**-- Easy Level:**

-- Summary Statistics:

-- Question: What are the mean, median, and standard deviation of Weekly\_Sales, Temperature, Fuel\_Price, CPI, and Unemployment?

-- Objective: Obtain basic summary statistics for numerical columns.

-- Distribution of Weekly Sales:

-- Question: What is the frequency distribution of Weekly\_Sales?

-- Objective: Understand the range and frequency of different sales values.

-- Trend of Weekly Sales Over Time:

-- Question: How do Weekly\_Sales values change over time?

-- Objective: Visualize or extract sales data over time.

**-- Intermediate Level**

-- Correlation Analysis:

-- Question: What are the correlations between Weekly\_Sales and other variables like Temperature, Fuel\_Price, CPI, and Unemployment?

-- Objective: Identify relationships between Weekly\_Sales and other variables. (Note: SQL alone doesn’t compute correlation directly; you might use a subquery or external tools for advanced correlation analysis.)

-- Sales Comparison on Holidays vs. Non-Holidays:

-- Question: How do Weekly\_Sales compare on holidays versus non-holidays?

-- Objective: Compare sales performance on holidays and non-holidays.

-- Average Sales by Store:

-- Question: What is the average Weekly\_Sales for each store?

-- Objective: Compare average sales performance across stores.

-- Sales by Temperature Ranges:

-- Question: How do Weekly\_Sales vary within different temperature ranges?

-- Objective: Analyze sales performance within specified temperature brackets.

-- Advanced Level

-- Impact Analysis by Store:

-- Question: How does the impact of Temperature on Weekly\_Sales vary across different stores?

-- Objective: Examine how the relationship between Temperature and Weekly\_Sales differs by store.

-- Predictive Modeling Preparation:

-- Question: How can you aggregate and prepare data for predictive modeling, including calculating rolling averages or creating lagged variables?

-- Objective: Prepare data for predictive modeling and time-series analysis.

-- Autocorrelation in Sales Data:

-- Question: Is there evidence of autocorrelation in Weekly\_Sales data?

-- Objective: Identify patterns where past sales values influence future sales (note: autocorrelation is more complex to handle directly in SQL and may require integration with analytical tools).

-- Variability with Economic Indicators:

-- Question: How does the variability in Weekly\_Sales change with different levels of CPI and Unemployment?

-- Objective: Analyze how economic indicators affect the variability in sales data.

-- Time Series Forecasting Data Preparation:

-- Question: How can you prepare your data for time series forecasting, such as creating features for trends or seasonal effects?

-- Objective: Prepare data for advanced time series forecasting techniques.