders from month of **July** and **January**.

### Daily Trend for Total Orders



### Monthly Trend for Total Orders



## SALES PERFORMANCE

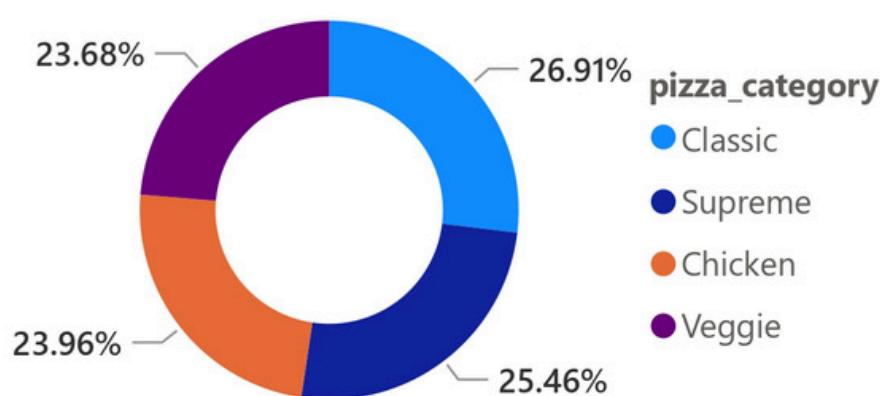
### CATEGORY

**Classic category** contributes to **maximum** sales & total orders.

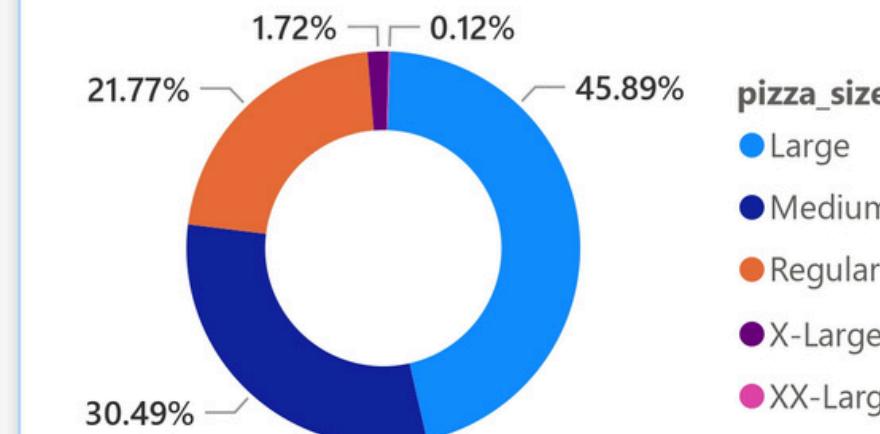
### SIZE

**Large size** pizza contributes to **maximum** sales.

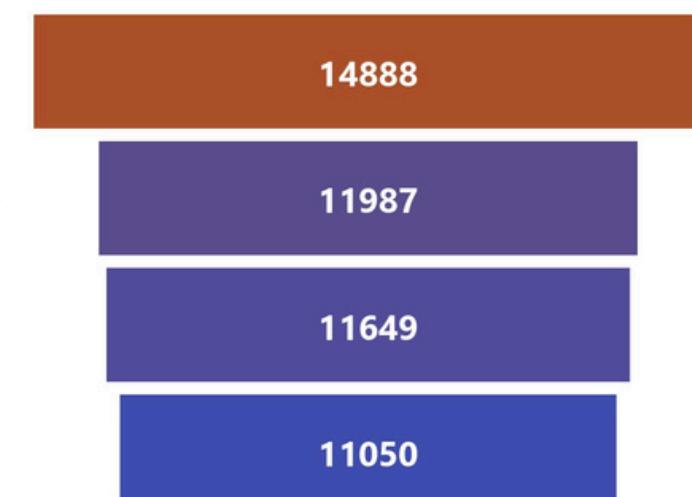
### % of Sales by Pizza Category



### % of Sales by Pizza Size



### Total Pizzas Sold by Pizza Category





# PIZZA SALES REPORT

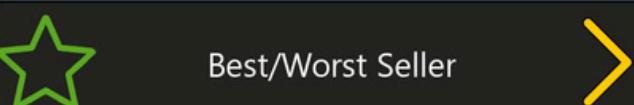
Jan/15-Dec/15

Pizza Category

1/1/2015

12/31/2015

All



## BEST SELLERS

### REVENUE

The Thai Chicken Pizza Contributes to maximum Revenue.

### QUANTITY

The Classic Deluxe Pizza Contributes to maximum Total Quantities.

### TOTAL ORDERS

The Classic Deluxe Pizza Contributes to maximum Total Orders.

817.86K



Total Revenue

38.31



Average Order Value

49574



Total Pizzas Sold

21350



Total Orders

2.32



Avg Pizzas per Order

## WORST SELLERS

### REVENUE

The Brie Carre Pizza Contributes to minimum Revenue.

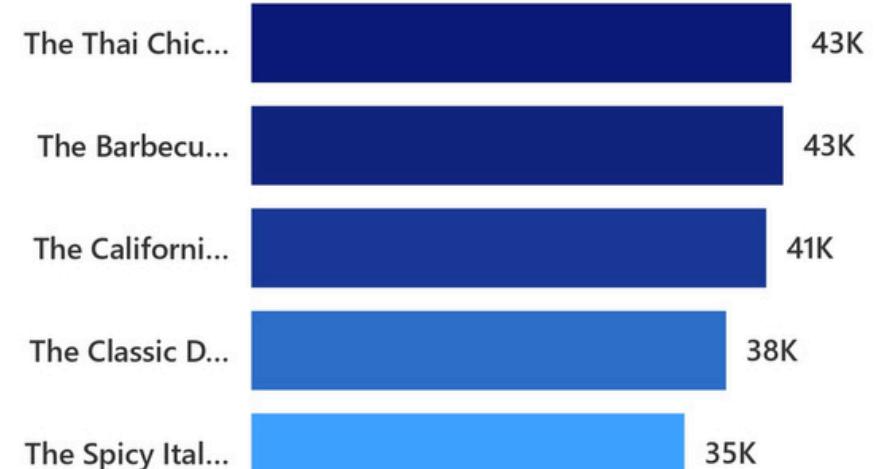
### QUANTITY

The Brie Carre Pizza Contributes to minimum Total Quantities.

### TOTAL ORDERS

The Brie Carre Pizza Contributes to minimum Total Orders.

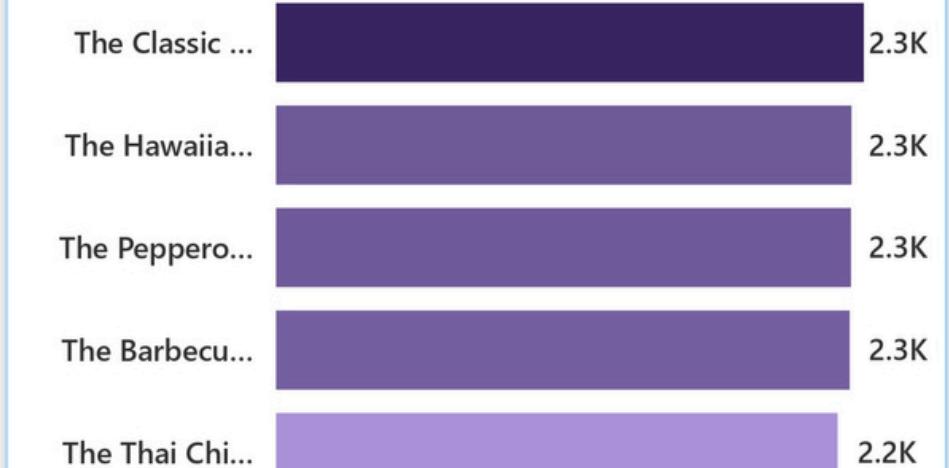
### Top 5 pizzas by Revenue



### Top 5 pizzas by Quantity



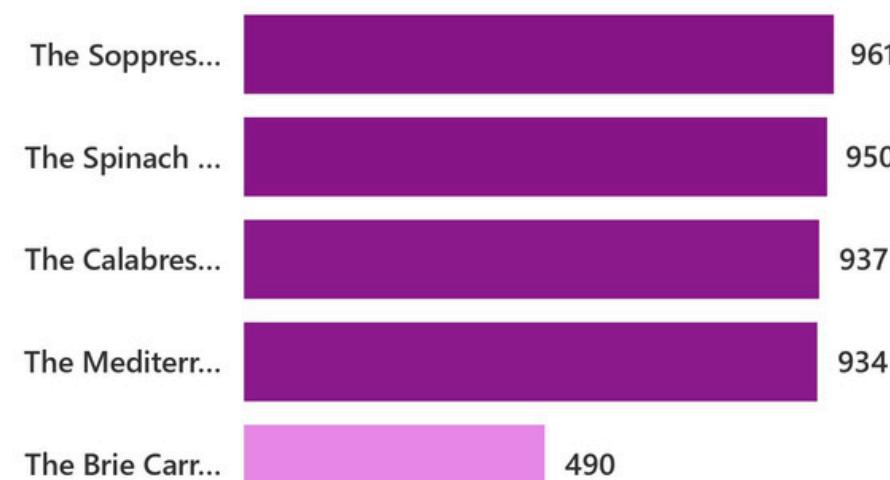
### Top 5 pizzas by Total Orders



### Bottom 5 pizzas by Revenue



### Bottom 5 pizzas by Quantity



### Bottom 5 pizzas by Total Orders

