**Project : Pizza Sales Analysis**

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**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. What days and times do we tend to be busiest:** Based on the bar chart for Top 5 Busiest Hours and the line chart for Top 10 Busiest Days, it shows peak orders around midday and evening, with a spike on November 27th.

**2. How many pizzas are we making during peak periods:** The bar chart of hour-wise order counts indicates production needs of around 2,000–2,500 pizzas during peak hours in per month.

**3. What are our best and worst-selling pizzas:** The bar charts for Top and Bottom 5 Pizzas by Quantity and Revenue identify the most and least popular pizzas based on quantity sold and total sales revenue.

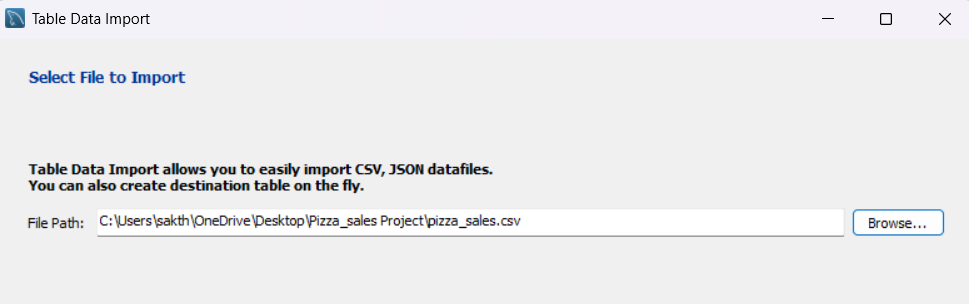
**4. What's our average order value**: The card visual at the top shows an Average Order Value of ₹38.31 calculated from total revenue and order count.

**5. How well are we utilizing our seating capacity? (we have 15 tables and 60 seats):** The Table Utilization matrix calculates daily seating usage percentages, with figures well above 100%, pointing to overcapacity and suggesting an urgent need for expansion.

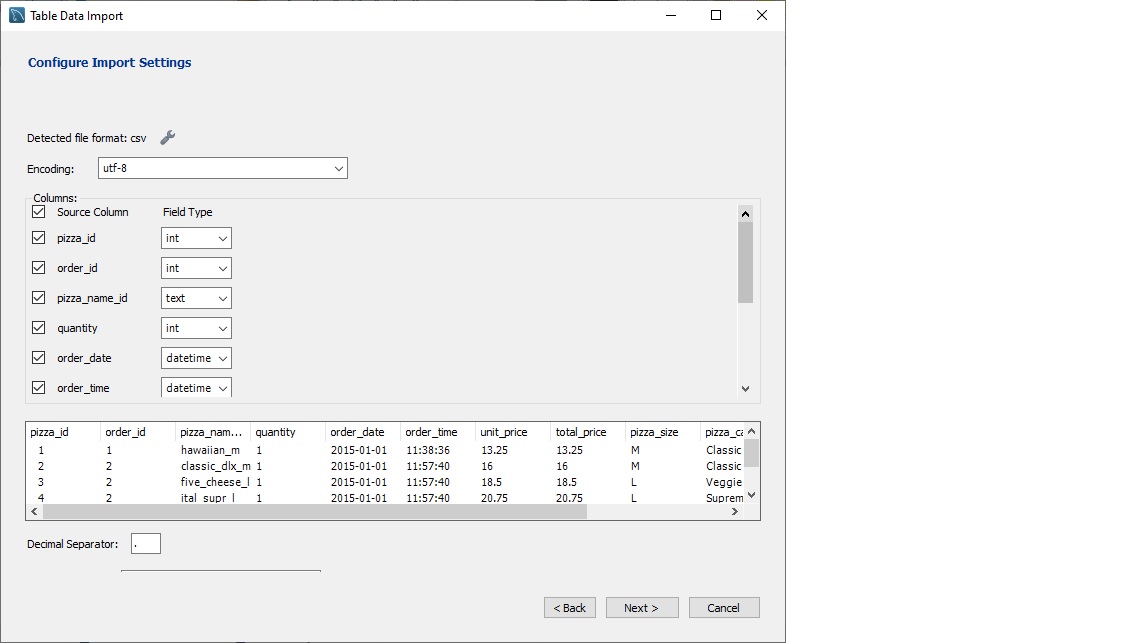
**Data Analysis using MySQL**

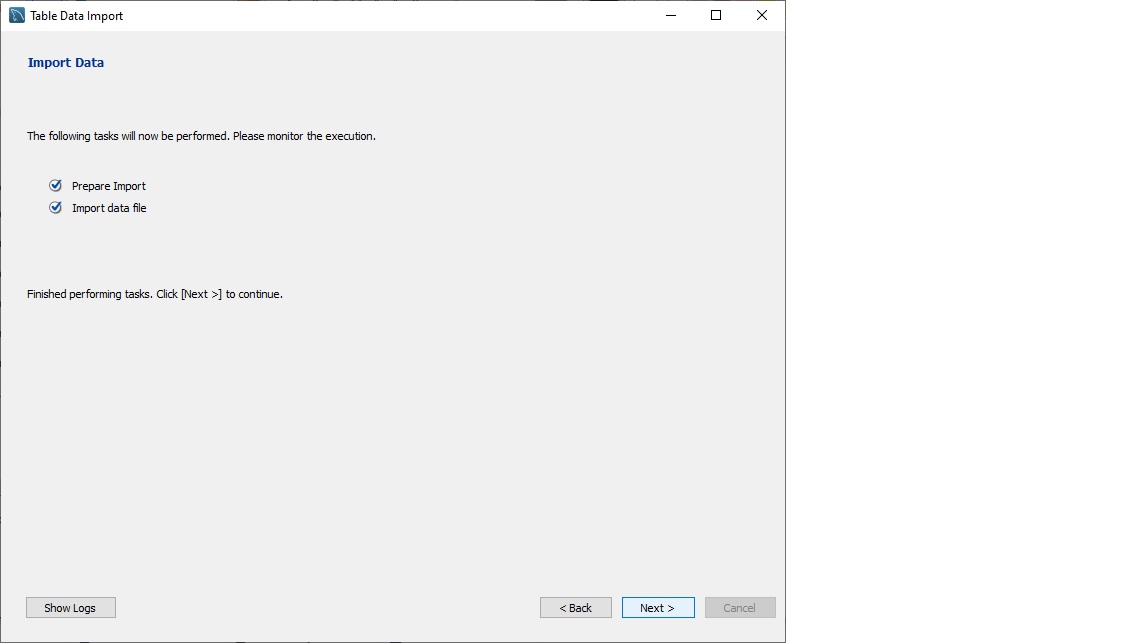
Utilized MySQL for data extraction and calculation of key metrics such as Total Revenue, Average Order Value, Total Pizzas Sold, Total Orders, and Average Pizzas Per Order.

**DATA IMPORT**

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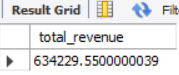
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ANALYSIS OF DIFFERENT SQL STATEMENT ON DATA BASE

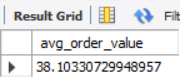
1. **KPI’s**
2. **Total revenue**

select sum(total\_price) as total\_revenue from pizza\_sales;

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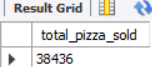
1. **Average order value**

select sum(total\_price) / count(distinct order\_id) as avg\_order\_value from pizza\_sales;

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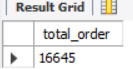
1. **Total pizza sold**

select sum(quantity) as total\_pizza\_sold from pizza\_sales;

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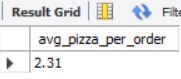
1. **Total orders**

select count(distinct order\_id) as total\_order from pizza\_sales;

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1. **Average pizzas per order**

select round(sum(quantity) / count(distinct order\_id), 2) as avg\_pizza\_per\_order from pizza\_sales;



1. **What days and times do we tend to be busiest?**
2. **Top 10 busiest hours (across all days)**

select

date\_format(str\_to\_date(order\_time, '%H:%i:%s'), '%H:00') as hour\_slot,

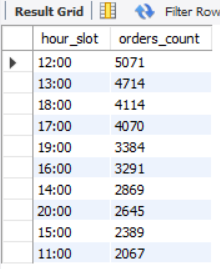
count(\*) as orders\_count

from pizza\_sales

group by hour\_slot

order by orders\_count desc

limit 10;



1. **Busiest days**

select

str\_to\_date(order\_date, '%d-%m-%Y') as order\_day,

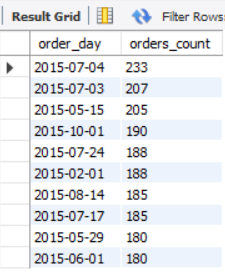
count(\*) as orders\_count

from pizza\_sales

group by order\_day

order by orders\_count desc

limit 10;

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1. **How many pizzas are we making during peak periods?**

select

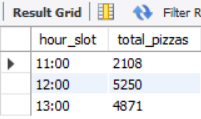
date\_format(str\_to\_date(order\_time, '%H:%i:%s'), '%H:00') as hour\_slot,

sum(quantity) as total\_pizzas

from pizza\_sales

where date\_format(str\_to\_date(order\_time, '%H:%i:%s'), '%H') in ('11', '12', '13')

group by hour\_slot;



1. **What are our best and worst-selling pizzas?**
2. **Best-selling pizzas**

select

pizza\_name,

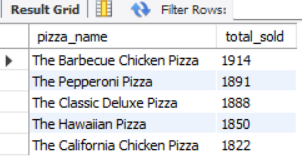
sum(quantity) as total\_sold

from pizza\_sales

group by pizza\_name

order by total\_sold desc

limit 5;



1. **Worst-selling pizzas**

select

pizza\_name,

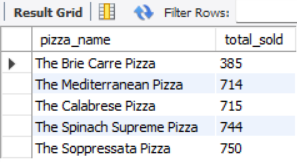
sum(quantity) as total\_sold

from pizza\_sales

group by pizza\_name

order by total\_sold asc

limit 5;



1. **What's our average order value?**

**Average order value (assuming each order\_id is a separate order)**

select

avg(order\_total) as avg\_order\_value

from (

select

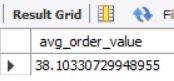
order\_id,

sum(total\_price) as order\_total

from pizza\_sales

group by order\_id

) as order\_summary;



1. **How well are we utilizing our seating capacity? (we have 15 tables and 60 seats)**

**Peak hourly table usage**

select

str\_to\_date(order\_date, '%d-%m-%Y') as order\_day,

date\_format(str\_to\_date(order\_time, '%H:%i:%s'), '%H:00') as hour\_slot,

count(distinct order\_id) as tables\_occupied,

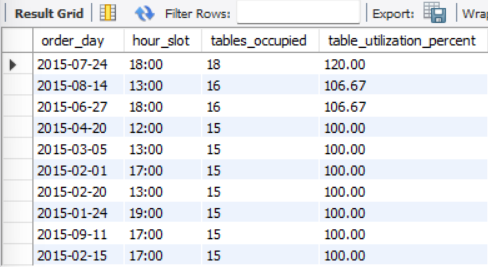
round((count(distinct order\_id) / 15) \* 100, 2) as table\_utilization\_percent

from pizza\_sales

group by order\_day, hour\_slot

order by table\_utilization\_percent desc

limit 10;



***NOTE***

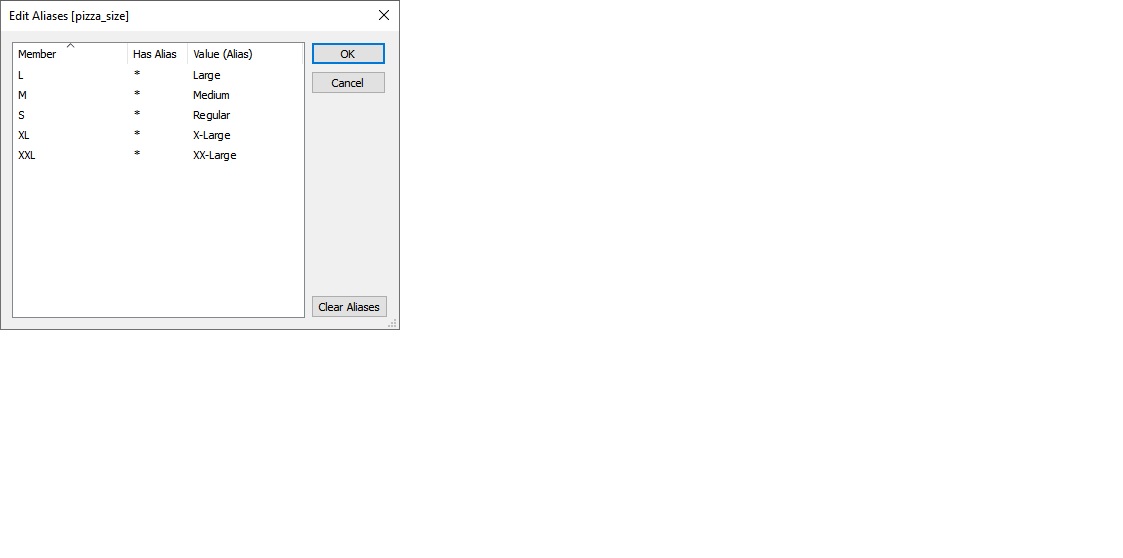
If you want to apply the pizza\_category or pizza\_size filters to the above queries you can use WHERE clause. Follow some of below examples

SELECT pizza\_name, COUNT(DISTINCT order\_id) AS Total\_Orders FROM pizza\_sales

WHERE pizza\_category = 'Classic' GROUP BY pizza\_name ORDER BY Total\_Orders ASC LIMIT 5;

**Data Cleaning**

Pizza size category we have in our database is abbreviated and for dashboard we need it in full expanded form. For eg. L= large, M= medium etc, so we will create an alias to temporary change its name in required format.

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**Build Dashboard or a Report using Power BI**

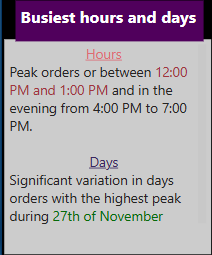
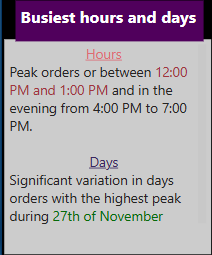
Created a comprehensive dashboard in PowerBI featuring key metrics and charts, including Hourly Trend, Weekly Trend, Sales by Category, Sales by Size, Total Pizzas Sold by Category, Top 5 Best Sellers, and Bottom 5 Worst Sellers.

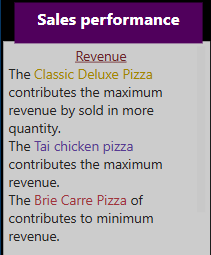
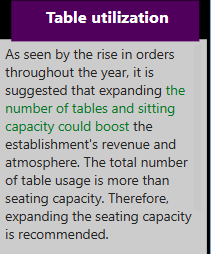
KPI’S

* **Total Revenue** sum([order id])
* **Total Orders** countdistinct([order id])
* **Average Order Value** [total revenue] / [total orders]
* **Total Pizzas Sold** SUM([quantity])
* **Average Pizzas Per Order** [total pizzas sold] / [total orders]

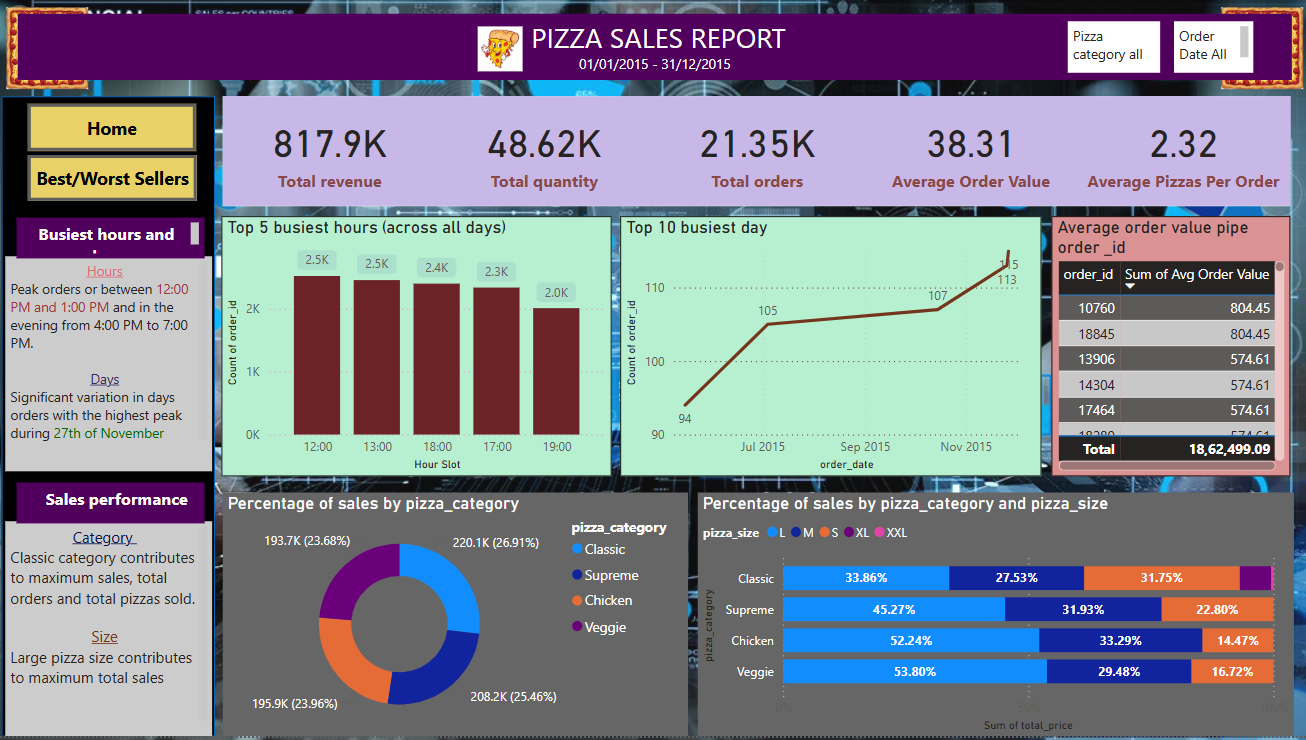


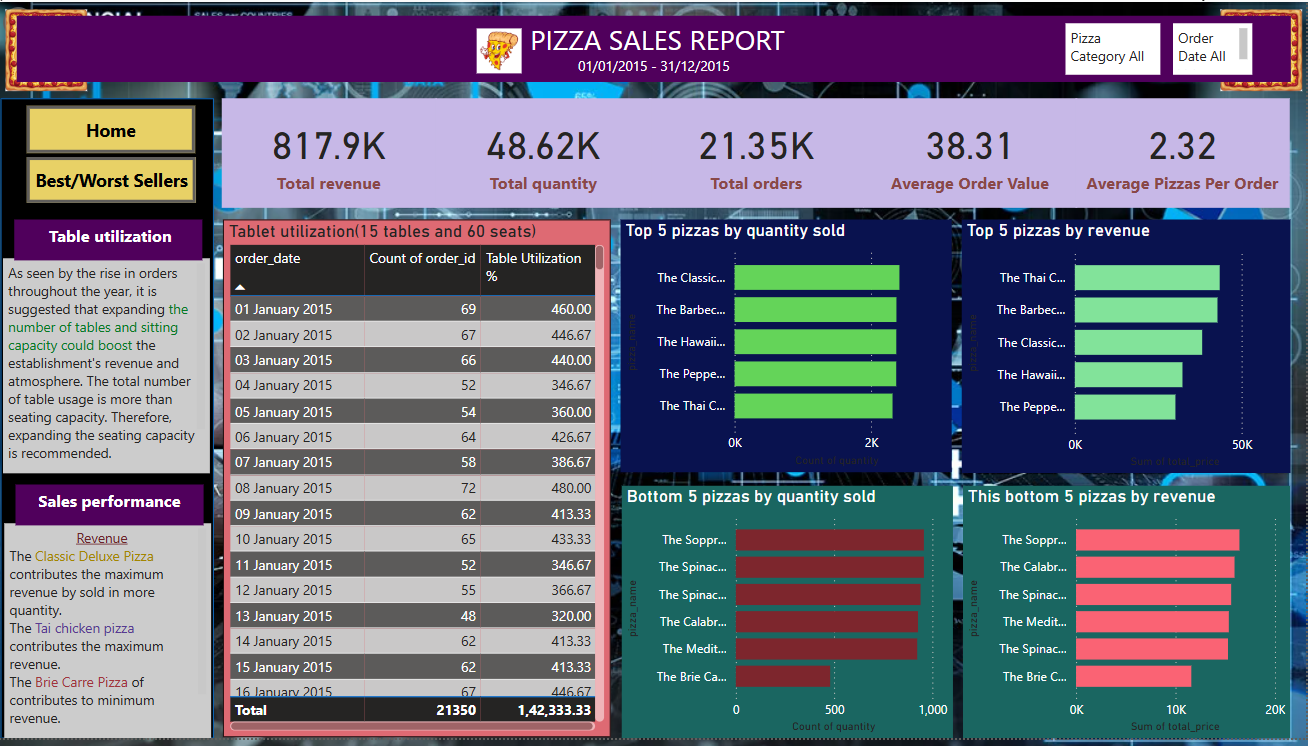
KEY INSIGHTS





DASHBOARD





**Tools, Software, and Libraries**

* **MySQL Workbench** **8.0.36**

for data analysis and storage

* **Power BI Desktop 2025**

for dashboard creation and visualization

* **Excel version 2021**  
  for initial data exploration and manipulation

**References**

* <https://www.youtube.com/@datatutorials1>
* https://topmate.io/data\_tutorial