1. Project Overview

The project explores a comprehensive dataset of pizza sales (typically based on the "Maven Pizza Challenge" dataset) covering a full year of transactions. It is designed to simulate the workflow of a Data Analyst by addressing specific business questions related to sales performance, inventory, and customer behavior.

- **Primary Goal:** To identify sales trends, customer preferences, and revenue-driving products to help a fictional pizza outlet optimize its operations.
- **Key Technologies:** * **SQL (MySQL/PostgreSQL):** For data cleaning, table joins, and KPI calculations.
    - **Power BI / Excel:** For building interactive dashboards and trend reports.

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2. Key Performance Indicators (KPIs)

The project calculates five essential metrics to gauge the health of the business:

Metric	Description
Total Revenue	The sum of the total price of all pizza orders.
Average Order Value	Total revenue divided by the total number of orders.
Total Pizzas Sold	The sum of quantities across all orders.
Total Orders	The unique count of order IDs processed.
Avg Pizzas Per Order	Total pizzas sold divided by total orders.

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3. Data Insights & Analysis

The analysis is categorized into several core areas to provide a 360-degree view of the business:

A. Sales Trends

- **Daily Trend:** Identification of peak days (e.g., Fridays/Saturdays) to assist in staff scheduling.
- **Monthly Trend:** Seasonal analysis to find which months generate the highest demand (often peaking in July or January).
- **Hourly Distribution:** Identifying "Rush Hours" (typically 12 PM - 1 PM and 5 PM - 7 PM) for better kitchen preparation.

B. Product Performance

- **Top 5 / Bottom 5 Pizzas:** Ranking pizzas by revenue, quantity, and total orders to identify "Hero" products and potential menu removals.
- **Sales by Category:** Analyzing the performance of **Classic, Veggie, Supreme, and Chicken** categories.
- **Sales by Size:** Determining which size (S, M, L, XL, XXL) dominates the market share. (Note: Large pizzas usually contribute the highest revenue).

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4. Technical Implementation

The repository typically contains the following structural elements:

1. **SQL Scripts:** Files containing complex queries involving `JOIN`, `GROUP BY`, and `Window Functions` to answer business questions.
2. **Dataset:** CSV files (Orders, Order Details, Pizzas, and Pizza Types).
3. **Visualization:** A Power BI `.pbix` file or static images of the dashboard showing:
   - Dynamic filters for category and date.
   - Bar charts for best/worst sellers.
   - Pie charts for category/size distribution.

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5. Strategic Recommendations

Based on the data patterns found in this type of analysis, the project suggests:

- **Targeted Promotions:** Running "Bundle Deals" during slow days (Tuesdays) to boost volume.
- **Inventory Management:** Prioritizing stock for "Classic" category pizzas and "Large" sizes, as they typically represent the bulk of sales.
- **Menu Optimization:** Re-evaluating or discontinuing the bottom 5 performers (e.g., the "Brie Carre" pizza) to reduce waste.