Project Title:

Sales Performance Analysis of Walmart Stores Using Advanced MySQL Techniques

Introduction:

Walmart, a major retail chain, operates across several cities, offering a wide range of products. The dataset provided contains detailed transaction data, including customer demographics, product lines, sales figures, and payment methods. This project will use advanced SQL techniques to uncover actionable insights into sales performance, customer behavior, and operational efficiencies.

Business Problem:

Walmart wants to optimize its sales strategies by analyzing historical transaction data across branches, customer types, payment methods, and product lines. To achieve this, advanced MySQL queries will be employed to answer challenging business questions related to sales performance, customer segmentation, and product trends.

1: Identifying the Top Branch by Sales Growth Rate

Walmart wants to identify which branch has exhibited the highest sales growth over time. Analyze the total sales for each branch and compare the growth rate across months to find the top performer.

2: Finding the Most Profitable Product Line for Each Branch

Walmart needs to determine which product line contributes the highest profit to each branch.The profit margin should be calculated based on the difference between the gross income and cost of goods sold.

3: Analyzing Customer Segmentation Based on Spending

Walmart wants to segment customers based on their average spending behavior. Classify customers into three tiers: High, Medium, and Low spenders based on their total purchase amounts.

4: Detecting Anomalies in Sales Transactions

Walmart suspects that some transactions have unusually high or low sales compared to the average for the product line. Identify these anomalies.

5: Most Popular Payment Method by City

Walmart needs to determine the most popular payment method in each city to tailor marketing strategies.

6: Monthly Sales Distribution by Gender

Walmart wants to understand the sales distribution between male and female customers on a monthly basis.

7: Best Product Line by Customer Type

Walmart wants to know which product lines are preferred by different customer types(Member vs. Normal).

8: Identifying Repeat Customers

Walmart needs to identify customers who made repeat purchases within a specific time frame (e.g., within 30 days).

9: Finding Top 5 Customers by Sales Volume

Walmart wants to reward its top 5 customers who have generated the most sales Revenue.

10: Analyzing Sales Trends by Day of the Week

Walmart wants to analyze the sales patterns to determine which day of the week brings the

highest sales.