

Parameters:

1. Allow users to filter out top N products subcategories by average discount

## Tableau Connections (Live / Extracts)

1. Live and extracts are two ways you can make the data connection to the tableau. Live allows you real-time data while extracts are kind of batch which needs to be refreshed from time to time to get the updated data.
2. While in case of extracting any changes made in the data source won't reflect in the report immediately. It will be reflected when the extract will be refreshed. Tableau Public only supports extract connections, while Tableau Desktop (professional) supports both live and extract connections.

Different kinds of filters:

### 1. Extract Filter:

The screenshot shows the Tableau Desktop interface with the 'Sample - Superstore' data source selected. The 'Connection' dropdown is set to 'Extract', which is circled in red. Below the connection settings, a data table is displayed with columns for Order ID, Order Date, Ship Date, Ship Mode, Customer ID, Customer Name, Segment, Country/Region, City, State, Postal Code, Region, and Profit.

Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name	Segment	Country/Region	City	State	Postal Code	Region	Profit
1	CA-2020-152156	11/8/2020	11/11/2020	Second Class	CG-12520	Claire Gite	Consumer	United States	Henderson	Kentucky	42420	South	1
2	CA-2020-152156	11/8/2020	11/11/2020	Second Class	CG-12520	Claire Gite	Consumer	United States	Henderson	Kentucky	42420	South	1
3	CA-2020-138688	6/12/2020	6/26/2020	Second Class	DV-13045	Darrin Van Huff	Corporate	United States	Los Angeles	California	90036	West	1
4	US-2019-108966	10/11/2019	10/18/2019	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida	33311	South	1
5	US-2019-108966	10/11/2019	10/18/2019	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida	33311	South	1
6	CA-2018-115812	6/9/2018	6/14/2018	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	1
7	CA-2018-115812	6/9/2018	6/14/2018	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	1
8	CA-2018-115812	6/9/2018	6/14/2018	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	1
9	CA-2018-115812	6/9/2018	6/14/2018	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	1
10	CA-2018-115812	6/9/2018	6/14/2018	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	1

- 1.
2. Data Source Filter -
  - a. Go to the blank space on top and you can see filter on top right -> this is a data source filter
  - b. Filters - edit- add - [whatever attribute filter]
3. Context Filter:
  - a. Show top 5 furniture category item by sales
  - b. Incorrect Method:
    - i. Drag category to rows -> Drag subcategory to rows -> Drag sales to measures
    - ii. Drag subcategory to filter -> "top" tab -> by field -> top 5 by sum(Sales)
    - iii. Notice how the top 5 has a mix of all categories
    - iv. Drag category to filter -> "general" tab -> select from list -> filter for

### **furniture**

- v. Now the 5 subcategories further reduced to have only filter
- vi. How do we prevent this from happening?
- vii. Drag category to filter -> right click -> Add to context**
- viii. Now it shows the right values
- 4. Dimension Filter - Dragging a dimension to filter
  - a. Show how you can use filter to exclude values by clicking on exclude check box in the filter window
- 5. Measure Filter - Dragging a measure to filter
  - a. Eg: Show subcategories whose average profit is > 50
  - b. Drag subcategories to rows -> Drag Profits to measures**
  - c. Drag profit to filter -> click "Average" instead of "All Values"**

## **Text Tables**

- 1. Drag category to rows -> Drag Sales to row**
- 2. Click worksheet on top tab -> Duplicate as cross tab**

## **Highlight Tables**

- 1. Display sales of for each subcategories by region for all the years in a table format and highlight values that has the highest and lowest sales
- 2. Drag order date to columns (it will become year) -> drag subcategory to rows -> drag region to rows -> Drag sum(Sales) to measures**
- 3. Click standard on top -> fit width**
- 4. Now we have to color based on sales text
- 5. Drag sales to color -> Go to marks tab on the left -> Click automatic drop down -> click square**

HEAT MAP with size and color:

- 6. Display sales and profit for each subcategory by region for all the years in a table format
- 7. Drag order date to columns (it will become year) -> drag subcategory to rows -> drag region to rows**
- 8. Drag sales -> color**
- 9. Drag profit to size -> click on size and adjust the range as you see fit**

## **Area Chart**

- 1. Create an area chart which displays the total number of quantities sold and the mode of shipping for each month for the year 2022
- 2. Drag order date to columns -> click on order date (in columns) -> Click month ->**

3. Drag quantity to rows -> Drag order date to filter -> filter for 2022 (its a line chart)
4. Go to marks -> click automatic -> click area
5. Drag ship mode to color

## Sparkline Chart

1. Create a chart to analyze trend in profit,sales and discount
2. Drag measure names to rows -> Drag measure values to rows -> drag order date to columns -> click drop down on orderdate and make it month
3. Remove the measure values from marks that you dont want -> right click on the “value” axis -> edit axis -> click Independent axis range for each row or columns
4. right click on the “value” axis -> uncheck “show header”

## Multiple measures on single axis

5. Displaying profit,sales and discount on the single axis
6. Drag order date to columns -> click drop down on orderdate and make it month
7. Drag sales to rows -> drag profit to the y axis (near the numbers) [you will see two parallel lines] -> drag discount to y axis

## Scatter plot

1. Find order id that has the highest sales and highest profit value
2. Drag sales to columns -> drag profits to rows
3. To disaggregate the measure for each order ID:
4. Drag order ID to detail in marks

## Tree Map

1. Find the subcategory that has the highest sales and highest profit. Tree maps need 1 dimension and 1 or more measures
2. Drag subcategory to columns -> Drag sales to rows -> click on “show me” (top

right) -> click on tree map

3. Drag profit to size

## Combined Axis Chart

1. Compare sales and profit for each category in a single plot
2. Drag category columns -> Drag sales to rows -> Drag profit to y axis -> Drag measure names to mark (color)
3. Click on standard -> drop down -> click entire view

## Dual Axis Chart

1. Find product that has the lowest discount but has the highest profit
2. Drag subcategory to columns -> drag profit to row -> drag discount to rows
3. Right click on discount in rows -> click on dual axis
4. Click on profit in marks -> make it bar -> Click on sales in marks and make it line

## Calculated Fields

1. Number function:
2. Calculation formula - **MIN([Sales])**
3. Drag Category to cols -> and calc field to rows
4. String Function:
5. Calculation formula - **RIGHT([Order ID],6)**
6. Drag order ID to columns -> drag calc field to columns -> drag sales to rows

