**Metadata for Pizza Sales Data (2015)**

**Dataset Overview**

As part of the ongoing efforts to optimize sales performance, improve menu offerings, and enhance customer experience, this food outlet requires a structured analysis of the **Pizza Sales Data (2015)**. The dataset contains transactional details, including order volume, pricing, pizza categories, and timestamps.

The MetaData is as follows:

* pizza\_id: Unique identifier for each pizza.
* order\_id: Unique identifier for each pizza order. Multiple pizzas can belong to the same order, as indicated by sharing the same order\_id.
* pizza\_name\_id: Identifier for the specific type or name of the pizza. This may be linked to a separate table that contains details about each pizza type.
* quantity: The number of pizzas of a specific type in a given order.
* order\_date: The date when the order was placed.
* order\_time: The time when the order was placed.
* unit\_price: The price of a single pizza unit.
* total\_price: The total price for the quantity of pizzas in a specific order. It is calculated as the product of quantity and unit\_price.
* pizza\_size: The size of the pizza (e.g., S for Small, M for Medium, L for Large).
* pizza\_category: The category or type of pizza (e.g., Classic, Veggie, Chicken, Supreme).
* pizza\_ingredients: A list of ingredients that make up the pizza. This column provides information about the toppings or components of each pizza.
* pizza\_name: The name or label of the pizza. It is likely a human-readable identifier for the type of pizza, corresponding to the pizza\_name\_id.

**REQUIRED INSIGHTS:**

**1. Sales Performance & Revenue Analysis**

* **Total Revenue**: What is the total revenue generated in 2015?
* **Monthly Revenue Trends**: How do sales fluctuate across different months? Are there any seasonal patterns?
* **Daily & Hourly Sales Distribution**: What are the peak sales days and times?
* **Average Order Value (AOV)**: What is the average revenue per order?

**2. Product Performance & Menu Optimization**

* **Top & Bottom-Selling Pizzas**: Which pizza types are the most and least popular based on quantity sold?
* **Revenue by Pizza Category**: How does sales performance vary across different categories (e.g., Vegetarian, Non-Vegetarian, Vegan)?
* **Revenue by Pizza Size**: What proportion of sales comes from small, medium, and large pizzas?

**3. Customer & Order Behaviour**

* **Average Quantity per Order**: How many pizzas are typically ordered in a transaction?
* **Most Common Order Time**: At what time of the day are most orders placed?
* **Day of the Week Analysis**: Which days have the highest and lowest sales volumes?

**4. Pricing & Discount Strategy**

* **Price Sensitivity**: Do higher-priced pizzas sell less compared to lower-priced ones?
* **High-Value vs. Low-Value Orders**: What percentage of orders contribute the most revenue?
* **Seasonal Pricing Effects**: Are there opportunities for seasonal promotions based on demand trends?

**5. Ingredient & Inventory Optimization**

* **Most Used Ingredients**: Which ingredients are in highest demand based on sales?
* **Cost vs. Revenue Analysis**: How do ingredient costs compare to revenue generated per pizza type?

**6. Operational Efficiency & Order Fulfillment**

* **Order Processing Time**: If timestamps are available, what is the average time between order placement and fulfillment?
* **Delivery vs. Dine-in Sales (if applicable)**: How do sales compare across different service channels?

Through this analysis, we aim to:  
✅ Identify high-performing and underperforming menu items.  
✅ Understand peak sales periods to optimize staffing and resource allocation.  
✅ Assess pricing strategies and their impact on revenue and sales volume.  
✅ Improve customer experience by aligning menu offerings with demand patterns.  
✅ Enhance inventory planning by analyzing ingredient usage and wastage trends.

A structured approach to this analysis will enable data-driven decision-making, helping the business maximize profitability while delivering high-quality service to customers.