Lesson 6: Exercise 6.1 Calculated Fields

Business Scenario

A retail company is planning to launch a new sales strategy. As you are a regional manager, you are asked to create a sales goal based on historical performances. The company wants to increase sales by 20% in all states where they have achieved a certain level of penetration: a minimum of 100 customers. For the remaining states where they have less than hundred customers each, you must calculate sales that would result if they had 100 customers in that state.

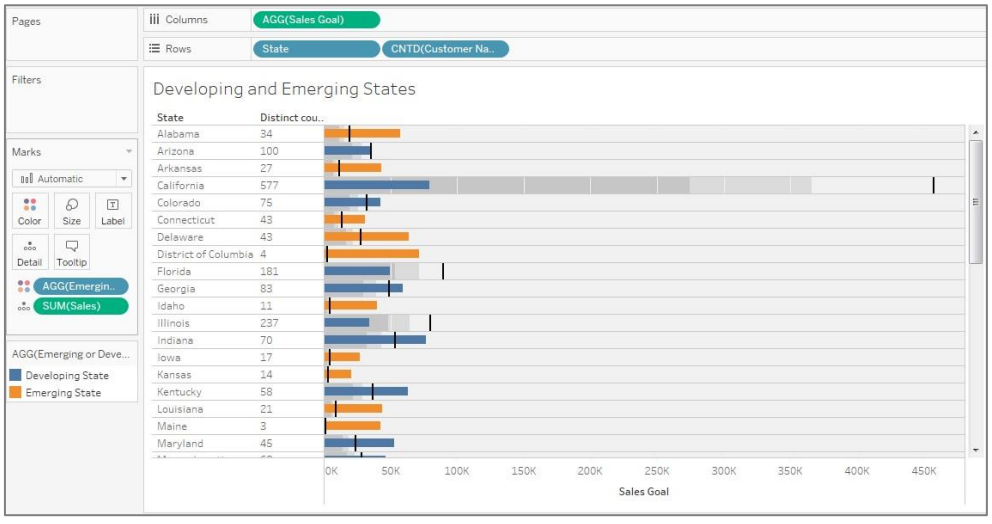
Now, create a visualization in Tableau using a bullet chart. The chart should show the states, number of customers, and actual vs sales goal. Answer the following questions:

- Which State has the lowest customer count and what is the count?
- How many states have customer count at least 100? (**Hint**: Place the distinct count of customer name field on Filters)

Overview

- Create a set to show states with 100 or more customers.
- Create a calculated field to show average sales per customer.
- Create a calculated field to show sales goal.
- Create a calculated field to show emerging and developing states.
- Create a view using the bullet chart.

The result should resemble the image given below:



Detailed Instructions

1. Open **Tableau 10.x** (You can go to Start Menu -> All Programs -> Tableau 10.x).
2. From the home page, connect to the saved **Sample - Superstore** dataset.
3. From Dimensions, locate and right click **Customer Name**.
4. To create a set, select **Create > Set**.
5. In the Create Set window, enter name as **States with 100+ Customers**.
6. Navigate to the **Condition** tab.
7. Select **By field**.
8. Apply condition as **Count(Customer Name) >= 100**.
9. Click **OK**.
10. To determine average sales by customer, create a **calculated field**.
11. Go to **Analysis > Create Calculated Field**.
12. Enter name as **Average sales per customer**.
13. Type this formula: **AVG({ INCLUDE [Customer Name]:SUM([Sales])})**
14. Click **OK**.
15. Create one more calculation to determine **Sales Goal** using the set and the previously created calculated field.
16. Type the formula below:

    ```
    IF MIN([States with 100+ Customers])= TRUE
    THEN SUM([Sales])*1.3
    ELSE 100* [Average sales per customer]
    END
    ```

17. Click **OK**.
18. Create a calculated field to find emerging and developing states.
19. Open the calculation editor.
20. Enter name as **Emerging or Developing State**.
21. Enter the formula below:

    ```
    IF COUNTD([Customer Name])>=100 THEN "Developing State" ELSE
    "Emerging State"
    END
    ```

22. Create a view.
23. From Measures, drag **Sales Goal** onto Columns.
24. From Dimensions, drag **State** to Rows.
25. From Dimensions, drag **Customer Name** next to State.

26. Select aggregation as **Count Distinct**.
27. Now, right click the **Customer Name** pill, and from context menu, select **Discrete**.
28. Drag the **Sales** measure to Columns.
29. Open **Show Me**.
30. Select **Bullet Chart**.
31. To bring Sales Goal to column, right click the **Sales axis** and select **Swap Reference Line Fields**.
32. From Measures, drag and drop the **Emerging or Developing** calculated field to **Color**.
33. Rename the worksheet as **Developing and Emerging States.**

Keep the workbook open for next exercise.

Answers

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

- Which State has lowest customer count and what is the count?
  Answer – **Wyoming** and the count is **1**.

- How many states have customer count of at least 100?
  Answer - **12**