PROBLEM STATEMENT

A. KPI's REQUIREMENT

We need to analyze key indicators for our pizza sales data to gain insights into our business performance.Specially,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.

A. CHARTS REQUIREMENT

We would like to visualize various aspects of our feature cells data to gain insight 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 worders over a specific time period. This chart will help us identify any patterns or fluctuations in worder volumes on a daily basis.

2. Hourly Trend for Total orders :

Create a line chart that illustrates the hourly trend of total worders throughout the day. This chart will allow us to identify peak hours or periods of high worder activity.

3. Percentage of Sales by Feature Category :

Create a pie chart that shows the distribution of sales across different feature categories. This chart will provide insights into the popularity of various feature 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 size 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-Seller by Total Pizzas Sold :

Create a bar chart highlighting the top 5 best-selling pizzas based on the total number of pizzas sold. This chart will help us identify the most popular pizza options.

7. Bottom 5 Worst-Sellers by Total Pizzas Sold:

Create a bar chart showcasing the bottom 5 worst-selling pizzas based on the total number of pizzas sold. This chart will enable us to identify underperforming or less popular pizza options.

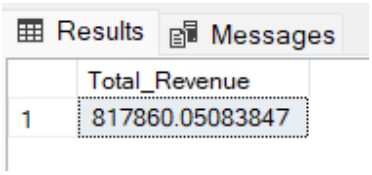
PIZZA SALES SQL QUERIES

A. KPI's REQUIREMENT

We need to analyze key indicators for our pizza sales data to gain insights into our bussiness

1. Total Revenue:

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

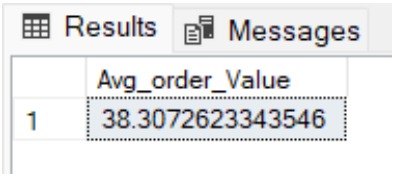


Results | Messages

	Total_Revenue
1	817860.05083847

2. Average Order Value

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

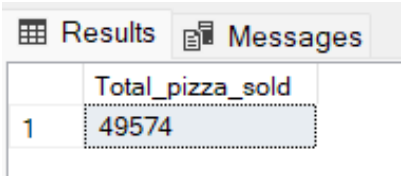


Results | Messages

	Avg_order_Value
1	38.3072623343546

3. Total Pizzas Sold

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

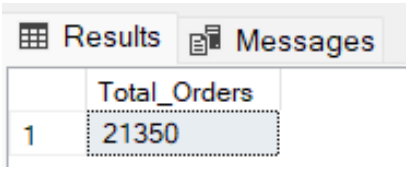


Results | Messages

	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. 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_Pizzas_per_order
FROM pizza_sales
```

Results | Messages

	Avg_Pizzas_per_order
1	2.32

B. 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)
```

Output:

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

C. Hourly Trend for Orders

```
SELECT DATEPART(HOUR, order_time) as order_hours, COUNT(DISTINCT order_id)
as total_orders
from pizza_sales
group by DATEPART(HOUR, order_time)
order by DATEPART(HOUR, order_time)
```

Output

Results Messages

	order_hours	total_orders
1	9	1
2	10	8
3	11	1231
4	12	2520
5	13	2455
6	14	1472
7	15	1468
8	16	1920
9	17	2336
10	18	2399
11	19	2009
12	20	1642
13	21	1198
14	22	663
15	23	28

D. % of Sales by 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
```

Output

Results Messages

	pizza_category	total_revenue	PCT
1	Classic	220053.10	26.91
2	Chicken	195919.50	23.96
3	Veggie	193690.45	23.68
4	Supreme	208197.00	25.46

E. % of Sales by 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
ORDER BY pizza_size
```

Output

Results Messages

	pizza_size	total_revenue	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

F. Total Pizzas Sold by Pizza Category

```
SELECT pizza_category, SUM(quantity) as Total_Quantity_Sold
FROM pizza_sales
WHERE MONTH(order_date) = 2
GROUP BY pizza_category
ORDER BY Total_Quantity_Sold DESC
```

Output

Results Messages

	pizza_category	Total_Quantity_Sold
1	Classic	14888
2	Supreme	11987
3	Veggie	11649
4	Chicken	11050

G. Top 5 Best Sellers by Total Pizzas Sold

```
SELECT Top 5 pizza_name, SUM(quantity) AS Total_Pizza_Sold
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Pizza_Sold DESC
```

Output

	pizza_name	Total_Pizza_Sold
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

H. Bottom 5 Best Sellers by Total Pizzas Sold

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

Output

Results Messages

	pizza_name	Total_Pizza_Sold
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

NOTE

If you want to apply the Month, Quarter, Week filters to the above queries you can use WHERE clause. Follow some of below examples

```
SELECT DATENAME(DW, order_date) AS order_day, COUNT(DISTINCT order_id) AS
total_orders
FROM pizza_sales
WHERE MONTH(order_date) = 1
GROUP BY DATENAME(DW, order_date)
```

**Here MONTH(order_date) = 1 indicates that the output is for the month of January. MONTH(order_date) = 4 indicates output for Month of April.*

```
SELECT DATENAME(DW, order_date) AS order_day, COUNT(DISTINCT order_id) AS
total_orders
FROM pizza_sales
WHERE DATEPART(QUARTER, order_date) = 1
GROUP BY DATENAME(DW, order_date)
```

**Here DATEPART(QUARTER, order_date) = 1 indicates that the output is for the Quarter 1. MONTH(order_date) = 3 indicates output for Quarter 3.*