SQL Data Analytics | Dimensions vs Measures

1. Dimensions vs Measures

Dimensions are categorical attributes used to slice and group data, such as Time, Product, or Region.

Measures are quantitative metrics that can be aggregated, such as Sales, Revenue, or Quantity.

Dimensions provide context for analyzing measures.

2. Date & Measure Exploration

Dates are used to slice data into time intervals (e.g., daily, monthly). Measures are aggregated over these

intervals to analyze trends. For example, daily sales or monthly revenue help identify seasonality or growth.

3. Change Over Time Analysis

Change over time analysis tracks how measures evolve across time periods. It helps identify trends, spikes,

or declines. For example, tracking monthly sales reveals growth patterns.

4. Cumulative Analysis

Cumulative analysis aggregates measures over time to show running totals. For example, year-to-date

revenue shows how much has been earned cumulatively from the start of the year.

5. Performance Analysis

Performance analysis compares actual results against targets using KPIs. It helps assess how well goals are

being met. For example, comparing actual sales to target sales highlights performance gaps.

6. Part-to-Whole Analysis

Part-to-whole analysis shows how individual components contribute to a total. For example, regional sales
can be visualized as parts of total sales using a pie chart.

7. Data Segmentation

Data segmentation divides data into meaningful groups using dimensions. For example, segmenting customers by region or products by category helps uncover patterns and optimize strategies.