Project 1

Problem Statement

Roger Ferro, the Country head of a multi-national retail company is responsible for understanding the sales numbers and to make them grow. For this, he wants to gauge and execute suitable sales techniques, to scale up the sales numbers for various products, retailed by various vendors.

The country heads wants to analyze the stock, price, number of items sold and quality rating for various categories to find the sales trends. He would also want to evaluate the inventory status for various categories, subcategories, and items.

With such meticulous exploration of vendor sales and inventory stocks, the country head can formulate schemes to improvise sales in low profit periods and confirm that the inventory has enough stock to meet the customer requirements.

Reporting Scenario

Create the following dashboards:

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

Dashboard 1: Inventory Performance Dashboard

This dashboard should display the inventory data which shows category and year from highest to lowest order in terms of vendor item price, comparison of the End On Hand and On Order units for the selected category and subcategory, and monthly End On Hand and On Order units for each year. The category and subcategory selections should be linked.

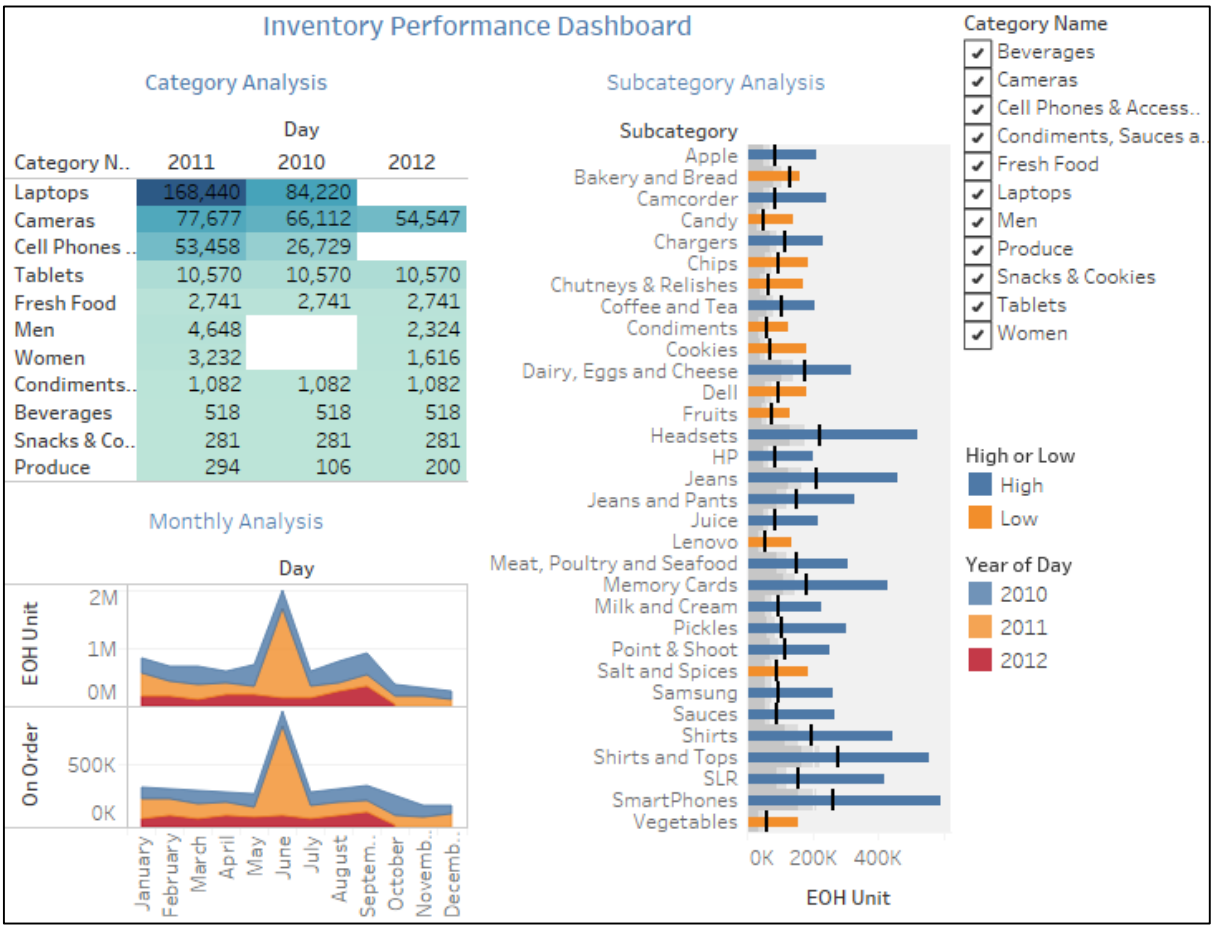
The following questions should be answered:

1. What is the EOH value for beverages in June 2011?
2. What is the On Order value for beverages in June 2011?

Overview Steps

1. Create the Category analysis sheet.
2. Create the Subcategory Analysis sheet.
3. Create the Monthly Analysis sheet.
4. Create the Inventory Performance Dashboard using the above sheets.
5. Apply filter action on Category Analysis.

The dashboard should resemble the following image:



Detailed Steps

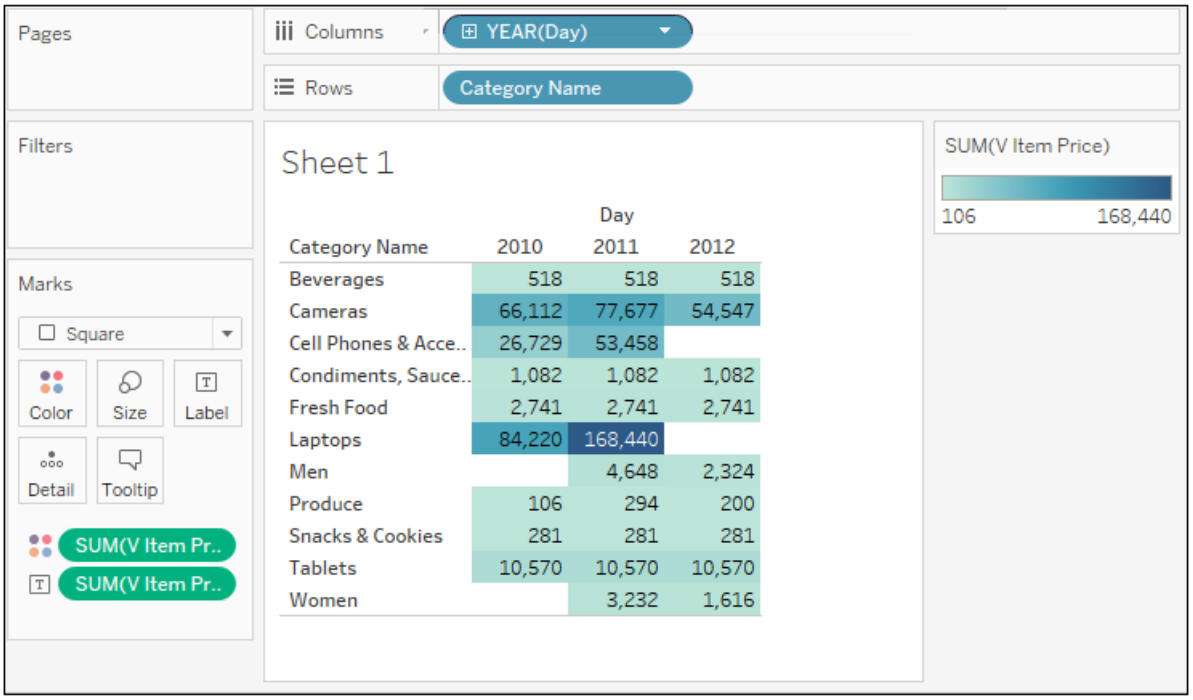
1. Open Tableau 10.1 and connect to the **Sales Analysis** excel file.
2. On the Data Source page, in the left pane, under Sheets, double-click the **Category**, **Subcategory**, **Item**, **Inventory**, and **Vendor** fact tables.
3. In the canvas area, click the inner join between the Inventory and Vendor fact tables and change the join clause field to **Item ID** from both the tables.

4. Close the window.
5. From the left, double-click the **Delivery** and **Vendor** tables.

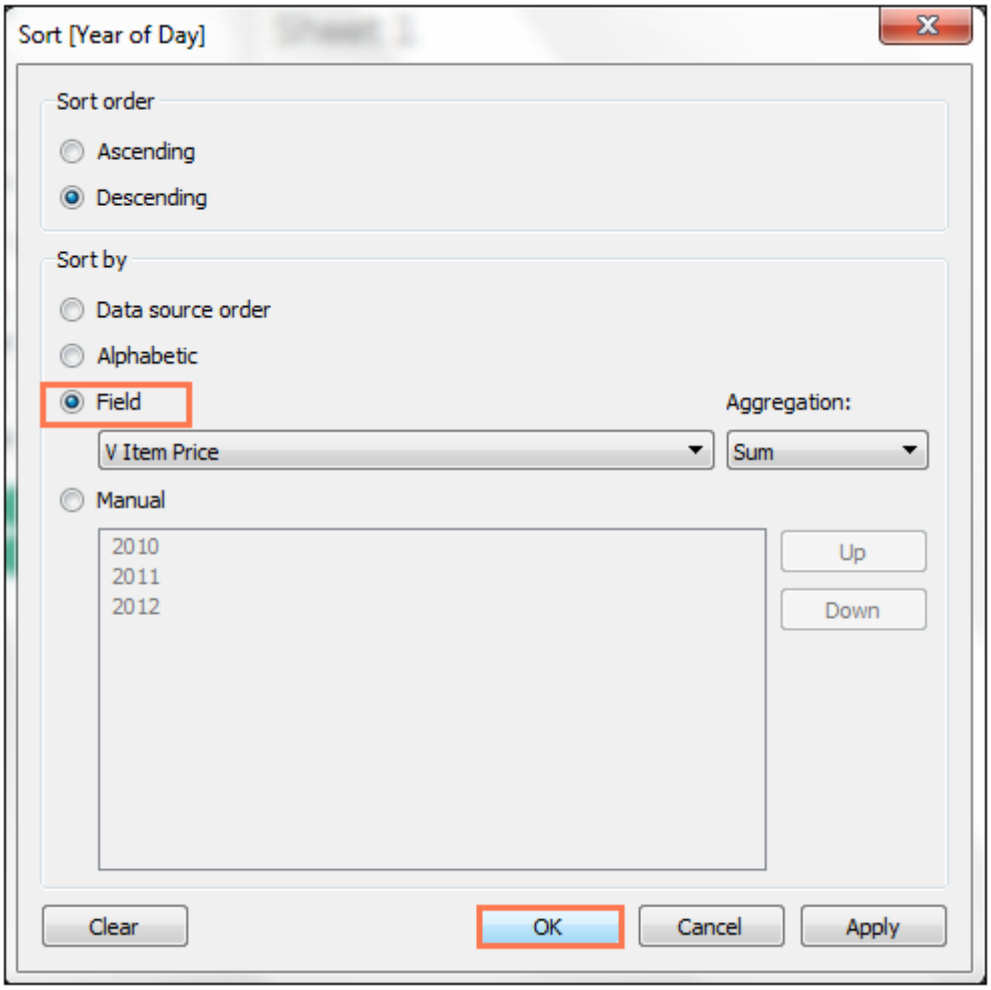
Create Category Analysis view

6. Click the new worksheet icon.
7. Drag the **Category Name** dimension to Rows and the **Day** dimension to Columns.
8. From measures, drag and drop **V Item price** on the Text mark property.
9. Open show me and select **Highlight Tables**.
10. Close Show me.

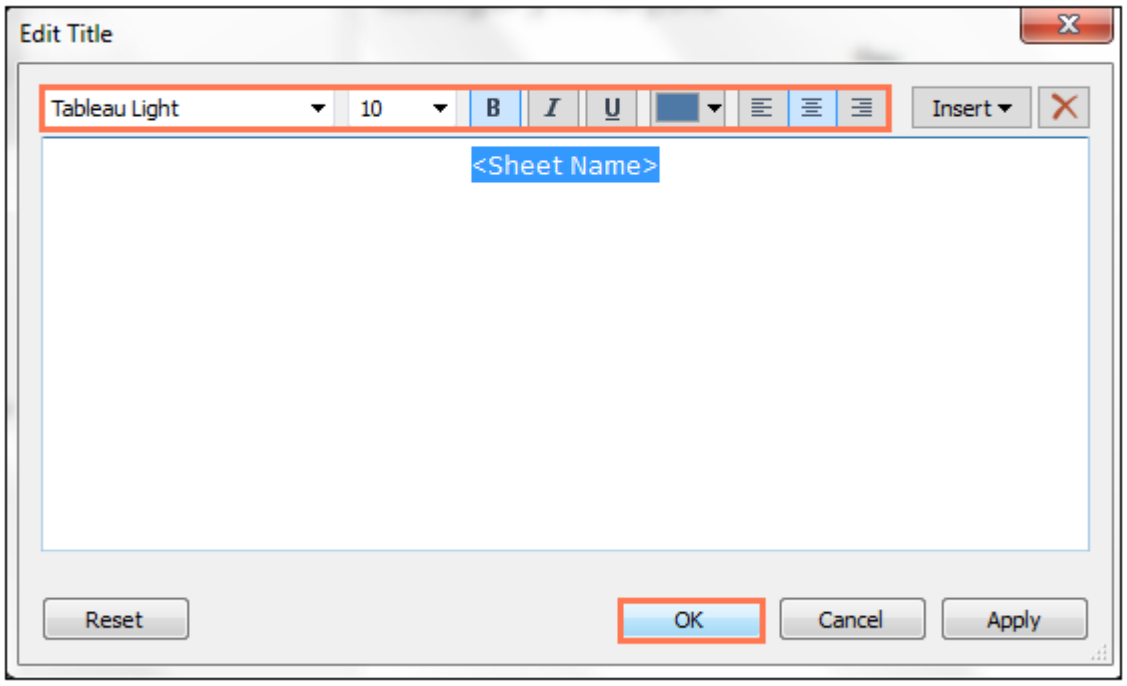
The view should resemble the following image:



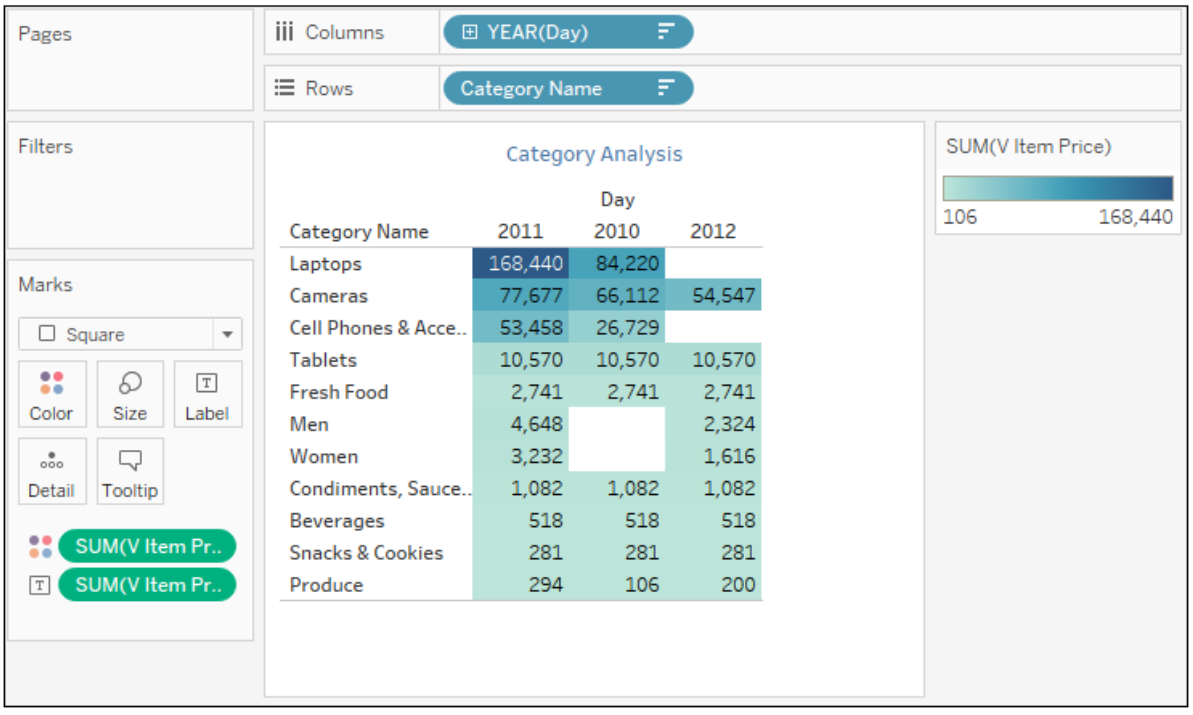
11. To sort **Category Name** in descending order, from the toolbar, click the sort icon.
12. Right-click the **Year(Day)** pill, click **Sort** from the context menu, and select the **Descending** radio button.
13. Under Sort by, select the **Field** radio button, and click **OK**.



14. At the bottom area, click the sheet name, and rename it as **Category Analysis**.
15. Double-click the title, format it, and click **OK**.



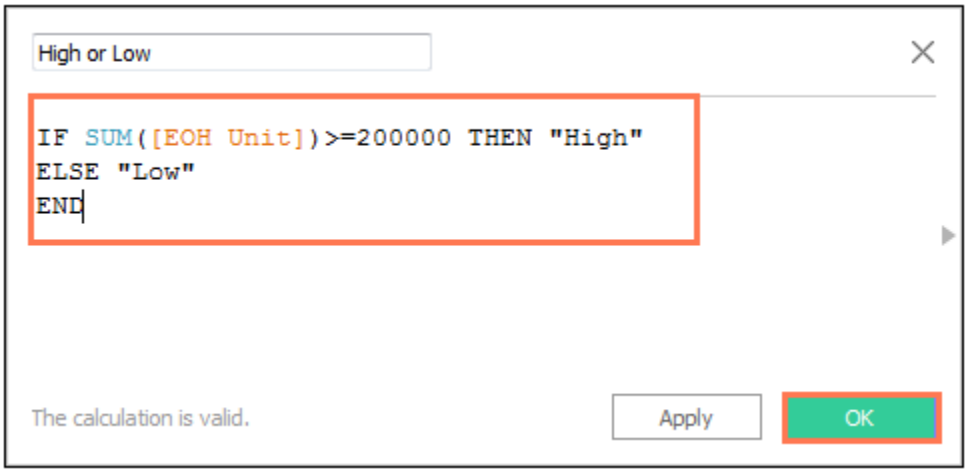
The view should resemble the following image:



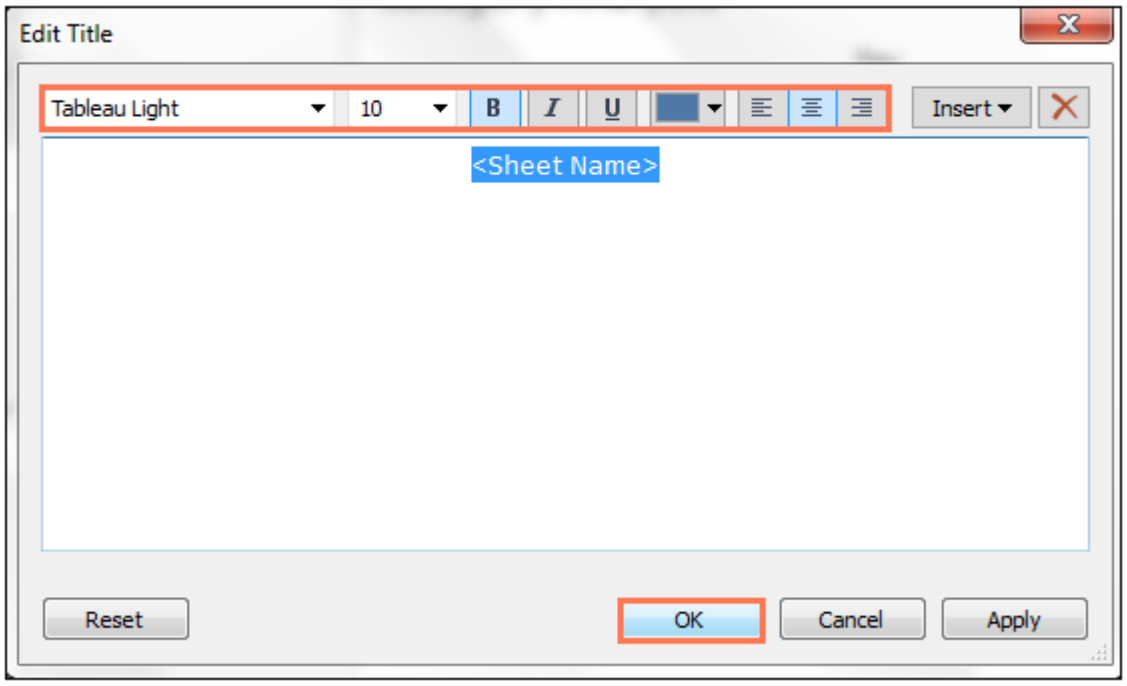
Create Sub-category Analysis view

16. Click the new worksheet icon.
17. From dimensions, drag and drop **Subcategory** to Rows.
18. From measures, select the **EOH unit** and **On order** fields.
19. Navigate to Show Me and select **Bullet Chart**.

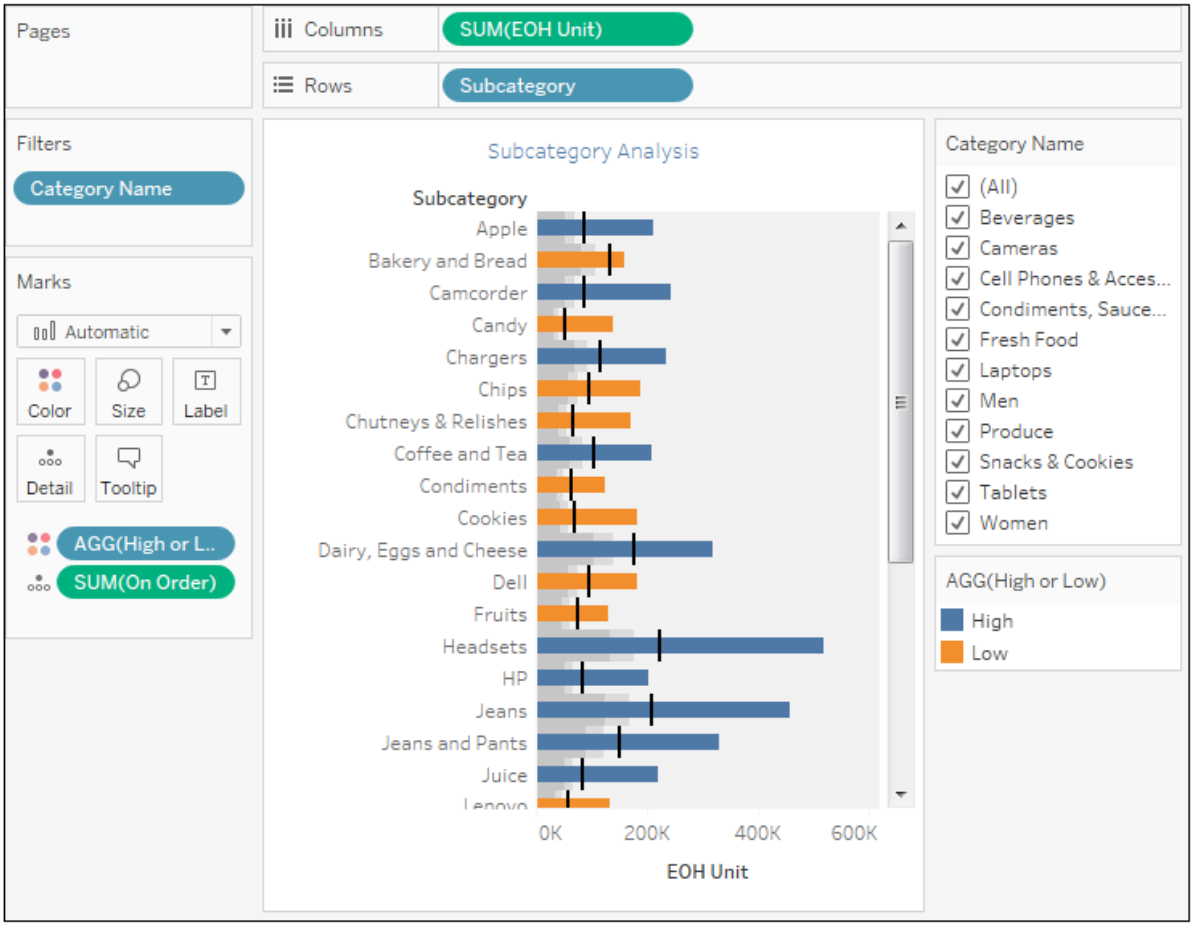
20. From dimensions, right-click **Category Name**, and select **Show Filter**.
21. Click the drop-down arrow next to dimension and select **Create Calculated Field**.
22. Name this calculation as **High or Low**.
23. Enter the following formula:
    if SUM([EOH Unit])>=200000
    THEN "High" ELSE "Low" END
    Click **OK.**



24. From measures, place **High or Low** on the Color mark property.
25. Right-click the sheet name and select rename sheet. Rename this sheet as **Subcategory Analysis**.
26. Double-click the title, format it, and click **OK**.



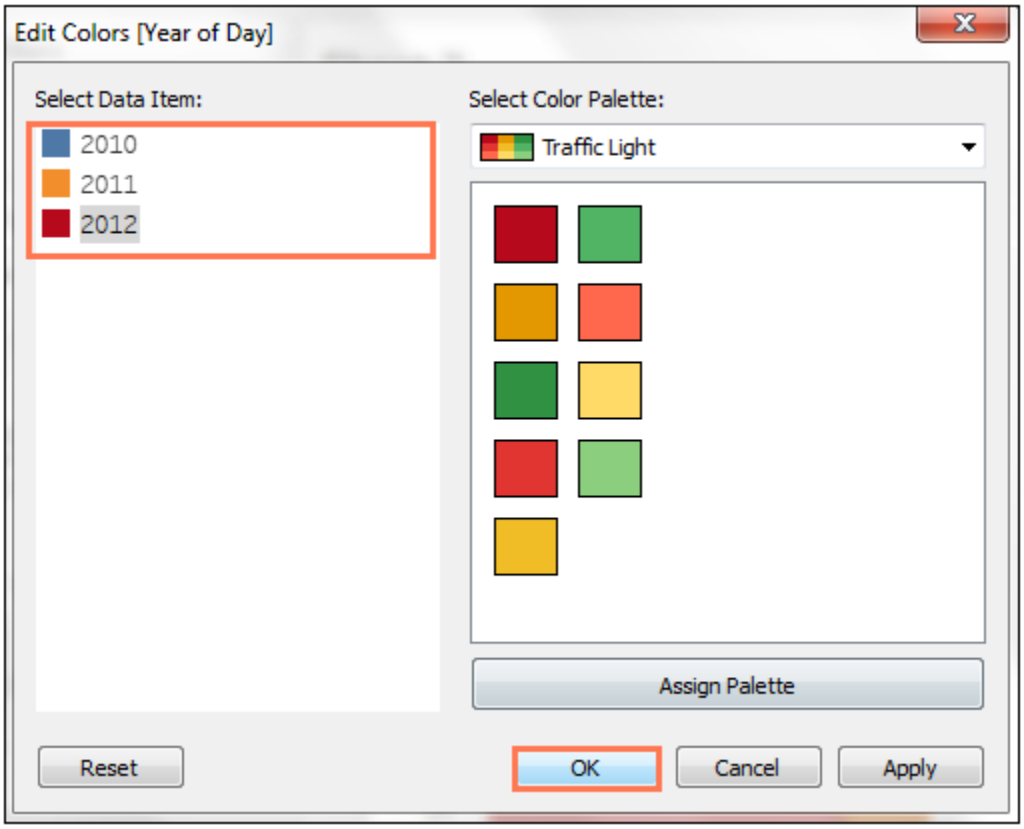
The view should resemble the following image:



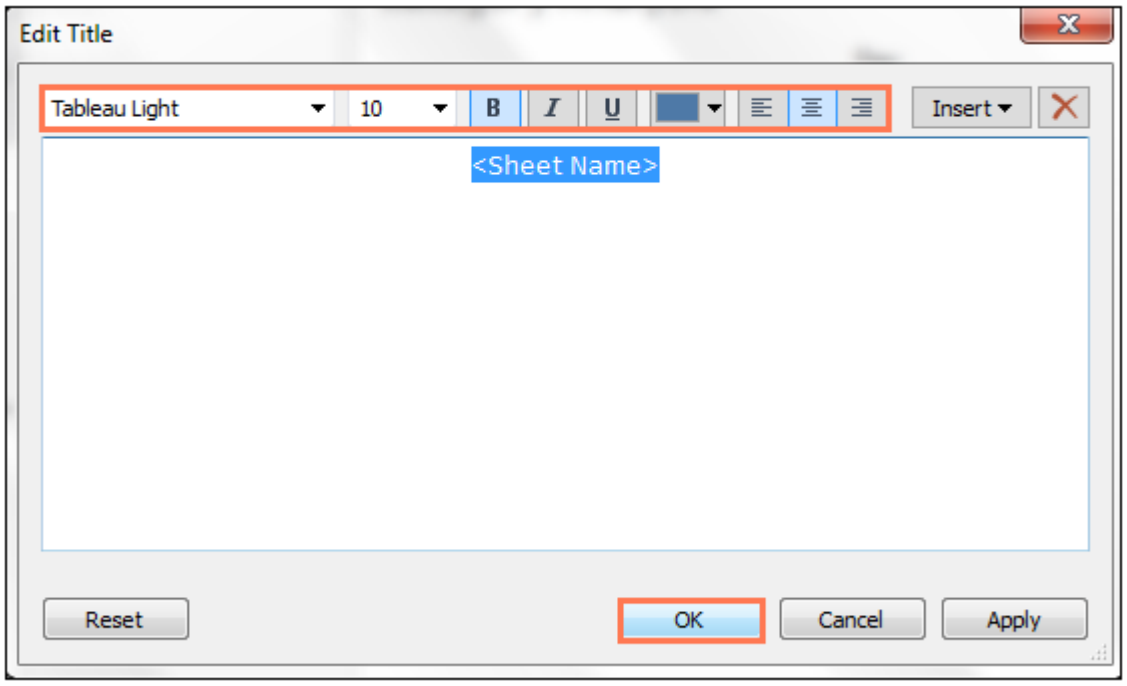
Create Monthly Analysis view

27. Click the new worksheet icon.

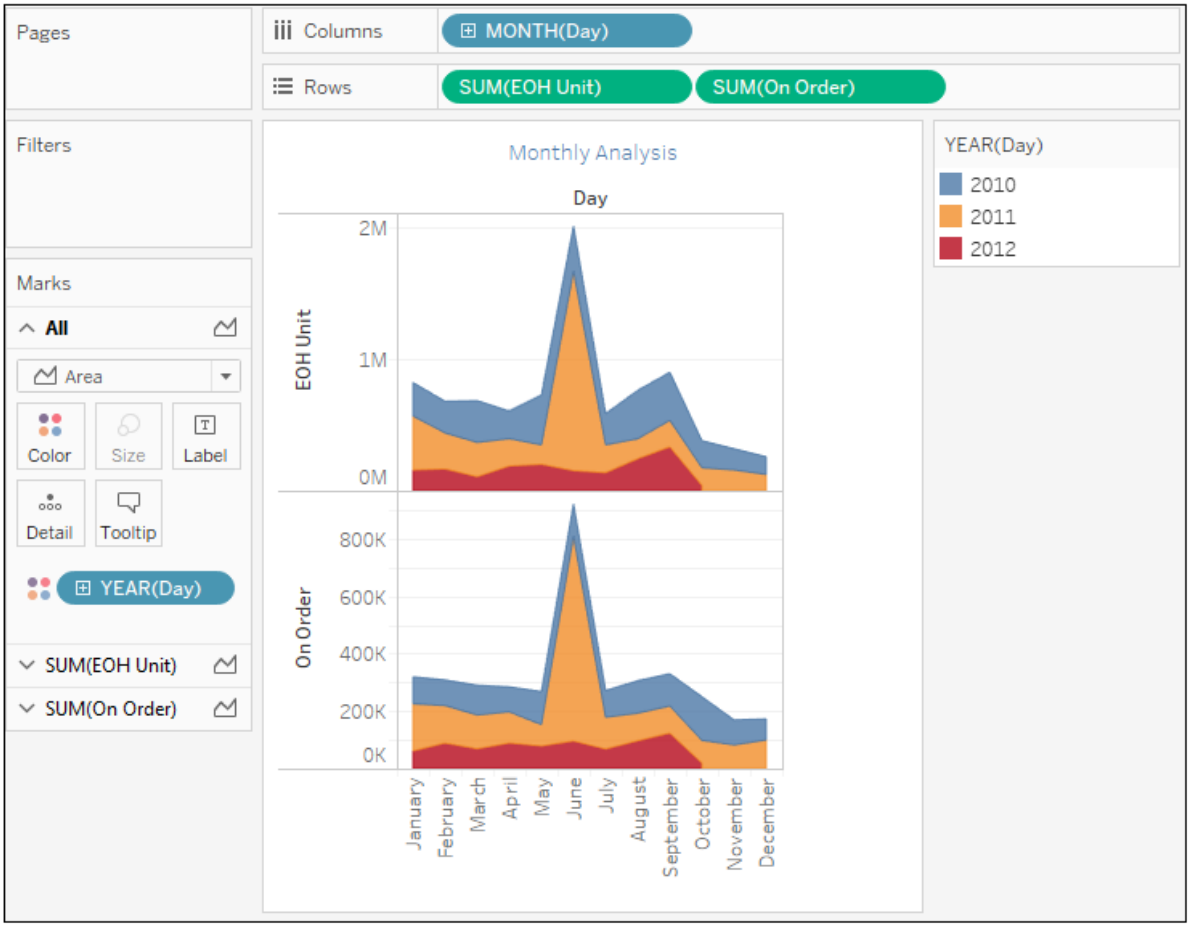
28. Drag the **Day** dimension to Columns.
29. Right-click the Day pill and select the first instance of month.
30. Drag the **EOH unit** and **On Order** measures to Columns.
31. From Dimensions, place Day on the Color mark property.
32. From the Marks Card, change the mark type to **Area**.
33. Click the Color mark property and select **Edit Color**.
34. In the edit color window, select assign a color palette for each year, and click **OK**.



35. Click the color mark property and change the opacity to **80%**.
36. Click the sheet name and rename it as **Monthly Analysis**.
37. Double click the title area, format the title, and click **OK**.



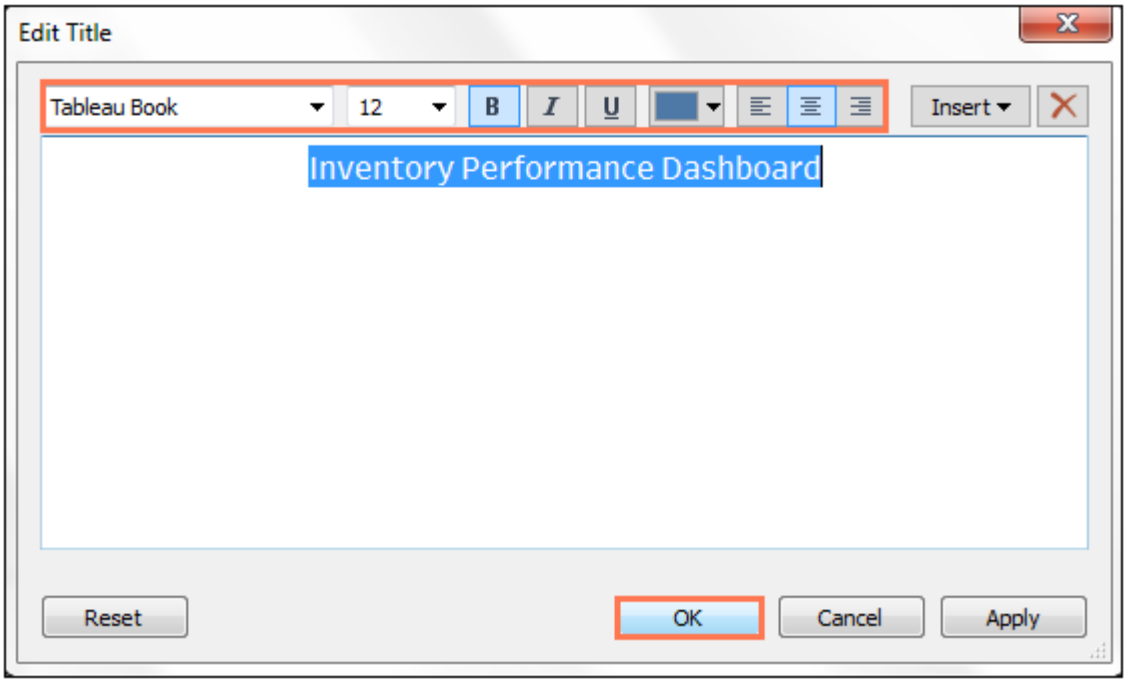
The view should resemble the following image:



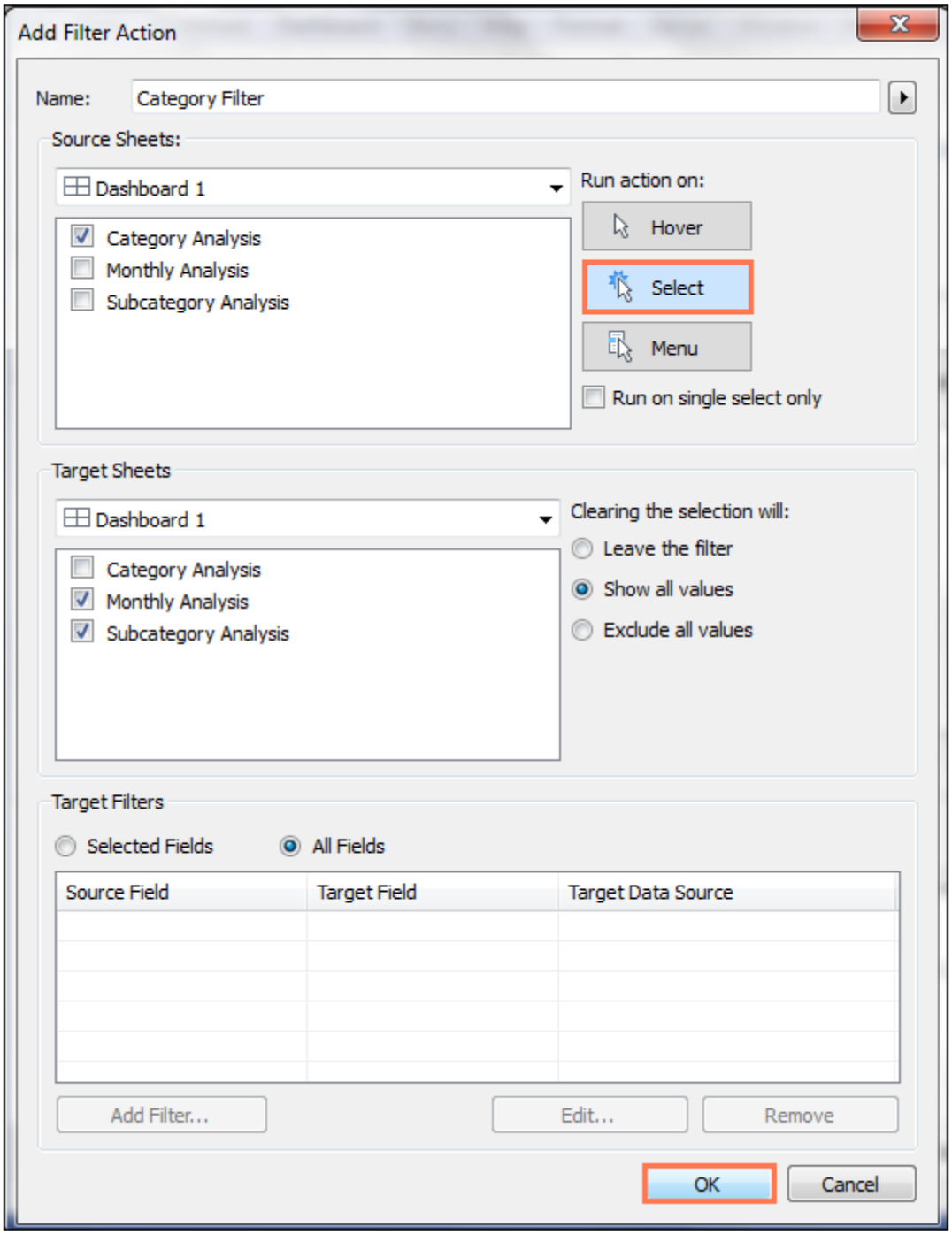
Create Inventory Performance Dashboard

38. Click the new dashboard icon.

39. From the dashboard pane, click the Size drop-down, and select **Automatic**.
40. Click the **Show dashboard title** checkbox to enable the dashboard title.
41. Double-click the dashboard title, change it to **Inventory Performance Dashboard**, and format it. Click **OK.**

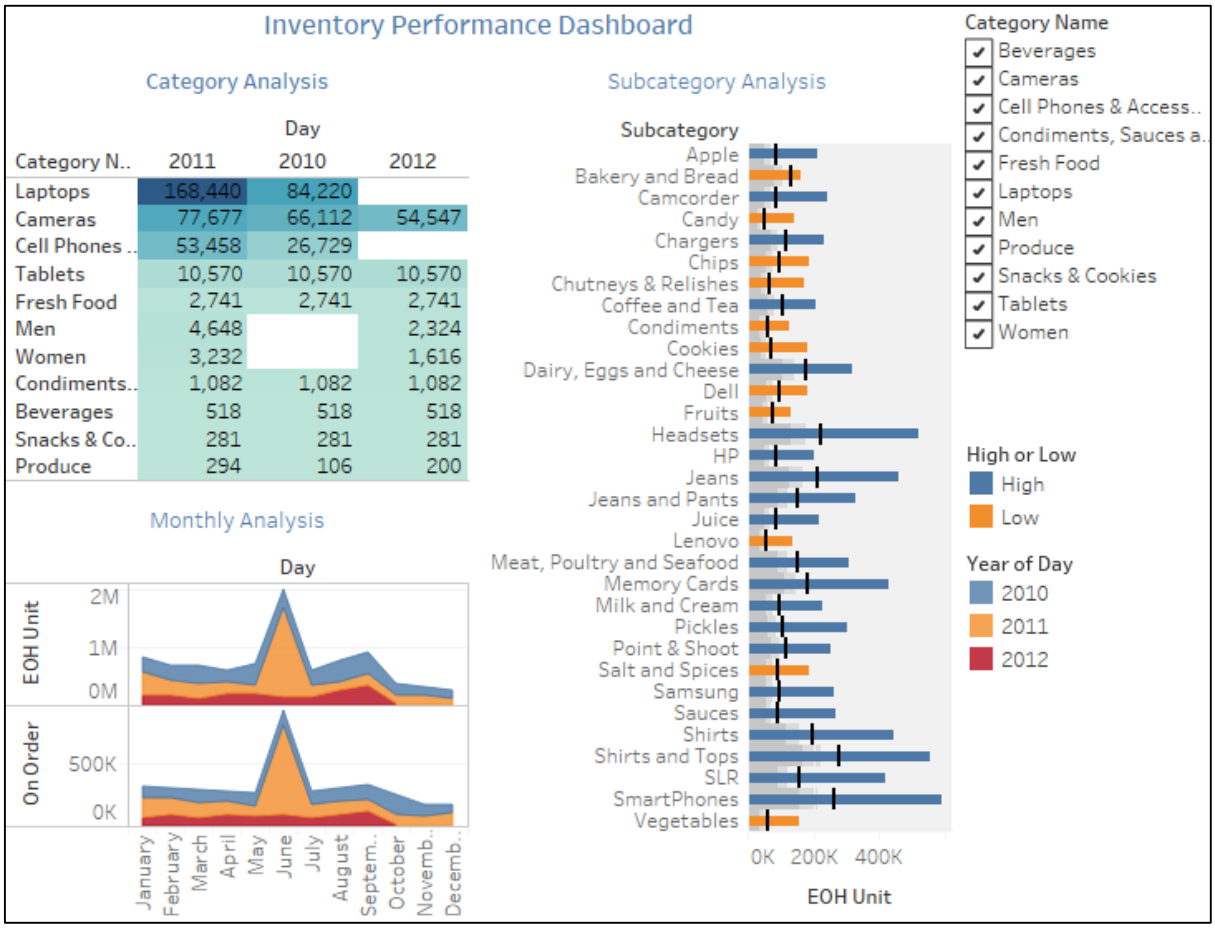


42. From the dashboard pane, drag and drop all the sheets to the canvas area.
43. Click the drop-down next to the Category Analysis view, point to Fit, and select **Entire View**.
44. Similarly, click the drop-down next to Monthly Analysis view, point to Fir, and select **Fit Width**.
45. From the Dashboard menu, click **Actions**.
46. In the actions window, click **Add Action**, and select **Filter**.
47. Name the action as **Category Filter**.
48. Select **Category Analysis** as the source sheet, and the remaining sheets as the target sheets.
49. Under Run action on, click **Select**. Click **OK**.



50. At the bottom area, click the dashboard name and rename it as **Inventory Performance Dashboard**.

The dashboard should resemble the following image:



Answers:

1. Value of EOH for beverages in June 2011 – 146274
2. Value of On Order for beverages in June 2011– 60710

Dashboard 2: Retailer Analysis Dashboard

This dashboard should display the number of items for each category. The view should allow the users to see the top n and bottom n items by stock unit and also the quality rating by category and vendor.

The following questions should be answered:

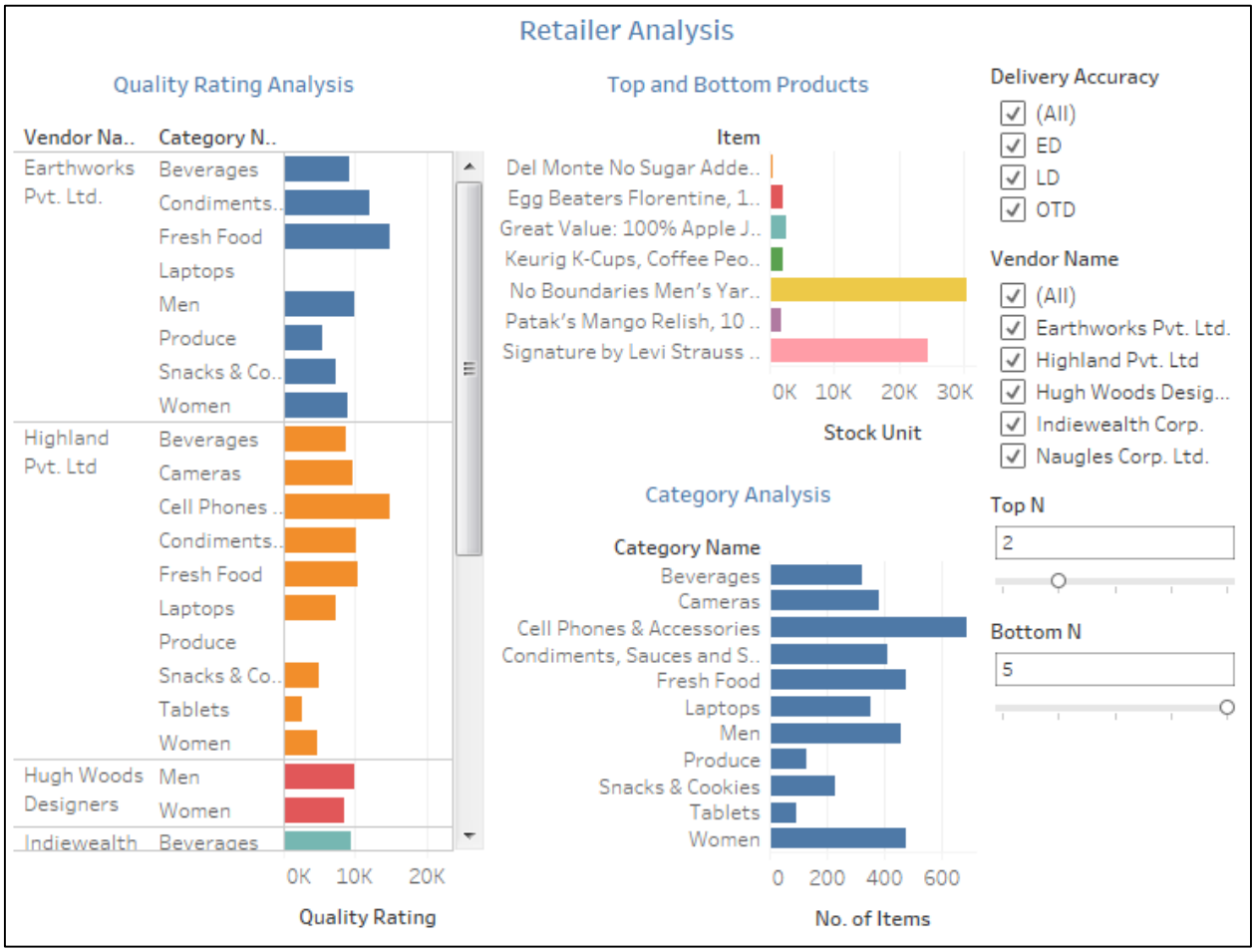
1. Which are the vendors dealing with the Produce category?
2. Which is the top item in the Produce category?

Overview Steps

1. Create the Category Analysis sheet.
2. Create the Top and Bottom Products sheet.

3. Expose parameter controls.
4. Create the Quality Rating Analysis sheet.
5. Apply quick filter.
6. Create the Retail Analysis Dashboard using the above sheets.
3. Apply filter action on Category Analysis.

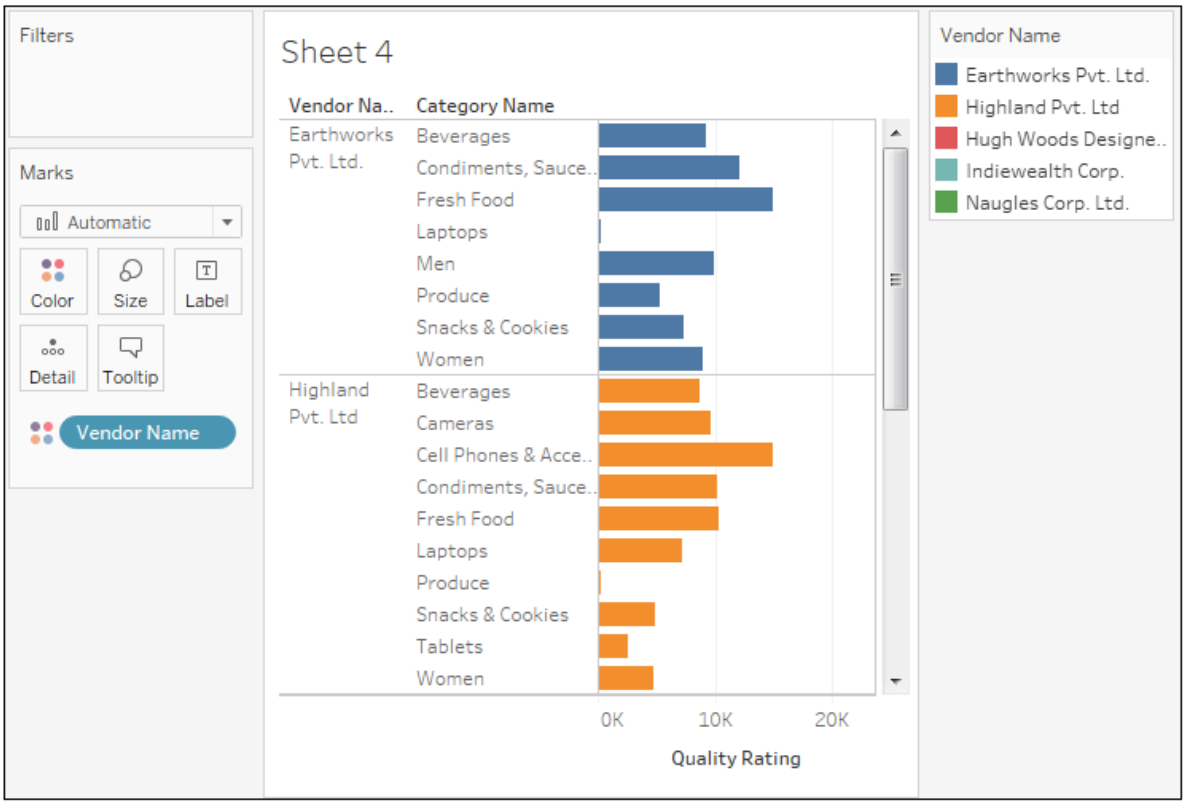
The dashboard should resemble the following image:



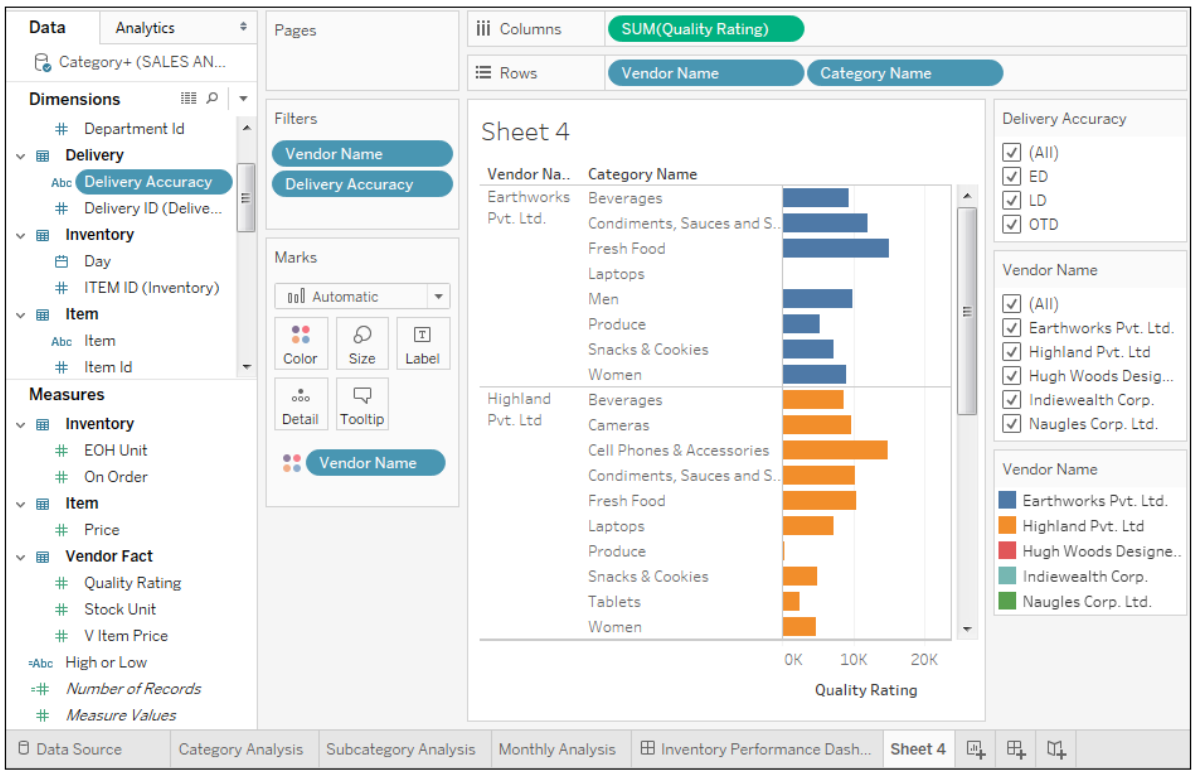
Detailed Steps

Create Quality Rating Analysis view

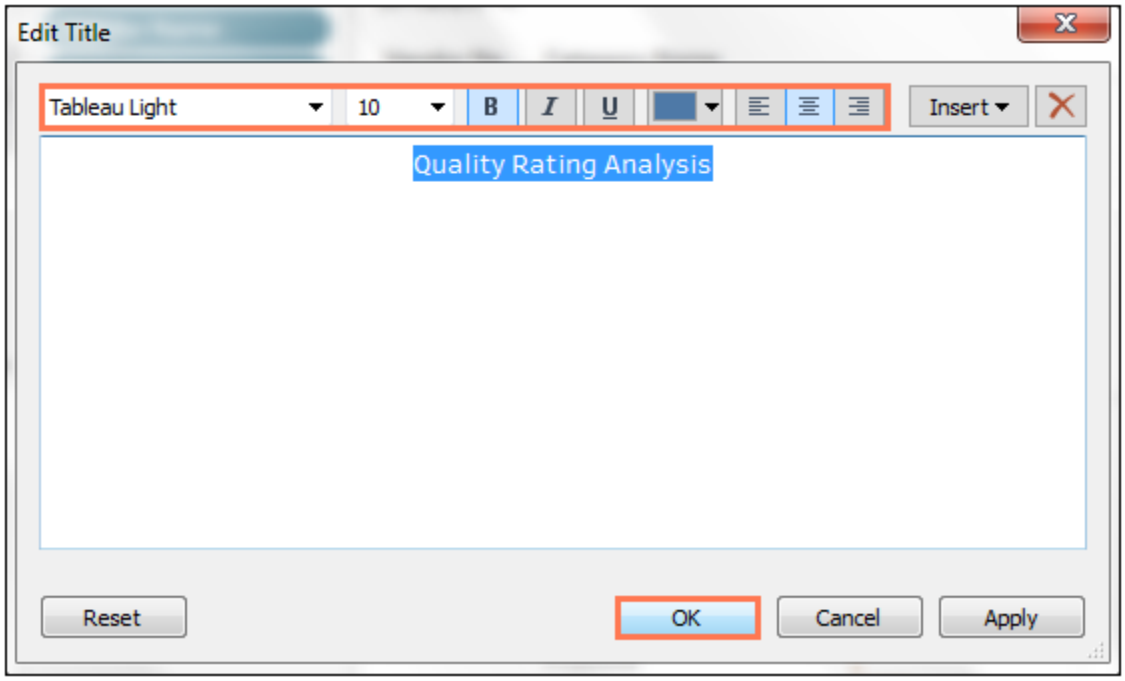
1. In the same workbook, navigate to a new worksheet.
2. Drag the **Vendor Name** and **Category Name** dimensions to Rows and the **Quality Rating** measure to Columns.
3. From dimensions, drag and drop **Vendor Name** on the Color mark property.



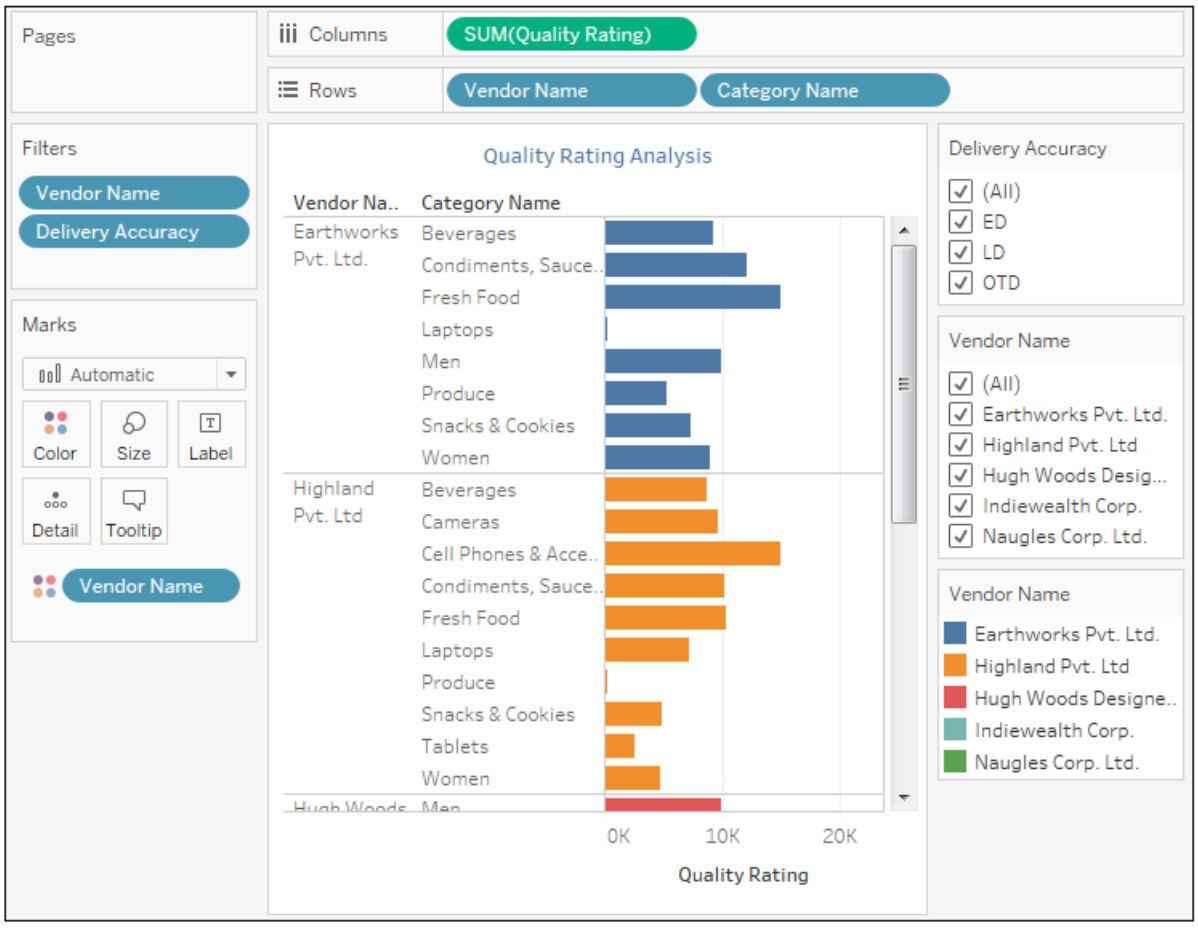
4. From dimensions, right-click **Vendor Name**, and select **Show Filter**.
5. Similarly apply a quick filter to **Delivery Accuracy**.
   The view should resemble the following image:



6. Click the view title, change it to **Quality Rating Analysis**, format it, and click **OK**.

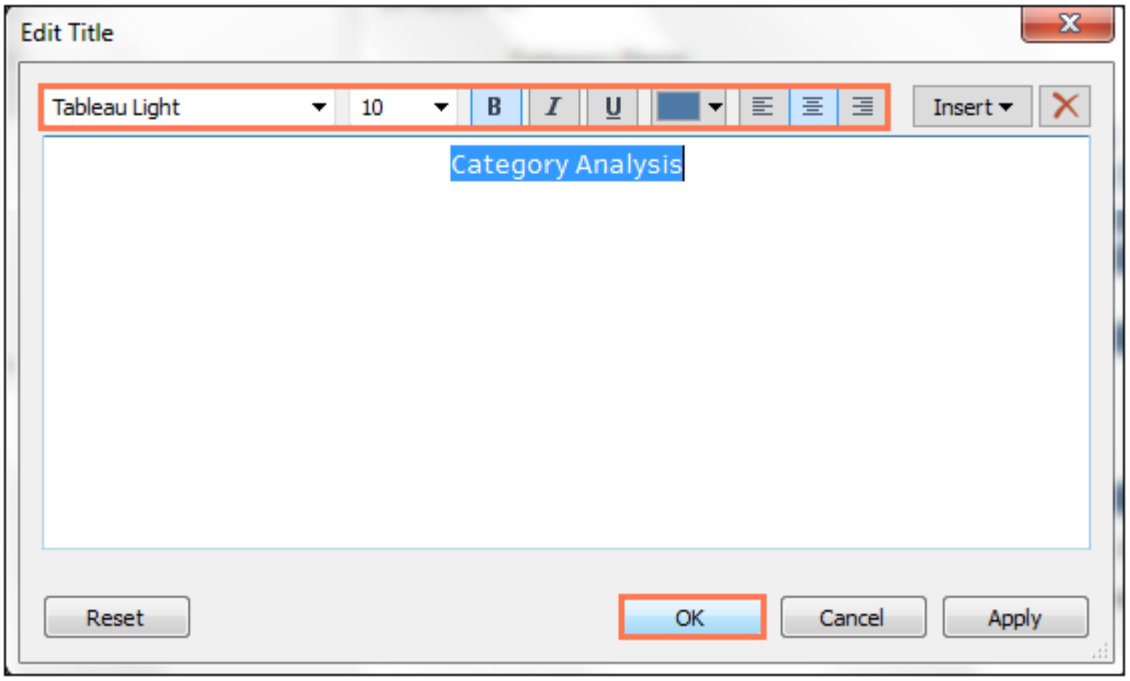


The view should resemble the following image:

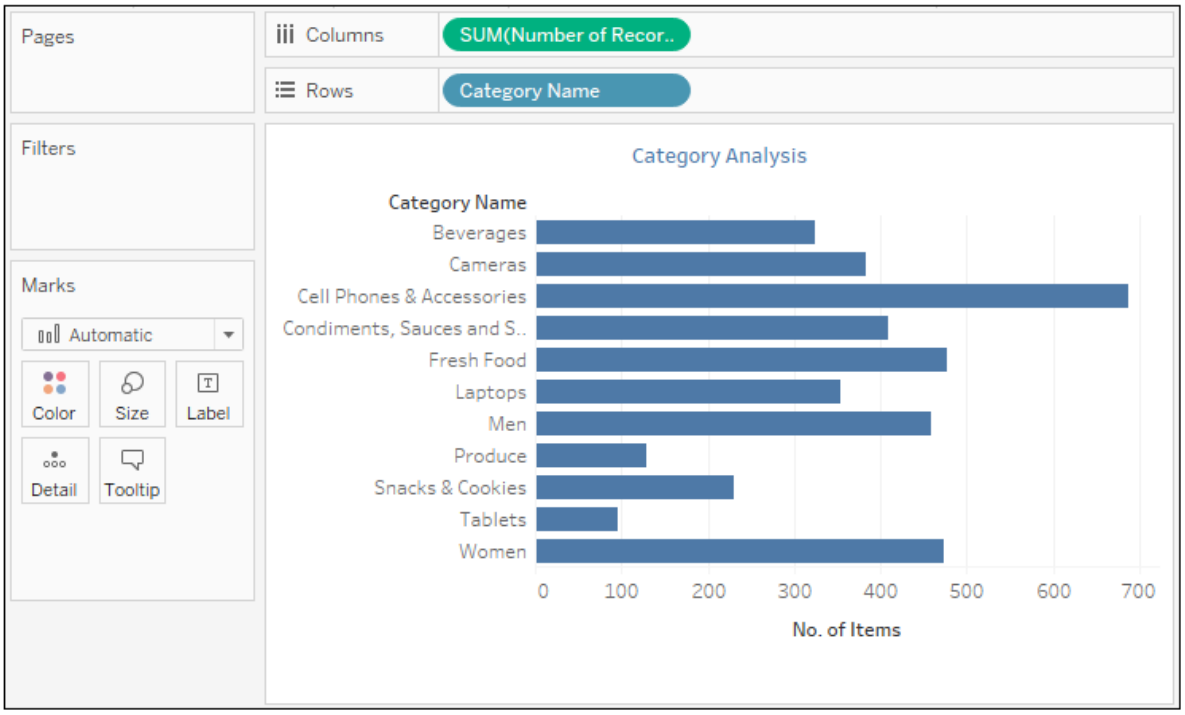


Create Category Analysis view

7. Click the new worksheet icon.
8. From dimensions, drag and drop **Category Name** to Rows.
9. From measures, drag and drop **Number of Records** to Columns.
10. Right-click the Number of Records axis and select **Edit Axis**.
11. Under Titles, rename the axis title as **Number of Items**. Click **OK**.
12. Double click the title, change it to **Category Analysis**, format it, and click **OK**.

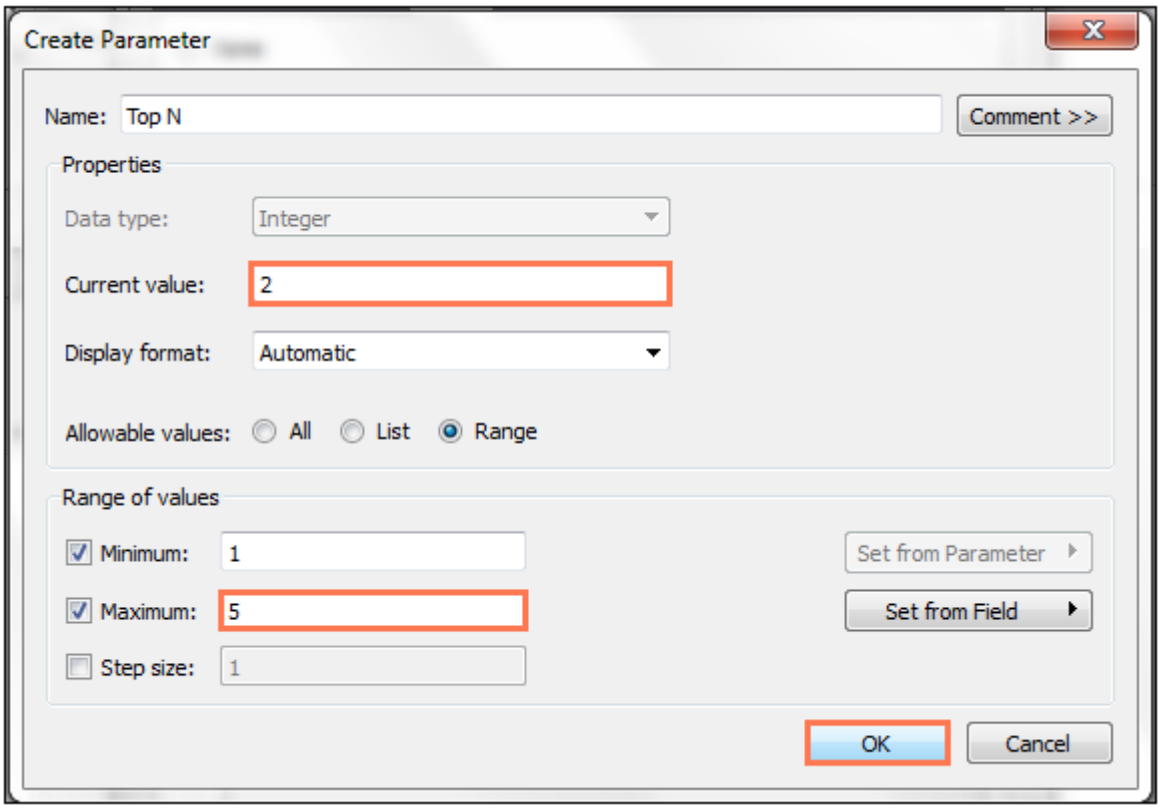


The view should resemble the following image:



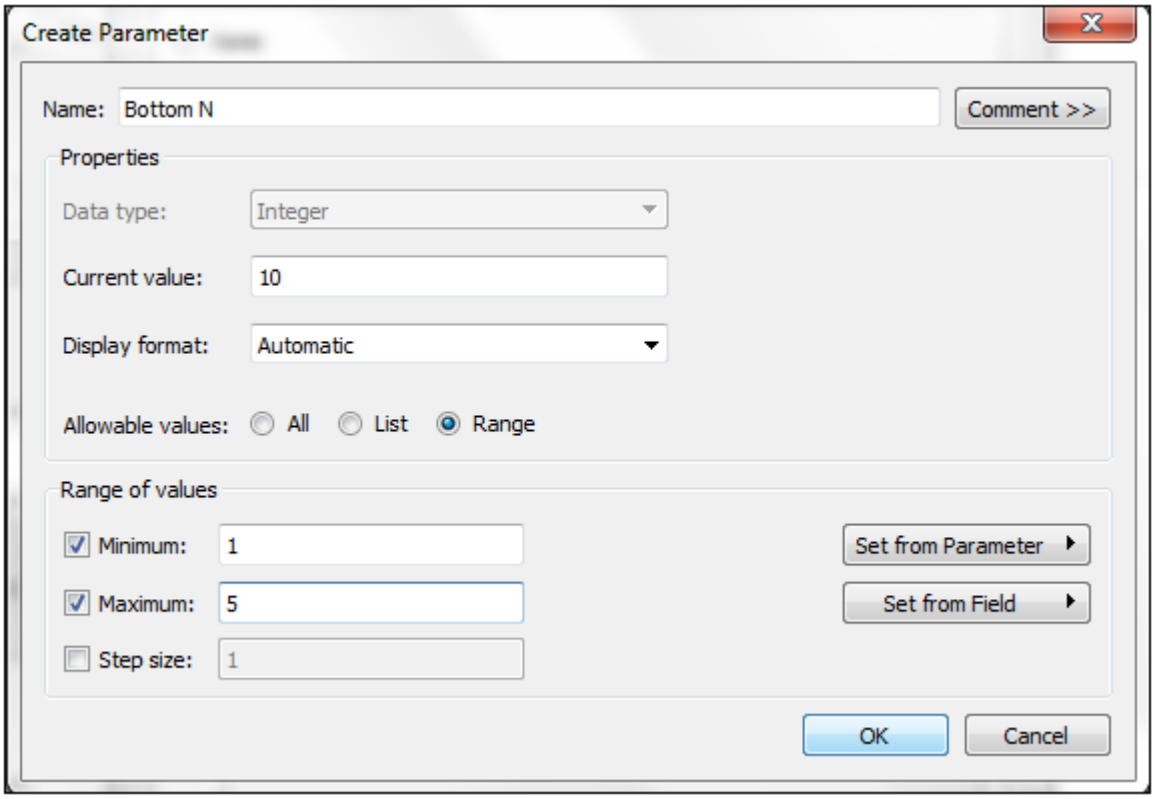
Create Top and Bottom Products view

13. Click the new worksheet icon.
14. From dimensions, right-click **Item**, point to create, and select **Set**.
15. In the Create Set window, click the **Top** tab.
16. Name this set as **Top N**.
17. Select the **By field** radio button.
18. Click the Category ID drop-down and select the **Stock Unit** field from the list.
19. Click the value drop-down and select **Create a New Parameter**.
20. Name this parameter as **Top N**.
21. Set current value to **2**.
22. Make sure the Range radio button is selected and enter the maximum value as **5**. Click **OK**.



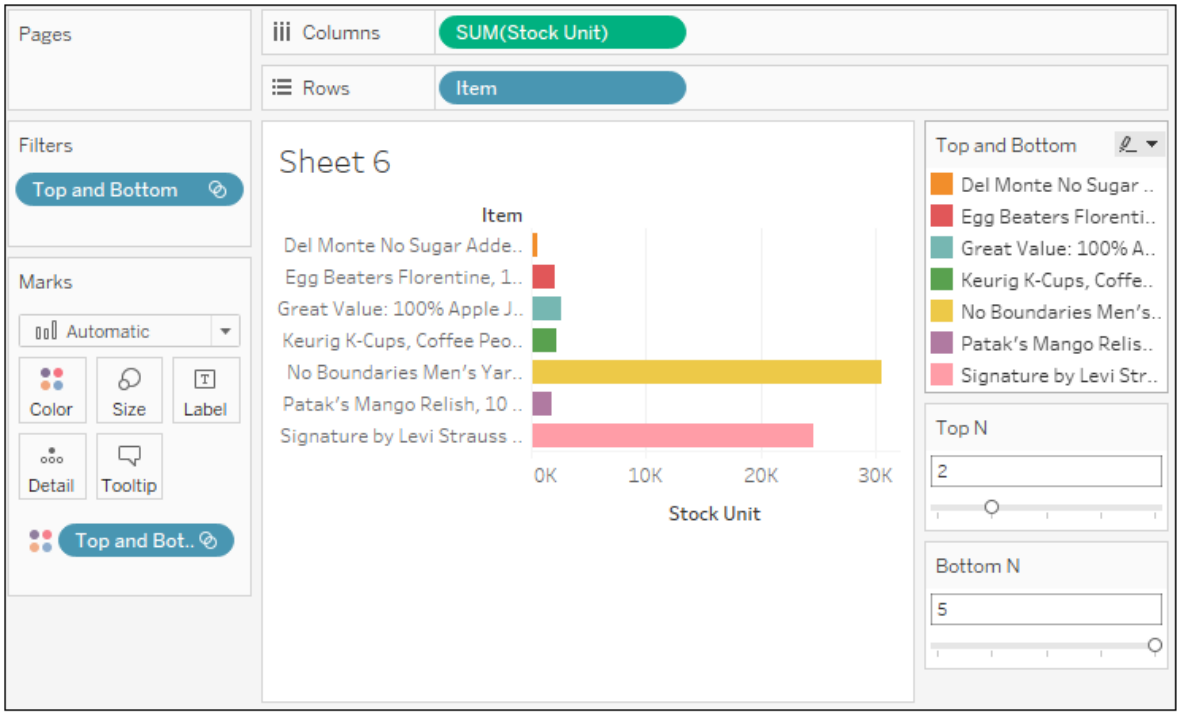
23. Repeat the same process to create a **Bottom N** set based on parameter.

The Create Parameter window should resemble the following image:

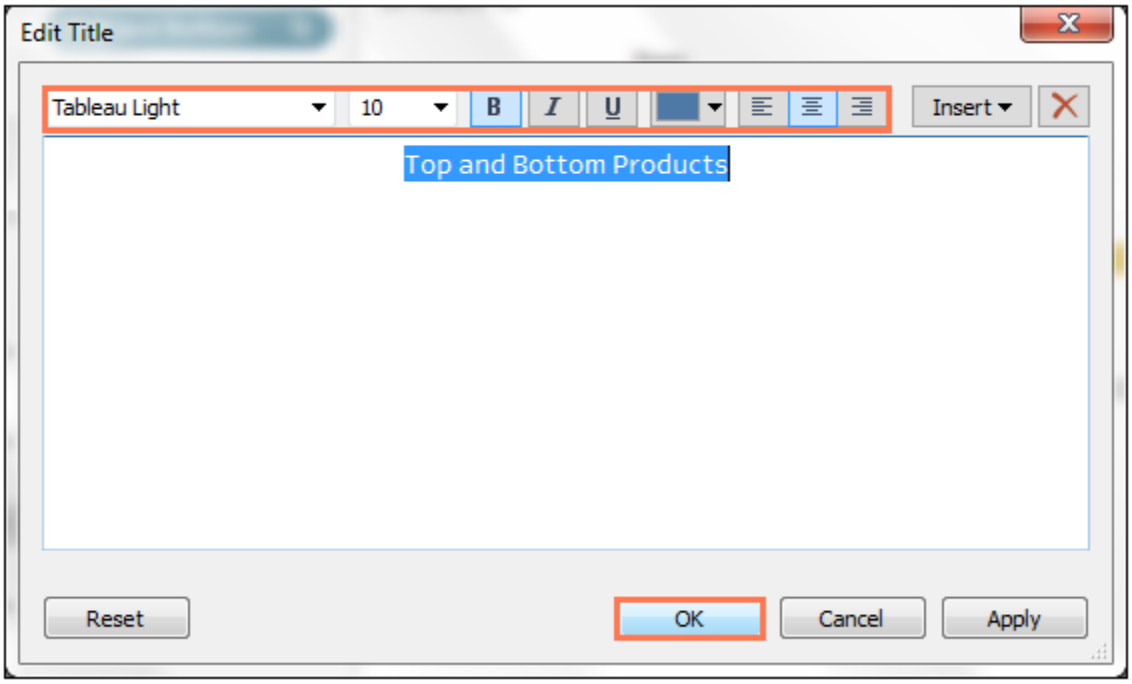


24. Drag the **Items** dimension to Rows and the **Stock Unit** measure to Columns.
25. Under Sets, select the Top N and Bottom N sets, right-click the selection, and click **Create Combined Set**.
26. Rename this set as **Top and Bottom N** and click **OK**.
27. Drag and drop the newly created combined set on the Color mark property.
28. Right-click the set in the Marks card and select **Show members in set**.
29. Under parameters, right-click **Top N**, and select **Show parameter control**.
30. Repeat the above process to enable parameter control for the Bottom N parameter.

    The view should resemble the following image:

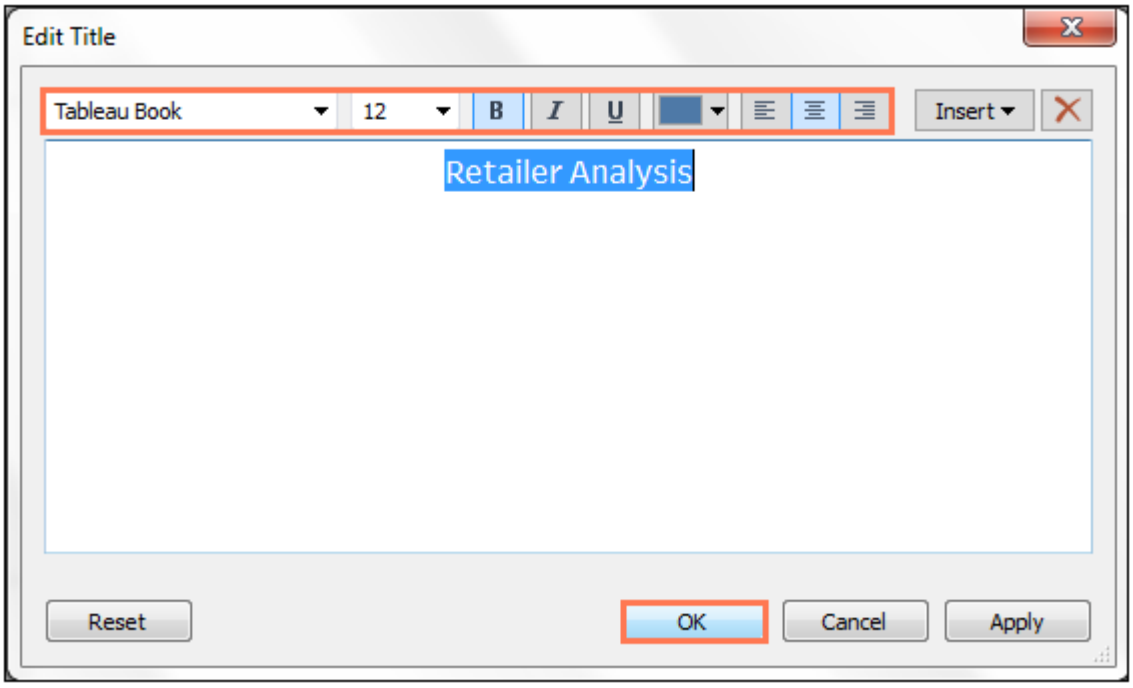


31. Double-click the title, change it to **Top and Bottom Products**, format it and click **OK**.

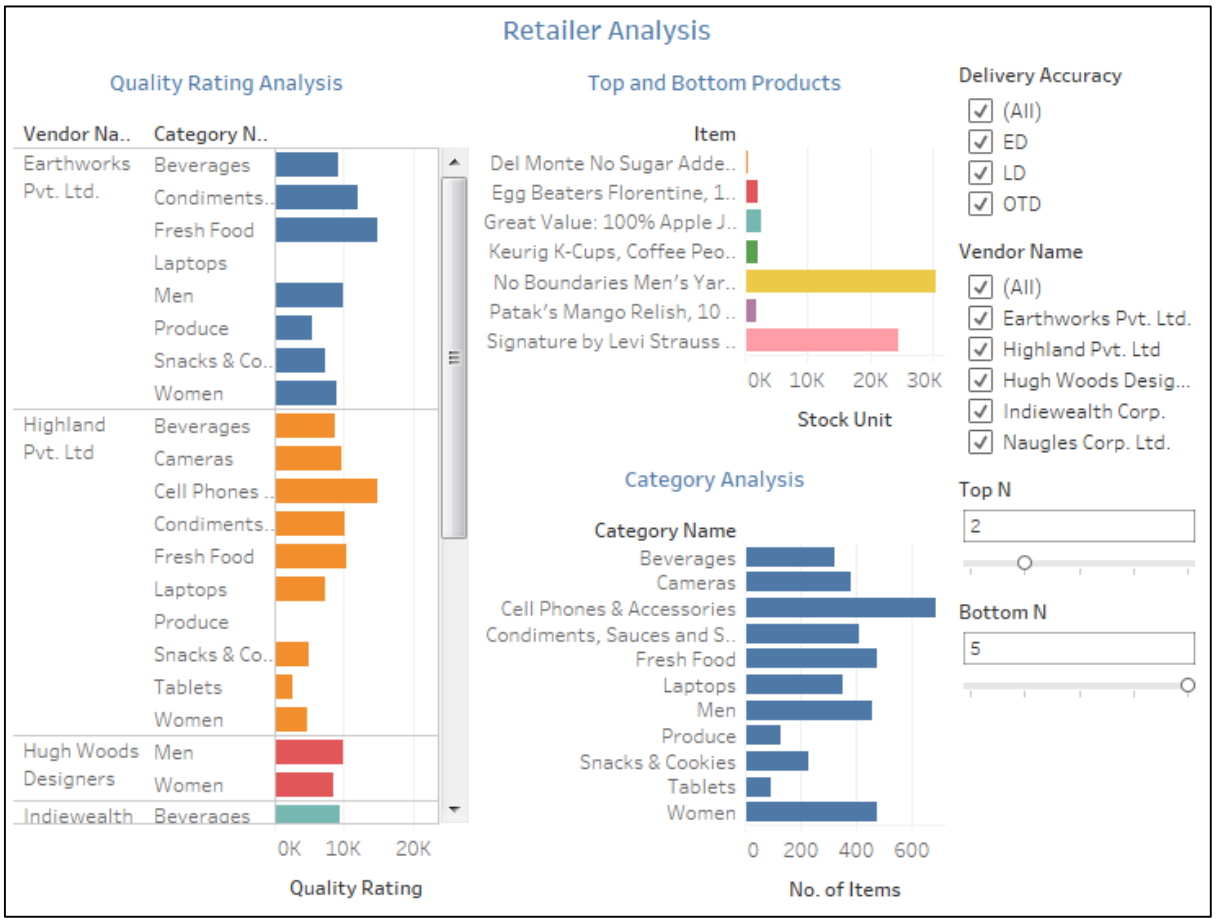


Create Retailer Analysis dashboard

32. Click the new dashboard icon.
33. From the dashboard pane, click the Size drop-down, and select **Automatic**.
34. Select the **Show dashboard title** checkbox.
35. Click the dashboard title and change it to **Retailer Analysis**.
36. Format the title and click **OK**.



37. Drag and drop all the newly created sheets in the canvas area.
38. Select the Vendor Name color legend and click the Remove icon to hide it.
39. At the bottom area, right-click the Category Analysis sheet and select **Hide sheet**. Repeat this step for all other sheets.
    The dashboard should resemble the following image:



Answers:

1. Vendors dealing with the Produce category- Earthworks, highland, and Indiewealth Corp.
2. Top item in the Produce Category- Del Monte No sugar added