

## Lesson 4.1 - Exercise 4.1: Filtering Data

### Business Scenario

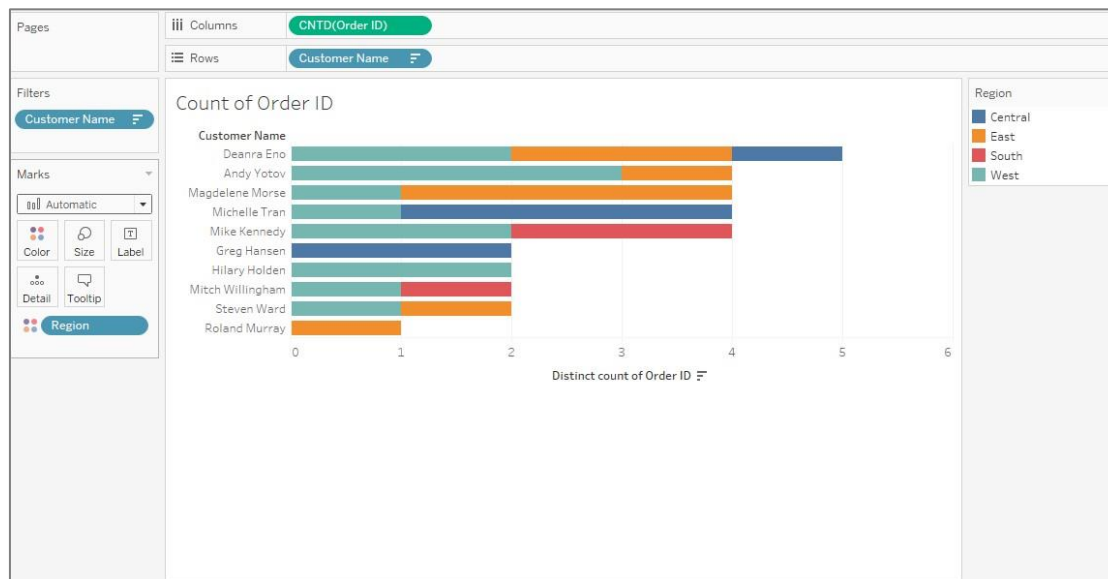
The general manager of an e-commerce company is planning to create a list of customers who have returned most of the orders they had placed. To take substantial measures for upcoming orders, he needs to create a list visualization for customers who have returned more than half of their distinct orders in each region. Create a visualization and answer the following questions:

- Which region has the highest number of products returned by the customers?  
(Hint: Change the view to text)
- How many customers do you have on your list?

### Overview

- Use a left join between **Orders** and **Returns** tables.
- Create a List of **Customer Name**.
- Apply a filter on **Customer Name** with the formula **COUNTD([Order ID (Returns)]) >=COUNTD([Order ID])/2**.
- Use Order ID in the text shelf with **Distinct Count** aggregation.
- Sort the view in descending order of count of orders.

The result should resemble the image below:



## Detailed Instructions

1. Open **Tableau 10.x** (You can go to Start Menu -> All Programs -> Tableau 10.x).
2. On the home page, under **Connect**, under **To a file**, click **Excel**.
3. Browse and connect to the **Sample - Superstore** Excel file.
4. Drag and drop **Orders** and **Returns** table to the canvas area.
5. Change the join type to **Left** join.
6. Go to **Sheet 1**.
7. Place the **Customer Name** dimension in the Rows shelf.
8. Place the **Customer Name** dimension in the Filters shelf.
9. Go to the **Condition** tab.
10. Click the **By formula** radio button and enter the formula:  

$$\text{COUNTD}([\text{Order ID (Returns)}]) \geq \text{COUNTD}([\text{Order ID}])/2$$
11. Click **OK**.
12. In the Data pane, drag **Order ID** to the Text shelf and change the aggregation function to **Distinct Count**.
13. Sort the view in descending order of count of orders.
14. From Dimensions, place the **Region** field in color.
15. Rename the sheet as **Filtering**.
16. Save the workbook as **Lesson 4 - Exercises**.

**Keep the workbook open to perform next exercise.**

## **Answers**

Based on the view, these are the answers to the questions in the problem statement:

- Which region has the highest number of products returned by the customers?

Answer- **West**

- How many customers do you have on your list?

Answer - **10**