PROBLEM STATEMENT

KPI's 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.

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 will help us identify any patterns or fluctuations in order volumes on a daily basis.

2. **Monthly Trend for Total Orders:** Create a line 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.

4. **Percentage of Sales by Pizza Size:** Generate a pie 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, and Total Orders. This chart will help us identify the most popular pizza options.

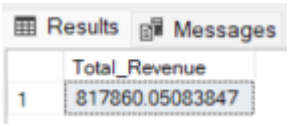
7. **Bottom 5 Worst Sellers by Revenue, Total Quantity, and Total Orders:** Create a bar chart showcasing the bottom 5 worst-selling pizzas based on the Revenue, Total Quantity, and Total Orders. This chart will enable us to identify underperforming or less popular pizza options.

Pizza Sales SQL Queries

A. KPI

1. Total Revenue:

select sum(total_price) as Total_Revenue from pizza_sales

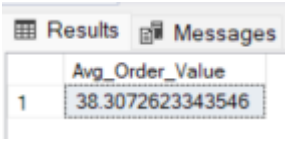


Results Messages

	Total_Revenue
1	817860.05083847

2. Avg Order Value

select sum(total_price) / count(DISTINCT order_id) as Avg_Order_Value from pizza_sales

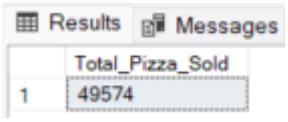


Results Messages

	Avg_Order_Value
1	38.3072623343546

3. Total Pizza Sold

select SUM(quantity) AS Total_Pizza_Sold from pizza_sales

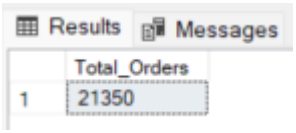


Results Messages

	Total_Pizza_Sold
1	49574

4. Total Orders

select count (distinct order_id) as Total_Orders from pizza_sales

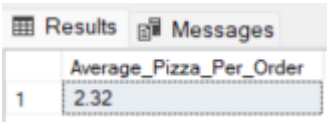


Results Messages

	Total_Orders
1	21350

5. Avg. Pizza 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 Average_Pizza_Per_Order from pizza_sales



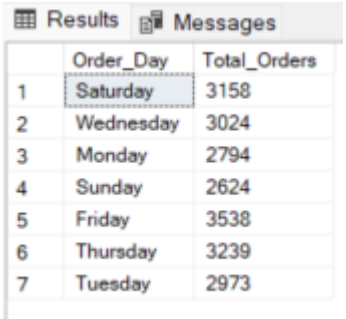
Results Messages

	Average_Pizza_Per_Order
1	2.32

B. CHARTS REQUIREMENT

6. 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)



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

7. 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
```

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

8. Percentage of Sales by Pizza Category

```
SELECT pizza_category,
    ROUND(SUM(total_price),2) as Total_Sales,
    ROUND((SUM(total_price) * 100) / (SELECT SUM(total_price) FROM pizza_sales where MONTH
(order_date)=1),2) AS Percentage
FROM pizza_sales
where MONTH (order_date)=1
GROUP BY pizza_category
```

Results Messages

	pizza_category	Total_Sales	Percentage
1	Classic	18619.4	26.68
2	Chicken	16188.75	23.2
3	Veggie	17055.4	24.44
4	Supreme	17929.75	25.69

9. Percentage of Sales by Pizza Size

```
SELECT pizza_size,
    ROUND(SUM(total_price),2) as Total_Sales,
    ROUND((SUM(total_price) * 100) /
        (SELECT SUM(total_price) FROM pizza_sales where Datepart (quarter, order_date)=1),2) AS Percentage
FROM pizza_sales
where Datepart (quarter, order_date)=1
GROUP BY pizza_size
Order by Percentage DESC
```

Results Messages

	pizza_size	Total_Sales	Percentage
1	L	95229.65	46.37
2	M	61159	29.78
3	S	45384.25	22.1
4	XL	3289.5	1.6
5	XXL	287.6	0.14

10. Total Pizzas Sold by Pizza Category

```
select pizza_category,
        sum(quantity) as Total_Quantity_Sold
from pizza_sales
where month(order_date)=1
group by pizza_category
order by Total_Quantity_Sold DESC
```

Results Messages

	pizza_category	Total_Quantity_Sold
1	Classic	1257
2	Supreme	1044
3	Veggie	1018
4	Chicken	913

11. 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
```

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

```
select Top 5 pizza_name,
sum (quantity) as Total_Quantity from pizza_sales
group by pizza_name
order by Total_Quantity DESC
```

Results Messages

	pizza_name	Total_Quantity
1	The Classic Deluxe Pizza	2453
2	The Barbecue Chicken Pizza	2432
3	The Hawaiian Pizza	2422
4	The Pepperoni Pizza	2418
5	The Thai Chicken Pizza	2371

```
SELECT TOP 5 pizza_name,
COUNT(order_id) AS Total_Orders
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Orders;
```

Results Messages

	pizza_name	Total_Orders
1	The Brie Carre Pizza	480
2	The Mediterranean Pizza	923
3	The Calabrese Pizza	927
4	The Spinach Supreme Pizza	940
5	The Soppressata Pizza	957

12. Bottom 5 Worst Sellers by Revenue, Total Quantity, and Total Orders

```
-- Bottom 5 Worst Sellers by Revenue
SELECT TOP 5 pizza_name,
SUM(total_price) AS Total_Revenue
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Revenue ASC;
```

Results Messages

	pizza_name	Total_Revenue
1	The Brie Carre Pizza	11588.4998130798
2	The Green Garden Pizza	13955.75
3	The Spinach Supreme Pizza	15277.75
4	The Mediterranean Pizza	15360.5
5	The Spinach Pesto Pizza	15596

-- Bottom 5 Worst Sellers by Total Quantity

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

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

-- Bottom 5 Worst Sellers by Total Orders

```
SELECT TOP 5 pizza_name,
COUNT(order_id) AS Total_Orders
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Orders ASC;
```

Results Messages

	pizza_name	Total_Orders
1	The Brie Carre Pizza	480
2	The Mediterranean Pizza	923
3	The Calabrese Pizza	927
4	The Spinach Supreme Pizza	940
5	The Soppressata Pizza	957