**Project Title: Pizza Sales Analysis Using SQL**

**Project Overview:**

This project involves designing and implementing a database to analyze pizza sales data. The goal was to derive valuable insights from the sales records, optimize business decisions, and improve operational efficiency. The analysis was conducted using SQL queries to explore various metrics like total revenue, most popular pizzas, and order trends.

**Tools/Technologies**: MySQL

**Skills Demonstrated:**

* **Database Management:** MySQL for database creation, data manipulation, and retrieval.
* **Database Design:** Created tables with appropriate keys and relationships (e.g., orders, order\_details, pizzas, pizza\_types).
* **Advanced SQL Querying:**
  + Used complex SQL commands including JOIN, GROUP BY, ORDER BY, PARTITION BY and aggregate functions like SUM(), COUNT(), and ROUND().
  + Employed subqueries and LIMIT clauses for specific data extraction.
* **Data Analysis:** Conducted in-depth analysis to extract key metrics such as total revenue, best-selling pizzas, and peak sales times.

**Objectives:**

* **Database Creation and Management:** Develop a structured database to store pizza sales records, enabling efficient data retrieval and analysis.
* **Revenue Insights:** Analyze total revenue, identify high-performing products, and optimize pricing strategies.
* **Customer Preferences:** Determine the most popular pizzas, sizes, and order patterns to inform inventory and marketing strategies.
* **Operational Efficiency:** Discover peak sales periods for effective staffing and resource planning.
* **Business Growth:** Utilize data to support decision-making aimed at increasing sales and customer satisfaction.

**Key Features:**

* **Total Orders:** Calculated the total number of orders placed.
* **Revenue Analysis:** Determined the total revenue generated from pizza sales.
* **Top-Selling Pizzas:** Identified the most popular pizza based on quantity sold.
* **Highest Priced Pizza:** Extracted information about the highest-priced pizza available.
* **Order Patterns:** Analyzed the most common pizza sizes and types ordered.
* **Peak Order Times:** Evaluated order data to determine peak sales times and days.

**Outcomes:**

* Enhanced understanding of customer preferences, helping in targeted marketing.
* Insights on peak order times enabled better staff scheduling and resource allocation.
* Data-driven recommendations for menu optimization to boost profitability.

**Conclusion:**

This project demonstrates the power of SQL in transforming raw sales data into actionable insights, providing a strong foundation for data analysis in the retail and food service industry.