PIZZA SALES ANALYSIS

Using SQL and Excel

By
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1. Project Overview

The Pizza Sales Analysis project demonstrates the power of combining SQL and Excel to analyze sales performance. Using a real-world styled dataset, SQL is used to extract and prepare the data, while Excel is used to design a clean, interactive dashboard.

The analysis focuses on identifying sales patterns, understanding customer preferences, and tracking business KPIs such as:

- Total Revenue
- Average Order Value
- Total Pizzas Sold
- Average Pizzas per Order

Visualizations such as :

- Percentage Sales by category
- Percentage Sales by Size
- Pizza sold by Category
- Top 5 Best and Worst Seller

2. Dataset Description

The dataset used in this project contains detailed records of pizza sales transactions. It includes information about each order such as the pizza type, quantity sold, pricing, and order time. The dataset is structured to support time-series analysis, customer behavior insights, and product performance evaluation.

📌 **Key Columns:**

pizza_id – Unique identifier for each pizza type

order_id – Unique identifier for each customer order

pizza_name_id – ID used to reference the pizza name in a normalized form

quantity – Number of units sold per pizza type in an order

order_date – Date when the order was placed

order_time – Exact time of order placement

unit_price – Price per unit of pizza

total_price – Total revenue generated per order line (unit_price × quantity)

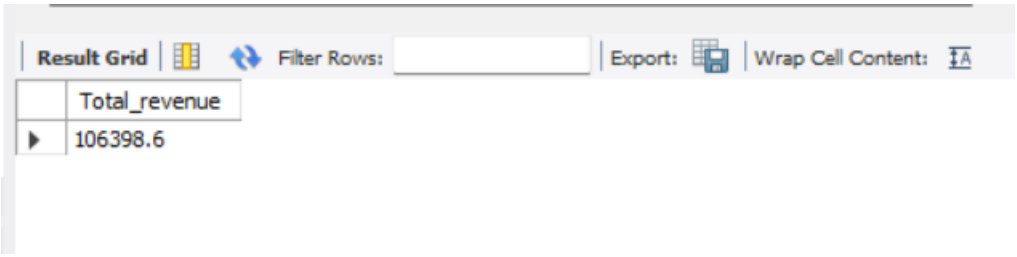
pizza_size – Size of the pizza (e.g., S, M, L, XL)

pizza_category – Category of pizza (e.g., Classic, Veggie, Chicken)

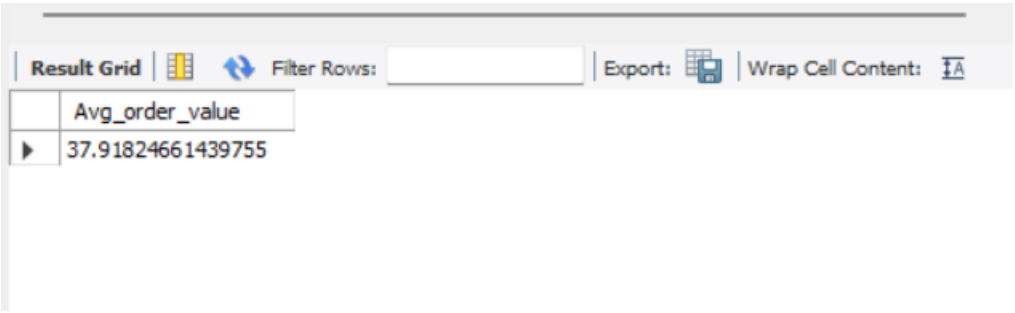
pizza_name – Full descriptive name of the pizza.

3. SQL Tasks & Solutions-

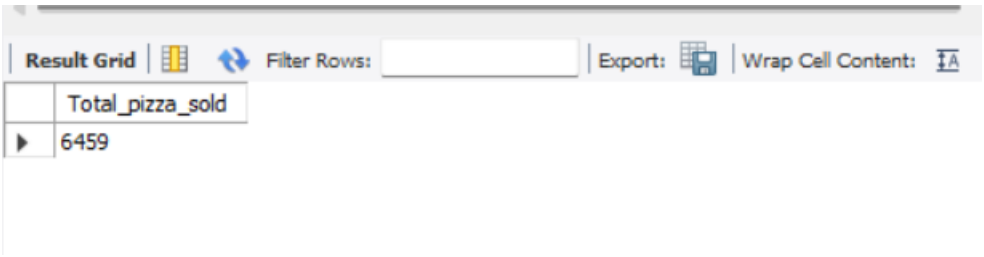
1. SQL query to get Total Revenue:
   select round(Sum(total_price),2) as Total_revenue from pizza_sales;



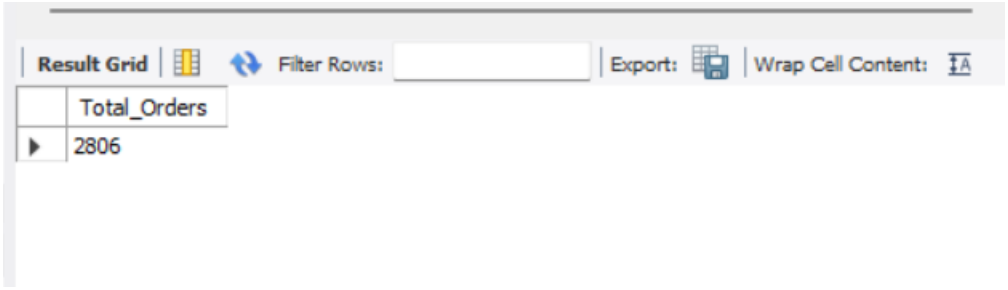
2. SQL query to get Average Order Value:
   select (sum(total_price) / count(distinct order_id)) as Avg_order_value from pizza_sales;



3. SQL query to get Total Pizza Sold.:
   SELECT SUM(quantity) AS Total_pizza_sold FROM pizza_sales;



4. SQL query to get Total Orders:
   SELECT COUNT(DISTINCT order_id) AS Total_Orders FROM pizza_sales;



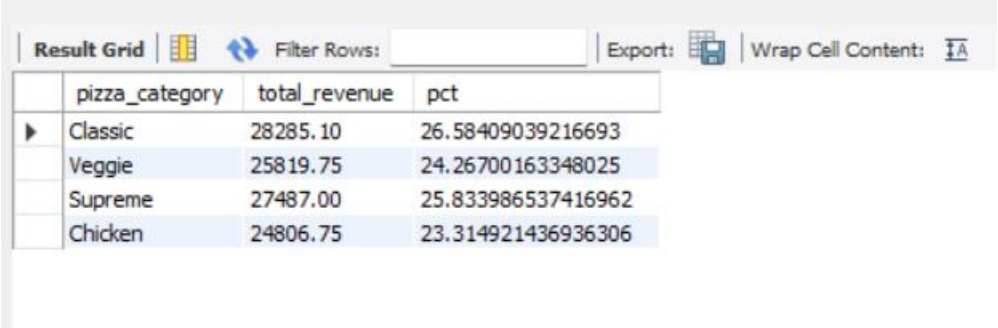
Total_Orders
2806

5. SQL query to get Get hourly trend of Pizza sale:
   SELECT HOUR (order_time) as order_hours, COUNT(DISTINCT order_id) as total_orders
   from pizza_sales
   group by HOUR (order_time) ;

order_hours	total_orders
11	165
12	315
13	297
14	246
15	192
16	243
17	318
18	306
19	255
20	226
21	158

Result 20

6. SQL Query to get Percentage Sales by Category:
   SELECT pizza_category, CAST(SUM(total_price) AS DECIMAL(10,2)) as total_revenue,
   CAST(SUM(total_price) AS DECIMAL(10,2))*100/(SELECT SUM(total_price)from pizza_sales)
   as pct
   from pizza_sales
   group by pizza_category ;

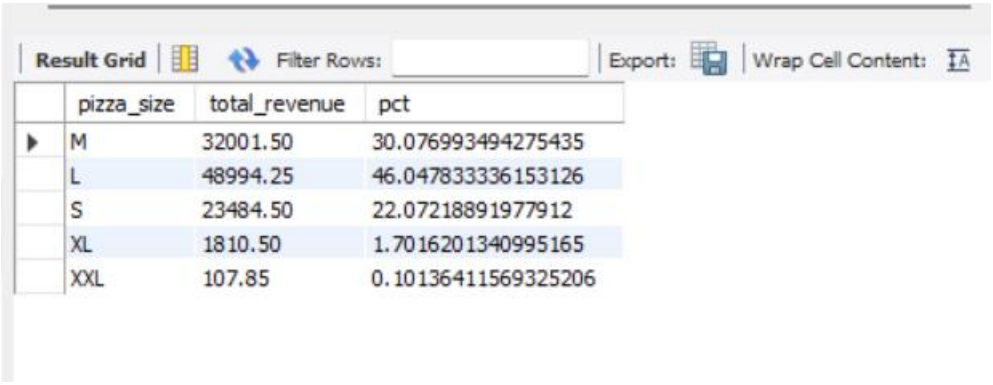


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

pizza_category	total_revenue	pct
Classic	28285.10	26.58409039216693
Veggie	25819.75	24.26700163348025
Supreme	27487.00	25.833986537416962
Chicken	24806.75	23.314921436936306

7. SQL query to get Percentage of Sales by Pizza Size:

```
SELECT pizza_size , CAST(SUM(total_price) AS DECIMAL(10,2)) as total_revenue,  --
CAST(... AS DECIMAL(10,2)): This converts the sum (which might be an integer or a
float) into a DECIMAL data type.
CAST(SUM(total_price) AS DECIMAL(10,2))*100/(SELECT SUM(total_price) from
pizza_sales)
as pct
from pizza_sales
group by pizza_size ;
```

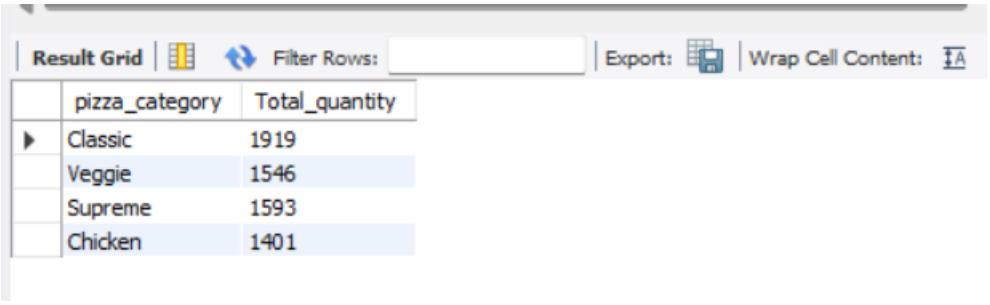


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

pizza_size	total_revenue	pct
M	32001.50	30.076993494275435
L	48994.25	46.047833336153126
S	23484.50	22.07218891977912
XL	1810.50	1.7016201340995165
XXL	107.85	0.10136411569325206

8. SQL Query to get Total Pizza Sold by Pizza Category:

```
select pizza_category , sum(quantity) as Total_quantity
from pizza_sales
group by pizza_category ;
```

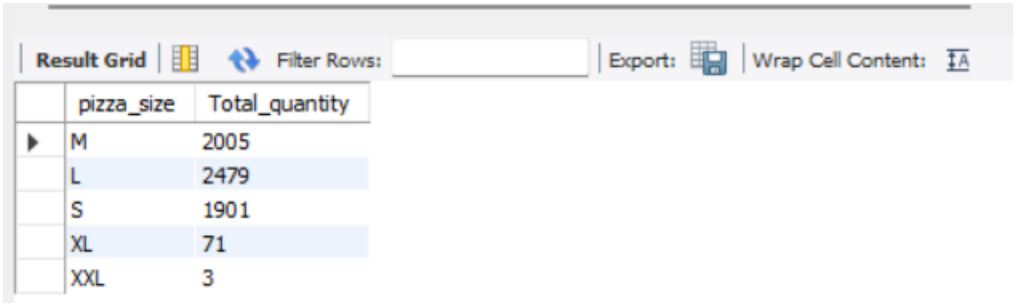


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

pizza_category	Total_quantity
Classic	1919
Veggie	1546
Supreme	1593
Chicken	1401

9. SQL Query to get Total Pizza Sold by Pizza Size:

```
select pizza_size , sum(quantity) as Total_quantity
from pizza_sales
group by pizza_size ;
```

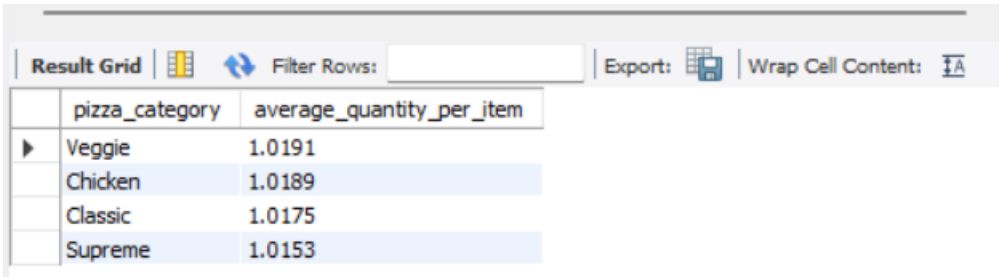


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

pizza_size	Total_quantity
M	2005
L	2479
S	1901
XL	71
XXL	3

10. SQL query to get Average Quantity per Order Item by Pizza Category:

```
SELECT
   pizza_category,
   AVG(quantity) AS average_quantity_per_item
FROM
   pizza_sales
GROUP BY
   pizza_category
ORDER BY
   average_quantity_per_item DESC;
```



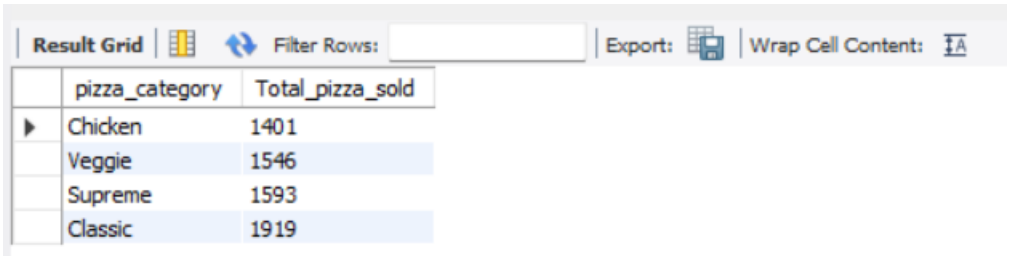
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

pizza_category	average_quantity_per_item
Veggie	1.0191
Chicken	1.0189
Classic	1.0175
Supreme	1.0153

11. SQl query to Worst and best Pizza category by sales:

```
select pizza_category , sum(quantity) as Total_pizza_sold
from pizza_sales
group by pizza_category
```

order by Total_pizza_sold ;

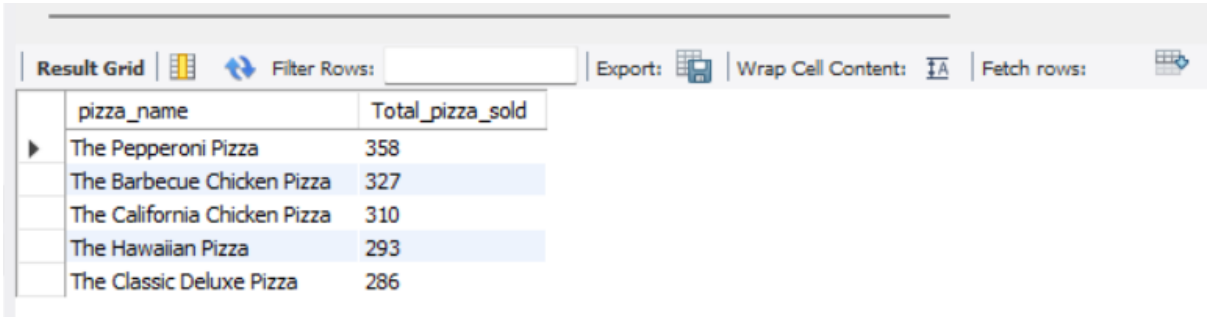


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

pizza_category	Total_pizza_sold
Chicken	1401
Veggie	1546
Supreme	1593
Classic	1919

12.SQl query to get Top five Pizza Betseller:

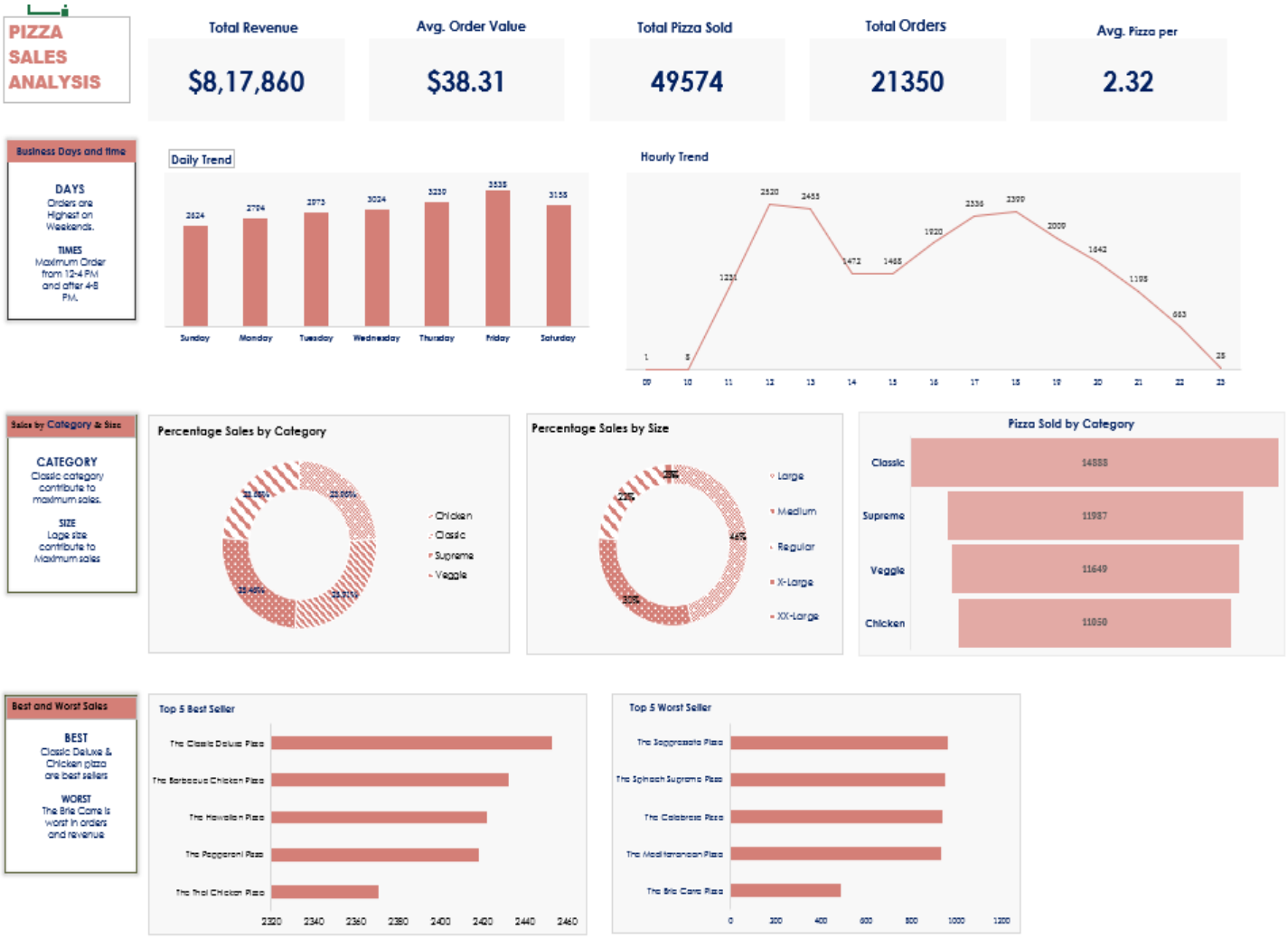
```
select pizza_name ,
 sum(quantity) as Total_pizza_sold
 from pizza_sales
 group by pizza_name
 order by Total_pizza_sold desc
 limit 5 ;
```



Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

pizza_name	Total_pizza_sold
The Pepperoni Pizza	358
The Barbecue Chicken Pizza	327
The California Chicken Pizza	310
The Hawaiian Pizza	293
The Classic Deluxe Pizza	286

4. Excel Dashboard –



5. Insights & Conclusion –

1. Revenue Patterns:

Sales are highest during weekends, with Friday and Saturday contributing the most revenue — indicating strong weekend demand.

2. Best-Selling Items:

Classic and large-sized pizzas are the most popular. Items like *The Classic Deluxe* and *BBQ Chicken* frequently top the sales chart.

3. Order Volume Trends:

Peak order times are around lunch (12–2 PM) and dinner (6–9 PM), suggesting optimal promotion windows.

4. Category Performance:

Among all pizza categories, **Classic pizzas** generate the highest revenue and sales volume, followed by **Veggie** options.

5. Order Behavior:

The average number of pizzas per order is approximately **2.5**, and the average order value is around **$38** (or based on your data).