

PROBLEM STATEMENT

In the pizza business, it's essential to understand what motivates customers to buy more. Therefore, the company aims to analyze sales data to identify customer preferences and peak purchasing times. The goal is to closely examine sales data and uncover key insights that can improve business operations and performance.

KPI's REQUIREMENT

1. **Total Revenue:** The sum of the total price or total sales of all pizza orders.
2. **Average Order Value:** The average amount spent per order, calculated by dividing the total revenue by the total number of orders.
3. **Total Pizzas Sold:** The total quantity of pizzas sold.
4. **Total Orders:** The overall number of orders placed.
5. **Average Pizzas Per Order:** The average number of pizzas sold per order, calculated by dividing the total number of pizzas sold by the total number of orders.

~~CHARTS REQUIREMENT~~

We aim to visualize different aspects of our pizza sales data to gain insights and understand key trends effectively. We've outlined the following requirements for creating charts: -

1. Hourly Trend for Total Orders:

- Make a bar chart that shows how many orders we get each hour during a specific time. This helps us see if there are any patterns or changes in order numbers during different times of the day.

2. Weekly Trend for Total Orders:

- Make a line and Area chart that shows how many orders we get each week throughout the year. This helps us see which weeks have the most orders or when we're busiest.

3. Percentage of Sales by Pizza Category:

- Make a pie chart that shows what Percentage and Total Revenue of our sales come from each type of pizza. This helps us understand which types of pizza are most popular and how much they contribute to our overall sales.

4. Percentage of Sales by Pizza Size:

- Make a slider chart that shows the percentage of sales for different pizza sizes. This chart helps us understand what pizza sizes customers prefer and how they affect our sales.

5. Total Orders and Total Pizzas Sold by Pizza Category:

- Create a Butterfly chart that compares the total number of pizzas sold and total orders for each pizza category. This chart helps us see how different pizza categories perform in terms of sales.

6. Top 5 Best Sellers by Revenue, Total Quantity, and Total Orders:

- Make a bar chart showing the top 5 best-selling pizzas based on revenue, total quantity sold, and total orders placed. This chart helps us identify the most popular pizza options.

7. Bottom 5 Best Sellers by Revenue, Total Quantity, and Total Orders:

- Create a bar chart displaying the bottom 5 worst-selling pizzas based on revenue, total quantity sold, and total orders placed. This chart helps us identify underperforming or less popular pizza options.

PIZZA ANNUAL SALES SQL QUERIES

KPI'S VALUES:

1. TOTAL REVENUE

```
SELECT ROUND(SUM (total_price)) AS TOTAL_REVENUE FROM pizza_sales;
```

TOTAL_REVENUE
817860

2. TOTAL ORDERS

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

TOTAL_ORDERS
21350

3. TOTAL PIZZAS SOLD

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

TOTAL_PIZZAS_SOLD
49574

4. AVERAGE ORDER VALUE

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

AVERAGE_ORDER_VALUE
38.31

5. AVERAGE PIZZA PER ORDER

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

AVERAGE_PIZZA_PER_ORDER
2.32

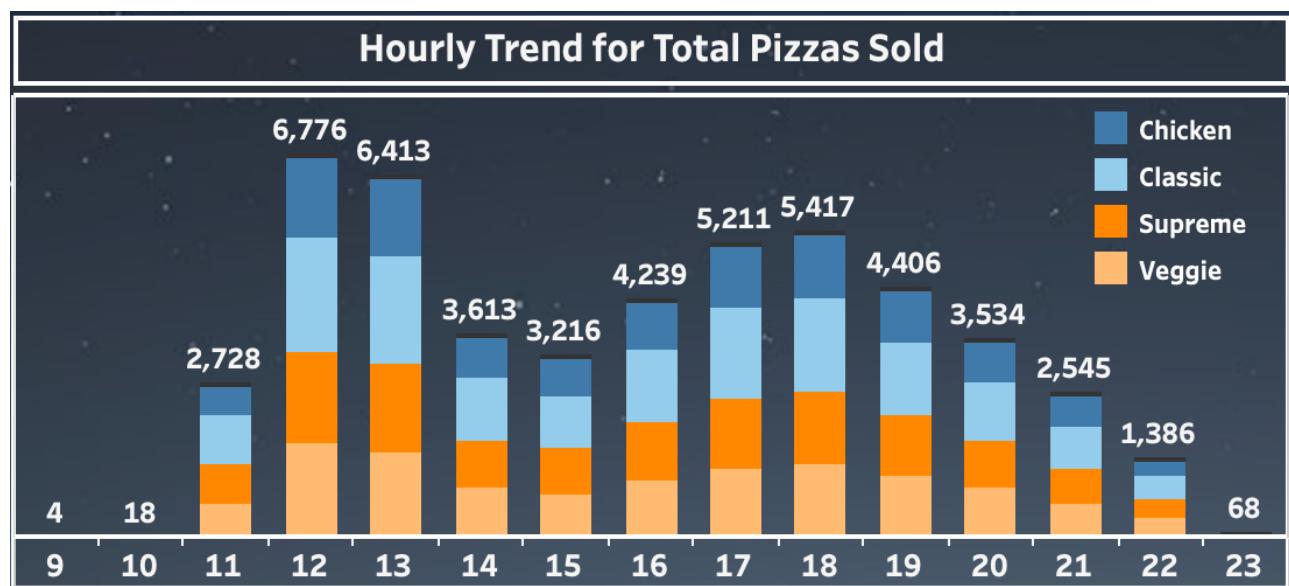
Total Revenue	Total Orders	Total Pizzas' Sold	Average Order Value	Average Pizza per Order
\$817,860.05	21,350	49,574	\$38.31	2.32

PIZZAS SALES CHARTS: -

1. Hourly Trend for Total Pizzas Sold

```
SELECT HOUR(order_time) AS HOURS , SUM(quantity) AS TOTAL_PIZZAS_SOLD  
FROM pizza_sales  
GROUP BY HOURS  
ORDER BY TOTAL_PIZZAS_SOLD DESC;
```

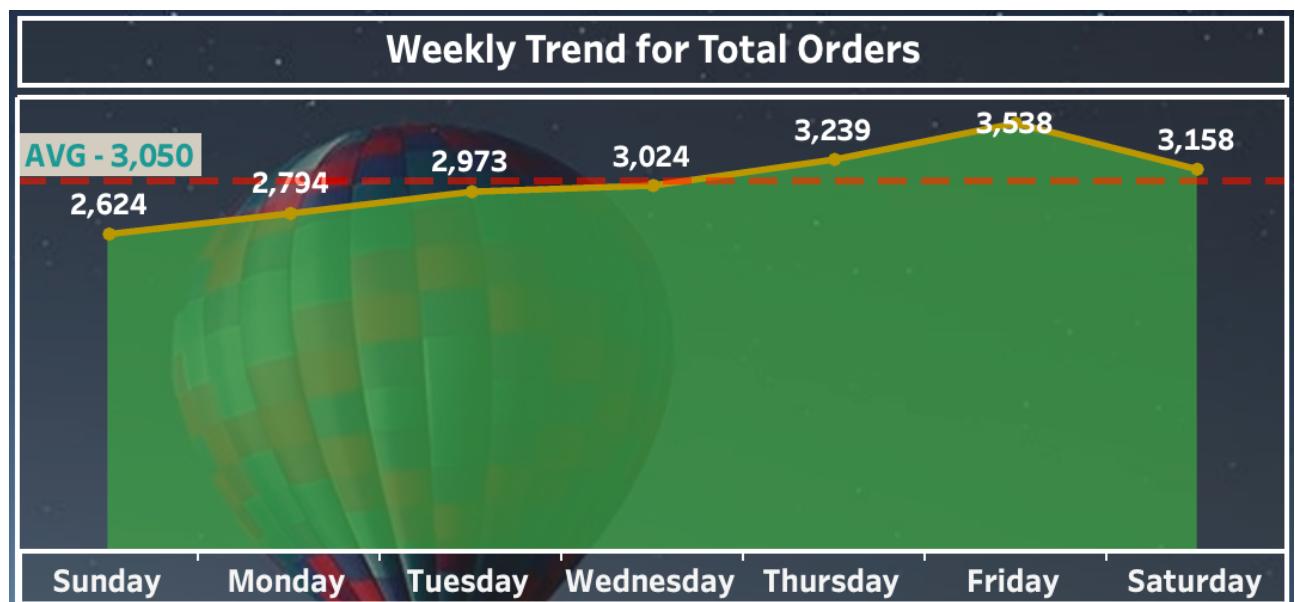
HOURS	TOTAL_PIZZAS_SOLD
9	4
10	18
11	2728
12	6776
13	6413
14	3613
15	3216
16	4239
17	5211
18	5417
19	4406
20	3534
21	2545
22	1386
23	68



2. Weekly Trend for Total Orders

```
SELECT DAYNAME( order_date ) AS WEEK_NAME,COUNT(DISTINCT(order_id)) AS  
TOTAL_PIZZAS_ORDER  
FROM pizza_sales GROUP  
BY WEEK_NAME  
ORDER BY TOTAL_PIZZAS_ORDER DESC;
```

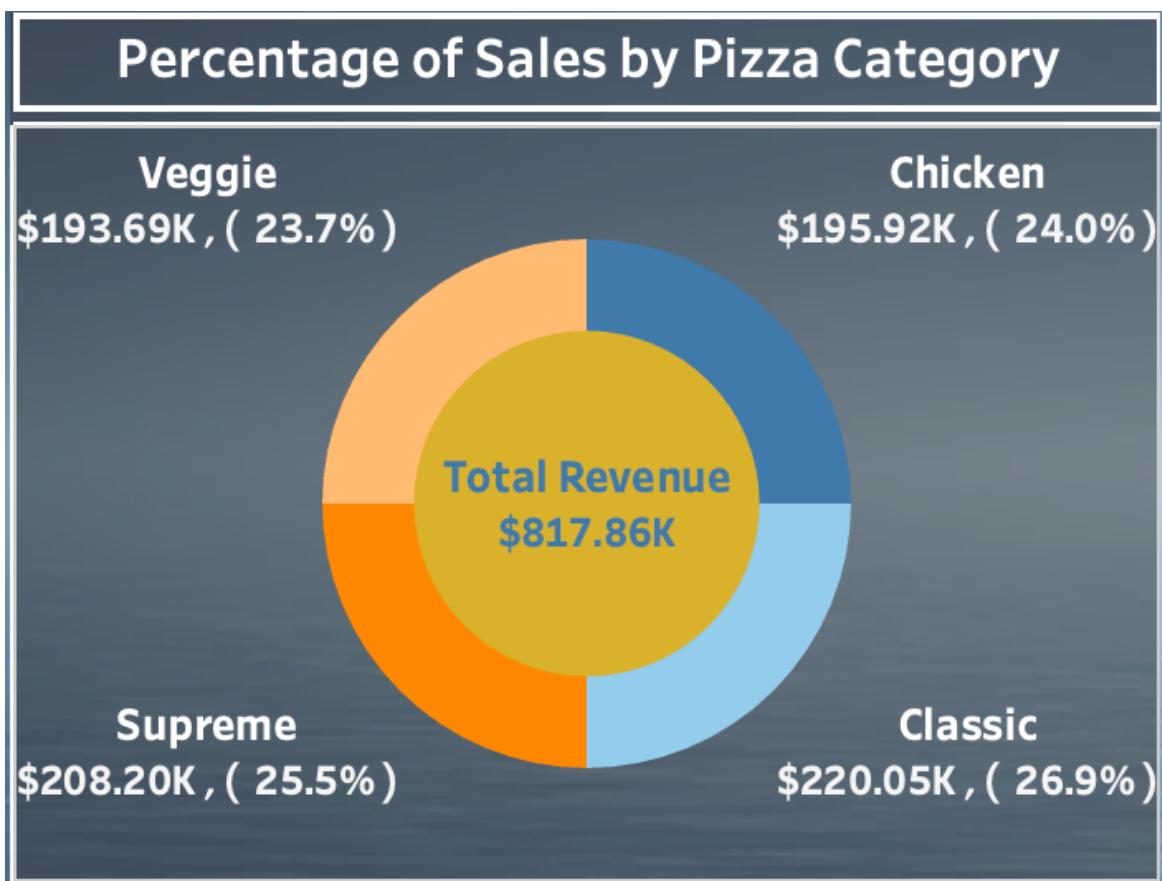
WEEK_NAME	TOTAL_PIZZAS_ORDER
Friday	3538
Thursday	3239
Saturday	3158
Wednesday	3024
Tuesday	2973
Monday	2794
Sunday	2624



3. Percentage of Sales by Pizza Category

```
SELECT (pizza_category) AS PIZZA_CATEGORY,  
ROUND((SUM(total_price )*100 ) / (SELECT SUM( total_price ) FROM pizza_sales) , 1)AS  
TOTAL_PIZZAS_SALES_PCT,  
ROUND(SUM(total_price )) AS TOTAL_REVENUE  
FROM pizza_sales  
GROUP BY PIZZA_CATEGORY  
ORDER BY TOTAL_PIZZAS_SALES_PCT DESC;
```

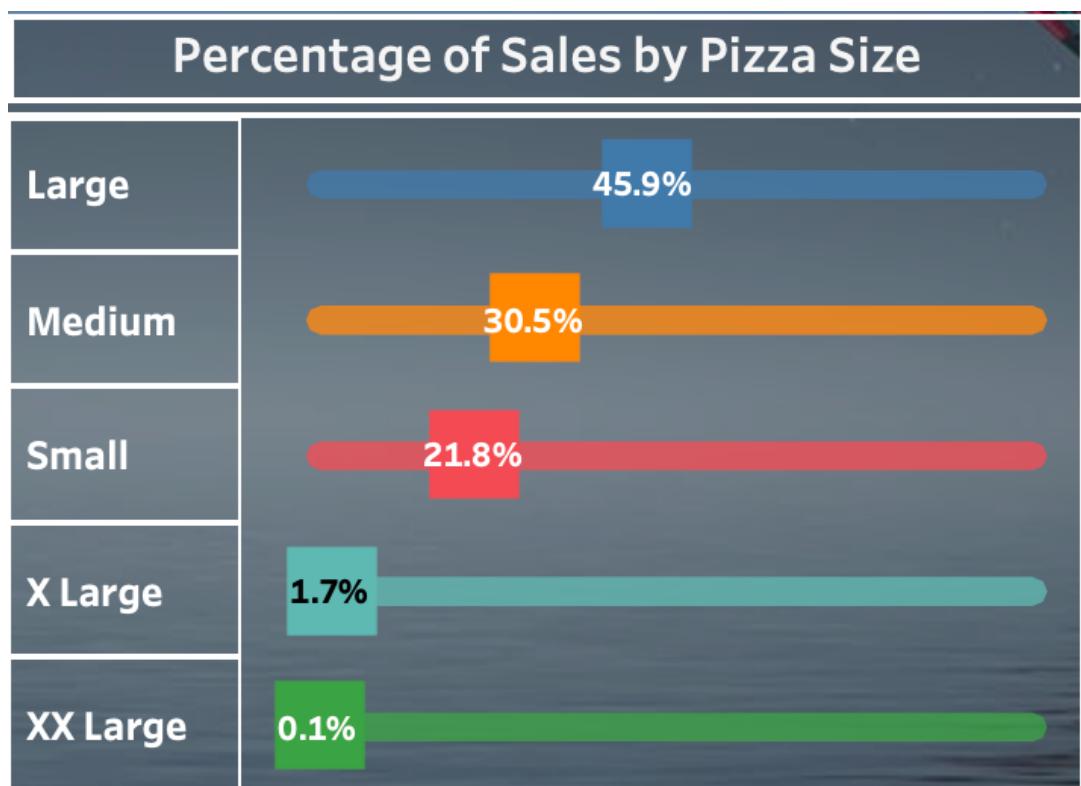
PIZZA_CATEGORY	TOTAL_PIZZAS_SALES_PCT	TOTAL_REVENUE
Classic	26.9	220053
Supreme	25.5	208197
Chicken	24	195920
Veggie	23.7	193690



4. Percentage of Sales by Pizza SIZE

```
SELECT ( pizza_size ) AS PIZZA_SIZE,  
ROUND((SUM( total_price ) * 100) / (SELECT SUM( total_price ) FROM pizza_sales) , 1) AS  
TOTAL_PIZZAS_SALES_PCT,  
ROUND(SUM( total_price )) AS TOTAL_REVENUE  
FROM pizza_sales  
GROUP BY PIZZA_SIZE  
ORDER BY TOTAL_PIZZAS_SALES_PCT DESC;
```

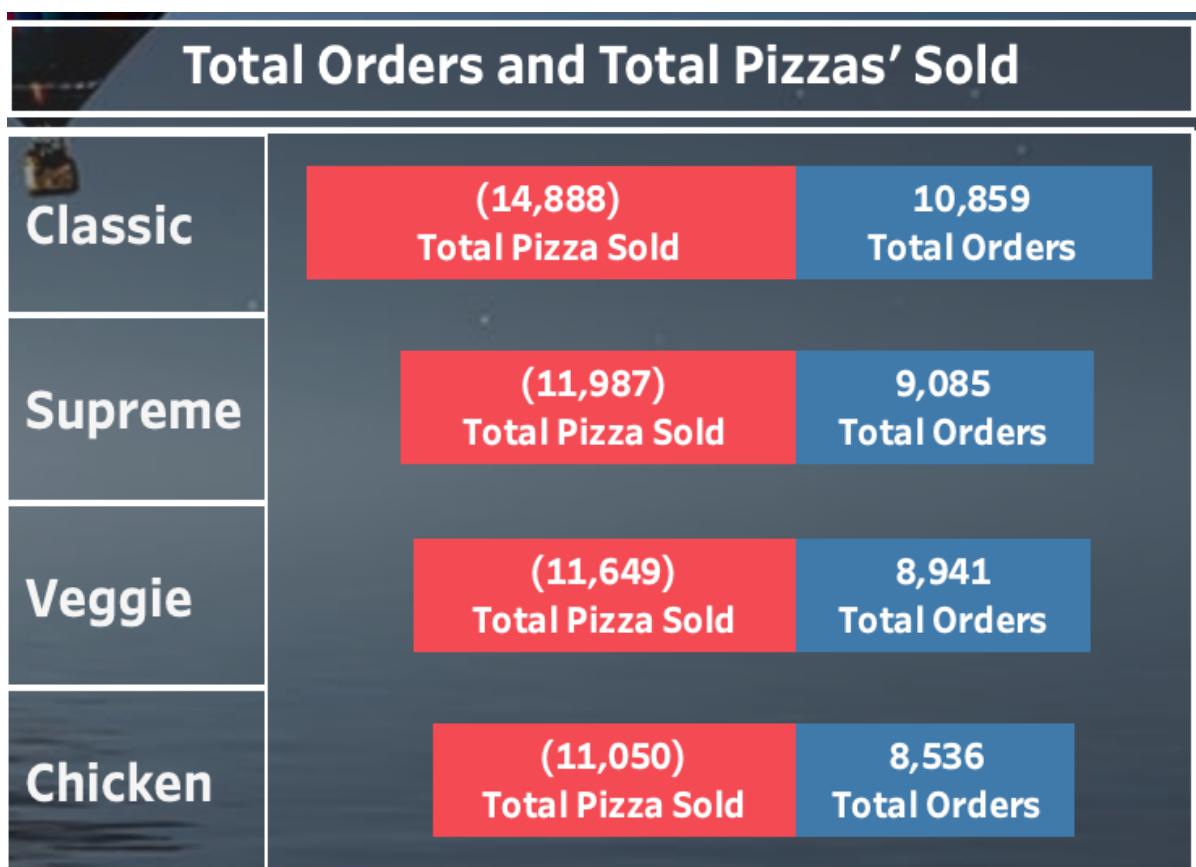
PIZZA_SIZE	TOTAL_PIZZAS_SALES_PCT	TOTAL_REVENUE
L	45.9	375319
M	30.5	249382
S	21.8	178076
XL	1.7	14076
XXL	0.1	1007



5. Total Orders and Total Pizza's Sold by Category

```
SELECT pizza_category AS PIZZA_CATEGORY,  
ROUND(SUM( quantity )) AS TOTAL_QUANTITY,  
COUNT(DISTINCT( order_id )) AS TOTAL_ORDERS  
FROM pizza_sales  
GROUP BY PIZZA_CATEGORY  
ORDER BY TOTAL_ORDERS DESC;
```

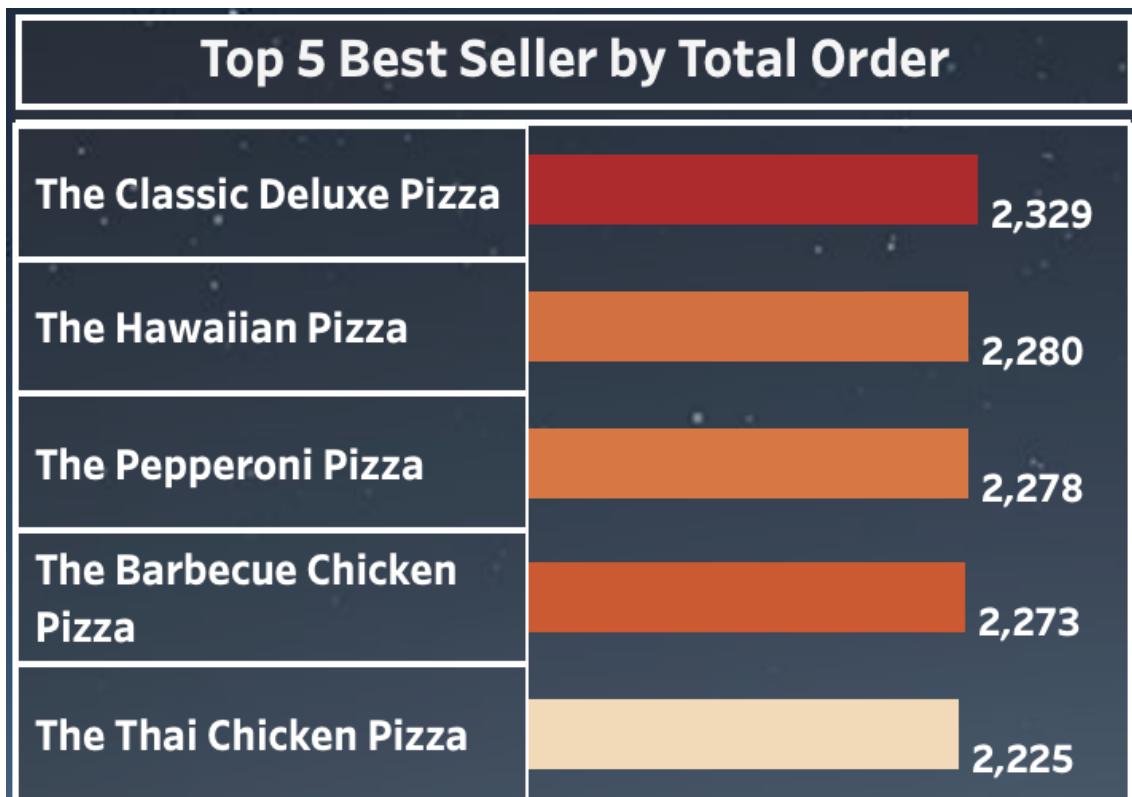
PIZZA_CATEGORY	TOTAL_QUANTITY	TOTAL_ORDERS
Classic	14888	10859
Supreme	11987	9085
Veggie	11649	8941
Chicken	11050	8536



6. Total 5 Best Sellers by Total Orders

```
SELECT pizza_name AS 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

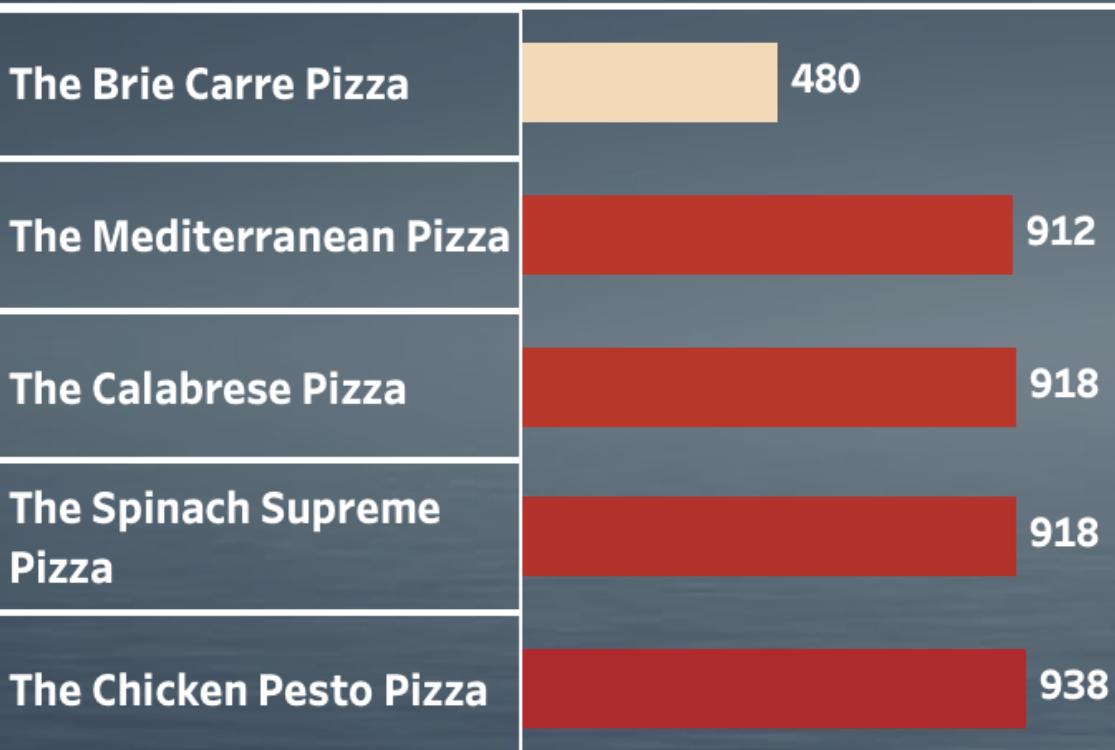


7. Total 5 Worst Sellers by Total Orders

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

PIZZA_NAME	TOTAL_ORDERS
The Brie Carre Pizza	480
The Mediterranean Pizza	912
The Spinach Supreme Pizza	918
The Calabrese Pizza	918
The Chicken Pesto Pizza	938

Top 5 Worst Seller by Total Pizza Order

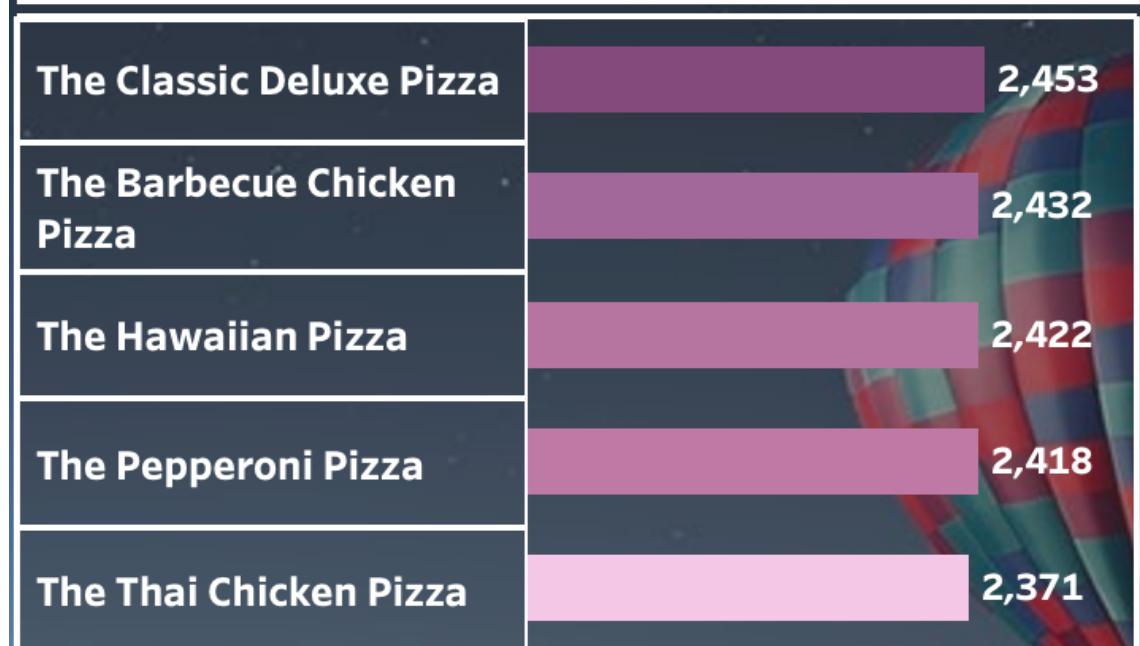


8. Total 5 Best Sellers by Total Pizzas Sold

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

PIZZA_NAME	TOTAL_PIZZAS_SOLD
The Classic Deluxe Pizza	2453
The Barbecue Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	2371

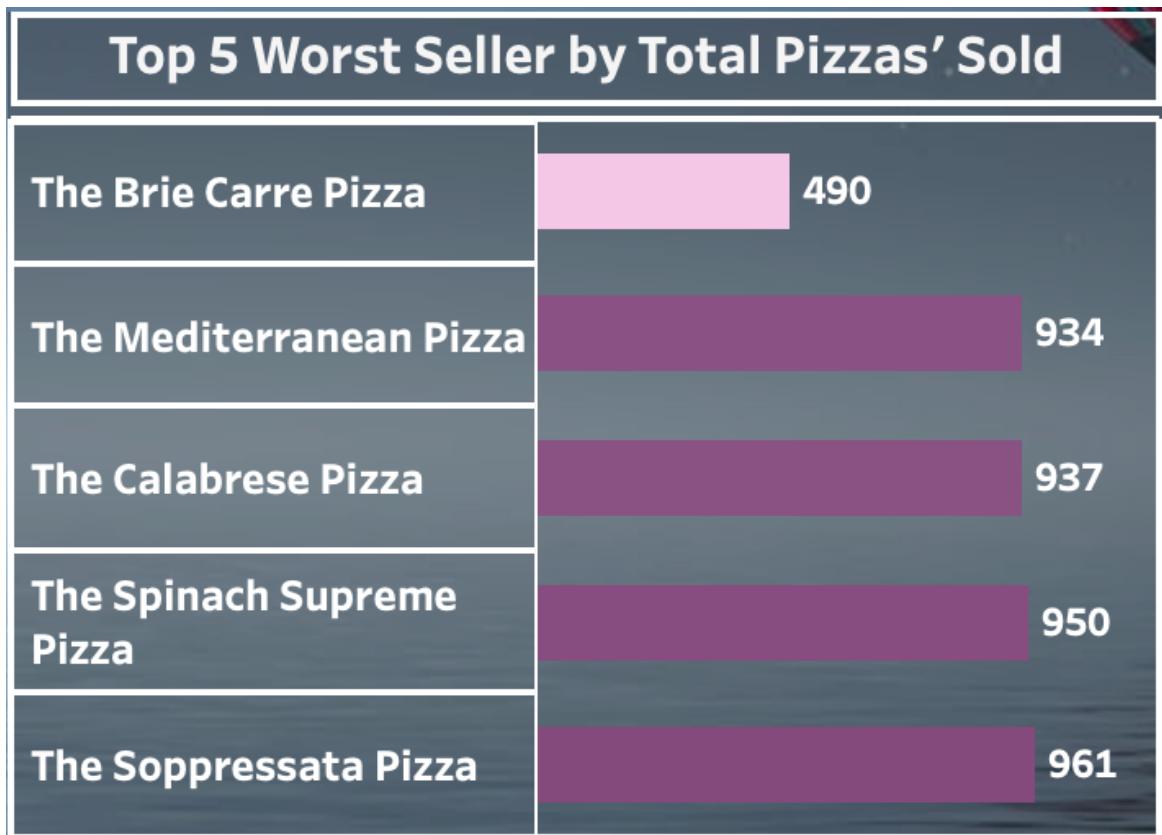
Top 5 Best Seller by Total Pizzas' Sold



9. Total 5 Worst Sellers by Total Pizzas Sold

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

PIZZA_NAME	TOTAL_PIZZAS_SOLD
The Brie Carre Pizza	490
The Mediterranean Pizza	934
The Calabrese Pizza	937
The Spinach Supreme Pizza	950
The Soppressata Pizza	961

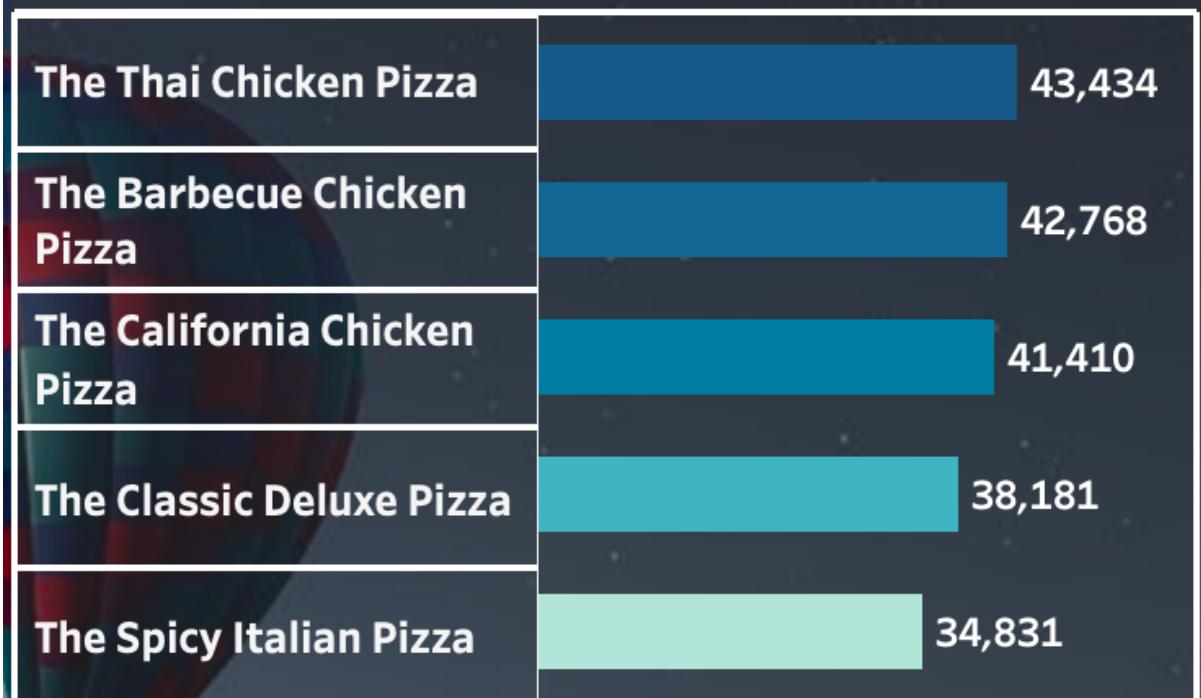


10. Total 5 Best Sellers by Total Revenue

```
SELECT pizza_name AS PIZZA_NAME, ROUND(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
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41410
The Classic Deluxe Pizza	38180
The Spicy Italian Pizza	34831

Top 5 Best Seller by Revenue

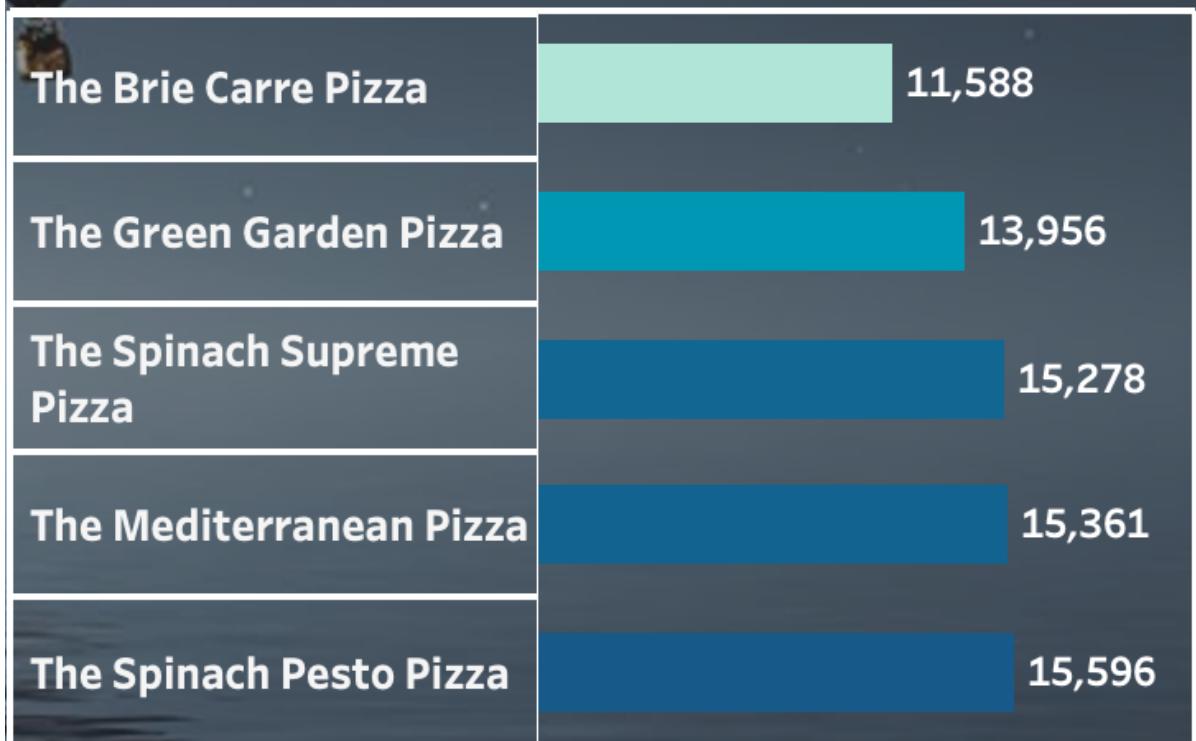


11. Total 5 Worst Sellers by Total Revenue

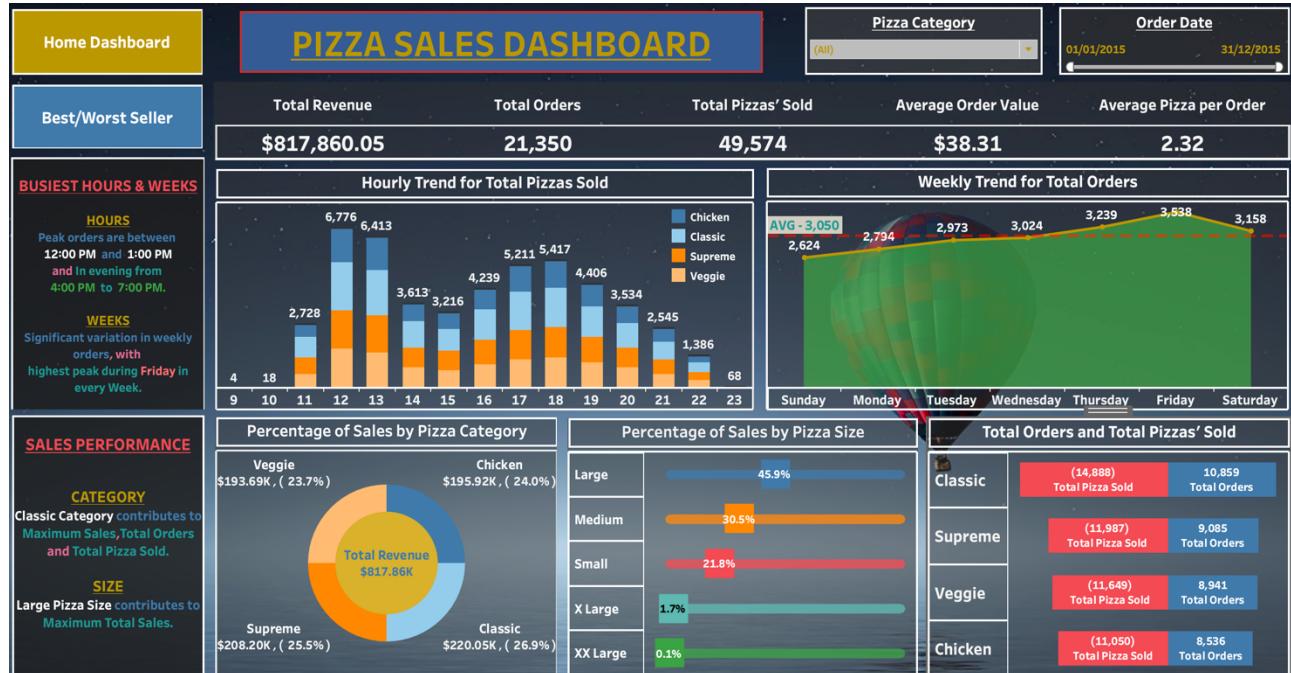
```
SELECT pizza_name AS PIZZA_NAME, ROUND(SUM(total_price)) AS TOTAL_REVENUE  
FROM pizza_sales  
GROUP BY PIZZA_NAME  
ORDER BY TOTAL_REVENUE  
LIMIT 5;
```

PIZZA_NAME	TOTAL_REVENUE
The Brie Carre Pizza	11588
The Green Garden Pizza	13956
The Spinach Supreme Pizza	15278
The Mediterranean Pizza	15360
The Spinach Pesto Pizza	15596

Top 5 Worst Seller by Revenue



Dashboard 1:-



Best & Worst Seller Dashboard 2:-



Conclusion:-

- Peak operational hours are observed during lunchtime and evenings, with Fridays emerging as the busiest day of the week.
- The Classic Category and Large-sized pizzas demonstrate the highest sales volume, indicating their popularity among customers.
- The Thai Chicken Pizza leads in revenue, suggesting its strong appeal to customers willing to spend more.
- The Classic Deluxe Pizza ranks highest in quantity sold and orders, highlighting its consistent popularity among customers.
- The Brie Carre Pizza consistently underperforms, indicating a potential need for re-evaluation or improvement in its presentation or marketing strategy.
- Optimizing operations around peak hours and popular items while addressing underperforming products could significantly enhance overall business performance and profitability.

Improving Sales and Profitability:-

- Implement targeted marketing campaigns during peak hours and on Fridays to capitalize on increased customer traffic.
- Introduce promotional offers or discounts on Classic Category and Large-sized pizzas to incentivize purchases and boost sales volume.
- Enhance the presentation and promotion of the Thai Chicken Pizza to further capitalize on its revenue-generating potential.
- Consider refining the recipe or marketing strategy for the underperforming Brie Carre Pizza to improve its appeal to customers.
- Optimize staffing levels and operational processes during peak hours to ensure efficient service delivery and customer satisfaction.
- Continuously monitor sales data and customer feedback to identify trends, preferences, and areas for further improvement in sales and profitability strategies.

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