

Pizza Sales Dashboard Project Summary

This project showcases a comprehensive Pizza Sales Dashboard, built using a combination of SQL for data querying and Microsoft Excel for data visualization. It demonstrates a strong blend of data analysis, reporting, and visualization skills, leveraging both backend data manipulation and front-end presentation tools.

Tools & Technologies Used

- SQL (Structured Query Language):

Used to extract key business insights directly from the `pizza_sales` database. Queries were written to calculate KPIs such as:

- Total Revenue
- Average Order Value
- Total Orders & Total Pizzas Sold
- Average Pizzas per Order
- Daily & Hourly Order Trends
- Category & Size-based Sales Breakdown
- Top & Bottom 5 Pizza Performers

- Microsoft Excel (Power Tools):

- Power Query: Used for data cleaning, transformation, and preparing raw SQL outputs for analysis.
- Power Pivot: Integrated to create data models and manage relationships across tables for efficient calculation.
- Slicers and Filters: Enabled interactive filtering by time period.
- Conditional Formatting & Charting: Used to build visually engaging dashboards including bar, pie,

and line charts.

Key Insights Displayed

- Orders are highest on weekends, especially on Fridays and Saturdays, and peak during 12 PM-1 PM and 5 PM-8 PM.
- Classic category and Large size pizzas are the top contributors to sales.
- Barbecue Chicken Pizza and Classic Deluxe Pizza are bestsellers, while Brie Carre Pizza ranks lowest in both orders and revenue.
- Average order value is \$38.31, and on average, 2.32 pizzas are ordered per transaction.

Technical Skills Demonstrated

- SQL Joins, Aggregations, Date & Time Functions
- Data Cleaning & Transformation using Power Query
- Data Modeling in Power Pivot
- Dashboard Design & Data Visualization Best Practices
- KPI Calculation & Dynamic Reporting
- Data Filtering with Slicers, Time Intelligence

Challenges Faced and Solutions

1. Data Cleaning Issues:

- The raw data contained inconsistent date/time formats and missing values.
- Solution: Power Query was used to clean and standardize the data.

2. Combining Time-Based Trends:

- Daily and hourly trends required precise grouping and conversion of timestamps.
- Solution: Used SQL DATEPART and DATENAME functions for accurate aggregation.

3. Slow Excel Performance with Large Data:

- Pivot tables and charts were lagging due to large data volume.
- Solution: Implemented Power Pivot data model, which improved performance and scalability.

4. Dynamic Reporting Requirement:

- Needed the dashboard to allow users to filter by month/year.
- Solution: Used slicers and dynamic charts tied to Power Pivot measures.

Project Impact

This dashboard delivers actionable insights for stakeholders such as:

- Peak sales timings for staffing decisions
- Popular pizza types for inventory planning
- Underperforming products needing promotional strategies

Conclusion

This project is a perfect example of mixed-skill integration-combining the data extraction power of SQL with the analytical and visualization capabilities of Excel. It highlights not only technical proficiency but also the ability to convert raw data into meaningful business intelligence.