**Pizza Hut Sales Analysis Project Report**

**Introduction**

This report presents a data-driven analysis of Pizza Hut sales, leveraging SQL to uncover key insights into sales trends, customer preferences, and revenue performance. The analysis spans a range of complexity, from basic order and revenue calculations to advanced investigations of revenue contributions, cumulative trends, and category-specific performance. By examining transactional data, this project aims to provide actionable intelligence for optimizing business operations, refining marketing strategies, and improving overall customer satisfaction.

**Project Objectives**

The project is structured into three levels of analysis:

Basic Analysis:

* Order Volume: Determine the total number of orders placed to understand overall demand.
* Revenue Generation: Calculate the total revenue derived from pizza sales to assess financial performance.
* Price Point Analysis: Identify the highest-priced pizza to inform pricing strategies and product positioning.
* Size Preference: Determine the most common pizza size ordered to optimize inventory management and production planning.
* Top-Selling Pizzas: List the top 5 most ordered pizza types, along with their quantities, to highlight customer favorites and guide menu development.

Intermediate Analysis:

* Category Performance: Quantify the total quantity of each pizza category ordered to evaluate category popularity and inform marketing focus.
* Hourly Demand Patterns: Analyze the distribution of orders by the hour of the day to identify peak demand periods and optimize staffing and resource allocation.
* Category Distribution: Determine the distribution of pizzas across categories.
* Daily Order Volume: Calculate the average number of pizzas ordered per day to understand daily demand fluctuations and support operational planning.
* Revenue Contribution (Top Pizzas): Determine the top 3 most ordered pizza types based on revenue.

Advanced Analysis:

* Revenue Contribution by Pizza Type: Calculate the percentage contribution of each pizza type to total revenue to pinpoint high-impact products and inform pricing and promotion strategies.
* Cumulative Revenue Trend: Analyze the cumulative revenue generated over time to visualize growth patterns, identify seasonal trends, and evaluate the effectiveness of business initiatives.
* Category-Specific Top Sellers: Determine the top 3 most ordered pizza types based on revenue for each pizza category, providing insights into category-specific customer preferences and performance.

Data and Methodology

The analysis is performed using SQL on a transactional dataset. Key tables include orders, order\_details, pizzas, and pizza\_types. SQL queries are used to extract, aggregate, and transform the data to address the project objectives. The specific SQL queries are provided in the original document.

Key Findings

* Overall Performance:
  + The total number of orders placed is 21,350, indicating substantial customer demand.
  + Total revenue generated is $817,860.05, reflecting healthy financial performance.
* Product Preferences:
  + "The Greek Pizza" is the highest-priced pizza at $35.95.
  + The most commonly ordered pizza size is "L" (Large), with 18,526 orders, suggesting a preference for larger sizes.
  + The top 5 most ordered pizza types are:
    1. "The Classic Deluxe Pizza" (2453)
    2. "The Barbecue Chicken Pizza" (2432)
    3. "The Hawaiian Pizza" (2422)
    4. "The Pepperoni Pizza" (2418)
    5. "The Thai Chicken Pizza" (2371)
* Category Analysis:
  + The "Classic" category leads in order quantity with 14,888 orders, followed by "Supreme" (11,987), "Veggie" (11,649), and "Chicken" (11,050).
* Temporal Patterns:
  + Order distribution throughout the day shows peak hours between 12 PM and 1 PM, indicating lunchtime as a key sales period.

Inferences and Recommendations

* Product Optimization: The popularity of "The Classic Deluxe Pizza," "The Barbecue Chicken Pizza," and "The Hawaiian Pizza" suggests that these pizzas are well-received by customers. Consider featuring these prominently in promotions and menu design.
* Pricing Strategy: The price of "The Greek Pizza" could be analyzed in the context of its sales volume. It may be worthwhile to evaluate the price elasticity of this product and consider promotional pricing or bundling.
* Inventory Management: The high demand for "L" size pizzas indicates that inventory and production should be aligned to meet this demand.
* Operational Efficiency: The peak order period between 12 PM and 1 PM highlights the need for efficient staffing and resource allocation during lunchtime.
* Category Focus: The "Classic" category's strong performance suggests that it resonates well with customers. Further analysis into the specific pizzas within this category could reveal additional insights.
* Future Analysis:
  + A deeper dive into the advanced analysis, including percentage contribution of each pizza type to total revenue, cumulative revenue trends, and category-specific top sellers, would provide a more comprehensive understanding of the business.
  + Analyzing the least popular pizzas can help identify areas for improvement or potential menu adjustments.

Conclusion

This analysis provides a comprehensive overview of Pizza Hut sales performance, highlighting key trends, customer preferences, and revenue drivers. By leveraging these insights, Pizza Hut can make informed decisions to optimize its operations, enhance its marketing strategies, and improve customer satisfaction, ultimately driving increased revenue and market share.