



Project 2

Problem Statement

Customer satisfaction is one of the important things to take business to new heights. Lynda, the customer relationship manager of an ecommerce company is accountable to ensure that the company is taking every initiative to meet the customer needs and expectations. She wants customers to have a long, faithful, and cost-effective journey with her organization. This involves providing best offers to their customers, creating attractive branding strategy, giving out of box solutions to the customer concerns, and maintaining complete customer fulfilment.

The manager wants to analyze the revenue generated by top N customers in each year. She also wants to see customer order frequency as her aim is to generate more robust information about customer purchasing behavior, to create a compelling EOSS scheme.

Additionally, the manager needs to understand customer acquisition and orders placed by them. She needs to examine the number of customers acquired in each region. Finally, she needs to analyze the performance of various regions, states, and cities.

This way the manager can take initiatives to improve customer conversion rates, increase customer retention, and maximize customer lifetime value.

Reporting Scenario

Create a story containing the following dashboards:

Note: Use the Customer Analysis excel sheet as the data source to create the dashboards.

Dashboard 1: Customer Analysis Dashboard

This dashboard should display the Top N customers for the selected year, number of customers in each region, and customer order frequency. Also, the customer name should link to other sheets.

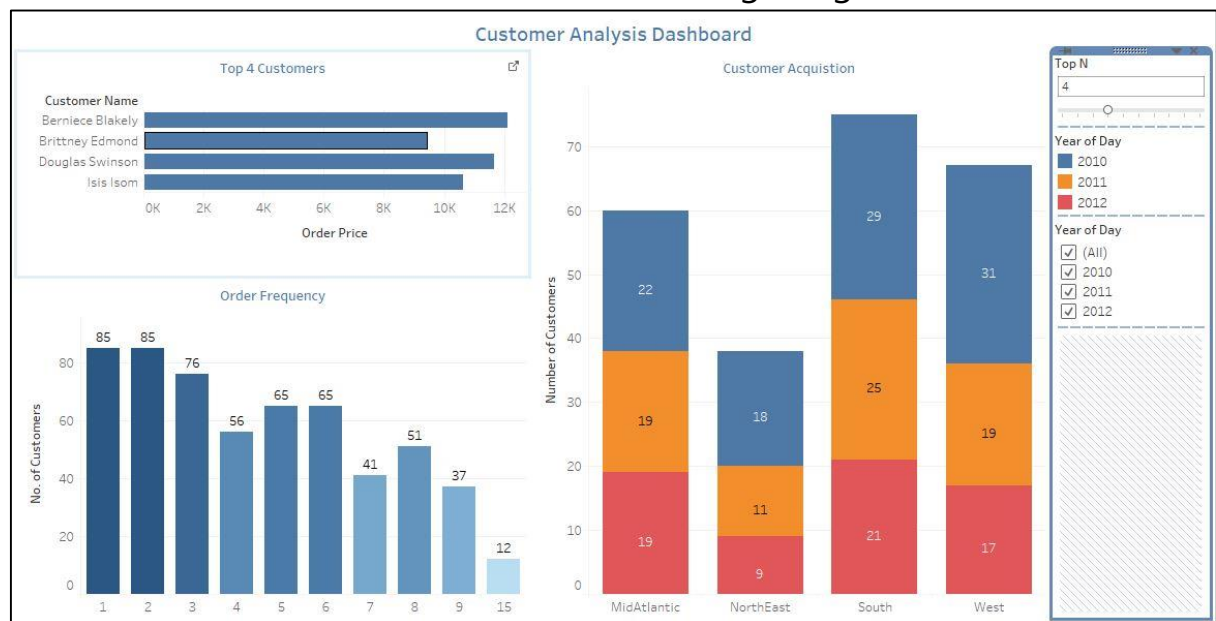
The following question should be answered:

1. Which customer from the West region has placed an order with the highest price?

Overview Steps

1. Create the Top N Customers sheet.
2. Create the Customer Acquisition sheet.
3. Create the Order Frequency sheet.
4. Create the Customer Analysis Dashboard using the above sheets.
5. Apply filter action on Top N Customers.

The dashboard should resemble the following image:

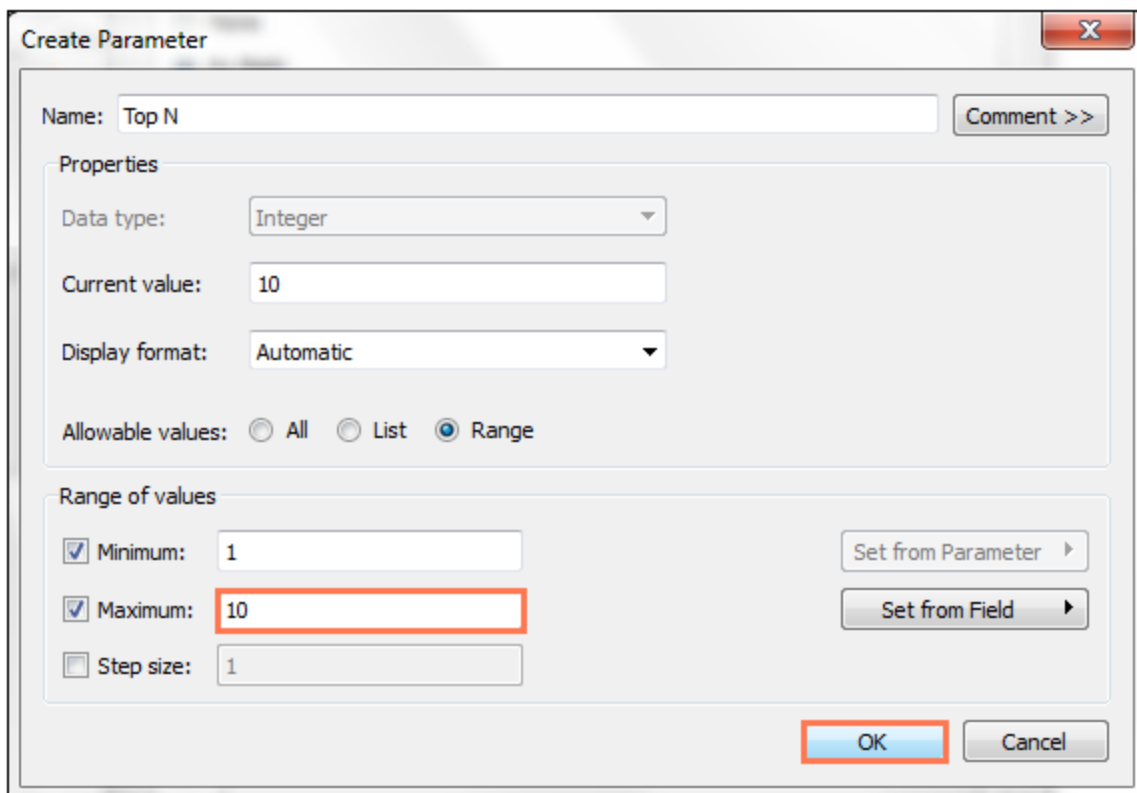


Detailed Steps

1. Open Tableau Desktop 10.1 and connect to the **Customer Analysis** excel file.
2. On the data source page, add the **Customer**, **City**, **Order Details**, **State**, **Store**, and **Region** tables to the canvas area.

Create Top Customers view

3. Navigate to sheet 1.
4. From dimensions, drag **Customer Name** to the Filters shelf.
5. In the Filter window, go to the **Top** tab, and select the **By field** radio button.
6. Click the Channel ID drop-down and select the **Order Price** measure from the list.
7. Click the value drop-down and select **Create a New Parameter**.
8. In the Create Parameter window, enter the name as **Top N**.
9. Make sure the range radio button is selected.
10. Under range of values, change the maximum value to **10**. Click **OK**.



Create Parameter

Name: Comment >>

Properties

Data type:

Current value:

Display format:

Allowable values: ☐ All ☐ List ☒ Range

Range of values

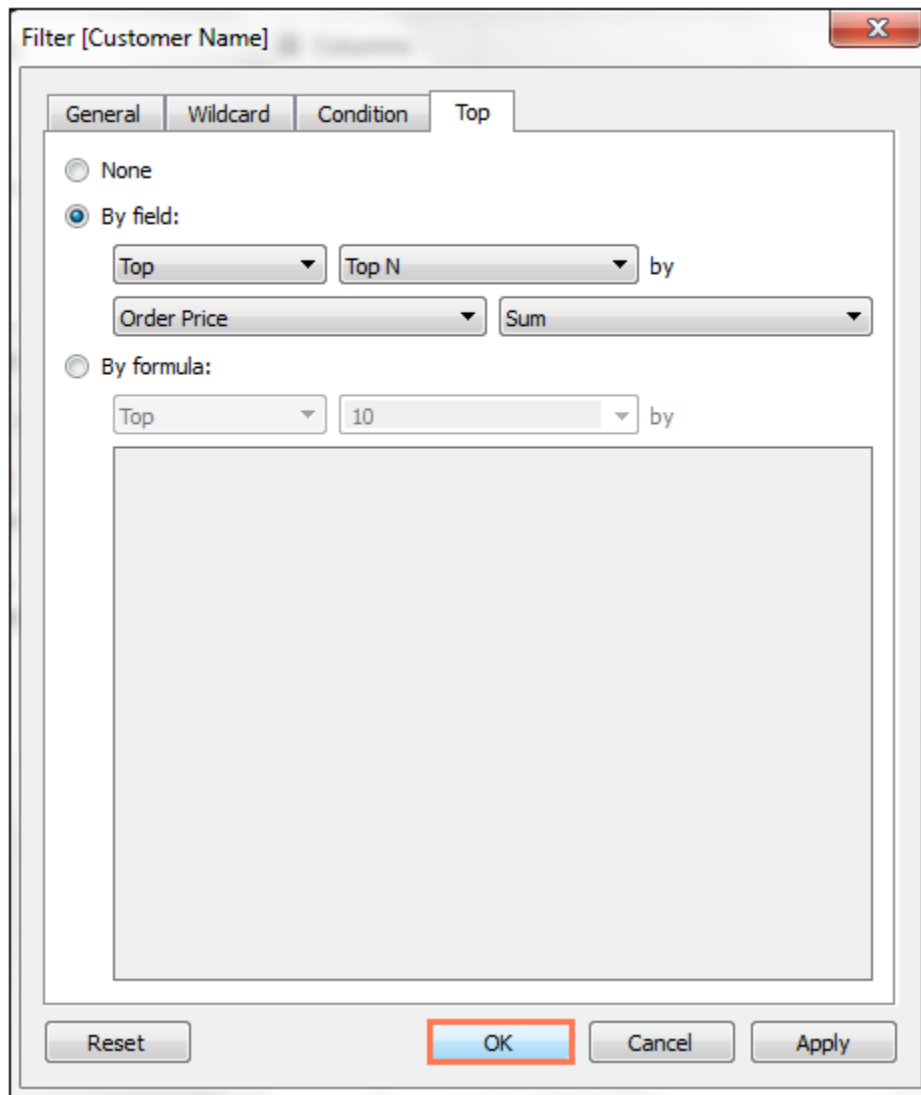
☒ Minimum: Set from Parameter ▶

☒ Maximum: Set from Field ▶

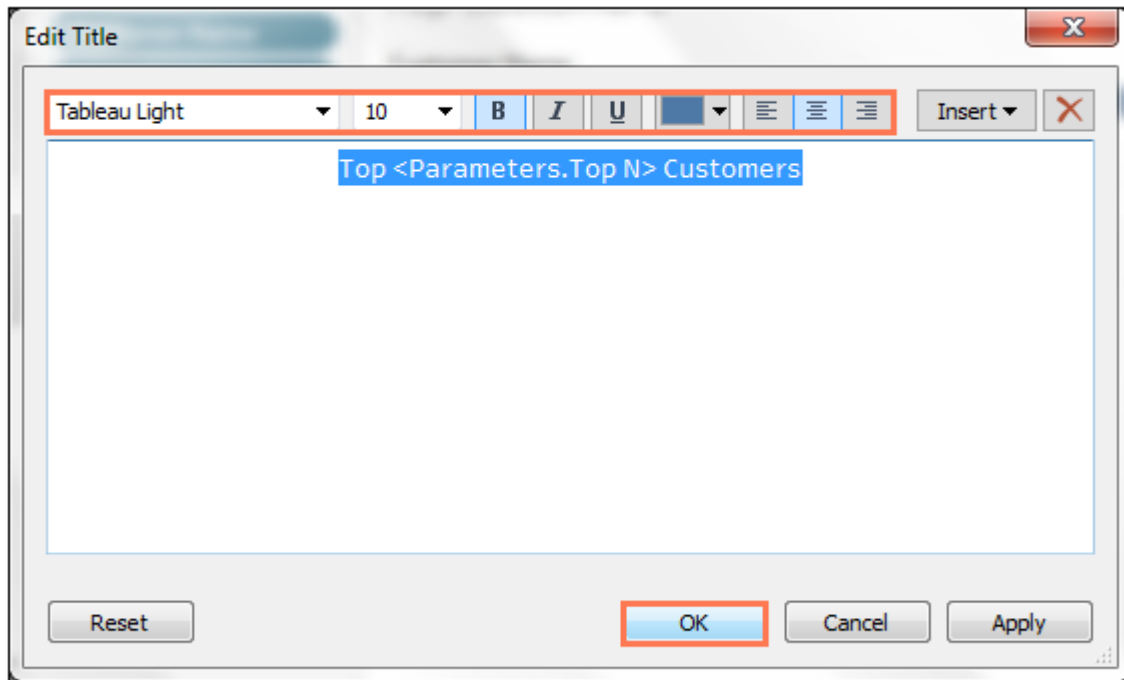
☐ Step size:

OK Cancel

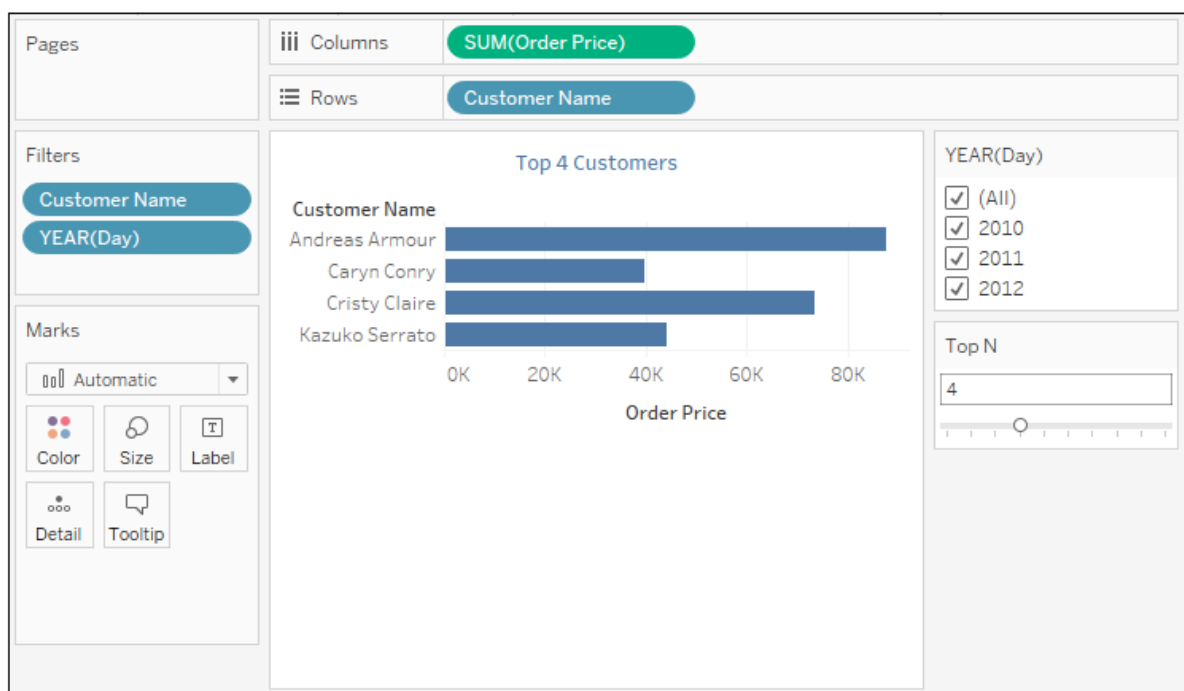
11. In the Filter window, click **OK**.



12. Drag the **Customer Name** dimension to Rows and the **Order Price** measure to Columns.
13. From dimensions, right-click **Day** and select **Show Filter**.
14. At the bottom area, double-click the sheet name and rename it as **Top Customers**.
15. Double click the title, change it to **Top <Parameters.Top N> Customers**.
16. Format the title and click **OK**.



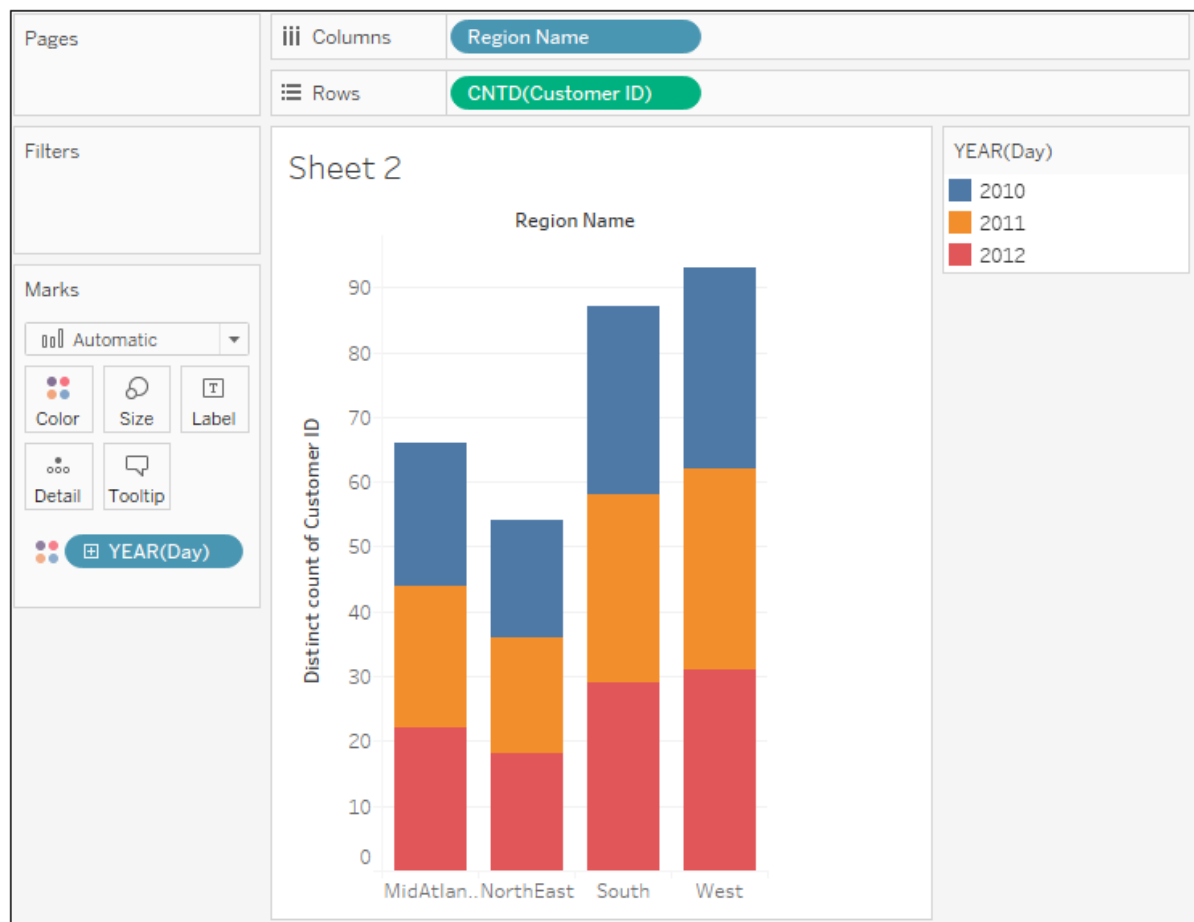
The view should resemble the following image:



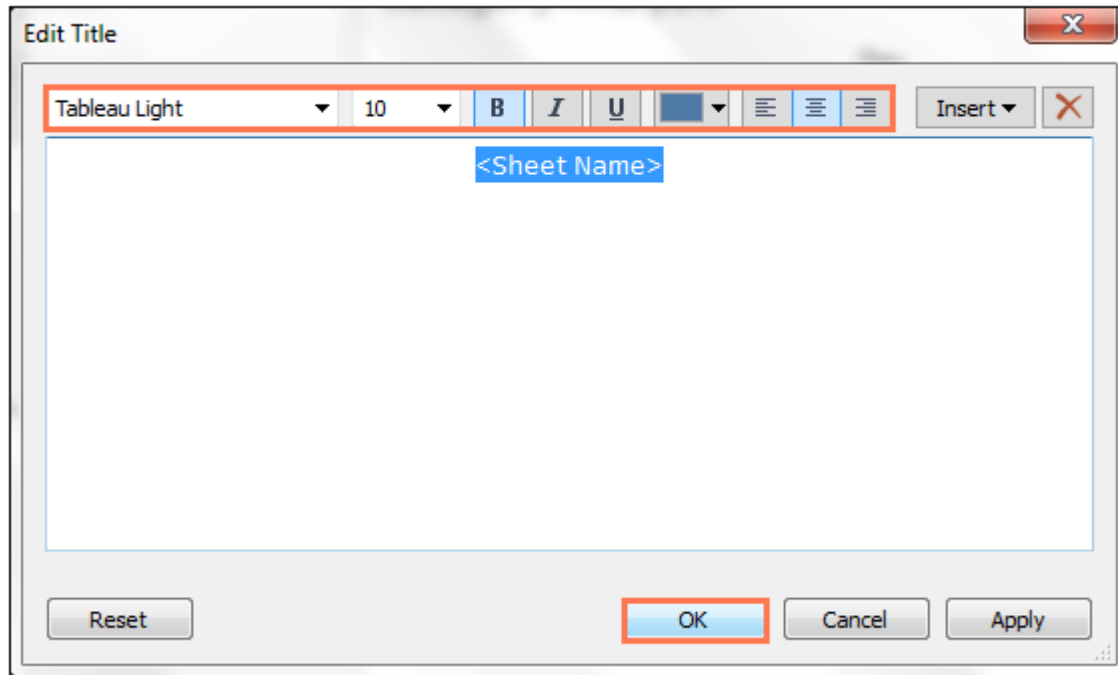
Create Customer Acquisition view

17. At the bottom area, click the new worksheet icon.
18. Drag the **Region Name** dimension to Columns and **Customer ID** to Rows.
19. Right-click the Customer ID pill, point to Measure, and select **Count (Distinct)**.
20. Place the **Day** dimension on the Color mark property.

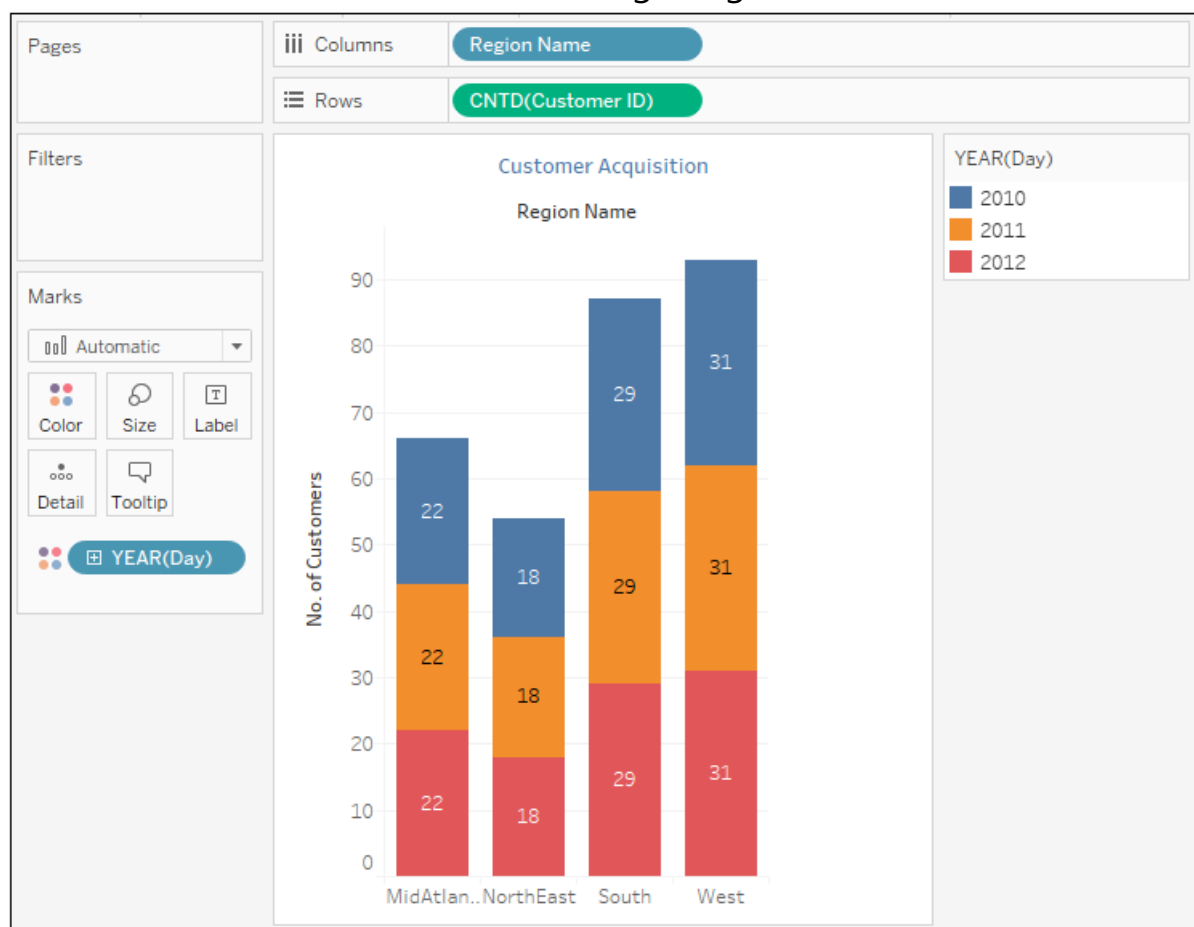
The view should resemble the following image:



21. From the Marks card, click Label, and select the **Show mark labels** checkbox.
22. Right-click the **Distinct Count of Customer ID** axis, and select **Edit Axis**.
23. Under Titles, change the title to **Number of Customers**. Click **OK**.
24. At the bottom area, double-click the sheet name, and rename it as **Customer Acquisition**.
25. Format the title and click **OK**.



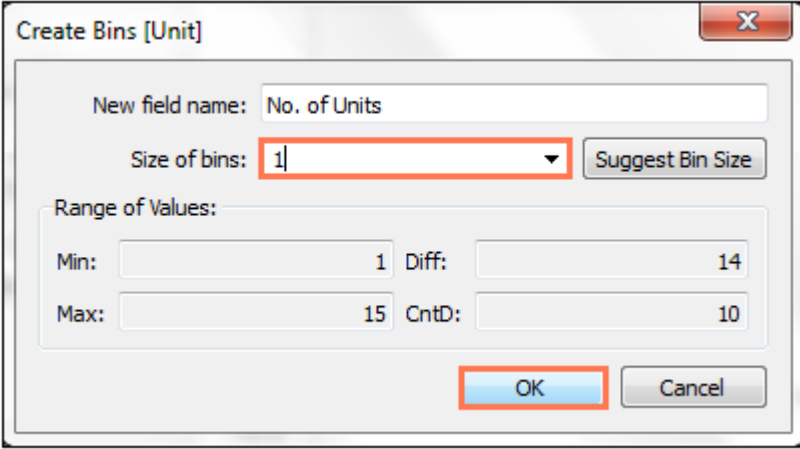
The view should resemble the following image:



Create Order Frequency view

26. Click the new worksheet icon.

27. Right click the **Unit** measure, point to Create, and select **Bins**.
28. In the Create bins window, enter the name as **No. of Units**.
29. Enter the bin size as **1** and click **OK**.



Create Bins [Unit]

New field name: No. of Units

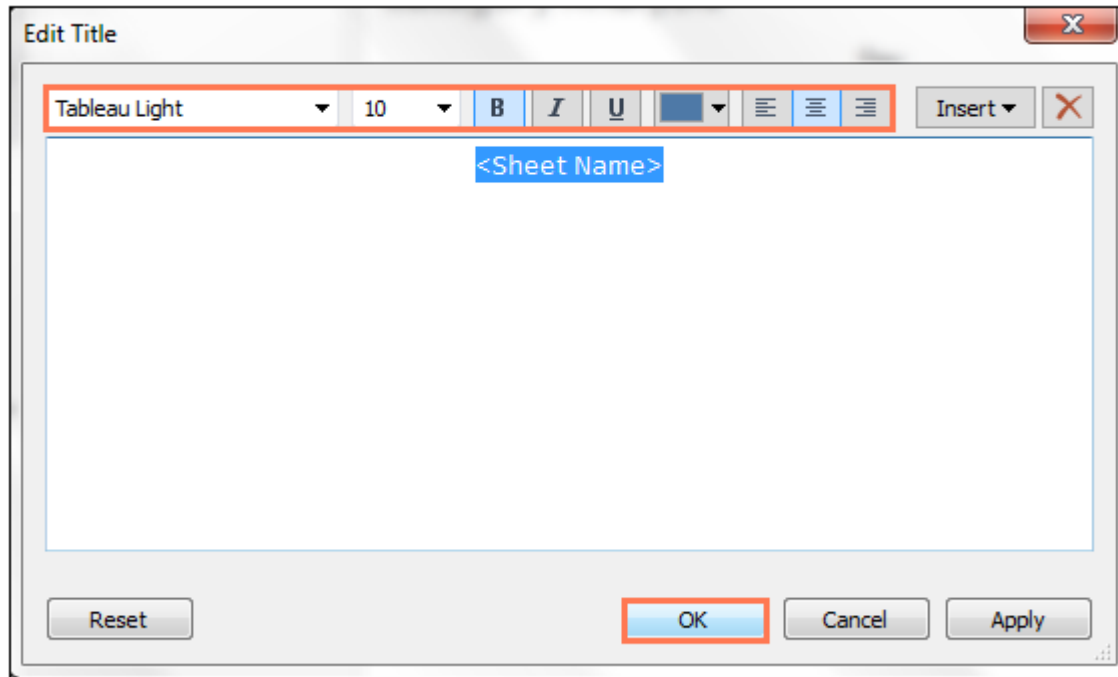
Size of bins: 1

Range of Values:

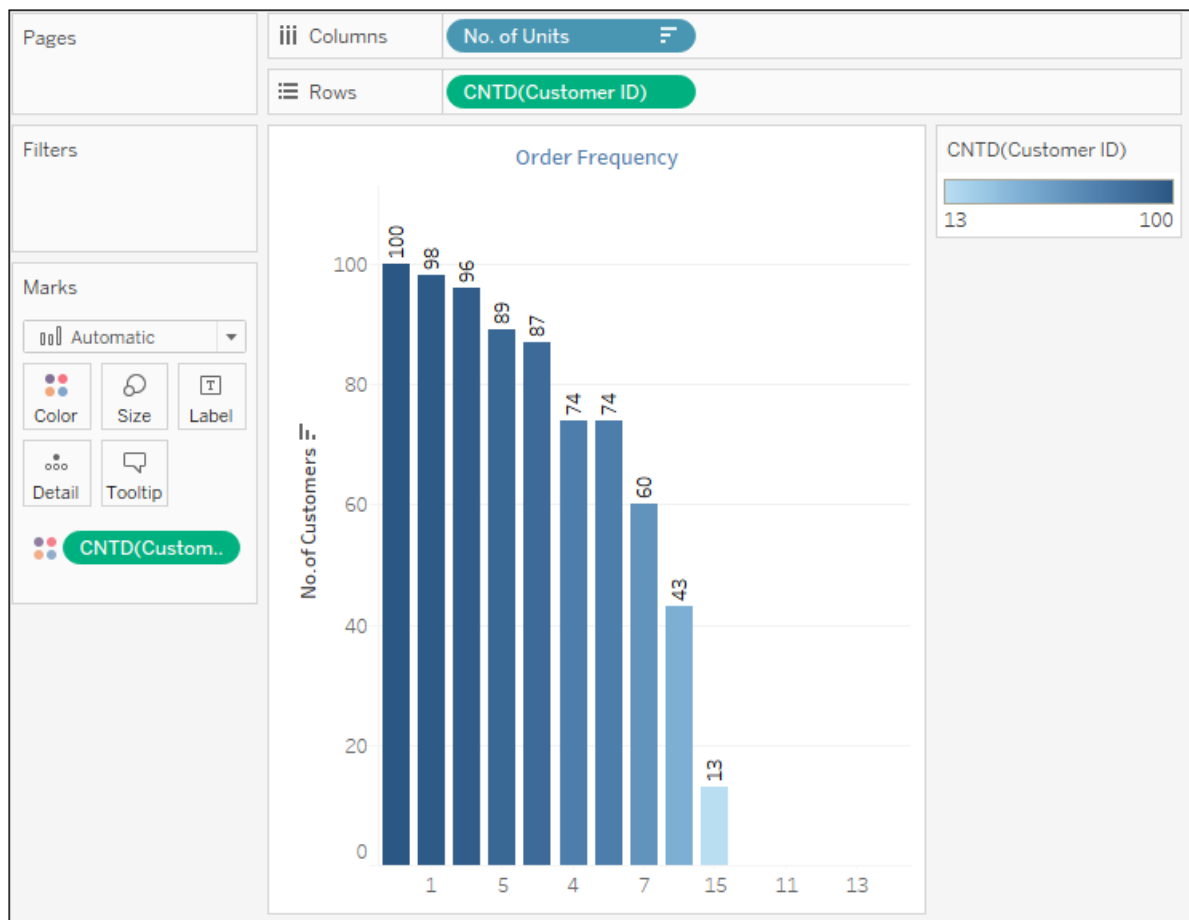
Min: 1 Diff: 14

Max: 15 CntD: 10

30. Drag the **No. of Units** bin to Columns and **Customer ID** to Rows.
31. Right-click the Customer ID pill, point to Measure, and select **Count (Distinct)**.
32. Right-click the **Distinct Count of Customer ID** axis and select **Edit Axis**.
33. Change the title to **No. of Customers**.
34. Place **Distinct Count of Customer ID** on the Color mark property.
35. Click Label on the Marks card and select the **Show mark labels** checkbox.
36. Double-click the sheet title and rename the sheet as **Order Frequency**.
37. Format the title and click **OK**.



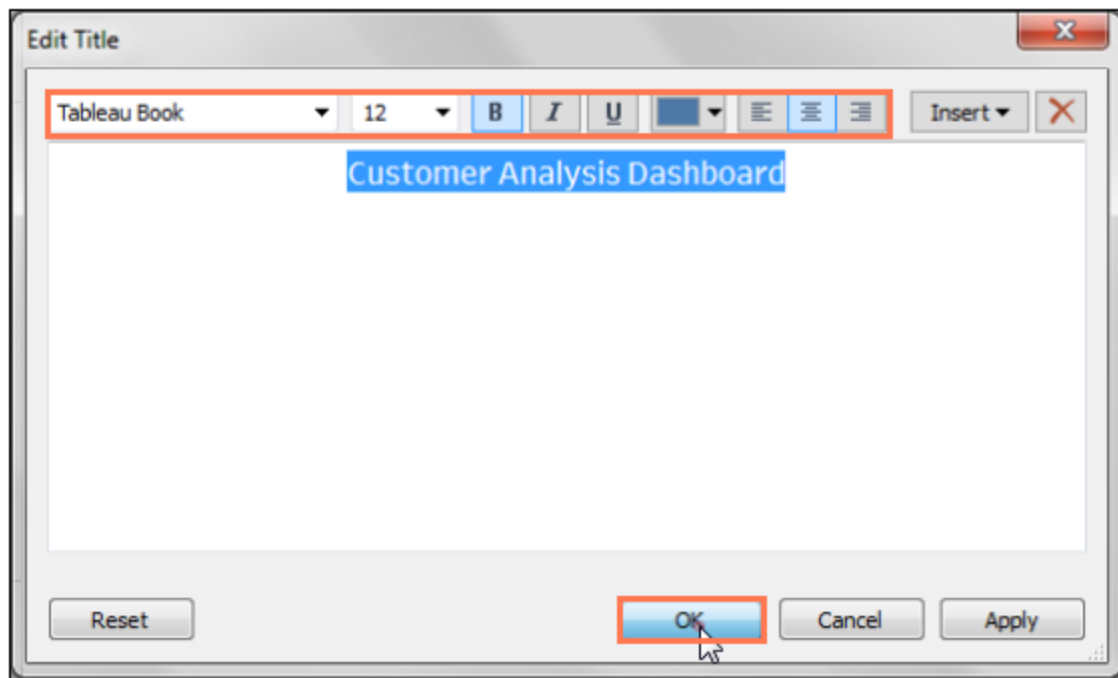
The view should resemble the following image:



Create Customer Analysis Dashboard

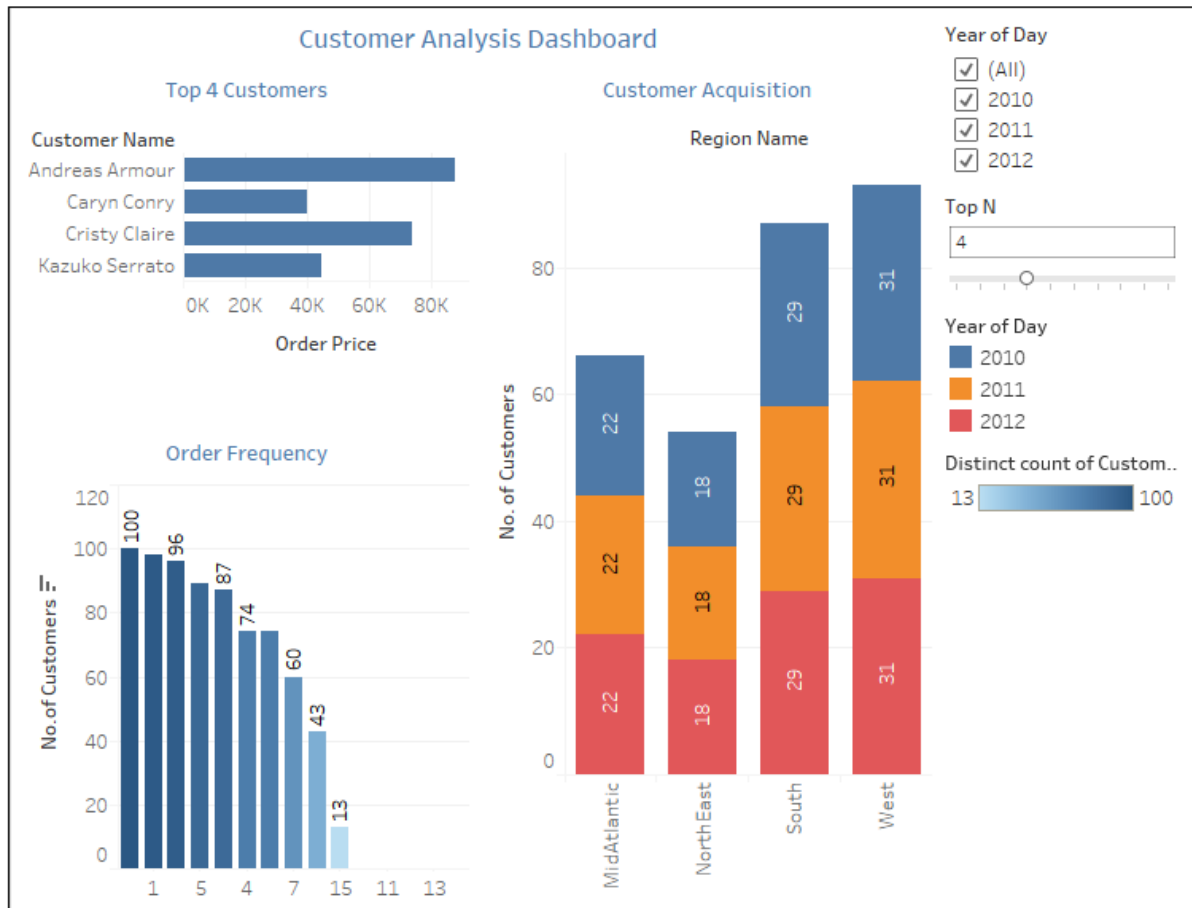
38. Click the new dashboard icon.

39. From the dashboard pane, click the Size drop-down, and select **Automatic**.
40. Select the **Show dashboard title** checkbox.
41. Double-click the dashboard title and change it to **Customer Analysis Dashboard**. Format it and click **OK**.



42. Add all the sheets to the dashboard area.
43. At the bottom area, double-click the dashboard name, and rename it to **Customer Analysis**.

The dashboard should resemble the following image:



44. From the Dashboard menu, select **Actions**.
45. Click **Add Action** and select **Filter**.
46. Enter the name as **Customer Filter**.
47. Select **Top N Customers** as the source sheet and the remaining two sheets as the target sheets.
48. Run this action using **Select**. Click **OK**.

Add Filter Action

Name:

Source Sheets:

☐ Customer Analysis

☐ Customer Acquisition

☐ Order Frequency

☒ Top Customers

Run action on:

☐ Run on single select only

Target Sheets

☐ Customer Analysis

☒ Customer Acquisition

☒ Order Frequency

☐ Top Customers

Clearing the selection will:

☐ Leave the filter

☒ Show all values

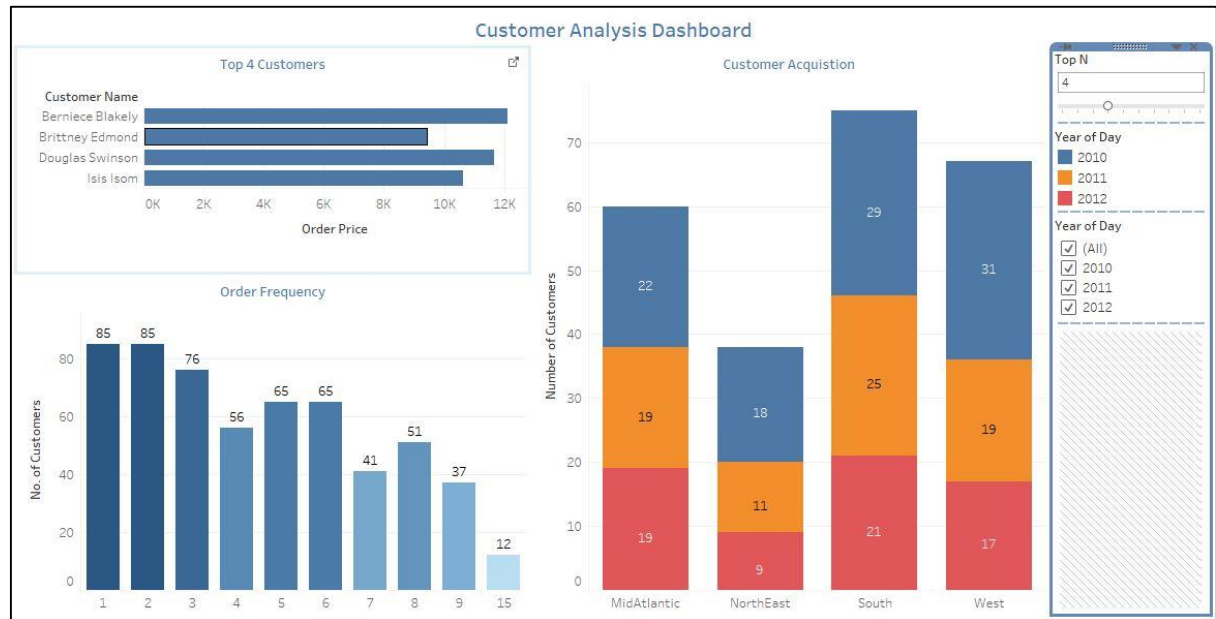
☐ Exclude all values

Target Filters

☐ Selected Fields ☒ All Fields

Source Field	Target Field	Target Data Source

49. Click **OK** in the Actions window.
 50. Close the Distinct Count of Customer ID legend.
- The dashboard should resemble the following image:



Answer:

1. Customer from the West region having placed an order of the highest price - Kazuko Serrato

Dashboard 2: Geographical Performance Dashboard

This dashboard should display the revenue generated by each state, delivery charges for each city, and revenue generated by each region. The region should link to city and state. Also, clicking a state on the map should display the information about the state.

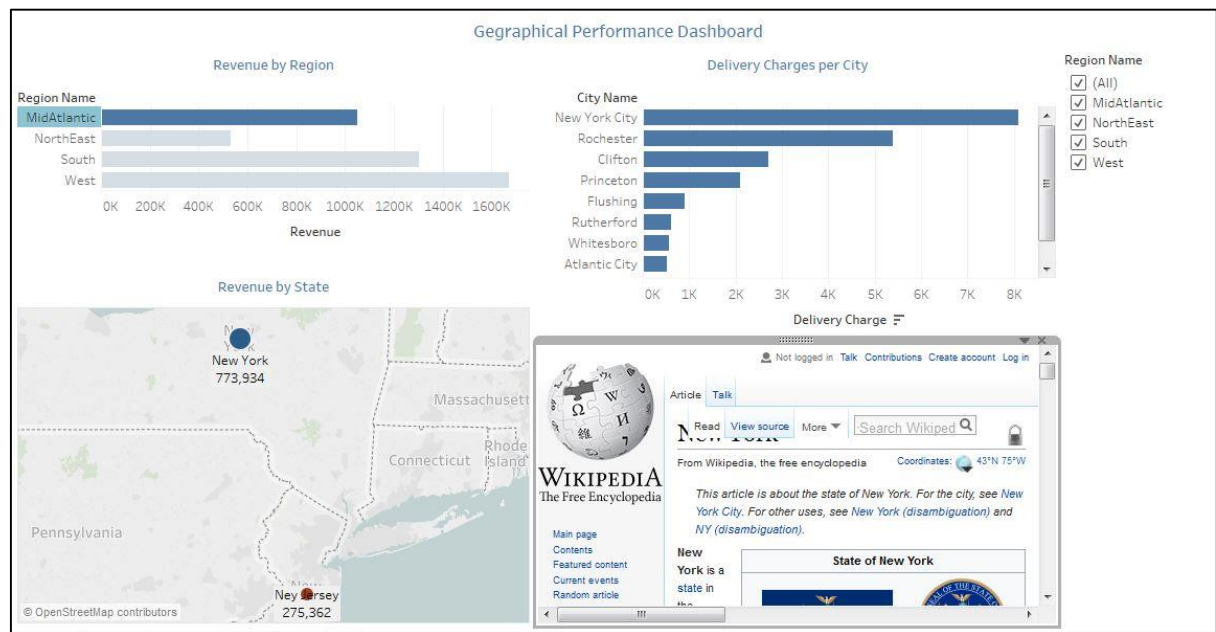
The following questions should be answered:

1. Which state in the North East region has generated the highest revenue?

Overview Steps

1. Create the Revenue by State sheet.
2. Create the Delivery Charges per City sheet.
3. Create the Revenue by Region sheet.
4. Create the Geographical Performance Dashboard using the above sheets.
5. Apply filter action to Revenue by Region.
6. Apply URL action to Revenue by State.

The dashboard should resemble the following image:

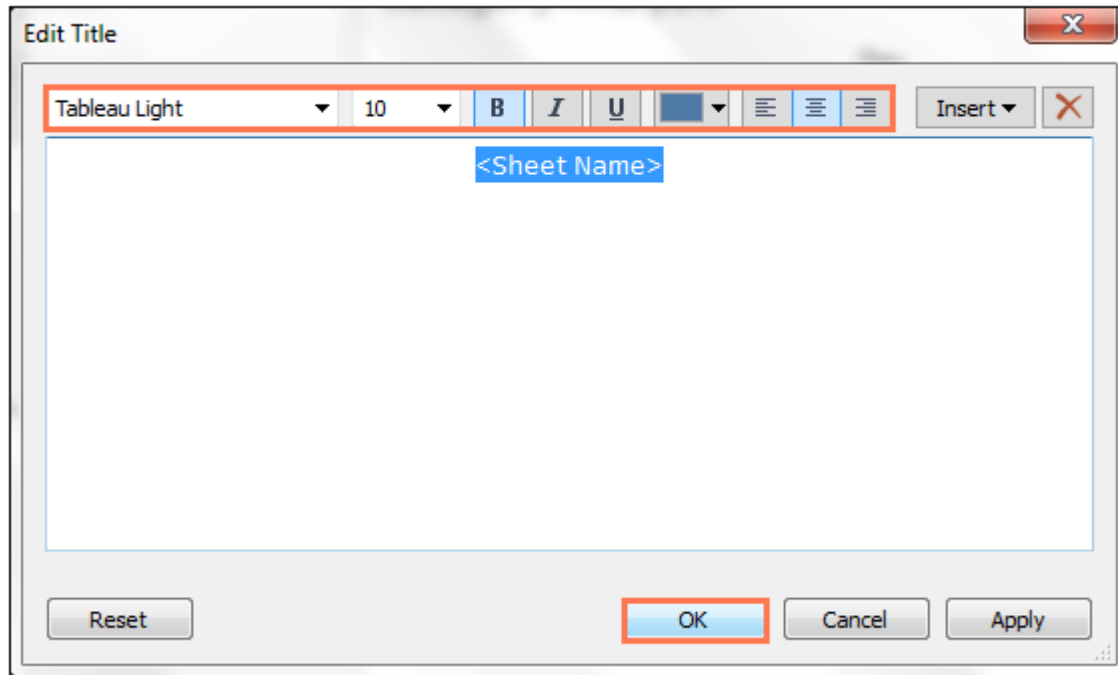


Detailed Steps

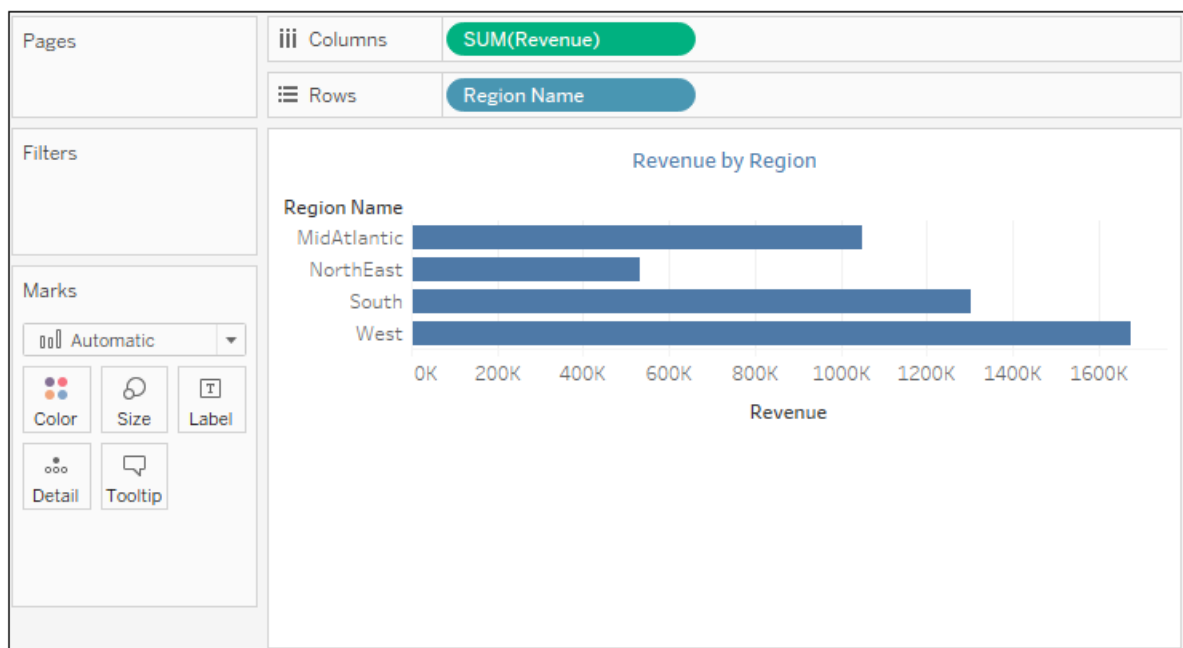
Create Revenue by State view

1. In the same workbook, create a new worksheet.
2. Click the drop-down arrow next to dimensions and select **Create Calculated Field**.
3. In the editor, name this calculation as **Revenue**.
4. Enter the following formula:

$$([Order Price] * [Unit]) + [Delivery Charge]$$
 Click **OK**.
5. From dimensions, expand the **Region** table, and place the **Region Name dimension** on Rows.
6. From measures, drag and drop **Revenue** to Columns.
7. At the bottom area, double click the sheet name and enter **Revenue by State**.
8. Format the title and click **OK**.



The view should resemble the following image:

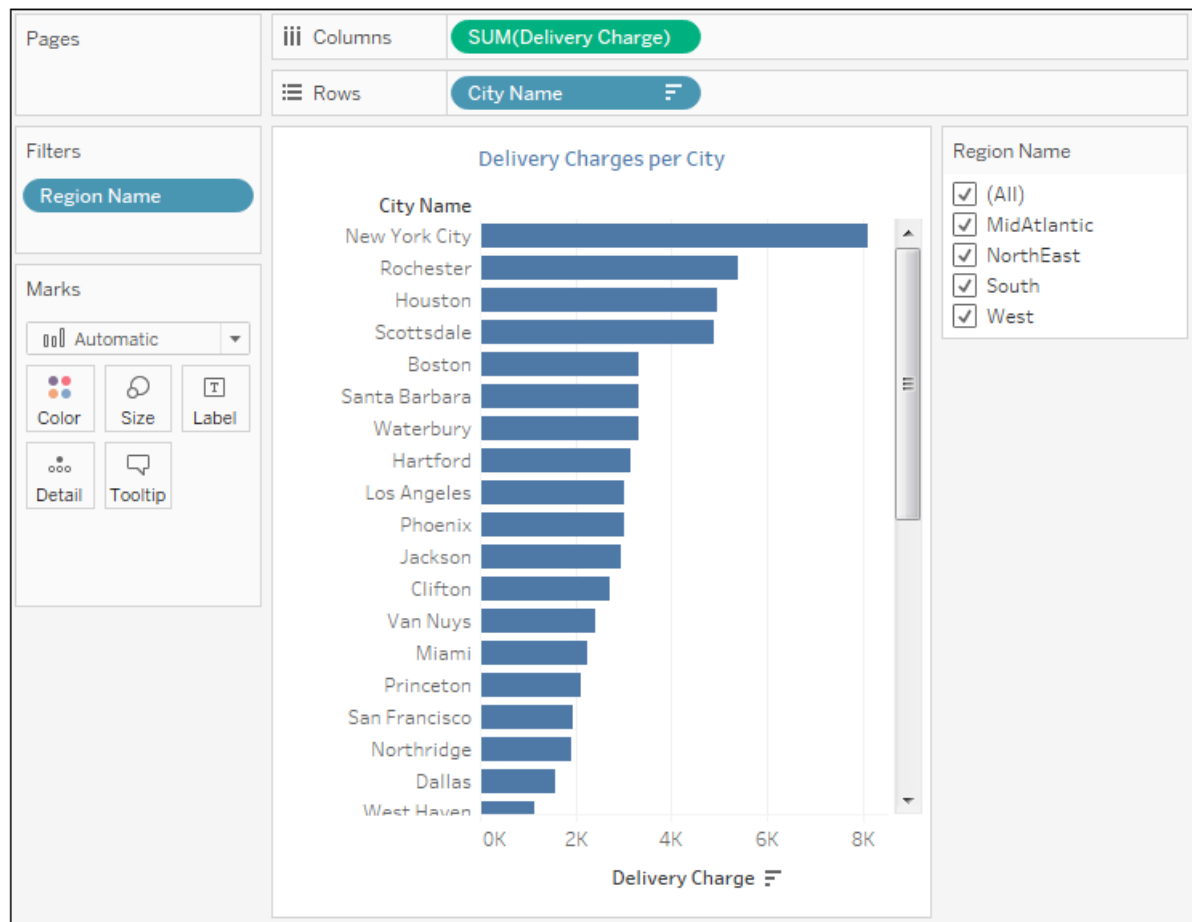


Create Delivery Charges per City view

9. Navigate to a new sheet.
10. Drag the **City Name** dimension to Rows and **Delivery Charge** measure to Columns.
11. To sort the view, hover over the axis and click the sort icon once.
This sorts the view in descending order.

12. From dimensions, right-click **Region Name**, and select **Show Filter**.
13. At the bottom area, right-click the sheet name, and rename it as **Delivery Charges per City**.

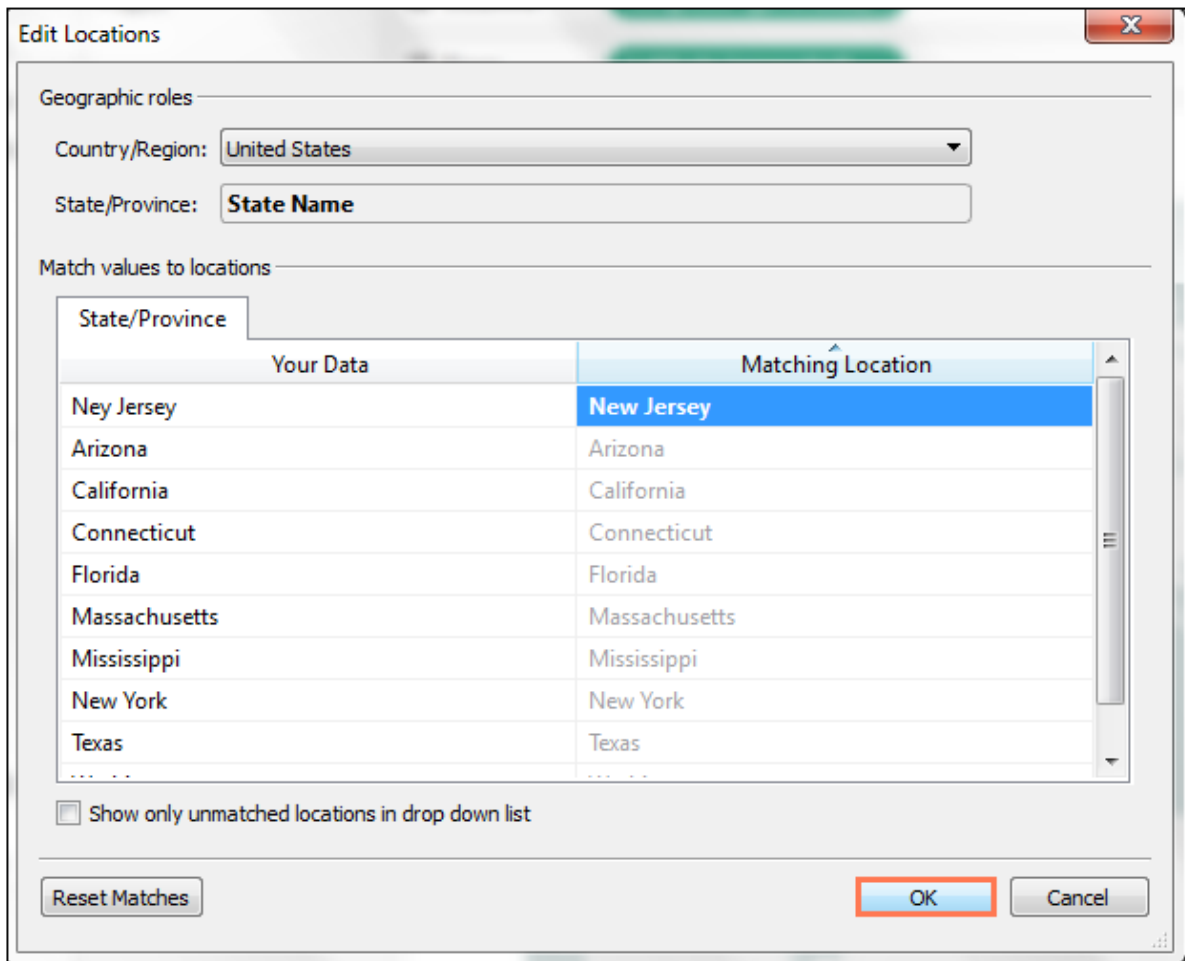
The view should resemble the following image:



Create Revenue by State view

14. Click the new worksheet icon.
15. From dimensions, expand the **State** table and double-click **State Name**.
16. To edit the locations, click the **10 unknown** message, and select **Edit Locations**.
17. In the Edit Locations window, click the **Country/Region** drop-down.
18. From the Fixed drop-down, select **Unites States**.
19. Under match values to locations, click **Unrecognized**, and select **New Jersey** from the list.

20. Click **OK**.



Edit Locations

Geographic roles

Country/Region: United States

State/Province: State Name

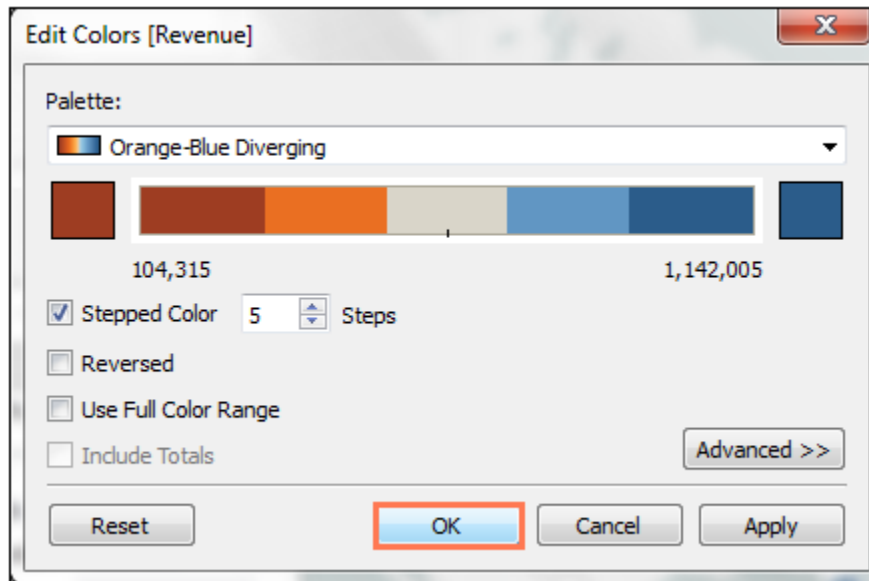
Match values to locations

State/Province	Your Data	Matching Location
	New Jersey	New Jersey
	Arizona	Arizona
	California	California
	Connecticut	Connecticut
	Florida	Florida
	Massachusetts	Massachusetts
	Mississippi	Mississippi
	New York	New York
	Texas	Texas

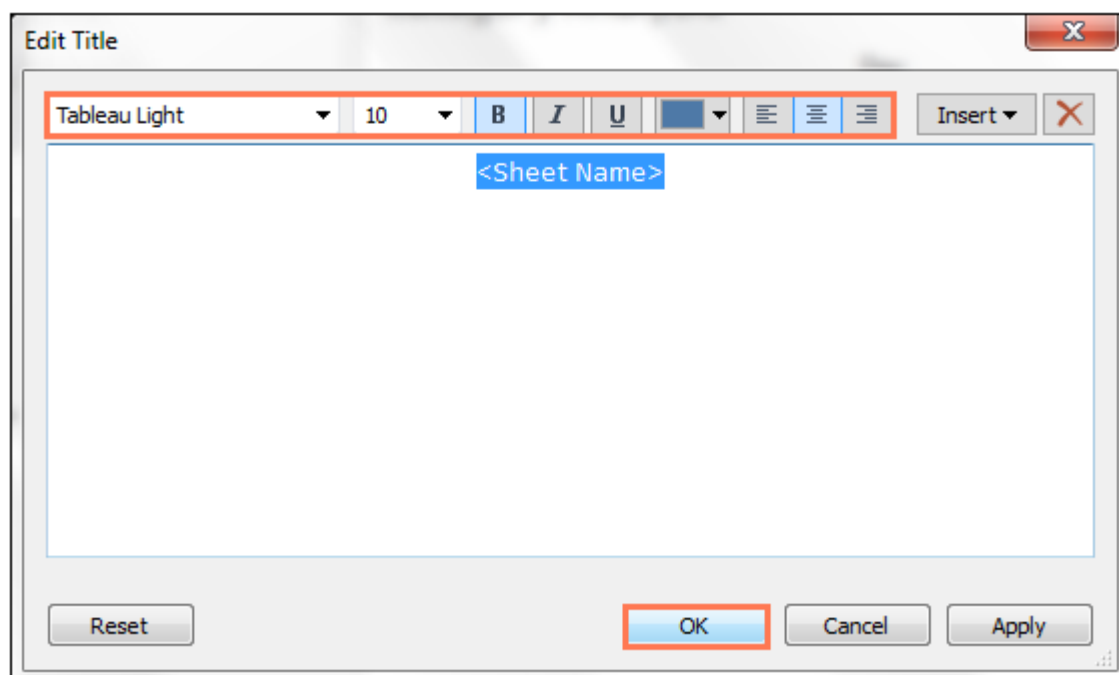
☐ Show only unmatched locations in drop down list

Reset Matches OK Cancel

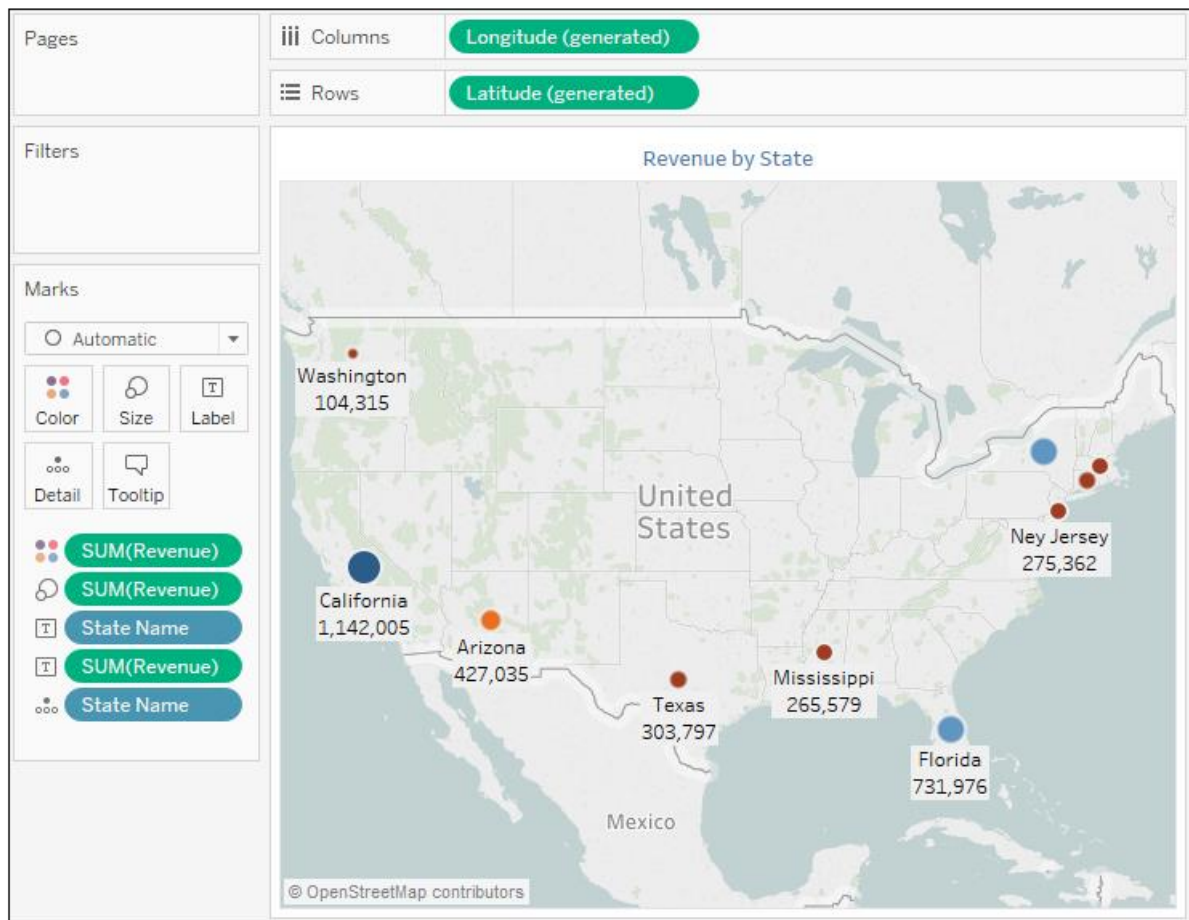
21. From measures, drag and drop **Revenue** on the Size and Color mark properties.
22. On the Marks card, click Color, and select **Edit Colors**.
23. Click the Palette drop-down and select **Orange-Blue Diverging** from the list.
24. Select the **Stepped Color** checkbox and click **OK**.



25. In the view, click the SUM(Revenue) Color legend and select **Hide Card**.
26. Similarly hide the SUM(Revenue) Size legend.
27. From dimensions, drag and drop **State Name** on the Label mark property.
28. From measures, drag and drop **Revenue** on the Label mark property.
29. At the bottom area, double-click the sheet name, and change it to **Revenue by State**.
30. Format the title and click **OK**.

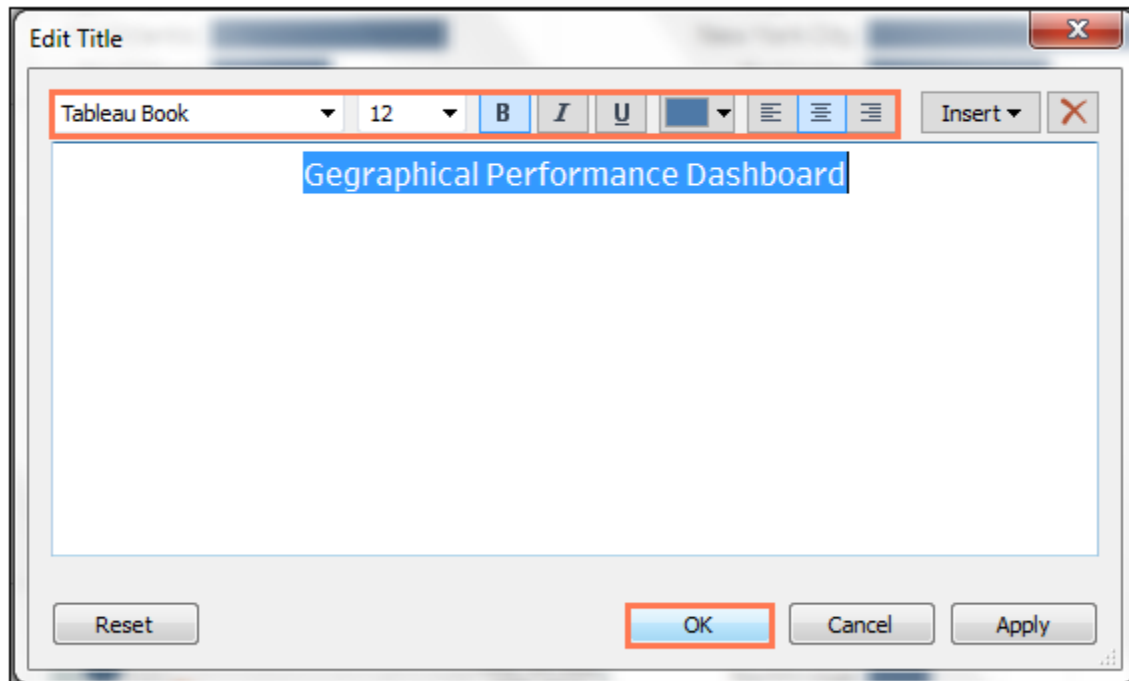


The view should resemble the following image:

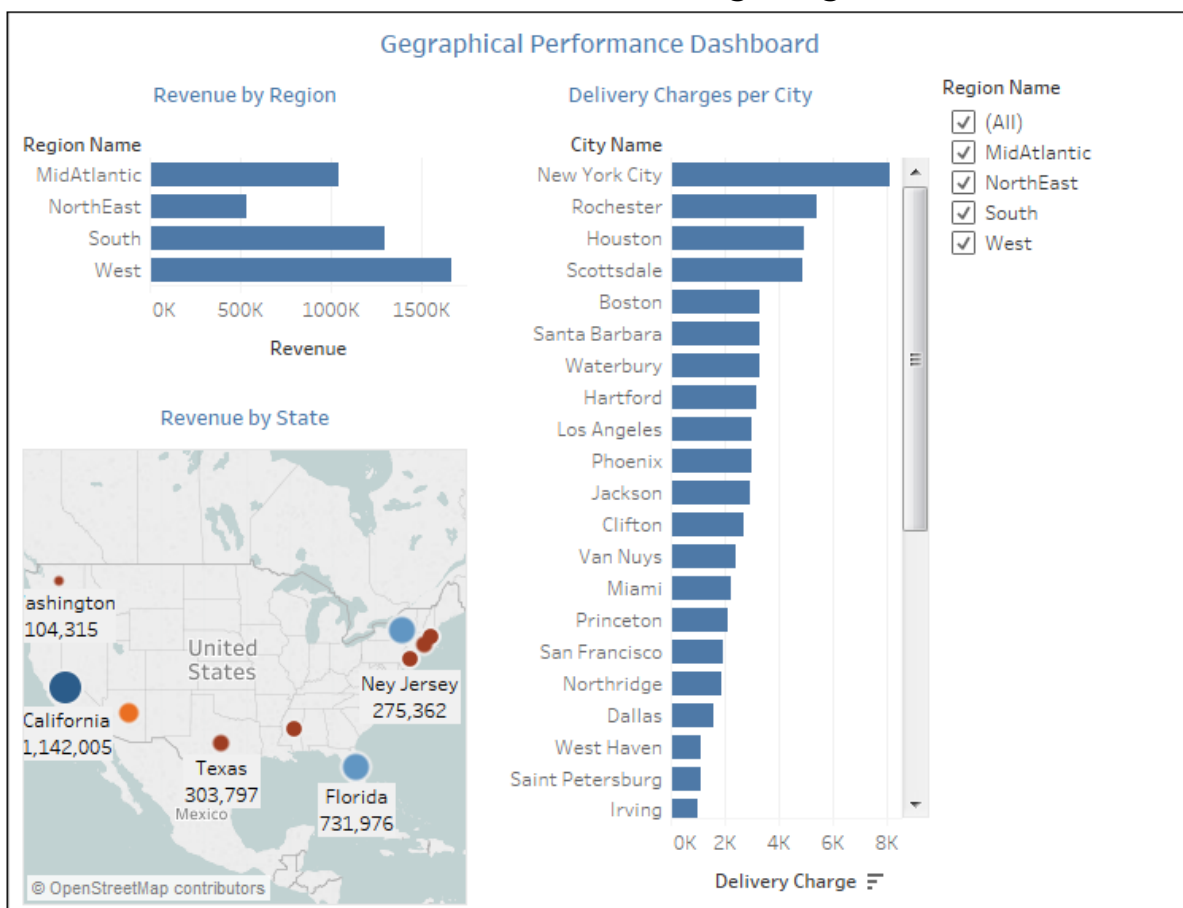


Create Geographical Performance Dashboard

31. Click the new dashboard icon.
32. In the dashboard pane, click the Size drop-down and select **Automatic**.
33. Drag and drop the newly created sheets in the canvas area.
34. In the dashboard pane, select the **Show dashboard title** checkbox.
35. Double-click the dashboard title, type **Geographical Performance Dashboard**, format it, click **OK**.

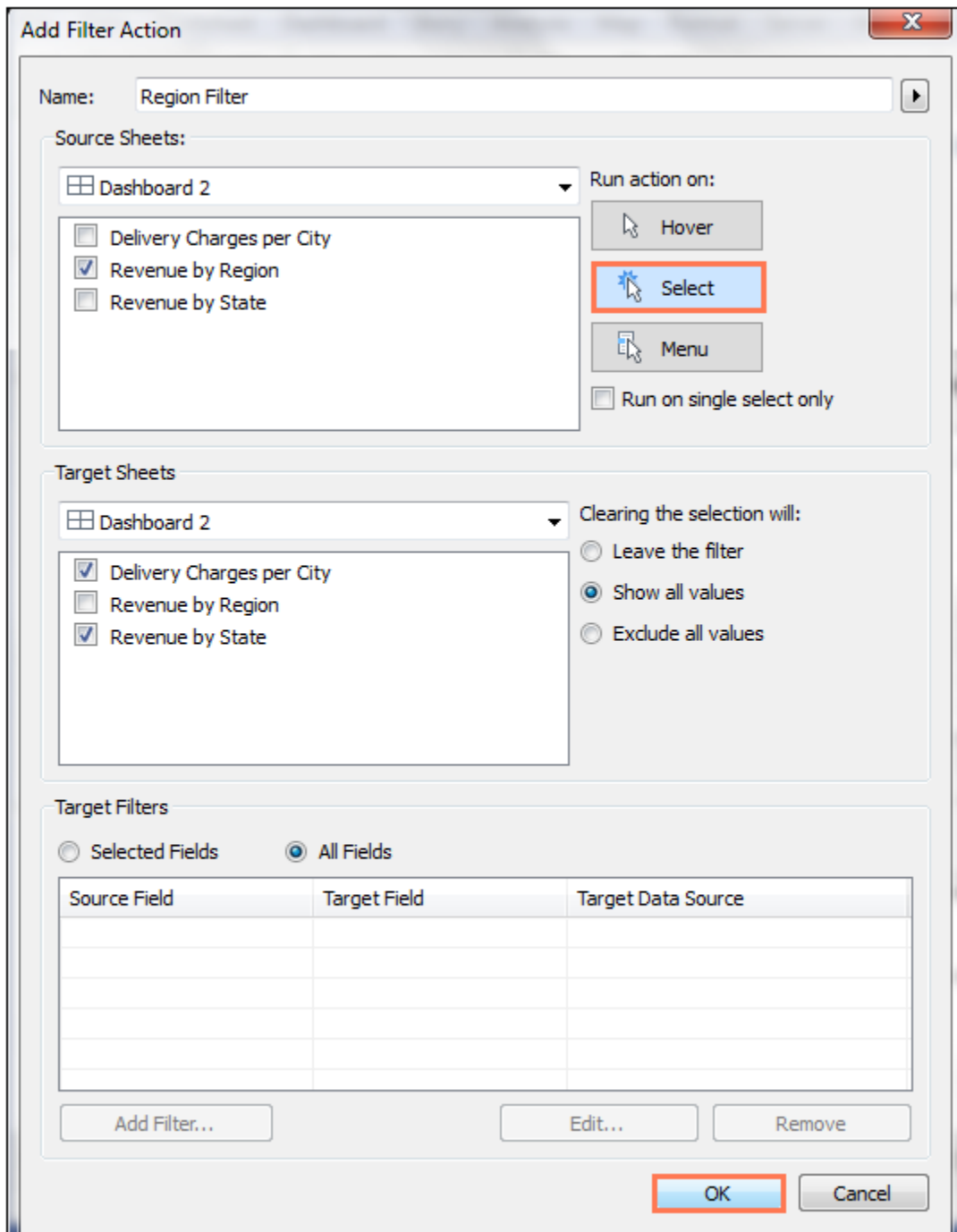


The dashboard should resemble the following image:



36. From the Dashboard menu, select **Actions**.
37. Click **Add Actions** and select **Filter**.
38. Name the action as **Region Filter**.

39. Select **Revenue by Region** as the source sheet and the remaining sheets as the target sheets.
40. Under Run action on, click **Select**. Click **OK**.



Add Filter Action

Name:

Source Sheets:

☐ Dashboard 2

☐ Delivery Charges per City

☒ Revenue by Region

☐ Revenue by State

Run action on:

☐ Run on single select only

Target Sheets

☐ Dashboard 2

☒ Delivery Charges per City

☐ Revenue by Region

☒ Revenue by State

Clearing the selection will:

☐ Leave the filter

☒ Show all values

☐ Exclude all values

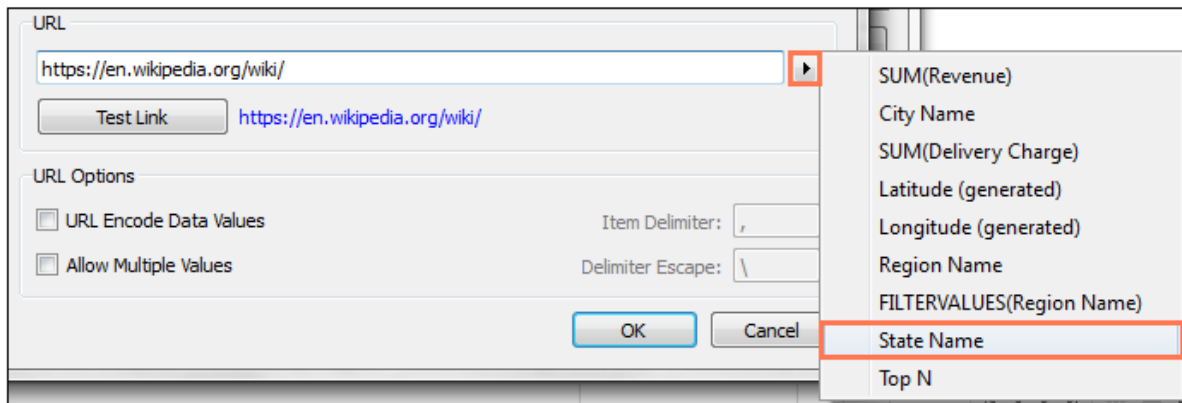
Target Filters

☐ Selected Fields

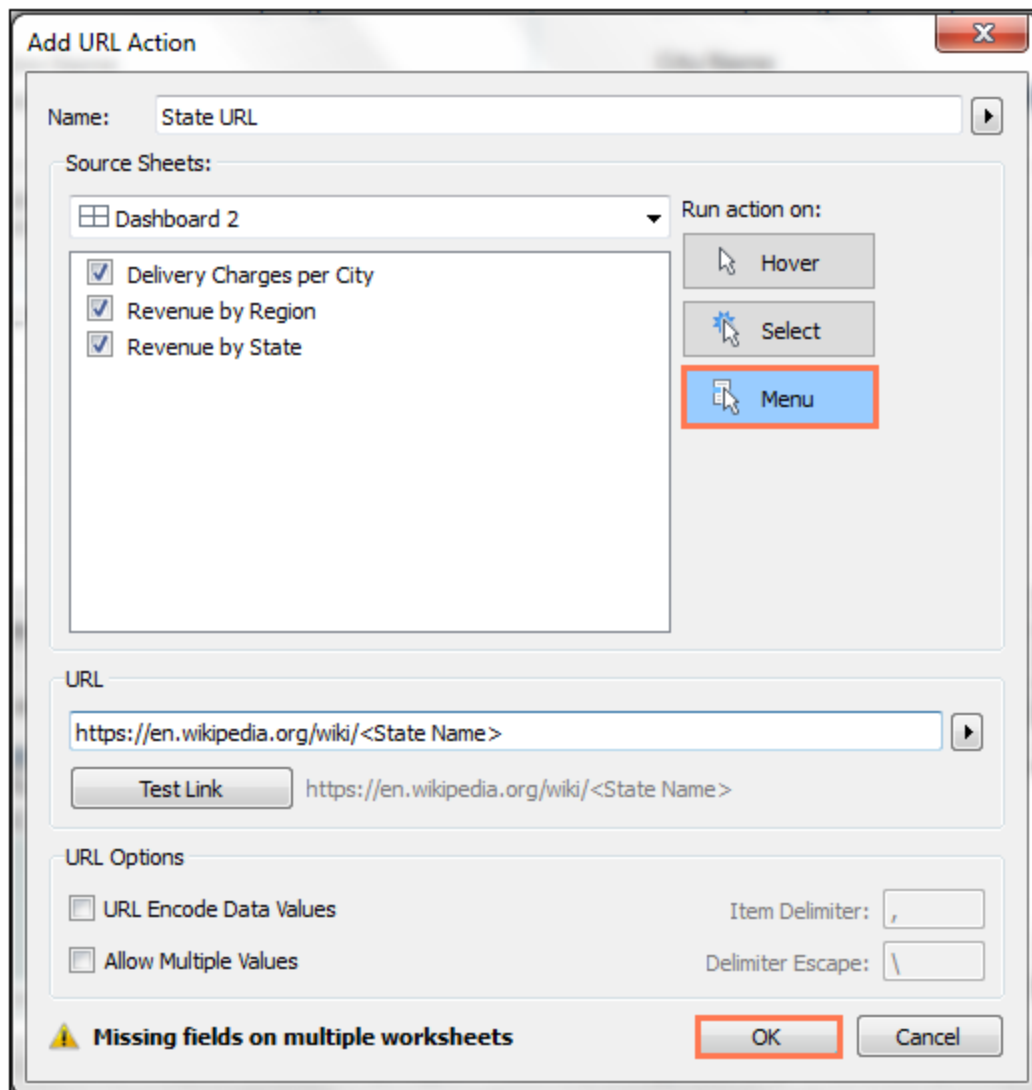
☒ All Fields

Source Field	Target Field	Target Data Source

41. In the Actions window, click Add action, and select **URL**.
42. Name the action as **State URL**.
43. Under URL, enter the following URL:
<https://en.wikipedia.org/wiki/>
44. Click the arrow and select **State Name** from the list.



45. Under Run action on, click **Menu**, and click **OK**.

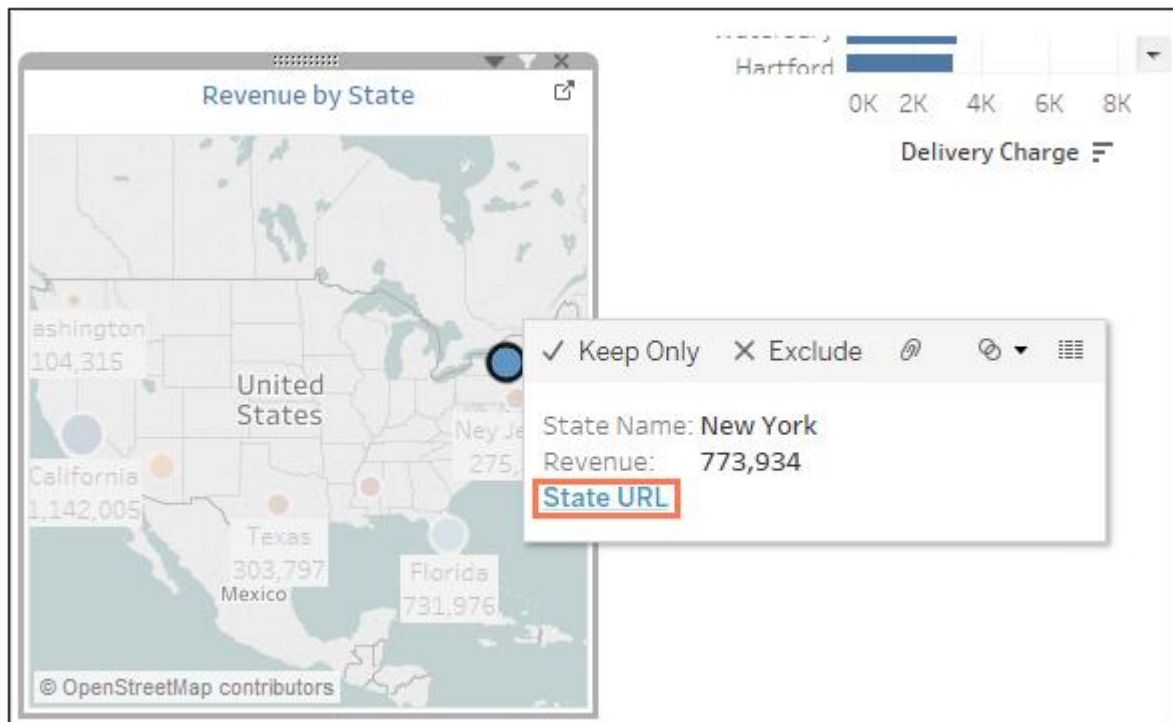


46. In the Action window, click **OK**.

47. From the dashboard pane, under objects, drag and drop **Web Page** in the canvas area.

48. Leave the edit URL pop-up blank and click **OK**.

49. To verify this action, click the **New York** state from the Revenue by State view.
50. In the tooltip, click **State URL**.



51. At the bottom area, double-click the dashboard name and change it to **Geographical Performance Dashboard**.
The final dashboard should resemble the following image:



Answers:

1. State from the North East region having generated the highest revenue- Connecticut

Create the Sales and Inventory Story

Use the Customer Analysis and Geographical Performance dashboards to create the Sales and Inventory story.

The story should resemble the following image:



Sales and Inventory Story

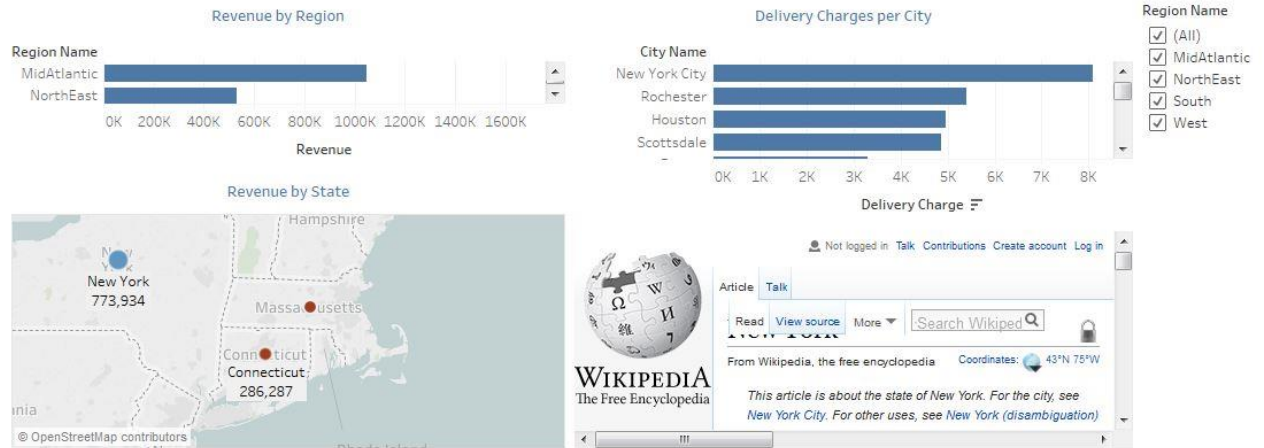
Customer-wise
Performance

Geographical Analysis

New Blank Point

Duplicate

Geographical Performance Dashboard



Region Name

☒ (All)
☒ MidAtlantic
☒ NorthEast
☒ South
☒ West

New York

773,934

Massachusetts

286,287

Revenue by State

WIKIPEDIA

The Free Encyclopedia

Article

Talk

Read

View source

More

Search Wikipedia

From Wikipedia, the free encyclopedia

Coordinates: 43°N 73°W

This article is about the state of New York. For the city, see New York City. For other uses, see New York (disambiguation)