

# Pizzeria DATA ANALYSIS

## SQL & TABLEAU

Analyzing the pizza order data enables businesses to optimize sales, customer satisfaction, and operations. Insights into popular pizzas, ingredient usage, and order processing times inform menu enhancements, targeted marketing, and improved efficiency. This data-driven approach aids in minimizing waste, implementing effective inventory management, and forecasting revenue. The insights derived also support strategic decision-making for sustainable growth and enhanced profitability.

# DATA DESCRIPTION

Column Name	Data Type	Explanation
Pizza_id	INT	Integer representing the unique identifier for each pizza.
Order_id	INT	Integer representing the unique identifier for each order.
Pizza_name_id	VARCHAR(20)	Variable-length string for the identifier of each pizza name.
Quantity	INT	Integer representing the quantity of pizzas in each order.
Order_date	DATE	Date when the order was placed.
Order_time	TIME	Time when the order was placed.
Unit_price	DECIMAL(8, 2)	Decimal number representing the price per unit of pizza.
Total_price	DECIMAL(8, 2)	Decimal number representing the total price of the order.
Pizza_size	CHAR(1)	Character representing the size of the pizza (e.g., S, M, L).
Pizza_category	VARCHAR(10)	Variable-length string for the category of the pizza.
Pizza_ingredients	VARCHAR(MAX)	Variable-length string for the list of ingredients in the pizza.
Pizza_name	VARCHAR(50)	Variable-length string for the name of each pizza.

# PROBLEM STATEMENT

## A. 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.

# PROBLEM STATEMENT

**B. Hourly Trend for Total Pizzas Sold**

**C. Percentage of Sales by Pizza Category**

**D. Percentage of Sales by Pizza Size**

**E. Total Pizzas Sold by Pizza Category**

**F. Top 5 Pizzas by Revenue**

**G. Bottom 5 Pizzas by Revenue**

**H. Top 5 Pizzas by Quantity**

**I. Bottom 5 Pizzas by Quantity**

**J. Top 5 Pizzas by Total Orders**

**K. Bottom 5 Pizzas by Total Orders**

## PIZZA SALES SQL QUERIES

- The below link has all the 'SQL queries with results', extracting the data required to answer the business requirements.
- [https://docs.google.com/document/d/1rKf0NmVnuEWL5cP2GORxOrRHuU33G66i3IT\\_3XKdbBk/edit?usp=sharing](https://docs.google.com/document/d/1rKf0NmVnuEWL5cP2GORxOrRHuU33G66i3IT_3XKdbBk/edit?usp=sharing)
- The queries are performed on MYSQL WORKBENCH 8.0 CE (therefore if these functions are performed on other SQL platforms, few functions could be different. )

# Data Visualization Walk Through

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. Hourly Trend for Total Pizzas Sold:**

Create a stacked bar chart that displays the hourly trend of total orders over a specific time period. This chart will help us identify any patterns or fluctuations in order volumes on a hourly basis.

- 2. Weekly Trend for Total Orders:**

Create a line chart that illustrates the weekly trend of total orders throughout the year. This chart will allow us to identify peak weeks 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.

# Data Visualization Walk Through

## 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, Total Orders. This chart will help us identify the most popular pizza options.

## 7. Bottom 5 Best 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, Total Orders. This chart will enable us to identify underperforming or less popular pizza options.

# PIZZA SALES REPORT



Home



Best/ Worst Sellers

## BUSIEST HOURS & WEEKS

### HOURS

Peak orders are between 12:00 PM and 1:00 PM, and in evening, from 4:00 PM to 7:00 PM.

### WEEKS

Significant variations in weekly orders, with highest peak during the 48th week from the month of Dec.



Total Revenue

\$ 817.9K



Avg Order Value

38.31



Total Pizzas Sold

49.6K



Total Orders

21.4K



Avg Pizzas Per Order

2.32

### Total Orders Trend by Order Hour



### Total Orders Trend by Week



## SALES PERFORMANCE

### CATEGORY

Classic Category contributes to maximum Sales, Total Orders & Total Pizzas Sold

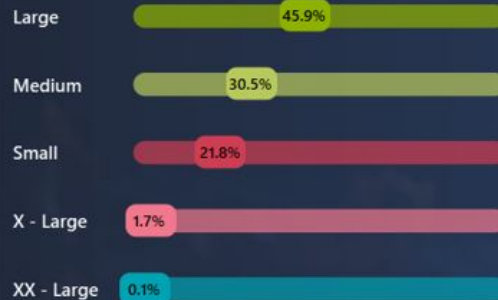
### SIZE

Large Pizza Size contributes to maximum Total Sales

### % of Sales by Pizza Category



### % of Total Sales by Pizza Size



### Total Orders & Pizzas Sold by Pizza Category





## SOFTWARE USED

- **MS OFFICE/ EXCEL**
- **MySQL Workbench 8.0 CE**
- **Tableau 2022.4**