🍕 DATA ANALYST PORTFOLIO PROJECT

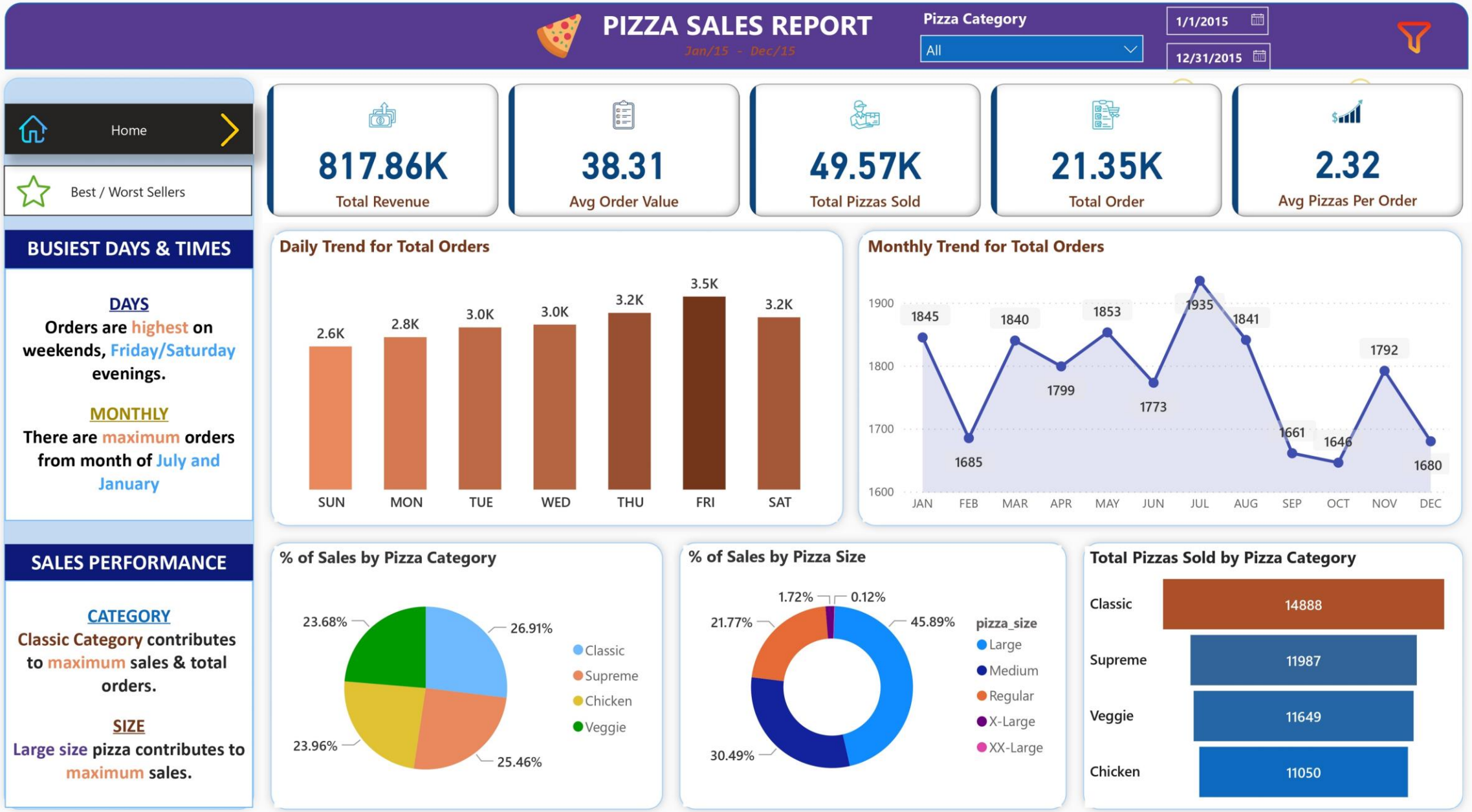
ON PIZZA SALES

DATA ANALYST PORTFOLIO PROJECT

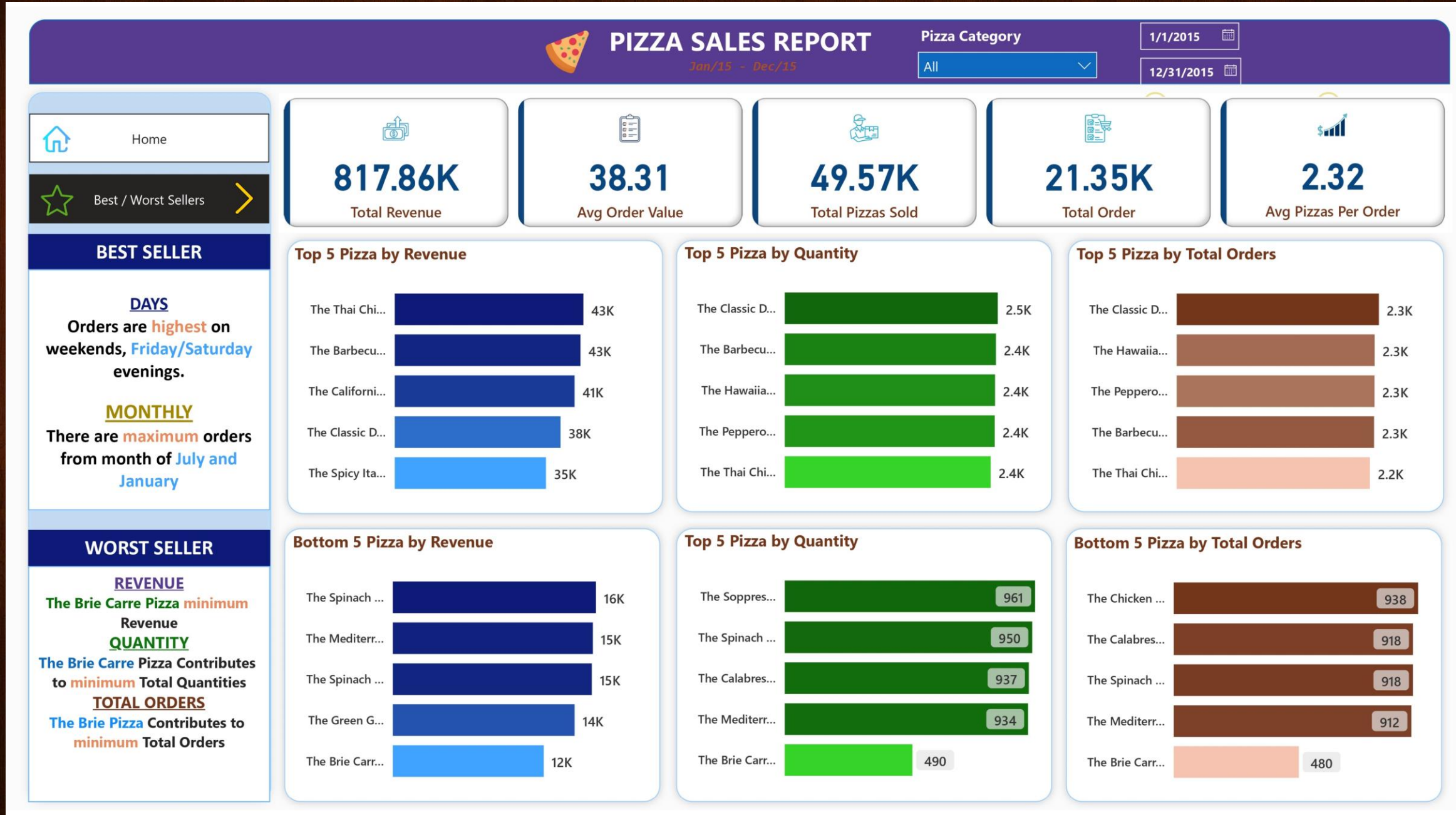
STEPS

- IMPORT DATA
- CREATING DB
- WRITING QUERIES
- CREATING REPORT
- CONNECTING TO MS SQL SERVER WITH POWER BI
- DATA CLEANING
- DATA PROCESSING
- DATA VISUALIZATION

POWER BI DASHBOARD



POWER BI DASHBOARD



PROBLEM STATEMENT

REQUIREMENT

We need to analyze key indicators for our pizza sales data to gain insights into our business performance. Specifically, we want to calculate the following metrics:

1. **Total Revenue:** The sum of the total price 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 Sum of the quantities of all pizzas sold.
4. **Total Orders:** The total 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.

PROBLEM STATEMENT

CHARTS REQUIREMENT

We would like to visualize various aspects of our pizza sales data to gain insights and understand key trends. We have identified the following requirements for creating charts:

1. Daily Trend for Total Orders:
Create a bar chart that displays the daily trend of total orders over a specific time period. This chart wil help us identify any patterns or fluctuations in order volumes on a daily basis.

2. Monthly Trend for Total Orders:
Create a area chart that illustrates the hourly trend of total orders throughout the day. This chart will allow us to identify peak hours or periods of high order activity.

3.Percentage of Sales by Pizza Category:
Create a pie chart that shows the distribution of sales across different pizza categories. This chart will provide insights into the popularity of various pizza categories and their contribution to overall sales.

PROBLEM STATEMENT

CHARTS REQUIREMENT

4. Percentage of Sales by Pizza Size:
Generate a donut chart that represents the percentage of sales attributed to different pizza sizes. This chart will help us understand customer preferences for pizza sizes and their impact on sales.

5. Total Pizzas Sold by Pizza Category:
Create a funnel chart that presents the total number of pizzas sold for each pizza category. This chart will allow us to compare the sales performance of different pizza categories.

6. Top 5 Best Sellers by Revenue, Total Quantity and Total Orders
Create a bar chart highlighting the top 5 best-selling pizzas based on the Revenue, Total Quantity, Total Orders. This chart will help us identify the most popular pizza options.

7. Bottom 5 Best Sellers by Revenue, Total Quantity and Total Orders
Create a bar chart showcasing the bottom 5 worst-selling pizzas based on the Revenue, Total Quantity, Total Orders. This chart will enable us to identify underperforming or less popular pizza options.

SOLUTIONS STATEMENT

PIZZA SALES SQL QUERIES

1. Total Revenue:

```
SELECT SUM(total_price) AS total_revenue FROM pizza_sales;
```

100 %

Results | Messages

	total_revenue
1	817860.05083847

2. Average Order Value:

```
SELECT (SUM(total_price) / COUNT(DISTINCT order_id)) AS avg_order_value
FROM pizza_sales
```

100 %

Results | Messages

	avg_order_value
1	38.3072623343546

SOLUTIONS STATEMENT

PIZZA SALES SQL QUERIES

3. Total Pizzas Sold:

```
SELECT SUM(quantity) AS total_pizza_sold FROM pizza_sales
```

100 %

Results | Messages

	total_pizza_sold
1	49574

4. Total Orders:

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

100 %

Results | Messages

	total_orders
1	21350

SOLUTIONS STATEMENT

PIZZA SALES SQL QUERIES

5. Average Pizzas Per Order:

```
SELECT CAST(CAST(SUM(quantity) AS DECIMAL(10,2)) / CAST(COUNT(DISTINCT order_id)
AS DECIMAL(10,2)) AS DECIMAL (10,2)) AS avg_pizza_per_order FROM pizza_sales;
```

100 %

Results | Messages

	avg_pizza_per_order
1	2.32

SOLUTIONS STATEMENT

CHARTS REQUIREMENT

1. Daily Trend for Total Orders:

```
SELECT DATENAME(DW, order_date) AS order_day, COUNT(DISTINCT order_id) AS total_orders
FROM pizza_sales
GROUP BY DATENAME(DW, order_date)
```

100 %

Results | Messages

	order_day	total_orders
1	Saturday	3158
2	Wednesday	3024
3	Monday	2794
4	Sunday	2624
5	Friday	3538
6	Thursday	3239
7	Tuesday	2973

SOLUTIONS STATEMENT

CHARTS REQUIREMENT

2. Monthly Trend for Total Orders:

```
SELECT DATENAME(MONTH, order_date) AS month_name, COUNT(DISTINCT order_id) AS total_orders
FROM pizza_sales
GROUP BY DATENAME(MONTH, order_date)
ORDER BY total_orders DESC
```

100 %

Results | Messages

	month_name	total_orders
1	July	1935
2	May	1853
3	January	1845
4	August	1841
5	March	1840
6	April	1799
7	November	1792
8	June	1773
9	February	1685
10	December	1680
11	September	1661
12	October	1646

SOLUTIONS STATEMENT

CHARTS REQUIREMENT

3.Percentage of Sales by Pizza Category:

```
SELECT pizza_category, SUM(total_price) AS total_sales, SUM(total_price) * 100 / (SELECT SUM(total_price) FROM pizza_sales) AS pct
FROM pizza_sales
GROUP BY pizza_category
```

100 %

Results | Messages

	pizza_category	total_sales	pct
1	Classic	220053.100021362	26.9059602306976
2	Chicken	195919.5	23.9551375322885
3	Veggie	193690.451004028	23.6825910258677
4	Supreme	208196.99981308	25.4563112111462

SOLUTIONS STATEMENT

CHARTS REQUIREMENT

4. Percentage of Sales by Pizza Size:

```
SELECT pizza_size, SUM(total_price) AS total_sales, SUM(total_price) * 100 / (SELECT SUM(total_price) FROM pizza_sales) AS pct
FROM pizza_sales
GROUP BY pizza_size
ORDER BY pct DESC;
```

100 %

Results | Messages

	pizza_size	total_sales	pct
1	L	375318.701004028	45.8903330244889
2	M	249382.25	30.492044420599
3	S	178076.49981308	21.7734684107037
4	XL	14076	1.72107684995364
5	XXL	1006.6000213623	0.123077294254725

SOLUTIONS STATEMENT

CHARTS REQUIREMENT

5. Total Pizzas Sold by Pizza Category:

```
SELECT pizza_size, CAST(SUM(total_price) AS DECIMAL(10,2)) AS total_sales, 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
ORDER BY pct DESC;
```

100 %

Results | Messages | Client Statistics

	pizza_size	total_sales	pct
1	L	375318.70	45.89
2	M	249382.25	30.49
3	S	178076.50	21.77
4	XL	14076.00	1.72
5	XXL	1006.60	0.12

SOLUTIONS STATEMENT

CHARTS REQUIREMENT

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

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

100 %

Results | Messages

	pizza_name	total_revenue
1	The Thai Chicken Pizza	43434.25
2	The Barbecue Chicken Pizza	42768
3	The California Chicken Pizza	41409.5
4	The Classic Deluxe Pizza	38180.5
5	The Spicy Italian Pizza	34831.25

SOLUTIONS STATEMENT

CHARTS REQUIREMENT

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

```
SELECT TOP 5 pizza_name, SUM(quantity) AS total_quantity FROM pizza_sales
GROUP BY pizza_name
ORDER BY total_quantity ASC
```

100 %

Results | Messages

	pizza_name	total_quantity
1	The Brie Carre Pizza	490
2	The Mediterranean Pizza	934
3	The Calabrese Pizza	937
4	The Spinach Supreme Pizza	950
5	The Soppressata Pizza	961

SOFTWARE USED

- MS OFFICE / EXCEL
- MS SQL SERVER
- SQL SERVER MANAGEMENT STUDIO
- POWER BI