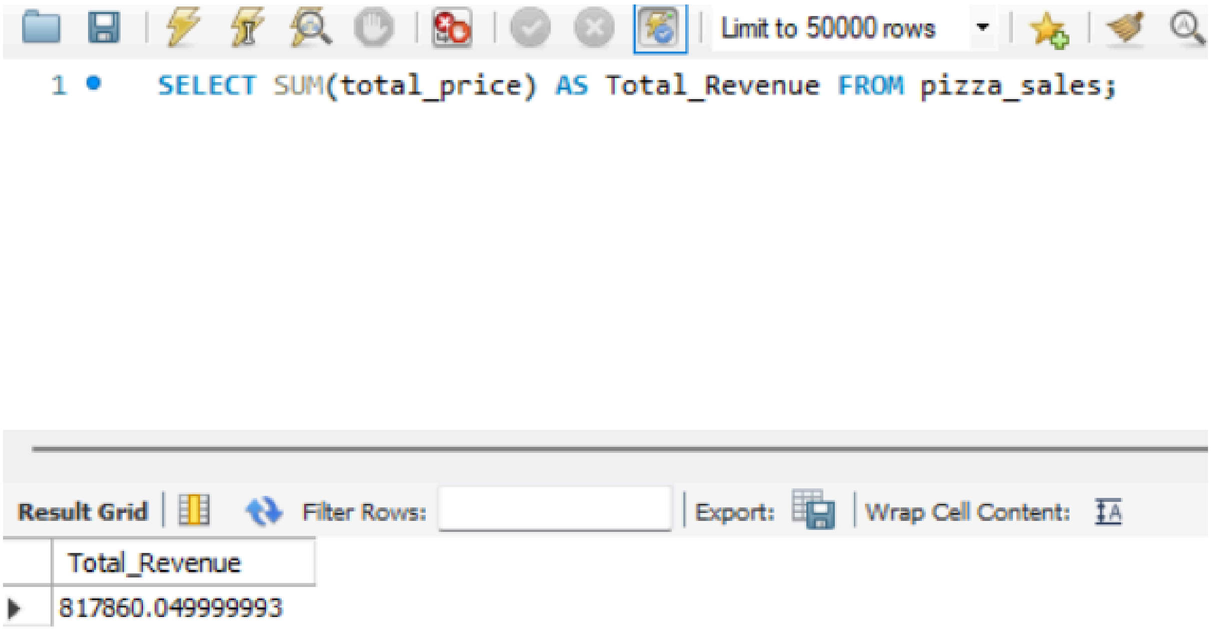
PROBLEM STATEMENT

KPI's Requirement

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

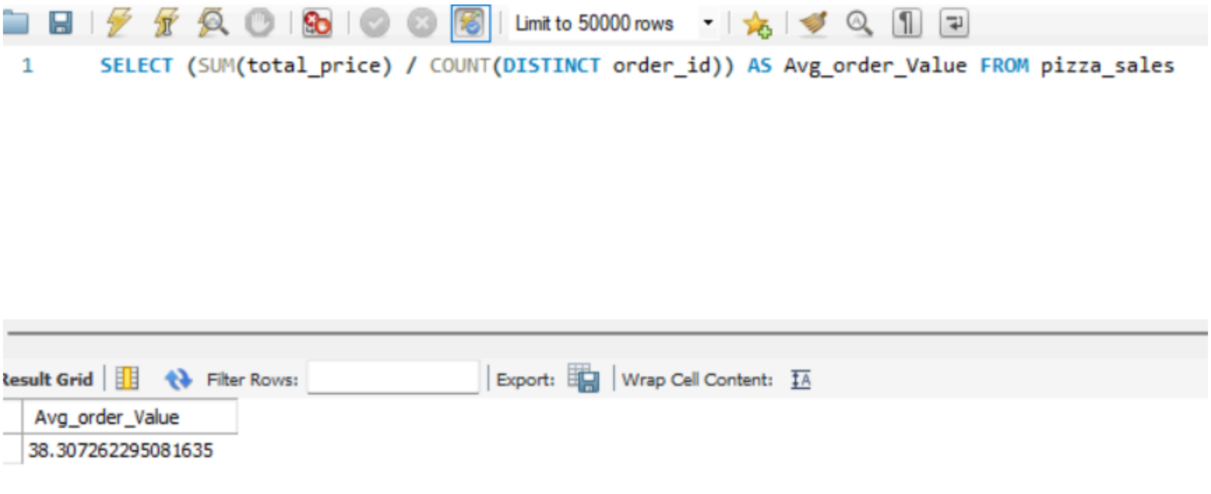
1. **Total Revenue:** The sum of the total price of all pizza orders



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

```
Total_Revenue
817860.049999993
```

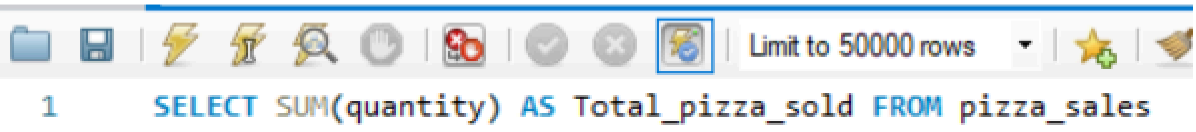
2. **Average Order Value:** The average amount spent per order, calculated by dividing the total revenue by the total number of orders.



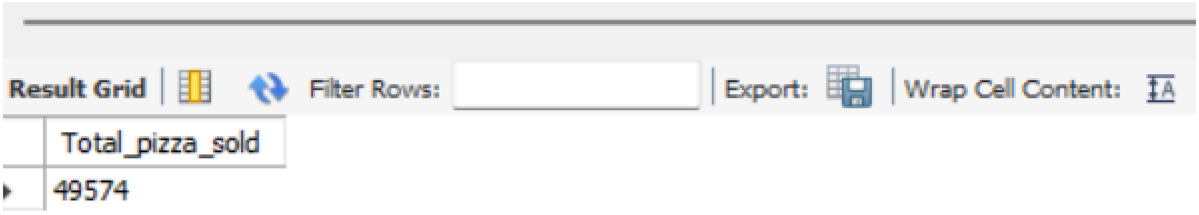
```
SELECT (SUM(total_price) / COUNT(DISTINCT order_id)) AS Avg_order_Value FROM pizza_sales
```

```
Avg_order_Value
38.307262295081635
```

3. **Total Pizzas Sold:** The sum of the quantities of all pizzas sold.

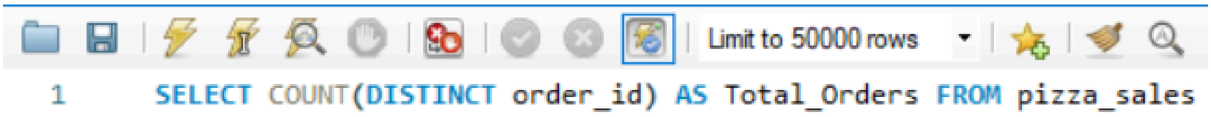


```sql
SELECT SUM(quantity) AS Total_pizza_sold FROM pizza_sales
```

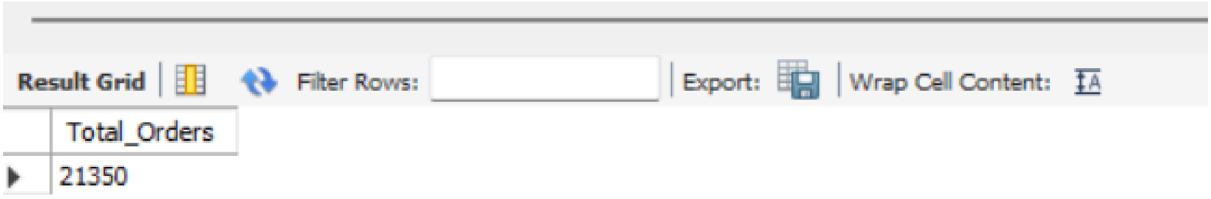


Total_pizza_sold
49574

4. **Total Orders:** The total number of orders placed.

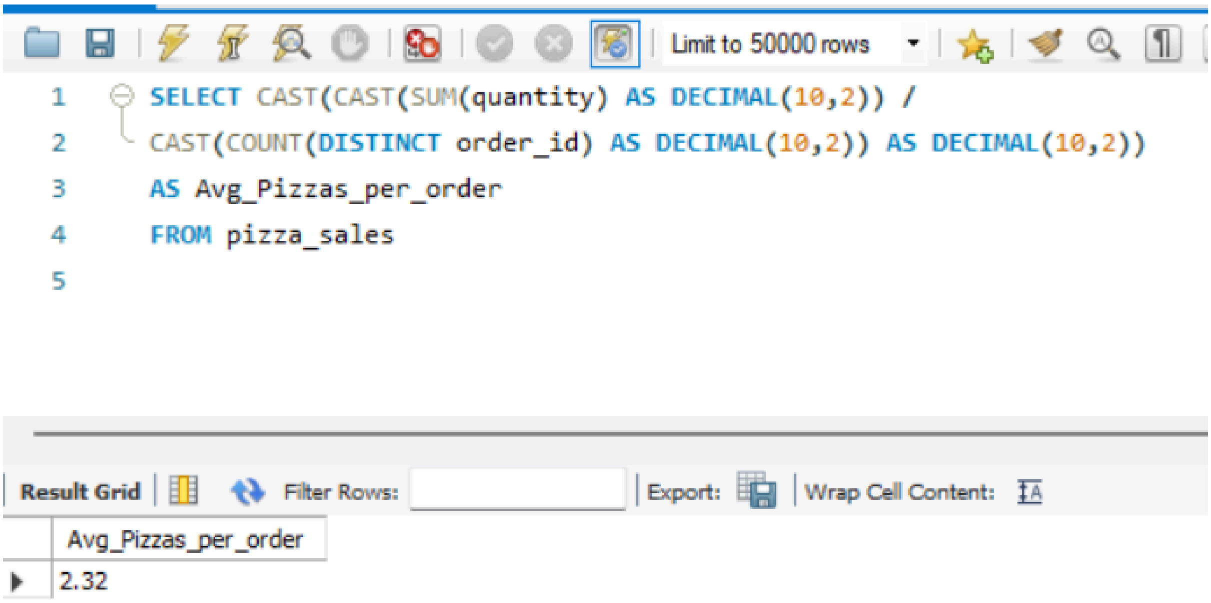


```sql
SELECT COUNT(DISTINCT order_id) AS Total_Orders FROM pizza_sales
```



Total_Orders
21350

5. **Average Pizza 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.



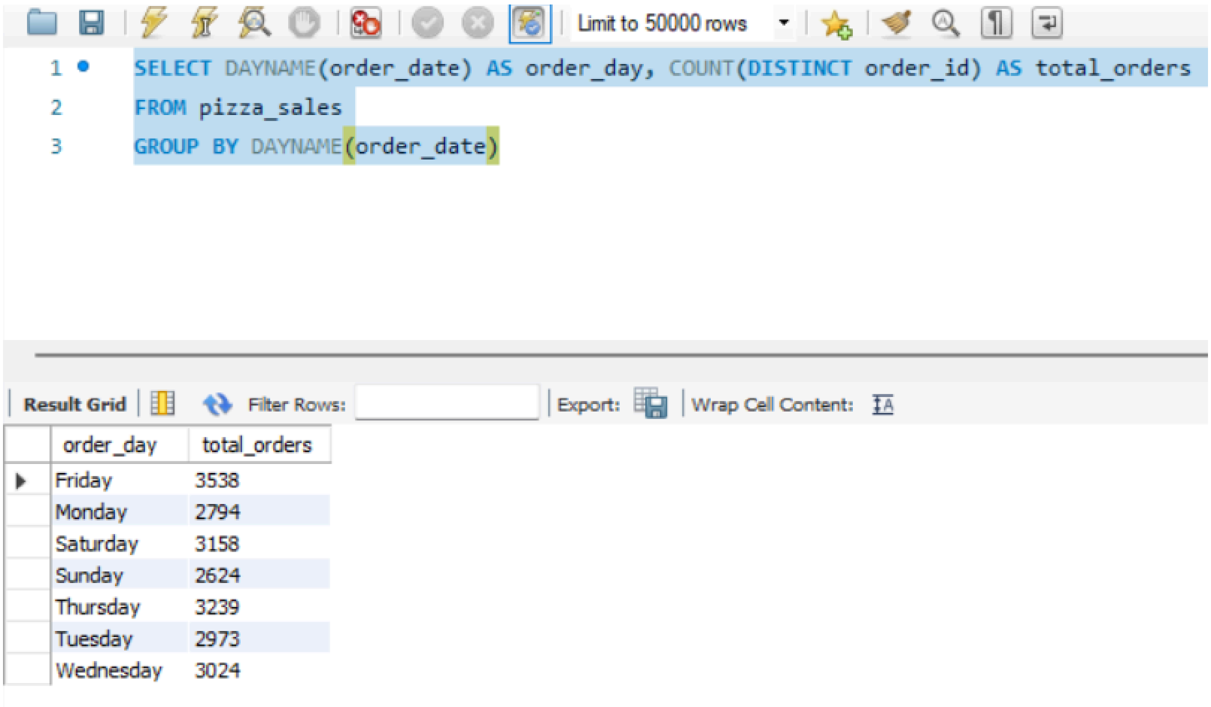
```sql
SELECT CAST(CAST(SUM(quantity) AS DECIMAL(10,2)) /
CAST(COUNT(DISTINCT order_id) AS DECIMAL(10,2)) AS DECIMAL(10,2))
AS Avg_Pizzas_per_order
FROM pizza_sales
```

Avg_Pizzas_per_order
2.32

Charts Requirement

We would like to visualise 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.

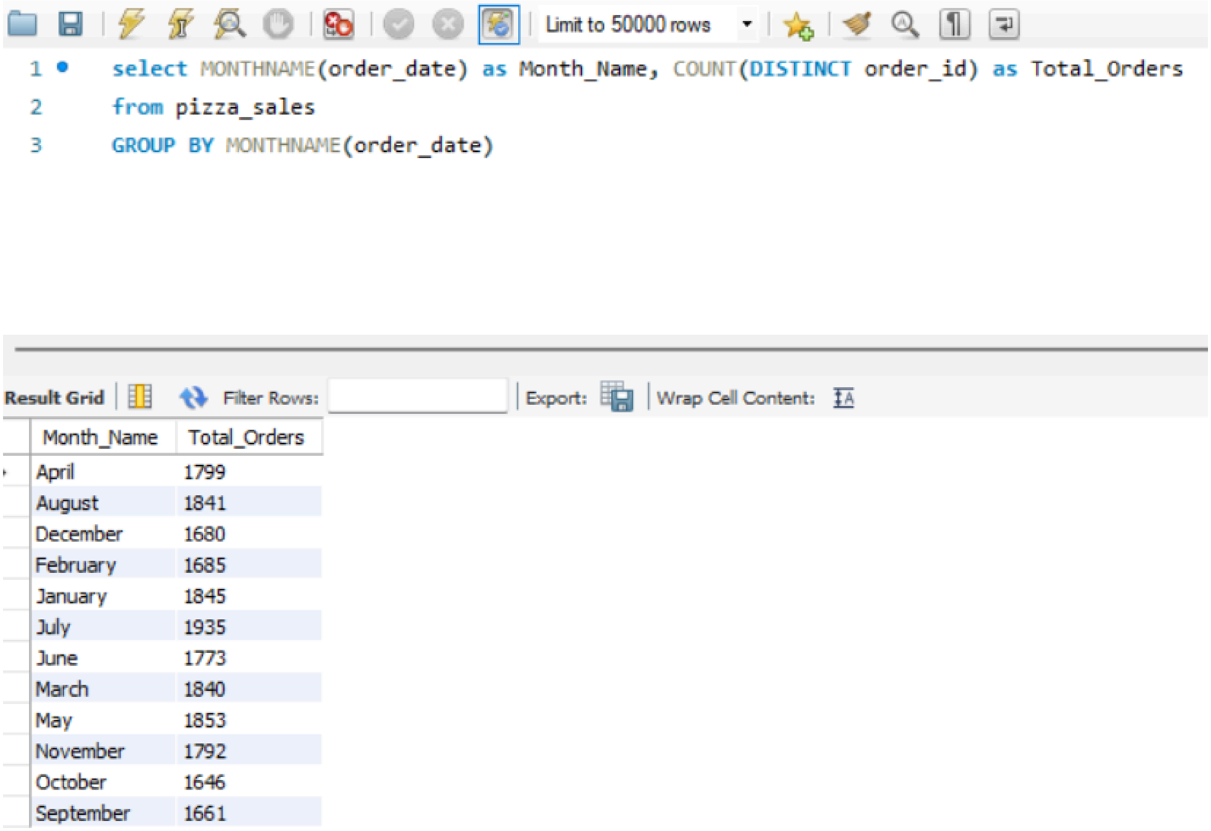


```sql
SELECT DAYNAME(order_date) AS order_day, COUNT(DISTINCT order_id) AS total_orders
FROM pizza_sales
GROUP BY DAYNAME(order_date)
```

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

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.

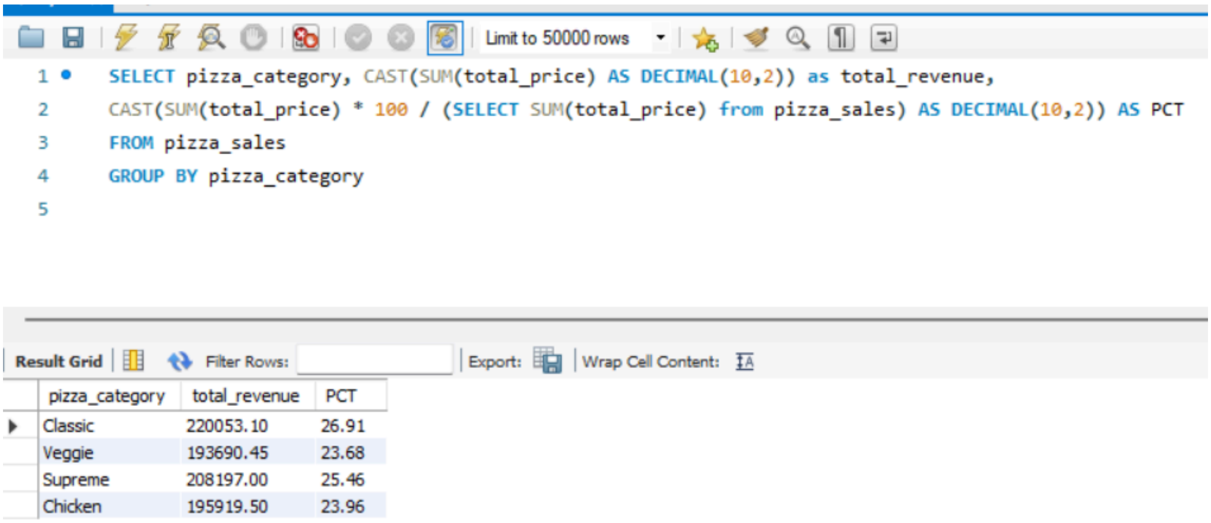


```sql
select MONTHNAME(order_date) as Month_Name, COUNT(DISTINCT order_id) as Total_Orders
from pizza_sales
GROUP BY MONTHNAME(order_date)
```

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

3. **Percentage of Sales by Pizza Category:**

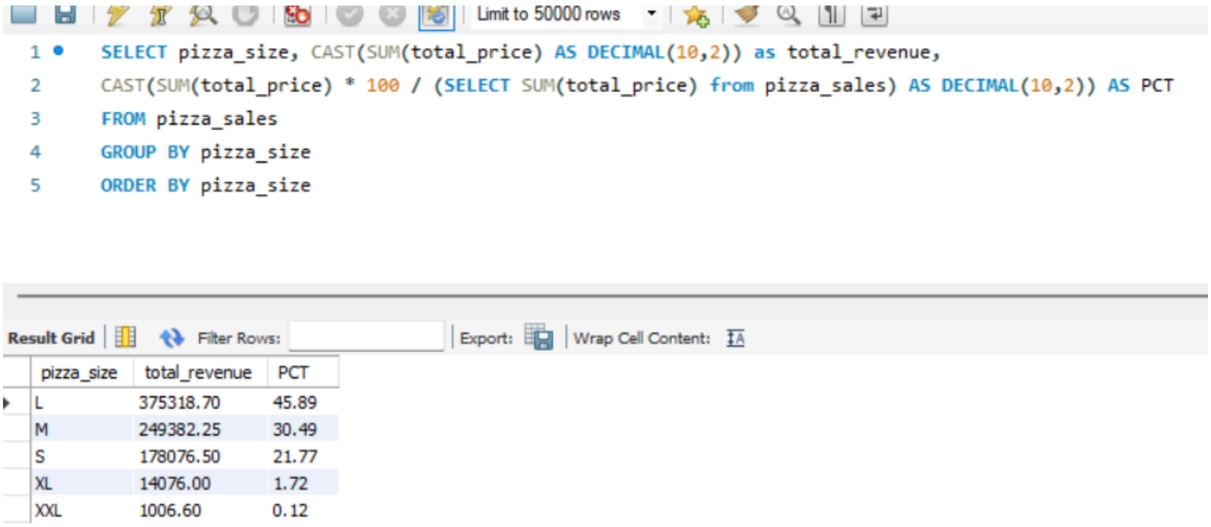
Create a pie chart that shows the distribution of sales across different pizza categories. This chart will provide insights into the popularity of various pizza categories and their contribution to overall sales.



```sql
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

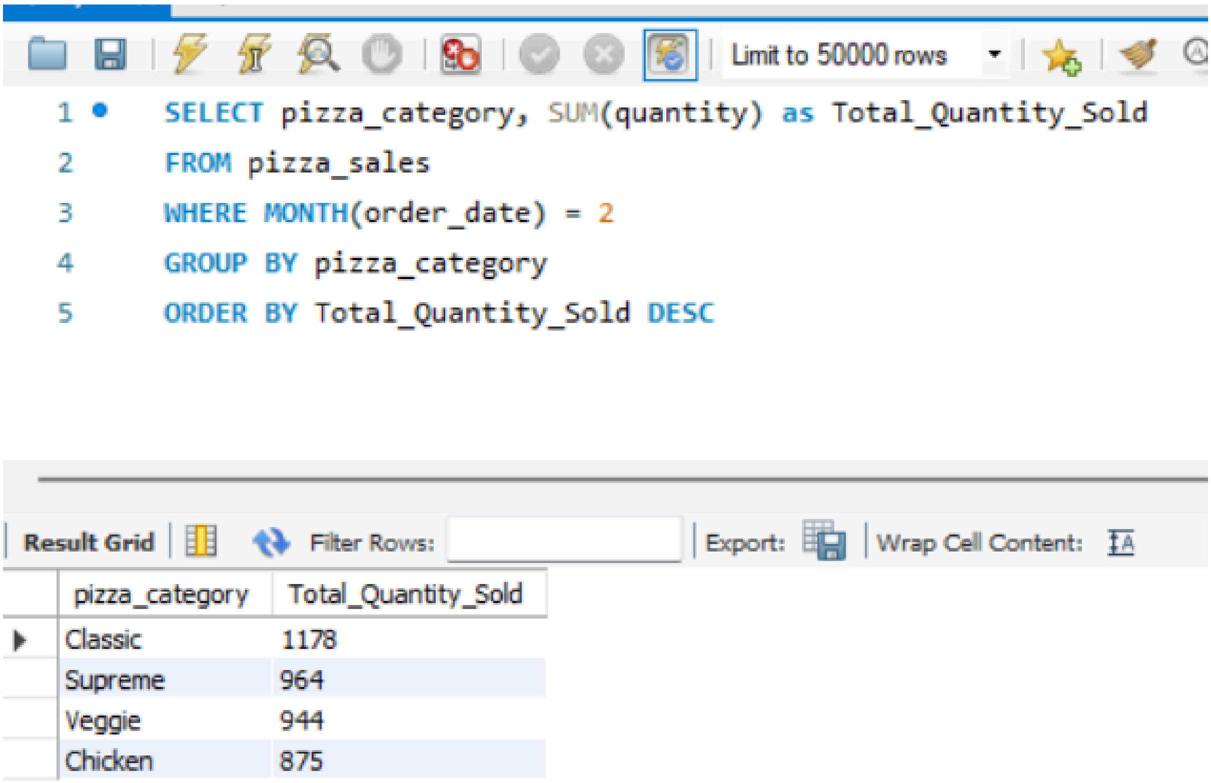
Percentage of sales by pizza size:



```sql
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
```

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

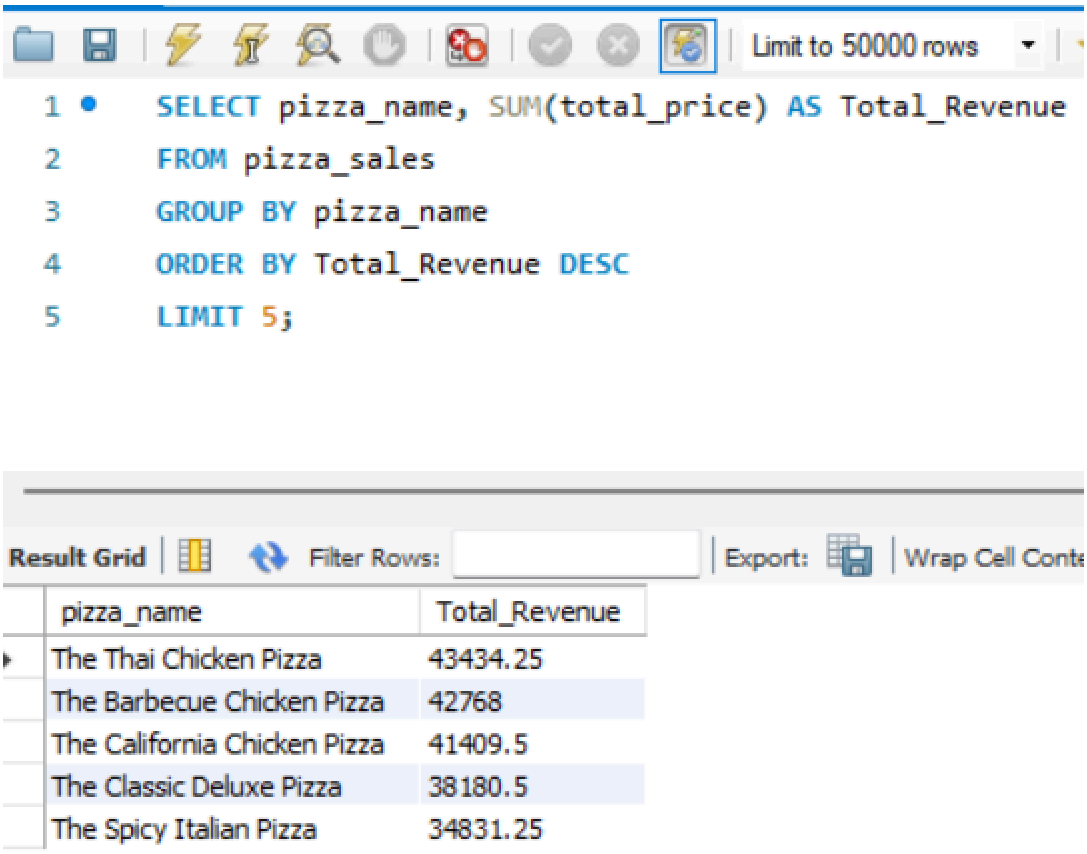
Total Pizzas Sold by Pizza Category:



```sql
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
```

pizza_category	Total_Quantity_Sold
Classic	1178
Supreme	964
Veggie	944
Chicken	875

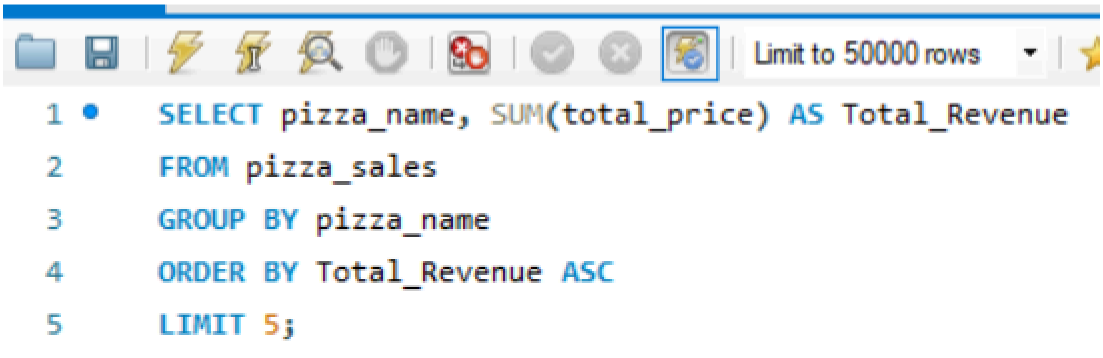
Top 5 Pizzas by Revenue:



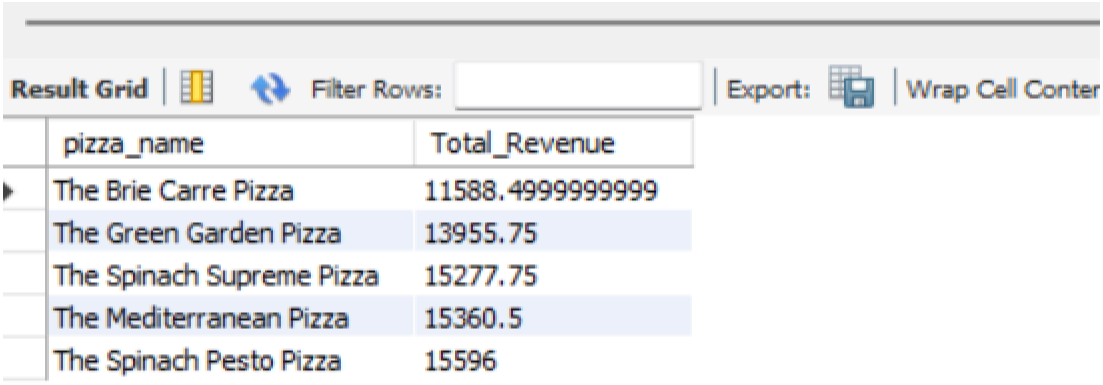
```sql
SELECT pizza_name, SUM(total_price) AS Total_Revenue
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Revenue DESC
LIMIT 5;
```

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

Bottom 5 Pizzas by Revenue:

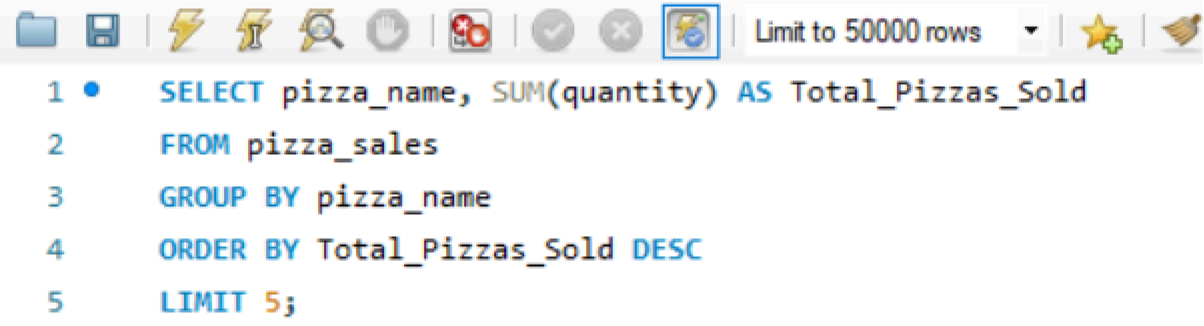


```sql
SELECT pizza_name, SUM(total_price) AS Total_Revenue
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Revenue ASC
LIMIT 5;
```

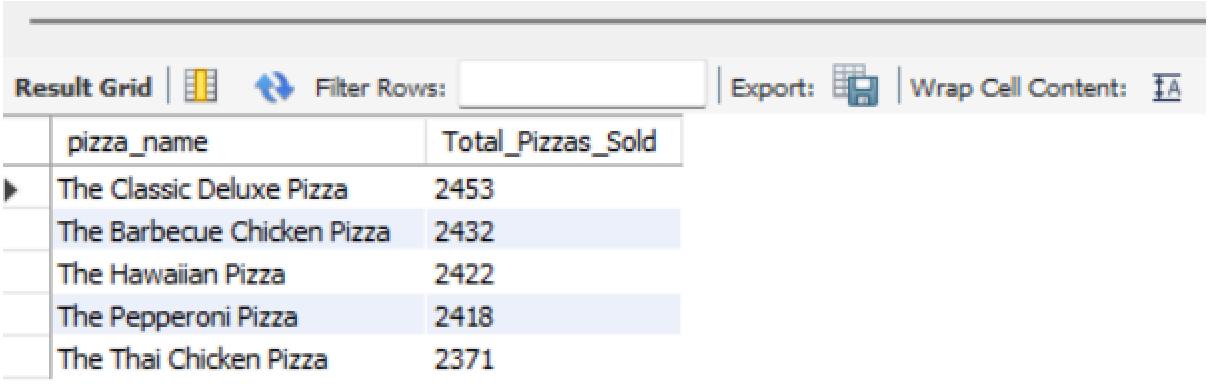


pizza_name	Total_Revenue
The Brie Carre Pizza	11588.4999999999
The Green Garden Pizza	13955.75
The Spinach Supreme Pizza	15277.75
The Mediterranean Pizza	15360.5
The Spinach Pesto Pizza	15596

Top 5 Pizzas by Quantity

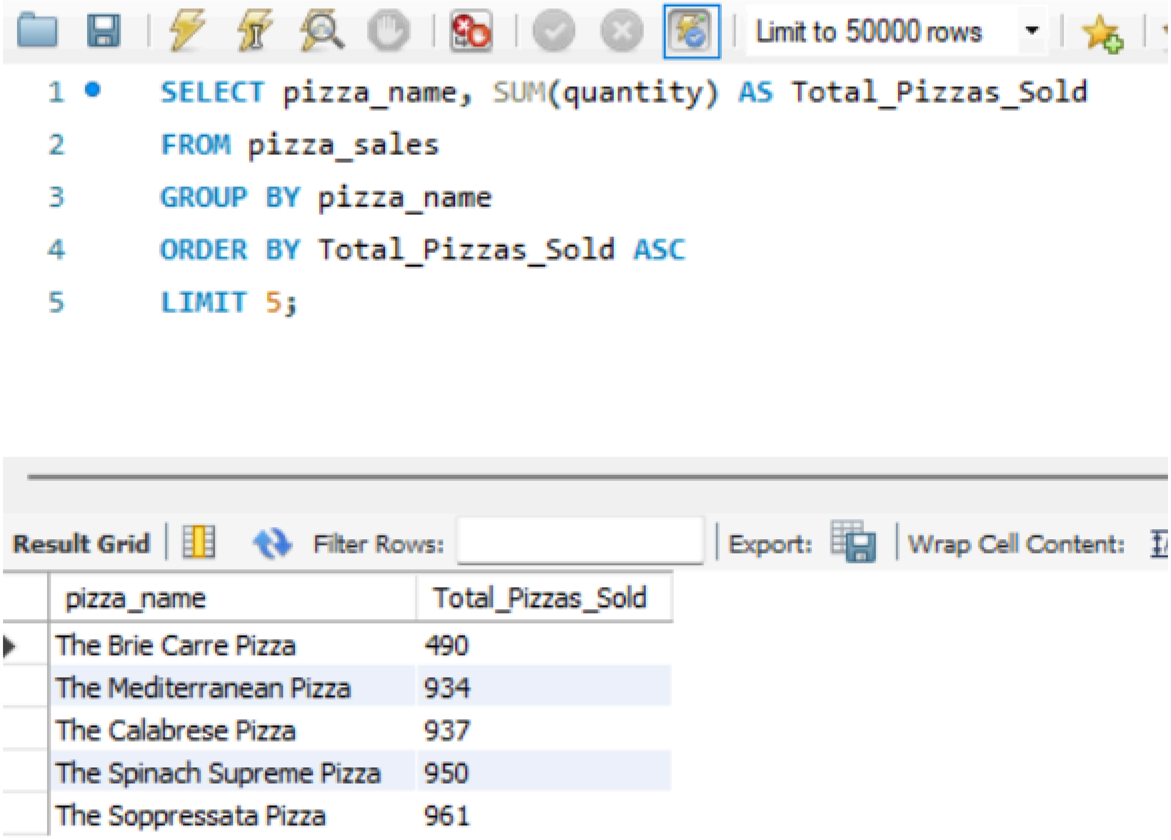


```sql
SELECT pizza_name, SUM(quantity) AS Total_Pizzas_Sold
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Pizzas_Sold DESC
LIMIT 5;
```



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

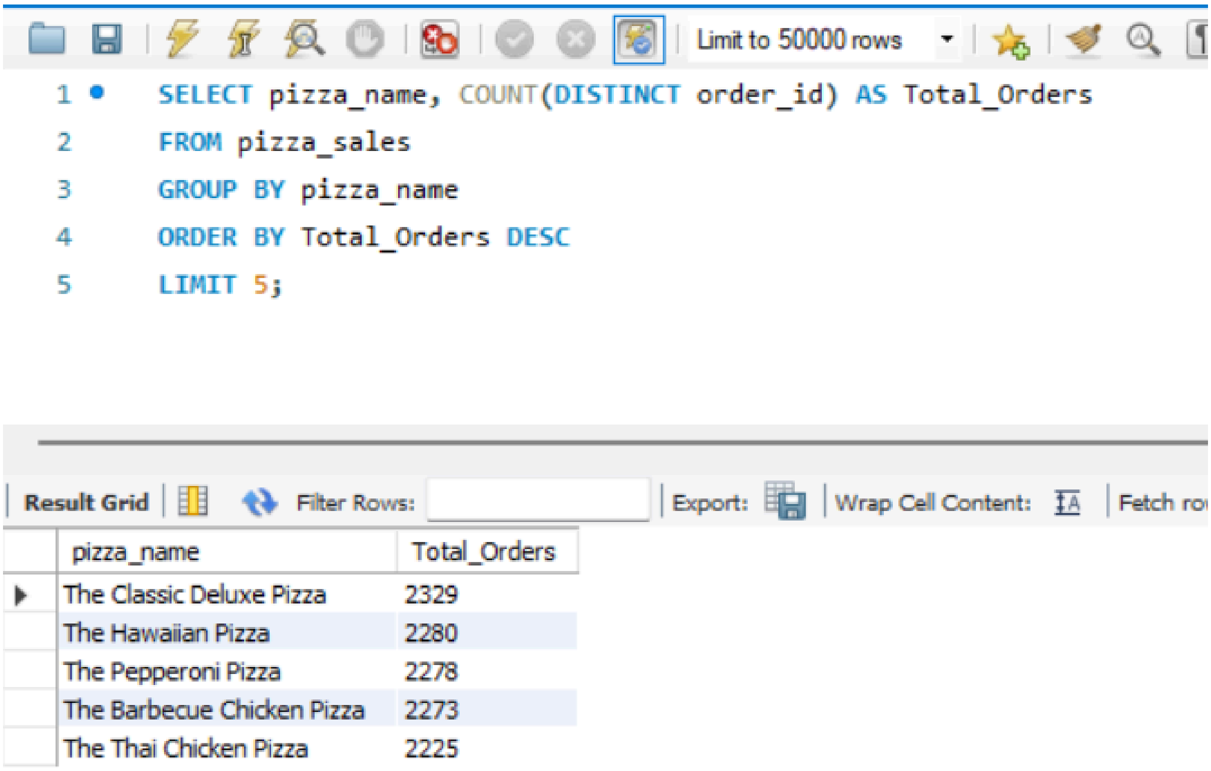
Bottom 5 Pizzas by Quantity:



```sql
SELECT pizza_name, SUM(quantity) AS Total_Pizzas_Sold
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Pizzas_Sold ASC
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

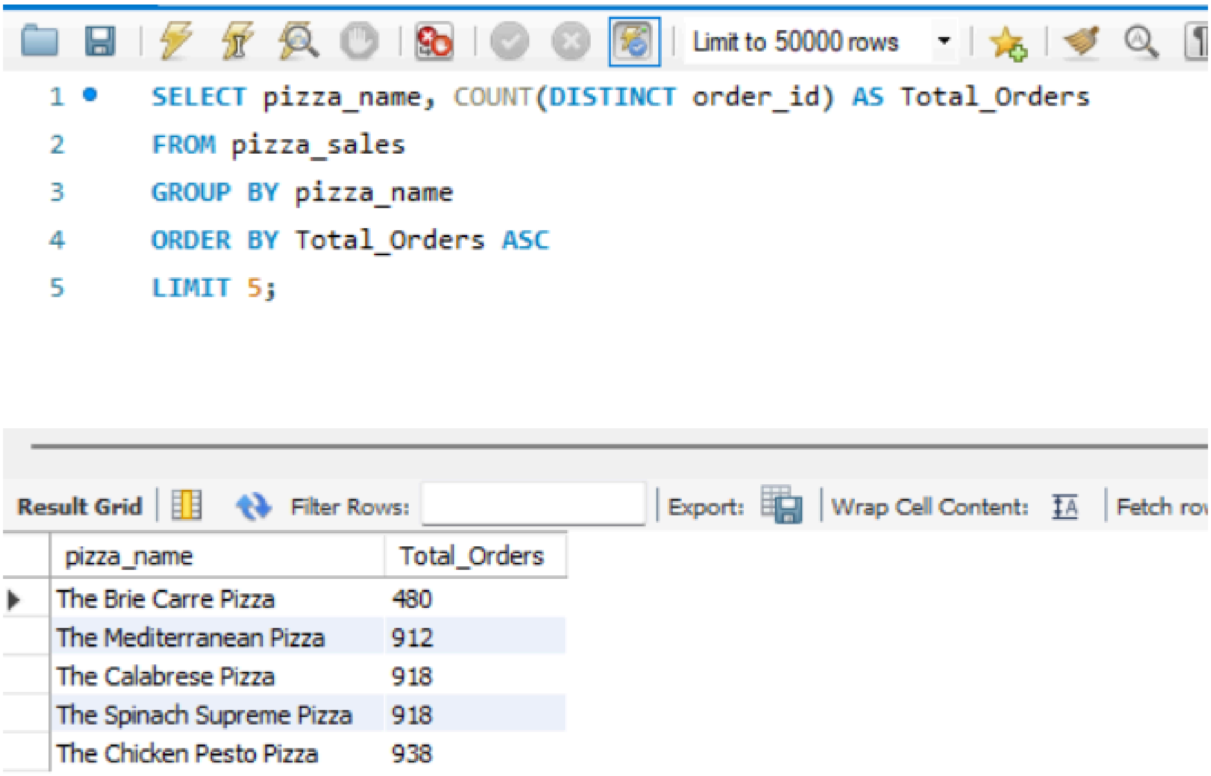
Top 5 Pizzas by Total Orders:



```sql
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

Bottom 5 Pizzas by Total Orders:



```sql
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