Pizza Sales Analysis

# Project Overview

In this project, we utilize MySQL Workbench to retrieve, analyze, and visualize pizza sales data. The main objectives include:  
- Retrieving total orders placed and revenue generated.  
- Identifying the top-selling pizza types, most common pizza sizes, and price distribution.  
- Performing intermediate and advanced queries to find trends, distribution patterns, and revenue contributions over time.

## Key Questions Addressed

The SQL queries answer the following business questions:  
Basic:

* Retrieve the total number of orders placed.
* Calculate the total revenue generated from pizza sales.
* Identify the highest-priced pizza.
* Identify the most common pizza size ordered.
* List the top 5 most ordered pizza types along with their quantities.

Intermediate:

* Join the necessary tables to find the total quantity of each pizza category ordered.
* Determine the distribution of orders by hour of the day.
* Join relevant tables to find the category-wise distribution of pizzas.
* Group the orders by date and calculate the average number of pizzas ordered per day.
* Determine the top 3 most ordered pizza types based on revenue.

Advanced:

* Calculate the percentage contribution of each pizza type to total revenue.
* Analyze the cumulative revenue generated over time.
* Determine the top 3 most ordered pizza types based on revenue for each pizza category.

# File Structure

Pizza-Sales-Analysis/  
│  
├── README.md # Overview of the project  
├── pizza\_sales.sql # Full database (schema + data)  
├── database\_structure.sql # Only the database structure (table definitions)  
├── analysis.sql # SQL queries used for the analysis  
├── project\_documentation.pdf # Detailed documentation with explanations  
├── ER\_Diagram.png # ER Diagram of the database (optional)  
└── data\_file.csv # Raw sales data (if applicable)

## Files Description

- \*\*pizza\_sales.sql\*\*: This file contains the database structure and data used for the analysis. Import this into MySQL Workbench to recreate the database.  
- \*\*database\_structure.sql\*\*: Contains the structure of the database, such as table definitions, without any data.  
- \*\*analysis.sql\*\*: The file with SQL queries used to answer the business questions listed above.  
- \*\*project\_documentation.pdf\*\*: A detailed PDF document that outlines the project, the queries used, and the insights derived from the analysis.  
- \*\*ER\_Diagram.png\*\*: (Optional) Entity-relationship diagram that shows the database structure visually.  
- \*\*data\_file.csv\*\*: The raw pizza sales dataset (if applicable) in CSV format.

# How to Use

### Prerequisites  
- \*\*MySQL Workbench\*\*: Install MySQL Workbench to run the provided SQL queries.  
- \*\*Git\*\*: For downloading or cloning the repository from GitHub.

### Steps to Set Up:  
1. \*\*Clone the Repository\*\*:  
```bash  
git clone https://github.com/chahat-24/Pizza-Sales-Analysis.git  
```  
2. \*\*Import the Database\*\*:  
- Open MySQL Workbench.  
- Navigate to \*\*File\*\* > \*\*Run SQL Script...\*\*.  
- Select `pizza\_sales.sql` to import the full database, including data and schema.  
3. \*\*Run the Analysis\*\*:  
- Once the database is set up, open `analysis.sql` in MySQL Workbench.  
- Execute the SQL queries to perform the analysis.  
4. (Optional) \*\*ER Diagram\*\*:  
- Open the `ER\_Diagram.png` to understand the structure and relationships between tables in the database.

# Key Insights

- The most ordered pizza size was \*\*Medium\*\*, with over 40% of the total orders.  
- The \*\*Margherita\*\* pizza topped the list as the most ordered pizza by quantity.  
- Revenue trends revealed that certain pizza types contributed over 20% of total revenue, with \*\*Pepperoni\*\* and \*\*BBQ Chicken\*\* among the top performers.

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