

TABLEAU

A Business Intelligence tool



Tableau

Tableau is a visual analytical tool to present the large complex data into the readable & understandable format.

These days it is widely used by most of the business sectors as it provide great quality with ease.

Tableau can connect to 50+ data sources and gives us 24 types of charts.



Why Tableau?

- Speed
- User Friendly
- Eye-catching and Interactive Dashboards
- Direct Connection
- Easy Publishing and Sharing
- Growing Market



Installing Tableau

(14 Days Free Trial)

- Go to Tableau.com
- Click on Try Now
- Enter your Email id
- Click on Download free trail
- Double click the downloaded file to install it.
- Fill the registration form and get started.
- <https://public.tableau.com/en-us/s/download>





Connect

To a File

- Excel
- Text file
- Access
- JSON file
- PDF file
- Spatial file
- Statistical file
- More...

To a Server

- Tableau Server
- Microsoft SQL Server
- MySQL
- Oracle
- Amazon Redshift
- More...



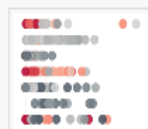
Saved Data Sources

- Sample - Superstore
- World Indicators

Open

[Open a Workbook](#)

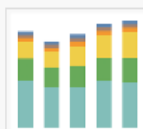
Sample Workbooks



Superstore



Regional



World Indicators

[More Samples](#)

Discover

Training

- Getting Started
- Connecting to Data
- Visual Analytics
- Understanding Tableau
- More training videos...

Viz of the Week

Pedigree Of The Teams Qualified
For World Cup 2018

Resources

- Blog - Singapore's next generation
of data talent
- Tableau Conference - Register Now
- Forums



Tableau

There are three basic steps involved in creating any Tableau report.

- **Connect to a data source** – It involves locating the data and using an appropriate type of connection to read the data.
- **Choose dimensions and measures** – This involves selecting the required columns from the source data for analysis.
- **Apply visualization technique** – This involves applying required visualization methods, such as a specific chart or graph type to the data being analyzed.



Tableau

The Sample Data: Tableau trial version comes with a sample data base 'Sample – Superstore.xls'. We can access this database at the below location:

`\Documents\ Documents\My Tableau
Repository\Datasources\10.4\en_US-US\ Sample – Superstore.xls`



Tableau & Excel a Comparison

In excel we summarise the data using pivot table. The similar functionality is provided in tableau in more comfortable manner. For Example let try to retrieve the category wise product sales from Sample – Superstore database.

- Using Excel
- Using Tableau



Live and Extract Connection

Tableau provides two types of connections:

1. Live Connection

Data

Analytics

Sheet1 (AgentData)

2. Extract

(A saved subset of a data source)

Data

Analytics

Sheet1 (AgentData)



Tableau Data Types

There are 6 data types in Tableau:

1. Number (#)
2. String / Text (ABC)
3. Date (📅)
4. Geographic (🌐)
5. Boolean (True / False)
6. DATE & TIME



View Data

To view the data source data we need to click on view data button. Alternatively we can drag and drop the sheet in Sheet Area

Tableau - Book1 - Tableau license expires in 4 days

File Data Server Window Help

Connections [Add](#)

Sample - Superstore
Excel

Sheets [+](#)

- Orders
- People
- Returns
- New Union

Sample - Superstore

View Data: Orders

10 rows

Category	City	Country	Customer ID	Customer Name	Order Date	Order ID	Product ID	Product Name
Furniture	Henderson	United States	CG-12520	Claire Gute	11/8/2016	CA-2016-152156	FUR-BO-10001798	Bush Some
Furniture	Henderson	United States	CG-12520	Claire Gute	11/8/2016	CA-2016-152156	FUR-CH-10000454	Hon Deluxe
Office Supplies	Los Angeles	United States	DV-13045	Darrin Van Huff	6/12/2016	CA-2016-138688	OFF-LA-10000240	Self-Adhes
Furniture	Fort Lauderdale	United States	SO-20335	Sean O'Donnell	10/11/2015	US-2015-108966	FUR-TA-10000577	Bretford CF
Office Supplies	Fort Lauderdale	United States	SO-20335	Sean O'Donnell	10/11/2015	US-2015-108966	OFF-ST-10000760	Eldon Fold
Furniture	Los Angeles	United States	BH-11710	Brosina Hoffman	6/9/2014	CA-2014-115812	FUR-FU-10001487	Eldon Expre
Office Supplies	Los Angeles	United States	BH-11710	Brosina Hoffman	6/9/2014	CA-2014-115812	OFF-AR-10002833	Newell 322
Technology	Los Angeles	United States	BH-11710	Brosina Hoffman	6/9/2014	CA-2014-115812	TEC-PH-10002275	Mitel 5320
Office Supplies	Los Angeles	United States	BH-11710	Brosina Hoffman	6/9/2014	CA-2014-115812	OFF-BI-10003910	DXL Angle-
Office Supplies	Los Angeles	United States	BH-11710	Brosina Hoffman	6/9/2014	CA-2014-115812	OFF-AP-10002892	Belkin FSC

☐ Show hidden fields

Source Sheet 1

View Data

To view the specific number of records we can specify the number in row count box.

Tableau - Book1 - Tableau license expires in 4 days

File Data Server Window Help

Connections [Add](#)

Sample - Superstore
Excel

Sheets

- Orders
- People
- Returns
- New Union

Sample - Superstore

View Data: Orders

10 rows

Category	City	Country	Customer ID	Customer Name	Order Date	Order ID	Product ID	Product Name
Furniture	Henderson	United States	CG-12520	Claire Gute	11/8/2016	CA-2016-152156	FUR-BO-10001798	Bush Some
Furniture	Henderson	United States	CG-12520	Claire Gute	11/8/2016	CA-2016-152156	FUR-CH-10000454	Hon Deluxe
Office Supplies	Los Angeles	United States	DV-13045	Darrin Van Huff	6/12/2016	CA-2016-138688	OFF-LA-10000240	Self-Adhes
Furniture	Fort Lauderdale	United States	SO-20335	Sean O'Donnell	10/11/2015	US-2015-108966	FUR-TA-10000577	Bretford CF
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Office Supplies	Los Angeles	United States	BH-11710	Brosina Hoffman	6/9/2014	CA-2014-115812	OFF-AP-10002892	Belkin FSC

☐ Show hidden fields

Data Source Sheet 1



View Data

To hide a particular column we need to click on the column and select hide.

Tableau - Book1 - Tableau license expires in 4 days

File Data Server Window Help

Connections [Add](#)

Sample - Superstore
Excel

Sheets

- Orders
- People
- Returns
- New Union

Orders (Sample - Superstore)

Connection ☒ Live ☐ Extract

Filters 0 [Add](#)


Sort fields Data source order

☐ Show aliases ☒ Show hidden fields 1,000 rows

# Orders Row ID	Abc Orders Ship Date	Abc Orders Ship Mode	Abc Orders Customer ID	Abc Orders Customer Name	Abc Orders Segment	Abc Orders Country		
	11/11/2016	Second Class	CG-12520	Claire Gute	Consumer	United States		
	11/11/2016	Second Class	CG-12520	Claire Gute	Consumer	United States		
	6/16/2016	Second Class	DV-13045	Darrin Van Huff	Corporate	United States		
	10/18/2015	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States		
	10/18/2015	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States		
	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States		
7	CA-2014-115812	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States
8	CA-2014-115812	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States

Go to Worksheet

Data Source Sheet1

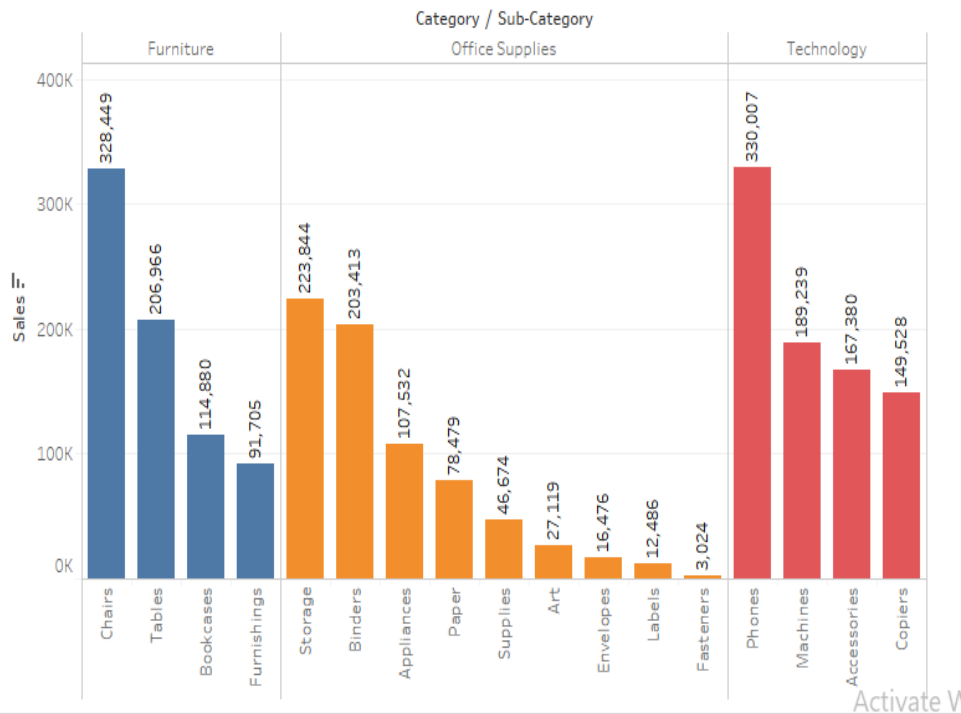


ASSIGNMENT



A-1 create a Graph display category & subcategory wise sales

A-2 Category, Region & Sub-Category wise Profit



Category	Sub-Catego..	Region			
		Central	East	South	West
Furniture	Bookcases	-1,998	-1,168	1,339	-1,647
	Chairs	6,593	9,358	6,612	4,028
	Furnishings	-3,906	5,881	3,443	7,641
	Tables	-3,560	-11,025	-4,623	1,483
Office Supplies	Appliances	-2,639	8,391	4,124	8,261
	Art	1,195	1,900	1,059	2,374
	Binders	-1,044	11,268	3,901	16,097
	Envelopes	1,778	1,812	1,465	1,909
	Fasteners	237	264	174	275
	Labels	1,073	1,129	1,041	2,303
	Paper	6,972	9,015	5,947	12,119
	Storage	1,970	8,389	2,274	8,645
	Supplies	-662	-1,155	2	626
Technology	Accessories	7,252	11,196	7,005	16,485
	Copiers	15,609	17,023	3,659	19,327
	Machines	-1,486	6,929	-1,439	-619
	Phones	12,323	12,315	10,767	9,111



Column Formatting

Rename – Double Click on the column and edit the name.

Copy – Select the column / Row copy and paste it in Excel

Split – Split the Column as per spaces.

File Data Server Window Help

Connections Add

Sample - Superstore Excel

Sheets

Orders

People

Returns

New Union

Orders (Sample - Superstore)

Connection ☒ Live ☐ Extract

Filters 0 Add

Sort fields Data source order

☐ Show aliases ☐ Show hidden fields 1,000 rows

#	Orders	Orders	Orders	Orders	Orders	Orders	Orders
Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name	
1	CA-2016-152156	11/8/2016	11/11/2016	Second Class	CG-12520	Claire Gute	
2	CA-2016-152156	11/8/2016	11/11/2016	Second Class	CG-12520	Claire Gute	
3	CA-2016-138688	6/12/2016	6/16/2016	Second Class	DV-13045	Darrin Van Huff	
4	US-2015-108966	10/11/2015	10/18/2015	Standard Class	SO-20335	Sean O'Donnell	
5	US-2015-108966	10/11/2015	10/18/2015	Standard Class	SO-20335	Sean O'Donnell	
6	CA-2014-115812	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	
7	CA-2014-115812	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	
8	CA-2014-115812	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	

Consumer United States

Data Source Sheet 1

Sorting Columns

By default the order of the fields we get in Tableau is same as it is in the data source. These fields can be sorted using the sort filed option.

Tableau - Book1 - Tableau license expires today

File Data Server Window Help

Connections: Sample - Superstore (Excel)

Sheets: Orders, People, Returns, New Union

Orders (Sample - Superstore)

Connection: Live (selected), Extract

Filters: 0 | Add

Sort fields: Data source order (selected)

Options: Show aliases, Show hidden fields, 1,000 rows

# Orders Row ID	Abc Orders Order ID	Abc Orders Ship Date	Abc Orders Ship Mode	Abc Orders Customer ID	Abc Orders Customer Name	Abc Orders Segment	Abc Orders Country	
1	CA-2016-152156	11/8/2016	11/11/2016	Second Class	CG-12520	Claire Gute	Consumer	United States
2	CA-2016-152156	11/8/2016	11/11/2016	Second Class	CG-12520	Claire Gute	Consumer	United States
3	CA-2016-138688	6/12/2016	6/16/2016	Second Class	DV-13045	Darrin Van Huff	Corporate	United States
4	US-2015-108966	10/11/2015	10/18/2015	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States
5	US-2015-108966	10/11/2015	10/18/2015	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States
6	CA-2014-115812	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States
7	CA-2014-115812	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States
8	CA-2014-115812	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States

Go to Worksheet

Data Source Sheet 1

Sorting Rows/Data

To arrange the data in ascending or descending order we need to click on small icon with the field name

Tableau - Book1 - Tableau license expires today

File Data Server Window Help

Connections [Add](#)

Sample - Superstore
Excel

Sheets

- Orders
- People
- Returns
- New Union

Orders (Sample - Superstore)

Connection ☒ Live ☐ Extract

Orders

Sort fields Data source order

☐ Show aliases ☐ Show hidden

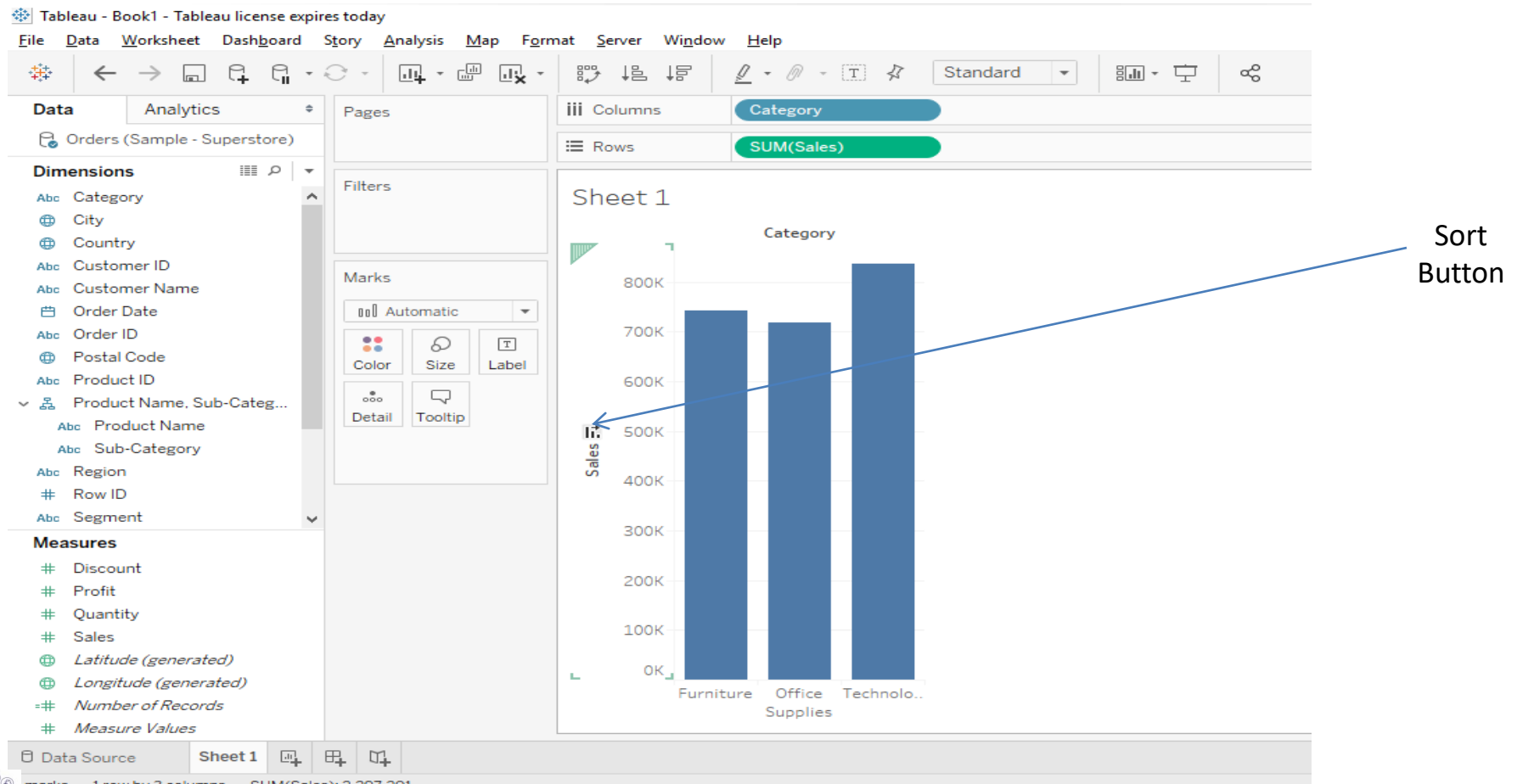
# Orders Row ID	Abc Orders Order ID	Orders Order Date	Orders Ship Date	Abc Orders Ship Mode	Abc Orders Customer ID	Abc Orders Customer Name	Abc Orders Segment
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7	CA-2014-115812	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer
8	CA-2014-115812	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffman	Consumer

Go to Worksheet

Data Source Sheet1

Sorting Rows/Data

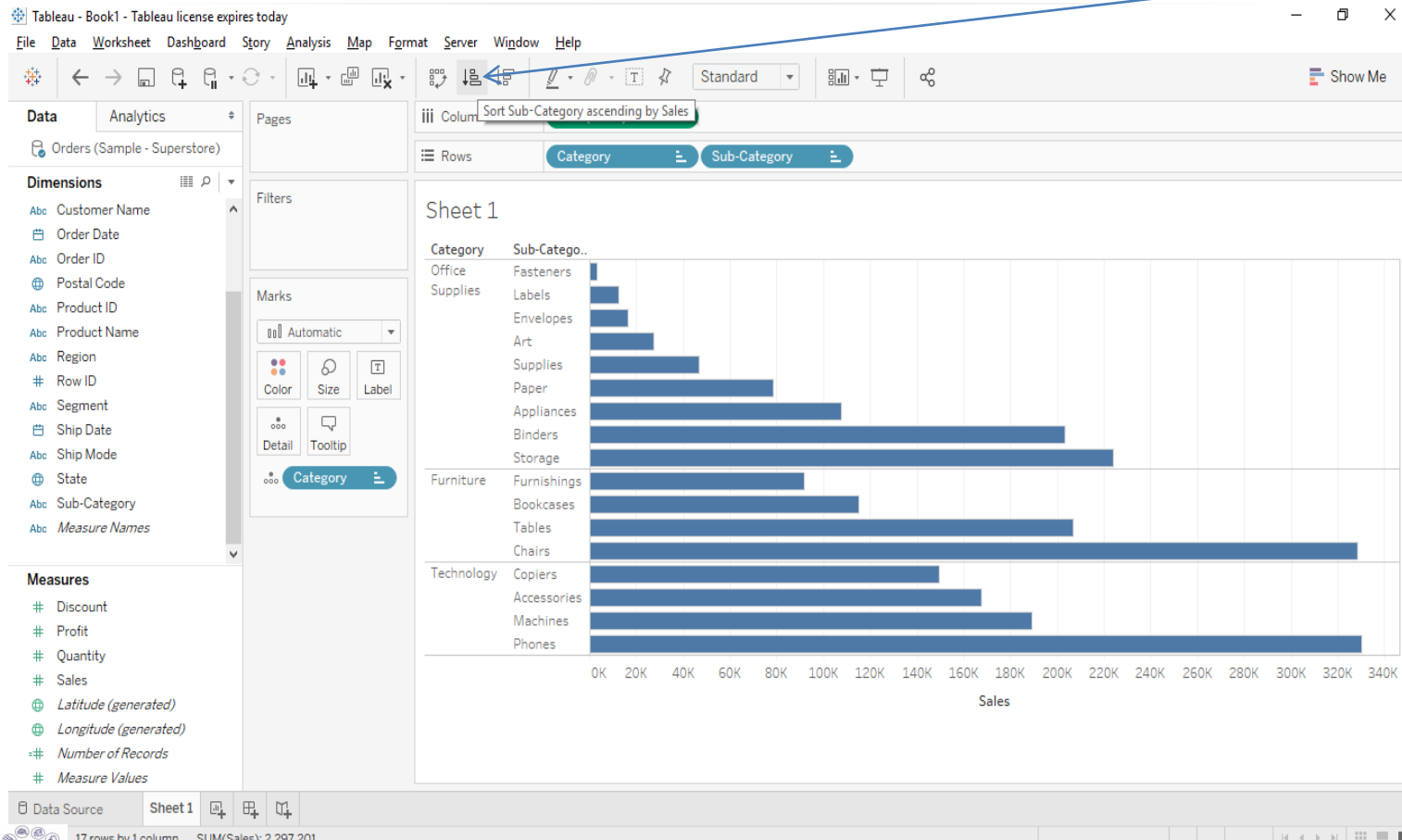
Quick Sort : The quick sort button enables us to sort the graph in ascending or descending order.



Sorting Rows/Data

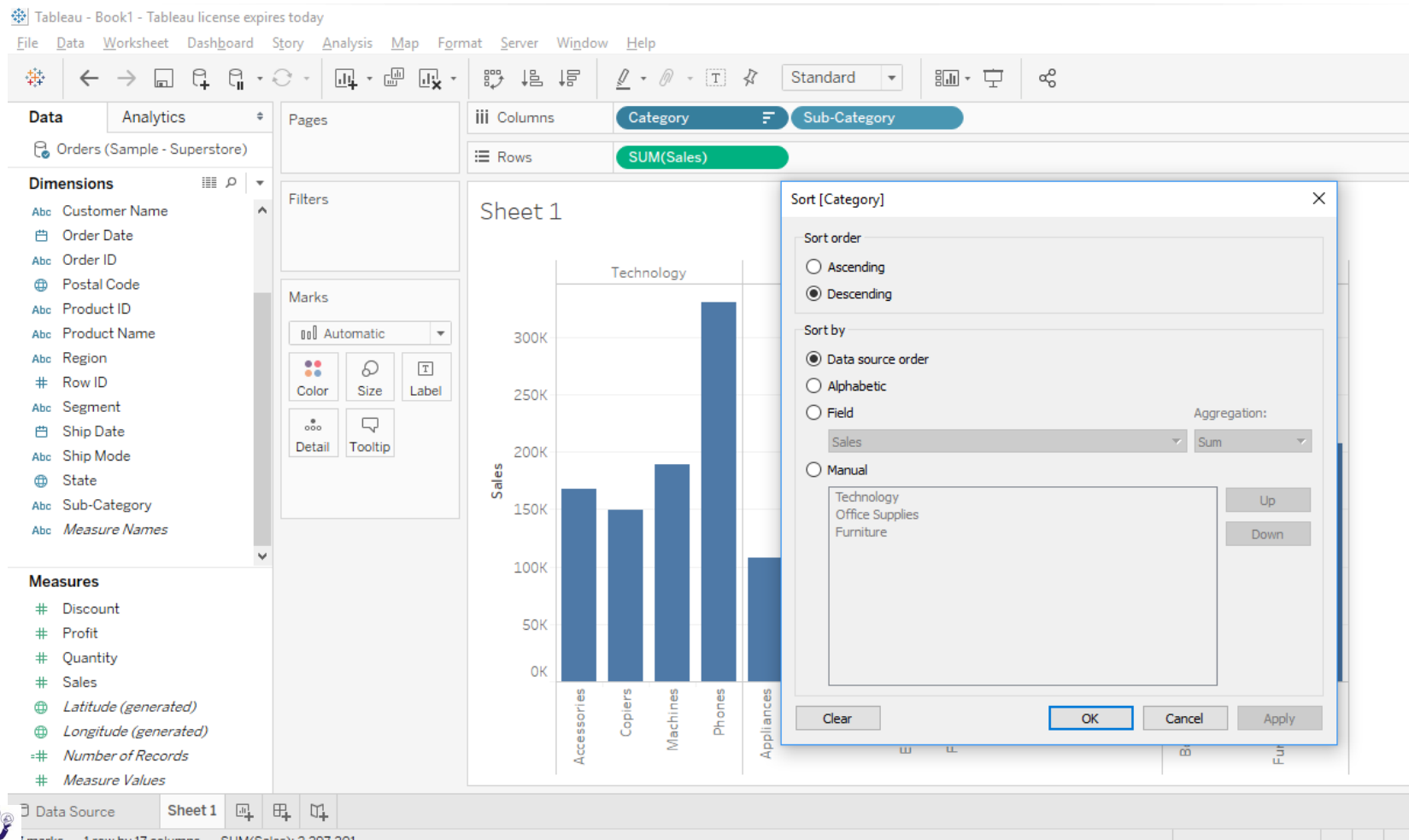
Toolbar Sort : To sort through toolbar we need to select the respective pill and click on the sort button.

Sort
Buttons



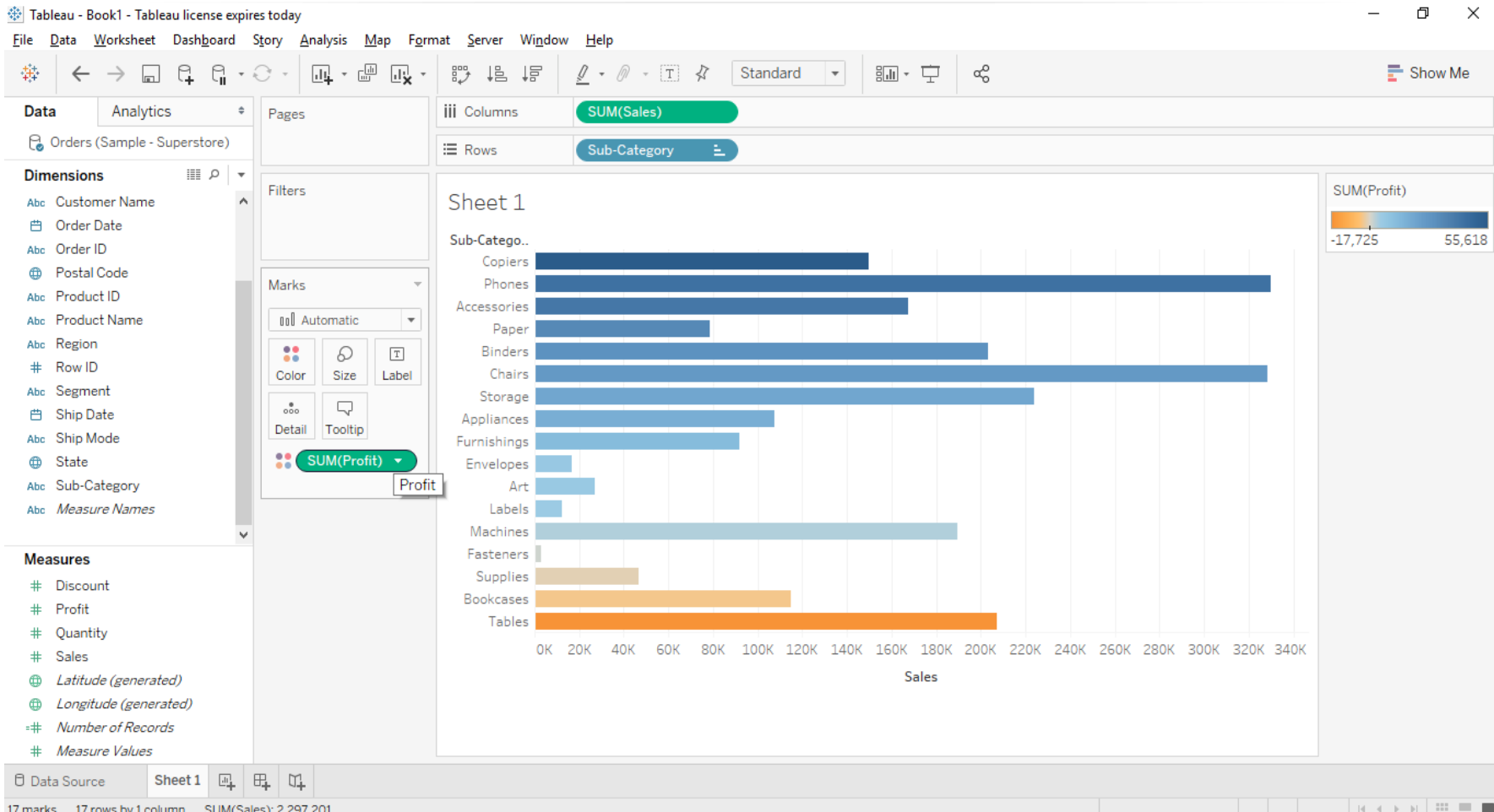
Sorting Rows/Data

Sorting By Pills : This gives us few advance options.



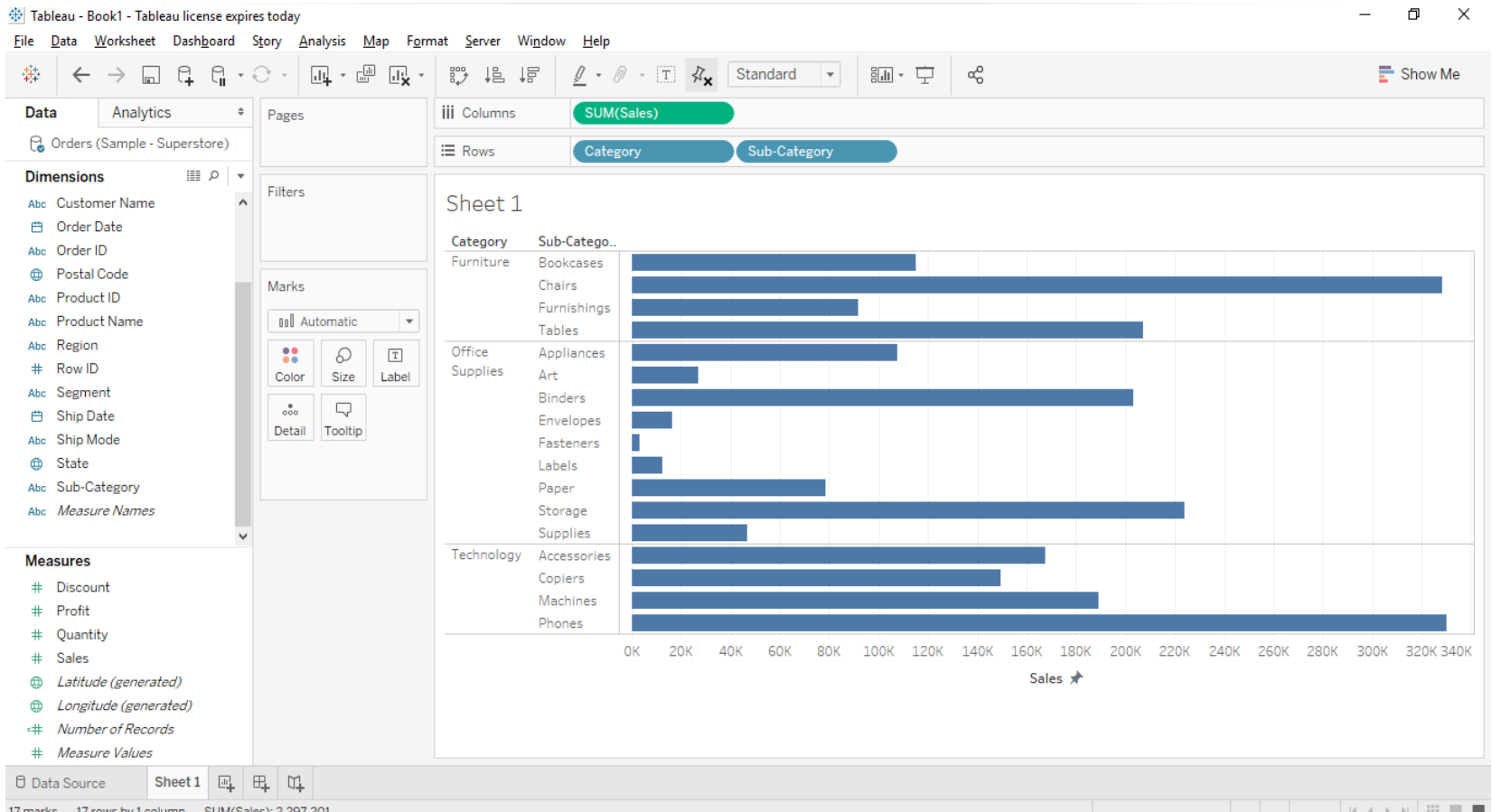
Sorting Rows/Data

Sorting By Marks Card



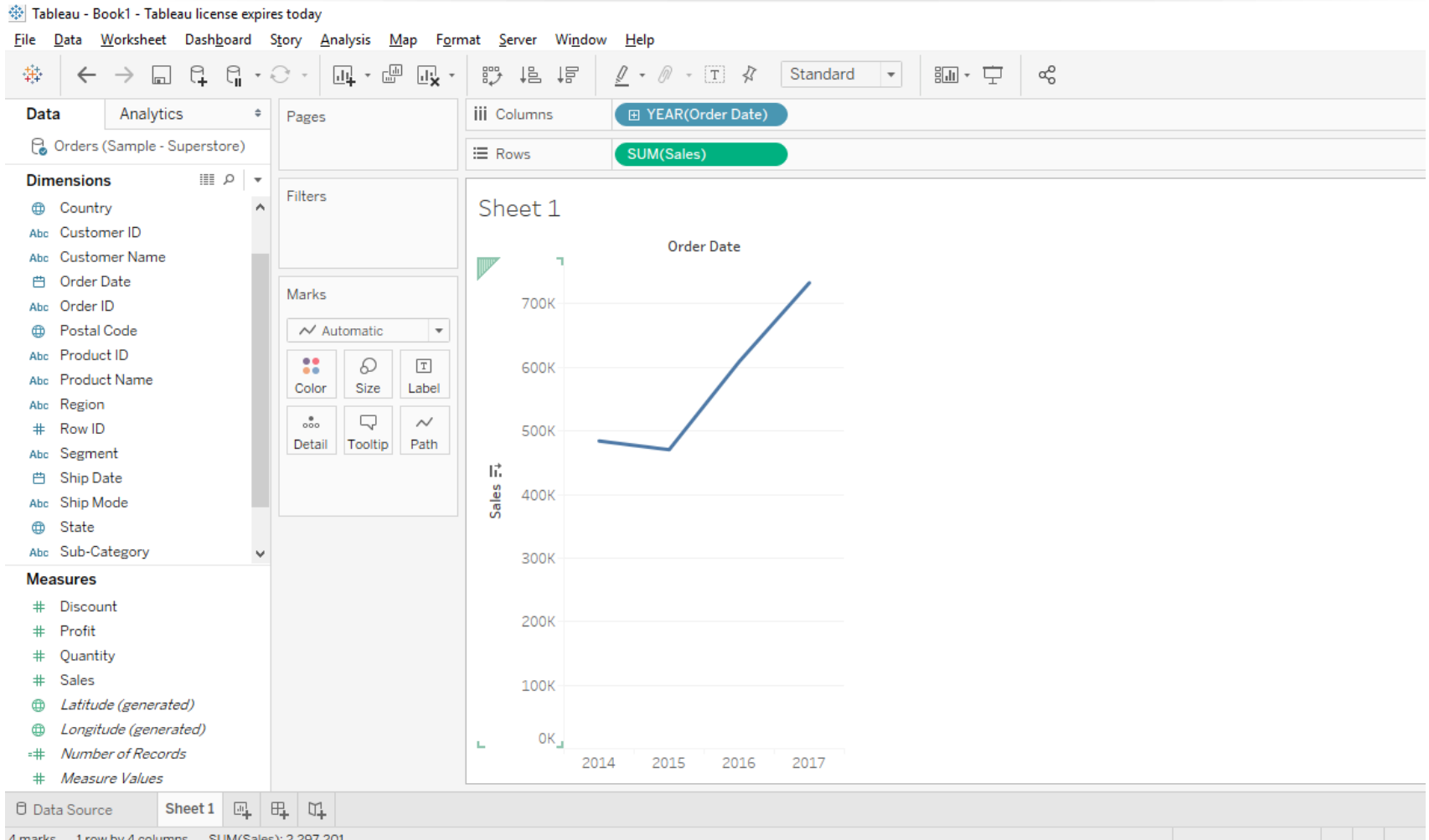
Creating Hierarchy

We can create the hierarchy of fields by dropping one field into another.



Auto Hierarchy

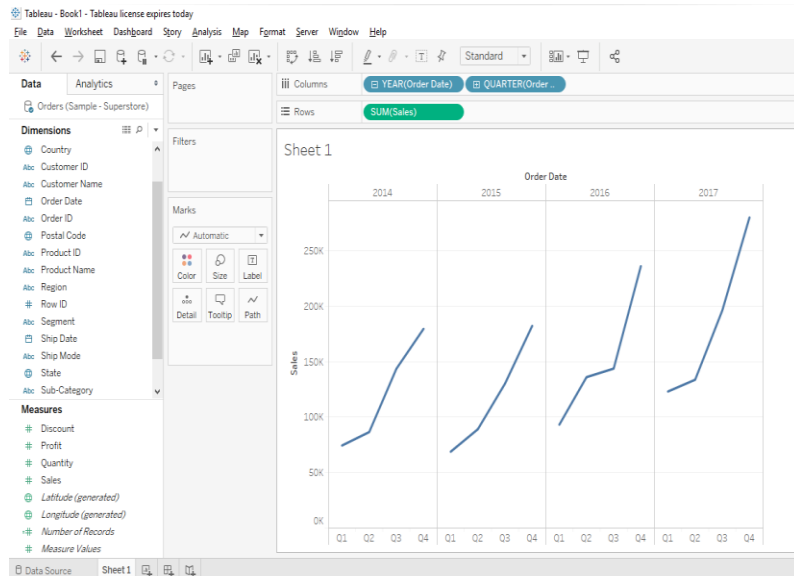
Tableau create the auto hierarchy for date fields



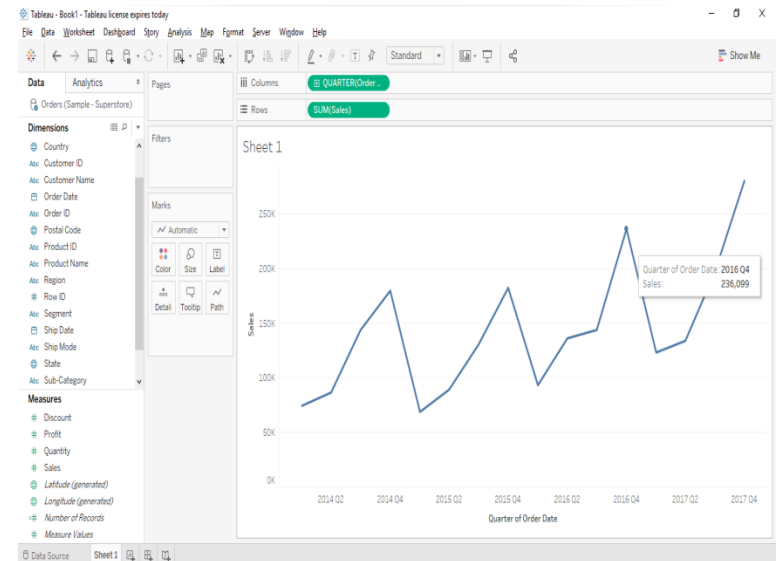
Auto Hierarchy

Auto hierarchy can be displayed using

1. Discrete
2. Continuous Graphs



Discrete Graph



Continuous Graph

To remove the hierarchy Right click on the hierarchy and select Remove hierarchy

