

# Tableau Assignment- 5

## Using Level of Detail Expressions in Tableau for Advanced Data Analysis and Visualization

### Assignment Problem Statements:

**Data Set URL:** [https://github.com/Learn-With-Karthik/NCPL-DataAnalytics/blob/main/Tableau%20-%20Data%20Analytics%20and%20Visualization/sample - superstore.xls](https://github.com/Learn-With-Karthik/NCPL-DataAnalytics/blob/main/Tableau%20-%20Data%20Analytics%20and%20Visualization/sample%20-%20superstore.xls)

Using the sales database of a superstore that has multiple items per order, you are tasked with analyzing the customer order frequency. The goal is to determine the number of customers who made a specific number of orders, ranging from one order to the maximum number of orders made by any customer. To **solve this problem, you will utilize LOD (Level of Detail) expressions in Tableau.**

### Instructions:

- Load the sales database of the superstore into Tableau.
- Create a new worksheet.
- Drag the "Customer ID" field to the Rows shelf.
- Create a calculated field named "Order Count" with the following LOD expression:  
{ FIXED [Customer ID] : COUNTD([Order ID]) }
- This expression calculates the distinct count of orders for each customer.
- Drag the "Order Count" calculated field to the Columns shelf.
- Right-click on the "Order Count" axis and select "Add Reference Line".
- In the Reference Line dialog box, choose the "Percent of Total" option and set the Line to "None".
- Click on the "OK" button to apply the reference line.
- Format the chart by adjusting colors, labels, and titles as per your preference.
- Provide a clear and descriptive title to the chart.

### Assessment:

1. Analyze the bar chart to identify the distribution of customer order frequency. Observe the number of customers who made one order, two orders, three orders, and so on.
2. Interpret the reference line, which represents the percentage of total customers for each order count. This gives an indication of the customer distribution across different order frequencies.
3. Identify any insights or patterns in the customer order frequency. For example, you may notice that the majority of customers make only one or two orders, while a smaller percentage of customers make more frequent purchases.

**Note:** LOD expressions are a powerful tool in Tableau for breaking down measures by different dimensions. In this assignment, we specifically used an LOD expression to break down the count of orders by customer.

**Help:** <https://www.tableau.com/blog/LOD-expressions>