



Slicing Through the Data: A Pizza Sales Analysis

Unpacking the Pizza Puzzle

Welcome to our comprehensive analysis of pizza sales data using SQL. This presentation outlines key insights extracted from our database, covering everything from basic sales metrics to advanced revenue contributions.

Our journey through the data began with fundamental questions, progressively moving towards more complex analytical queries. We'll explore the methodologies and findings that help us understand customer preferences and sales patterns.

1 Basic Sales Metrics

Understanding the foundational figures of our pizza business.

2 Intermediate Insights

Delving deeper into order distributions and category performance.

3 Advanced Revenue Analytics

Calculating percentage contributions and cumulative revenue trends.

Basic Insights: The Foundation

We started by establishing core metrics to understand the overall sales landscape. These basic queries provide a snapshot of our operational scale and initial profitability.

- Total Number of Orders: A simple count reveals our transaction volume.
- Total Revenue Generated: Summing up all sales to assess overall financial performance.
- Highest-Priced Pizza: Identifying premium offerings.
- Most Common Pizza Size: Understanding customer preference for portioning.
- Top 5 Most Ordered Pizza Types: Highlighting popular menu items by quantity.

These initial findings serve as critical benchmarks for more complex analyses.



Intermediate Analysis: Deeper Dives

Moving beyond basic sums, our intermediate queries focus on uncovering patterns and relationships within the data. This level of analysis helps us optimise operations and inventory.

Pizza Category Performance

By joining tables, we aggregated the total quantity ordered for each pizza category. This reveals which broad types of pizzas resonate most with our customers.

Category-wise Pizza Distribution

Understanding the variety within each category helps in menu planning and promotion. We broke down pizza types by their assigned categories.

Order Distribution by Hour

We analysed order frequency across different hours of the day. This is crucial for staffing, kitchen efficiency, and predicting peak demand periods.

Average Pizzas per Day

Grouping orders by date allowed us to calculate the average number of pizzas sold daily, offering insights into sales consistency and daily operational needs.



Top 3 Pizza Types by Revenue

Beyond quantity, this metric identifies the pizzas that contribute most significantly to our bottom line, informing pricing and marketing strategies.

Advanced Analytics: Strategic Insights

Our advanced analysis explores intricate financial contributions and temporal revenue trends, providing strategic foresight for business growth.



Percentage Contribution

Calculating each pizza type's contribution to total revenue helps us understand profitability drivers.



Cumulative Revenue Over Time

Tracking revenue accumulation over time provides insights into growth trajectories and identifies key periods of financial performance.



Top 3 by Revenue per Category

Drilling down to top performers within each category reveals nuanced preferences and helps tailor promotional efforts more effectively.

These analyses arm us with data-driven strategies for future decision-making.

Key Findings: Uncovering Customer Preferences

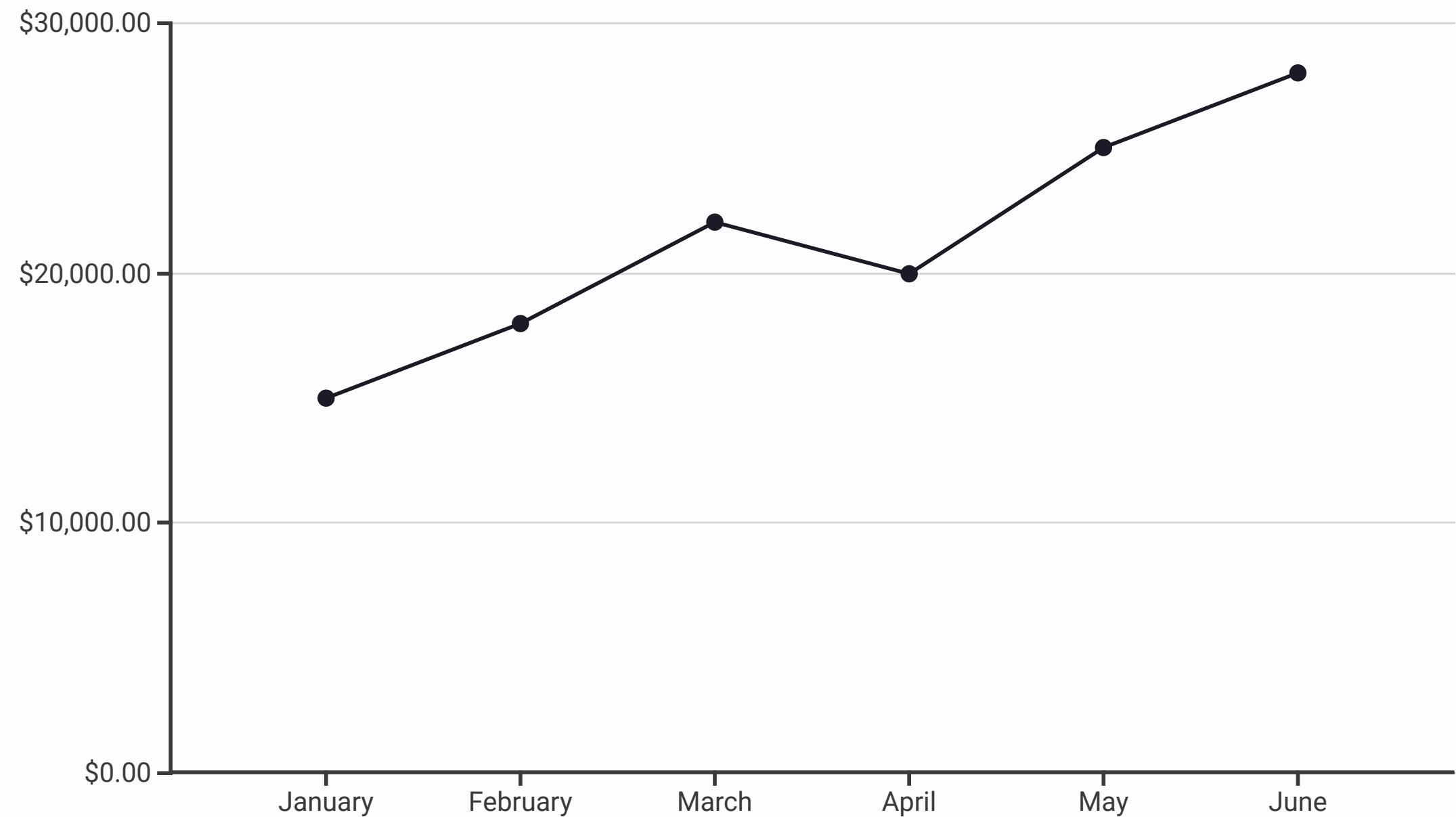
Our analysis revealed distinct preferences in terms of pizza types, sizes, and ordering habits. These insights are vital for menu optimisation and operational efficiency.

Most Common Size	Medium-sized pizzas consistently emerged as the most ordered, indicating a preference for individual or small-group servings.
Highest Revenue Pizzas	Despite not always being the most frequently ordered, specialty and gourmet pizzas generated the highest revenue, suggesting their premium pricing justifies lower volume.
Peak Ordering Hours	Evenings, specifically between 6 PM and 8 PM, recorded the highest order volumes, aligning with typical dinner hours. This informs staffing and ingredient preparation.

Understanding these patterns allows us to better cater to customer demands and maximise sales.

Sales Trends and Opportunities

Beyond static numbers, identifying trends in sales data helps us anticipate market shifts and identify new opportunities for growth.



The line chart illustrates a general upward trend in revenue over the past six months, with a slight dip in April, possibly due to seasonal factors. This sustained growth indicates strong market demand and effective sales strategies.

Technical Approach: SQL Queries

Each insight presented was derived from carefully crafted SQL queries. We focused on efficiency and accuracy, leveraging joins, aggregations, and window functions to extract meaningful data.

1 Data Extraction

Initial queries focused on simple SELECT statements and basic aggregations (COUNT, SUM).

2 Relational Joins

Using JOIN clauses to combine data from multiple tables (e.g., orders, pizzas, categories).

3 Grouping and Aggregation

Applying GROUP BY and aggregate functions to categorise and summarise data (e.g., per hour, per category).

4 Advanced Functions

Utilising subqueries and window functions for percentage contributions and cumulative sums.

This structured approach ensures data integrity and robust analytical output.

Key Takeaways & Next Steps

Our pizza sales analysis provides actionable insights that can drive strategic business decisions. From understanding peak hours to identifying top revenue generators, the data offers a clear path forward.



Menu Optimisation

Focus marketing efforts on high-revenue pizzas and consider adjusting menu offerings based on category performance.



Operational Efficiency

Align staffing and inventory with peak ordering hours to enhance customer satisfaction and reduce waste.



Further Analysis

Explore customer lifetime value, regional sales variations, and the impact of promotions on revenue for deeper insights.

By continuously leveraging data, we can ensure sustained growth and a superior customer experience.

Thank You!

We hope this analysis has provided valuable insights into pizza sales. For any further questions or detailed query breakdowns, please feel free to reach out.



Your interest in data-driven decision making is highly appreciated.