

EX.NO:1	Establishing The Connection Between Tableau And Data Sets And Performing Visualization
DATE:	

**AIM:**

To understand how to establish a connection between Tableau and various data sources, and to create effective data visualizations to derive meaningful insights.

**PROCEDURE:**

- Open Tableau and connect to global\_superstore.csv.
- Drag fields like Brands, Models, Rating, Price onto the canvas.
- Use **Bar Chart** to compare number of models by brand.
- Use **Pie Chart** to show brand share of mobiles.
- Use **Heat Map** or **Highlight Table** to show ratings or discounts.
- Use **Side-by-Side Bar** to compare selling vs original price.
- Use **Bullet Chart** to show price vs target.
- Combine charts in a **Dashboard** for full view.

**STEPS:**

Data set:

**Data set title – global superstore**

The screenshot shows the Tableau Public interface with the following details:

- File Data Help** (top left)
- New Workbook (Tableau Public)** (top center)
- Publish As... ▾** (top right)
- Yeswanthchandran G** (top right)
- Show Me** (top right)
- Connections** (left sidebar)
  - global\_superstore\_2016 (selected, Microsoft Excel)
- Sheets** (left sidebar)
  - Use Data Interpreter
  - Data Interpreter may be able to clean your Microsoft Excel workbook.
  - Orders
  - People
  - Returns
  - New Union
  - New Table Extension
- Orders (global\_superstore\_2016)** (main area)
  - Orders** (selected)
  - 24 fields, 51290 rows
  - Table Details view showing columns: Row ID, Order ID, Order Date, Ship Date, Ship Mode, Customer ID, Customer Name, Segment, Postal Code, City.
  - Sample data rows (Row ID, Order ID, Order Date, Ship Date, Ship Mode, Customer ID, Customer Name, Segment, Postal Code, City):
 

40098	CA-2014-AB10015140-41954	11/11/2014	11/13/2014	First Class	AB-100151402	Aaron Bergman	Consumer	73120	Oklahoma City
26341	IN-2014-JR162107-41675	2/5/2014	2/7/2014	Second Class	JR-162107	Justin Ritter	Corporate	null	Wollongong
25330	IN-2014-CR127307-41929	10/17/2014	10/18/2014	First Class	CR-127307	Craig Reiter	Consumer	null	Brisbane
13524	ES-2014-KM1637548-41667	1/28/2014	1/30/2014	First Class	KM-1637548	Katherine Murray	Home Office	null	Berlin
47221	SG-2014-RH9495111-41948	11/5/2014	11/6/2014	Same Day	RH-9495111	Rick Hansen	Consumer	null	Dakar
22732	IN-2014-JM156557-41818	6/28/2014	7/1/2014	Second Class	JM-156557	Jim Mitchum	Corporate	null	Sydney
30570	IN-2012-TS2134092-41219	11/6/2012	11/8/2012	First Class	TS-2134092	Toby Swindell	Consumer	null	Porirua
31192	IN-2013-MB1808592-41378	4/14/2013	4/18/2013	Standard Class	MB-1808592	Mick Brown	Consumer	null	Hamilton
40099	CA-2014-AB10015140-41954	11/11/2014	11/13/2014	First Class	AB-100151402	Aaron Bergman	Consumer	73120	Oklahoma City
36258	CA-2012-AB10015140-40974	3/6/2012	3/7/2012	First Class	AB-100151404	Aaron Bergman	Consumer	98103	Seattle
36259	CA-2012-AB10015140-40974	3/6/2012	3/7/2012	First Class	AB-100151404	Aaron Bergman	Consumer	98103	Seattle
28879	ID-2013-AJ107801-41383	4/19/2013	4/22/2013	First Class	AJ-107801	Anthony Jacobs	Corporate	null	Kabul
45794	SA-2012-MM7260110-41269	12/26/2012	12/28/2012	Second Class	MM-7260110	Magdelene Morse	Consumer	null	Jizan
4132	MX-2013-VF2171518-41591	11/13/2013	11/13/2013	Same Day	VF-2171518	Vicky Freymann	Home Office	null	Toledo

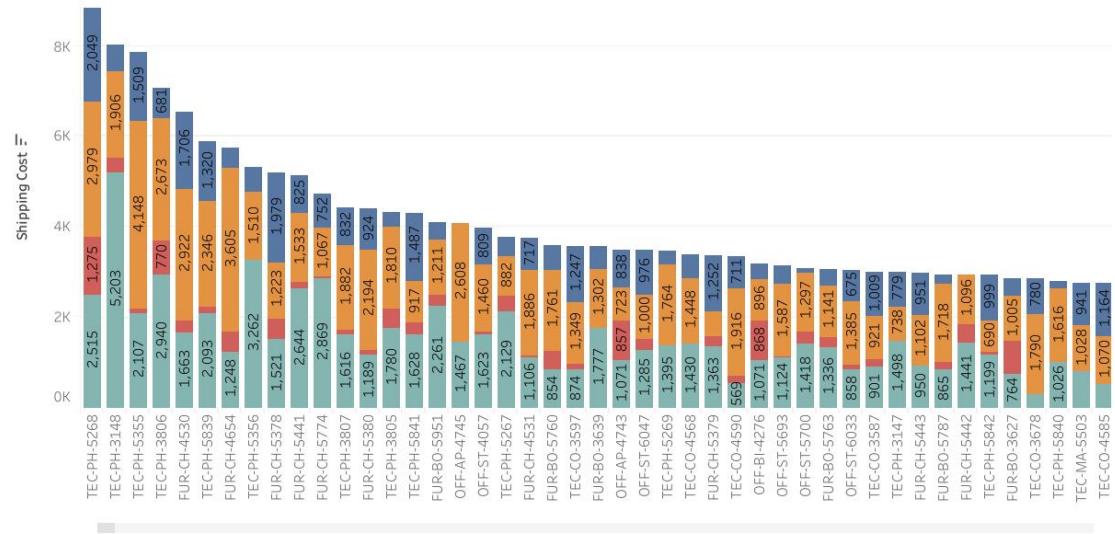
**Charts:****1. Chart Title: Bar chart****steps:**

- Drag Brands to Rows
- Drag Rating to Columns
- Set aggregation to Average
- Sort descending and add color to highlight higher values

**Description:** Which brands have higher average customer satisfaction.

**Chart:**

Bar\_chart\_717823i163

**2. Chart Title: Horizontal bar chart****Steps:**

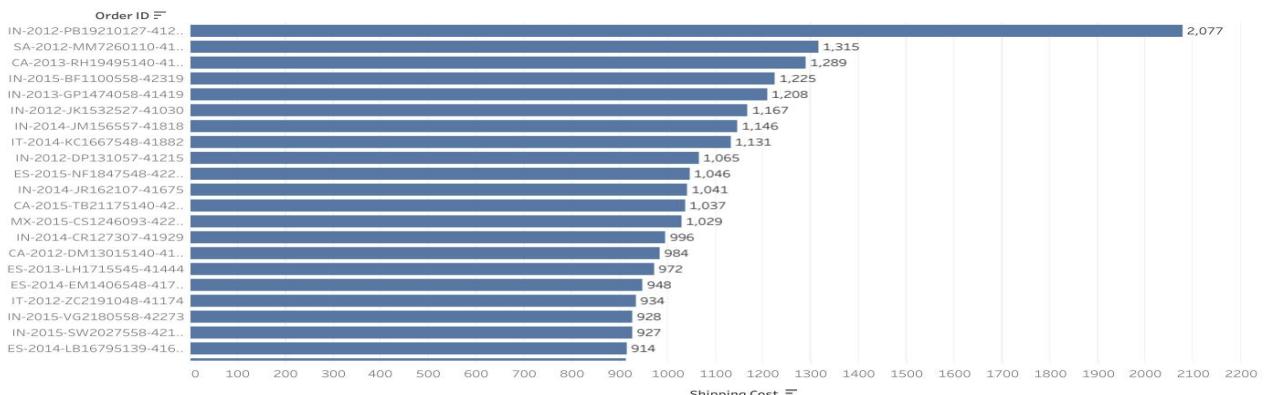
- Drag Brands to the Rows shelf.
- Drag Selling Price to the Columns shelf.
- Set aggregation of Selling Price to Average.
- Click Sort to arrange bars from highest to lowest.

**Description:**

This horizontal bar chart displays the average selling price of mobile phones grouped by brand. It makes it easy to compare price ranges across brands. Horizontal bars are particularly effective when brand names are long or numerous, improving readability compared to vertical chart

**Chart:**

Horizontal\_chart\_717823i163



### 3. Chart Title: Pie Chart

#### Steps:

- Drag “Brand” to colors shelf.
- Drag “rating” to the label and angle shelf.

#### Description:

This pie chart breaks down the market share (by count of models listed) for each brand. It quickly shows which brands dominate the dataset in terms of product variety.

#### Chart:



### 4. Chart Title: Scatter Plot – Rating vs Discount Percentage

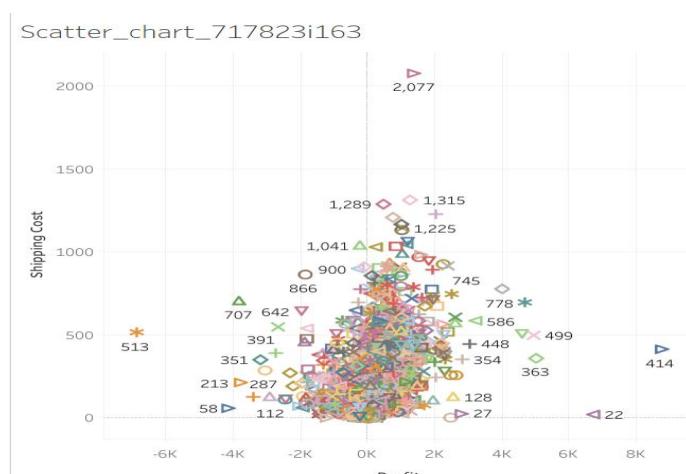
#### Steps:

- Drag Rating to the Columns shelf.
- Drag discount percentage to the Rows shelf.
- Drag Brands to the Color shelf.
- Drag Selling Price to the Size shelf.
- Optionally drag Mobile to Tooltip.

#### Description:

This scatter plot examines the relationship between customer rating and discount percentage. It can reveal whether lower-rated phones receive deeper discounts, or whether high-rated phones hold value.

#### Chart:



## 5. Chart :Grant chart – Selling Price by Brand

### Steps:

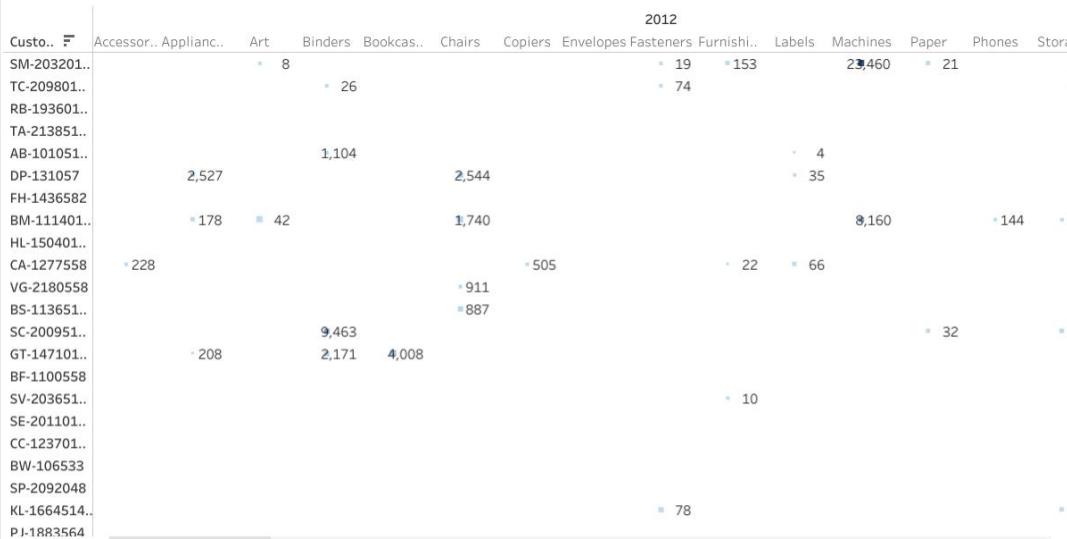
- Drag Brands to the Columns shelf.
- Drag Selling Price to the Rows shelf.
- In “Show Me,” select the Grant chart.
- Drag Mobile to Detail.
- Optional: Add Rating to Color or Tooltip.

### Description:

This box plot shows the price distribution within each brand. You can spot outliers, medians, and price consistency across brands, ideal for comparing affordability or premium positioning.

### Chart:

Grant\_chart\_717823i163



## 6. Chart : Side-by-Side Bar Chart

### Steps

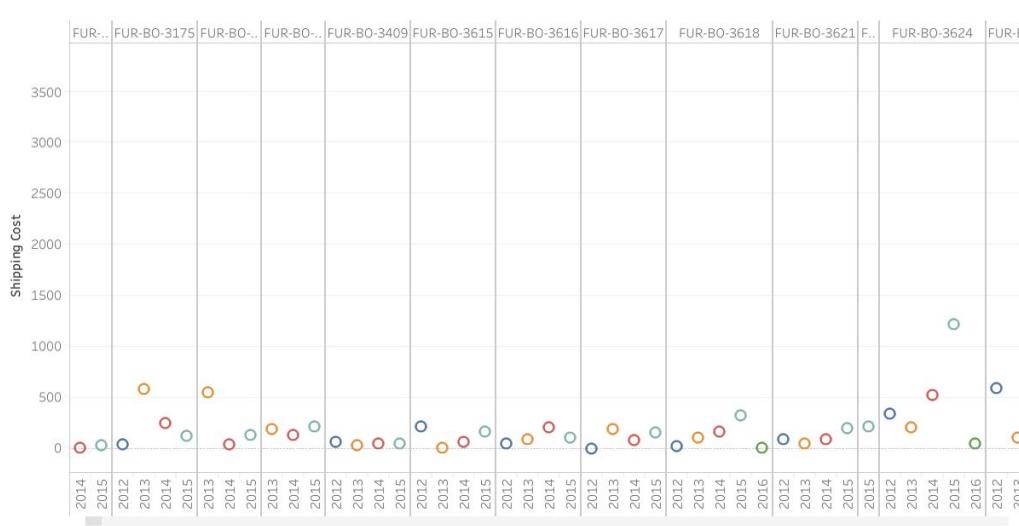
- Drag Original Price to the Rows shelf.
- Drag Selling Price to the Rows shelf next to Original Price.
- Drag Measure Names to Columns
- Drag Measure Values to Rows
- In Filters, keep only Original Price and Selling Price
- Add Labels to display values, Sort by Original Price if needed for clarity

### Description:

The Side-by-Side Bar Chart compares Original Price and Selling Price for each brand. This dual-metric visualization makes it easy to observe the price drop side by side. Each pair of bars represents a brand, showing how much discount (if any) is applied from original pricing to final sale value.

**Chart:**

side\_by\_side\_bar\_chart\_717823i163

**7. Chart : Bullet Chart – Selling vs Original Price****Steps:**

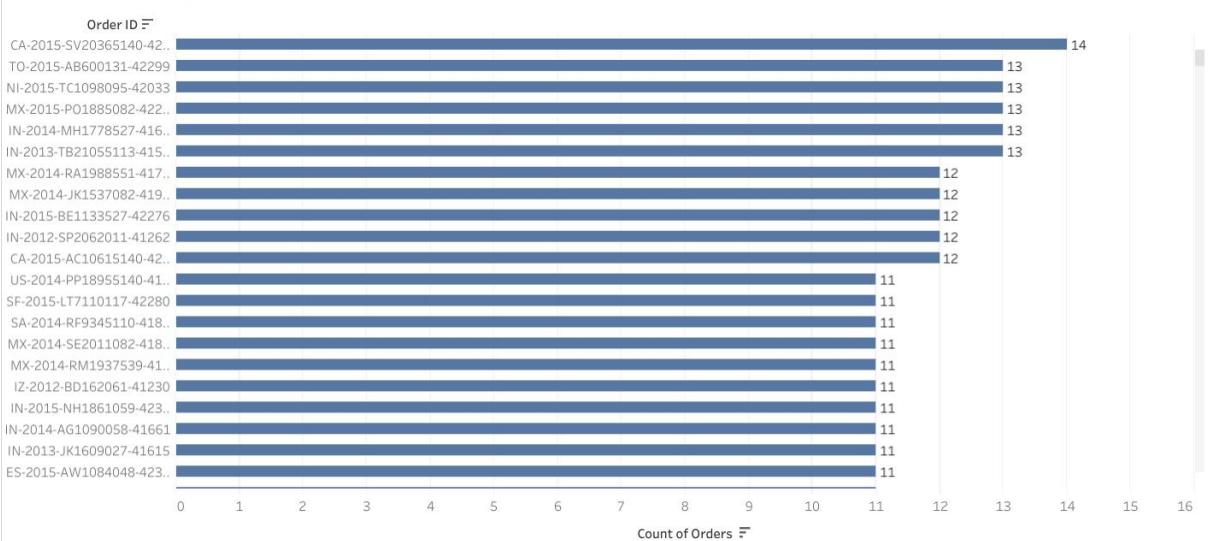
- Drag Brands to Rows.
- Drag Rating to Columns.
- Drag Original Price to Detail.
- Go to Show Me → Select Bullet Chart.
- Drag Brands to Color.

**Description:**

This bullet chart shows how much each brand's phones are sold for compared to their original price. The bar is the actual Rating, and the line shows the original price as a target.

**Chart:**

Bullet\_chart\_717823i163



## 8. Chart Title: Heat Map – Average Rating by Brand and Storage

### Steps:

- Drag Brands to Rows.
- Drag Storage to Columns.
- Drag Rating to Color.
- Set aggregation of Rating to Average.
- Drag Rating to Label (optional).

### Description:

This heat map shows the average rating for each combination of brand and storage size. The darker the color, the higher the rating. It helps you find which brands and storage options are rated best by users.

### Chart:

Heat\_map\_717823i163

Segment	Product Name	Row ID	
Consumer	1.7 Cubic Foot Compact "Cube" Office Refrigerators	33306 34265 38309	- - -
	1/4 Fold Party Design Invi..	40112	-
	3.6 Cubic Foot Counter Height Office Refrigerator	33292 38645 40173 40483	- - - -
	3D Systems Cube Printer, 2nd Generation, White	37660 38943	- -
	3M Hangers With Command Adhesive	33122 33497	- -
	3M Office Air Cleaner	31756	-
	3M Organizer Strips	32369 33255 33347 36199 40051	- - - - -
	3M Polarizing Light Filter Sleeves	35256 36723	- -
	3M Polarizing Task Lamp with Clamp Arm, Light Gray	33848 33945 40259	- - -
	3M Replacement Filter for	38032	-

## 9. Chart Title: Highlight Table – Average Discount Percentage by Brand and Storage

### Steps:

- **Drag Brands to Rows.**
- Drag Storage to Columns.
- Drag discount percentage to Color.
- Set aggregation of discount percentage to Average.
- Drag discount percentage to Label (optional).
- From “Show Me” → select Highlight Table.

### Description:

This highlight table shows the average discount percentage offered by each brand across different storage options. Brighter colors indicate higher discounts, helping you easily spot which brand-storage combos offer better deals.

**Chart:****Highlight\_table\_71**

Region	
Canada	384
Caribbean	1,690
Central Africa	643
Central America	5,616
Central Asia	217
Central US	2,323
Eastern Africa	728
Eastern Asia	2,374
Eastern Europe	1,529
Eastern US	2,848
North Africa	1,278
Northern Europe	2,204
Oceania	3,487
South America	2,988
Southeastern Asia	3,129
Southern Africa	478
Southern Asia	2,655
Southern Europe	2,113
Southern US	1,620
Western Africa	1,460
Western Asia	2,440
Western Europe	5,883
Western US	3,203

Preparation	30	
Lab Performance	30	
Report	40	
Total	100	
Initial Of Faculty		

**Result:**

Thus, this demonstrates the connection between Tableau and various data sources, and how to create effective data visualizations to derive meaningful insights.