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200
1822 - 2022

Basic operations in Tableau

Man Geni Addysg Uwch yng Nghymru
Where Higher Education Began in Wales

www.uwtsd.ac.uk

Basic steps

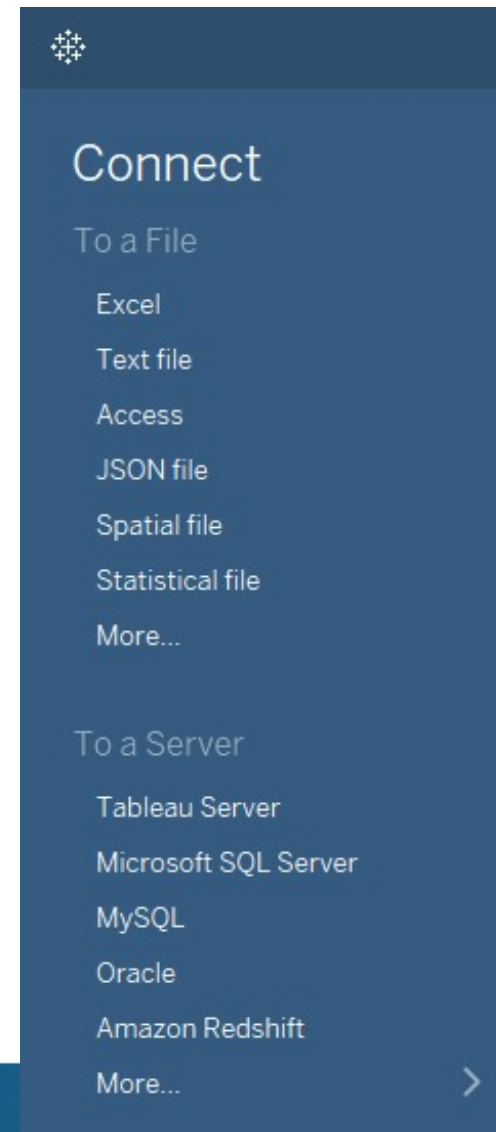
- **Connect to a data source** – It involves locating the data and using an appropriate type of connection to read the data.
- **Choose dimensions and measures** – This involves selecting the required columns from the source data for analysis.
- **Apply visualization technique** – This involves applying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

Connect to a Data Source



Connect to data

- Connecting to your local file
- Connecting to a server



Choose the Dimensions and Measures

Dimensions

Abc

A Dimension is a field that is an independent variable.

A dimension is usually text

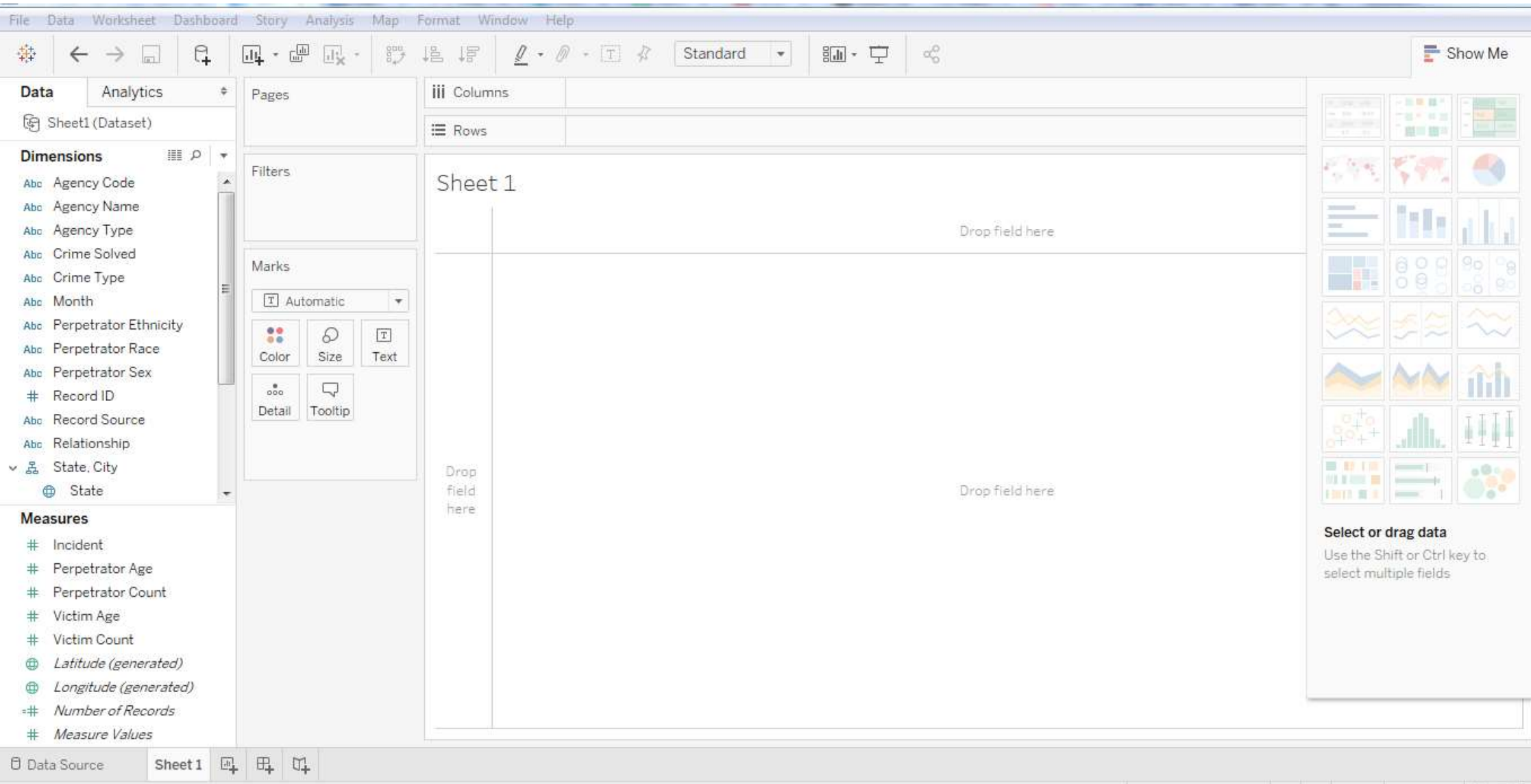
Measures

#

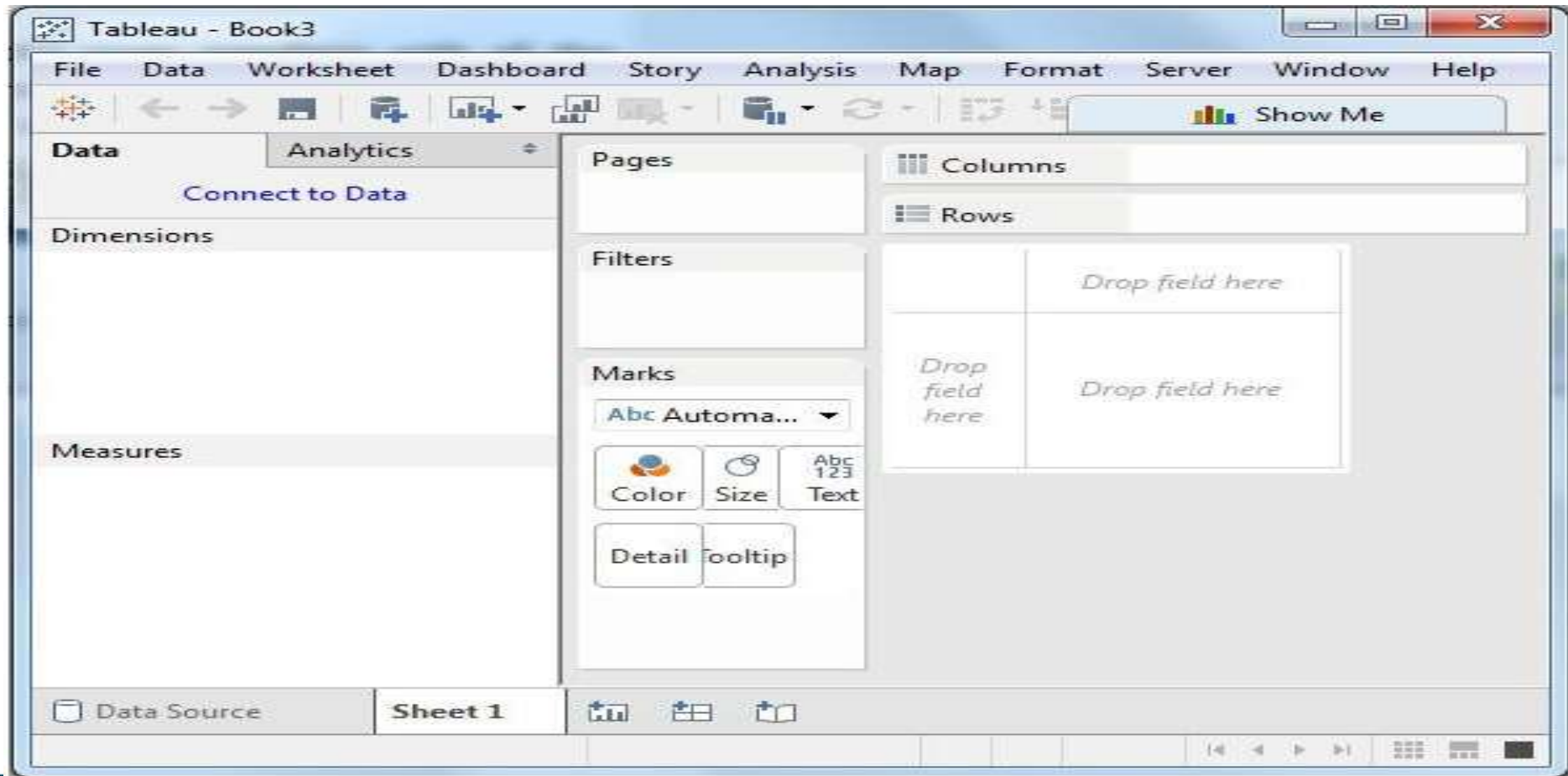
A Measure is a field that is a Dependent Variable and its value is a function of one or more Dimensions.

A measure is usually a number

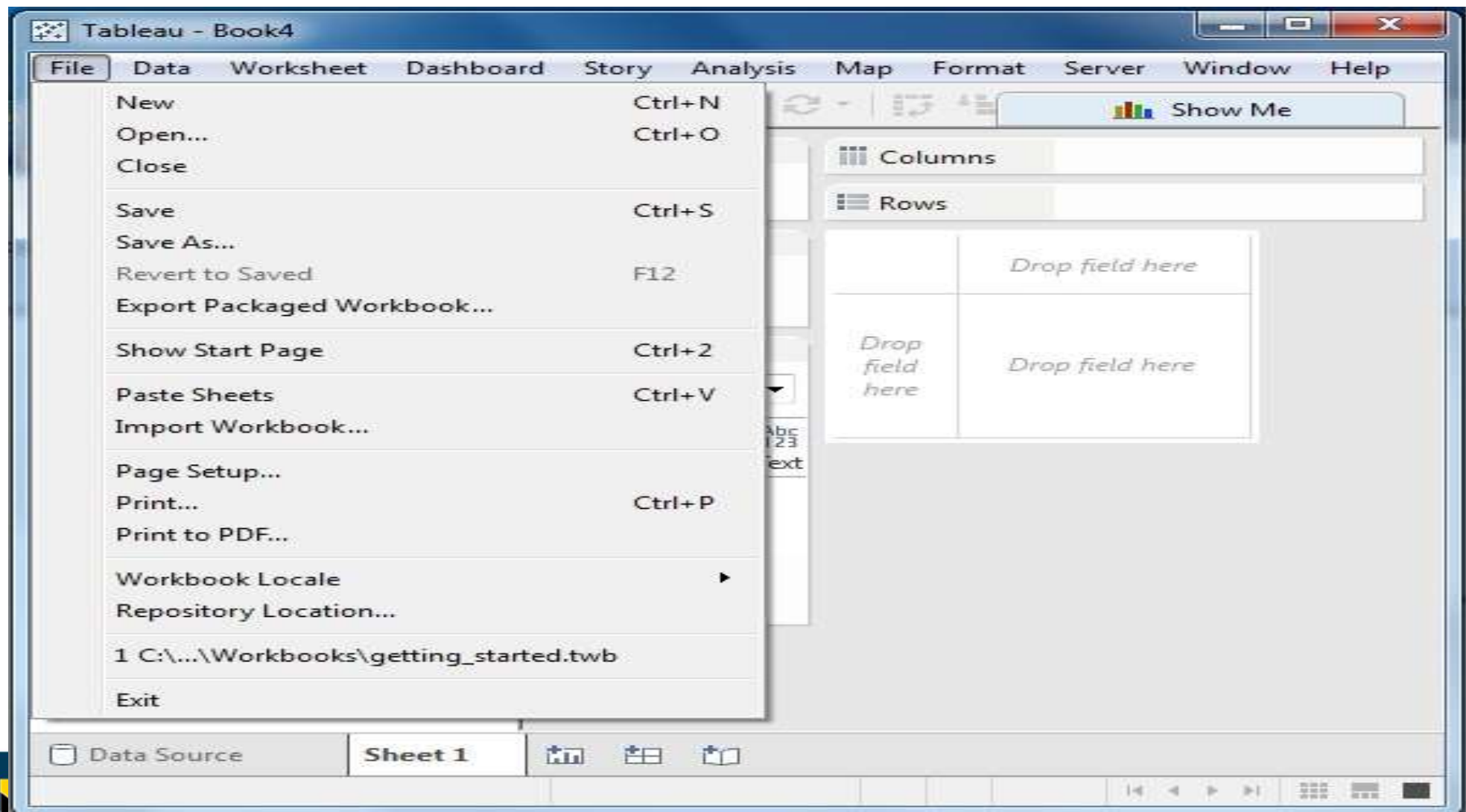
User interface



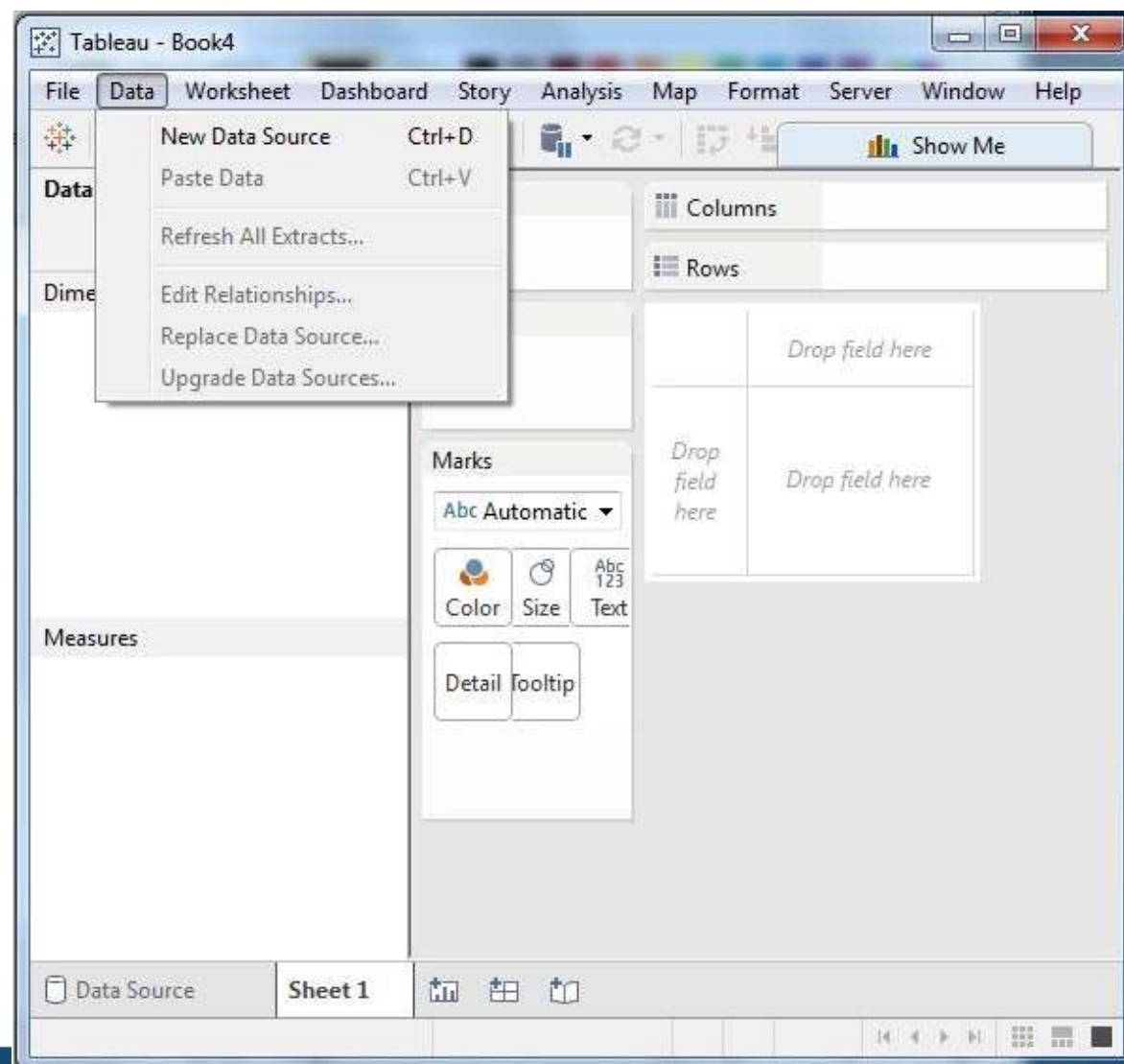
Navigational features



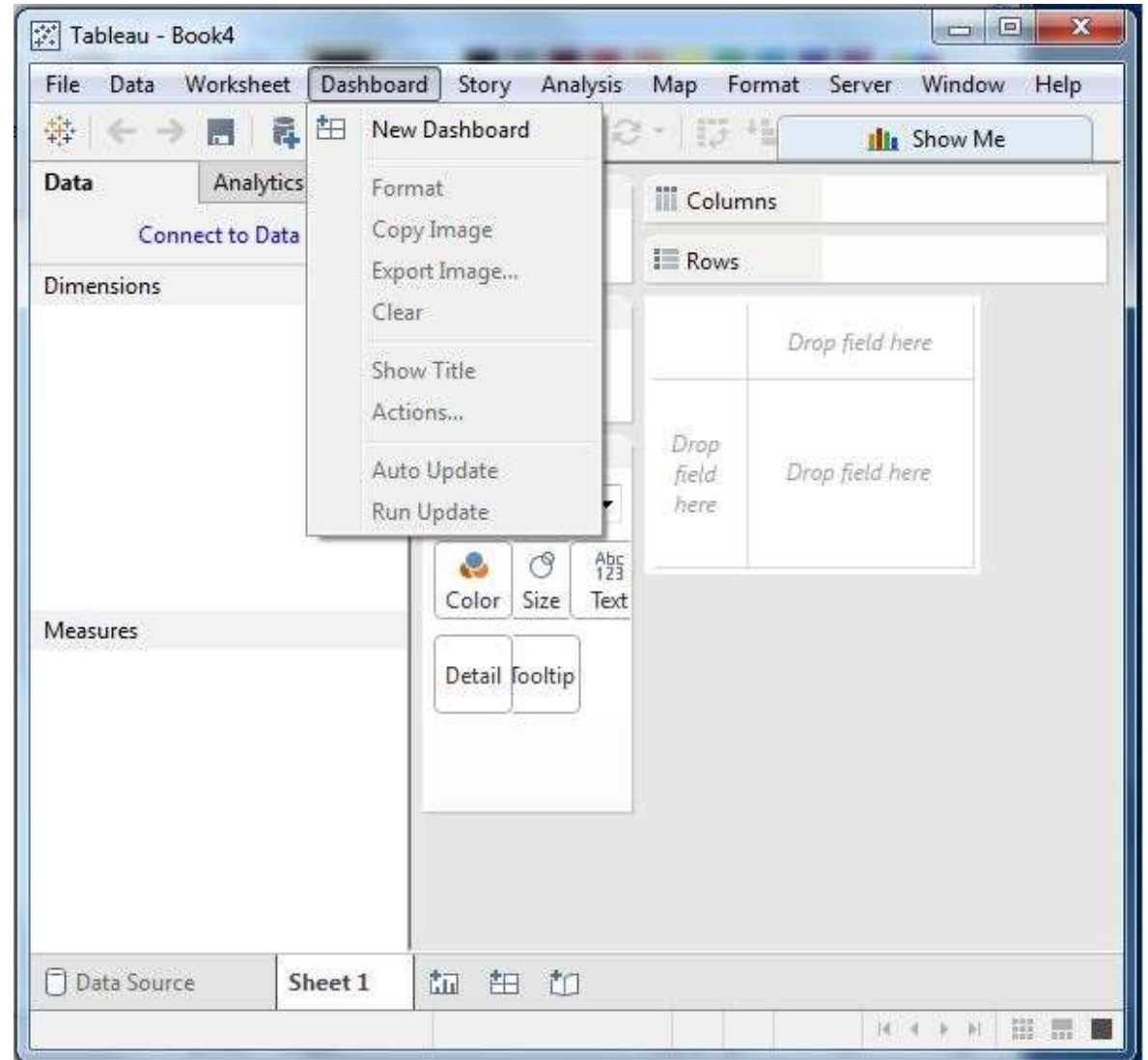
Menu Commands-File Menu



Data Menu

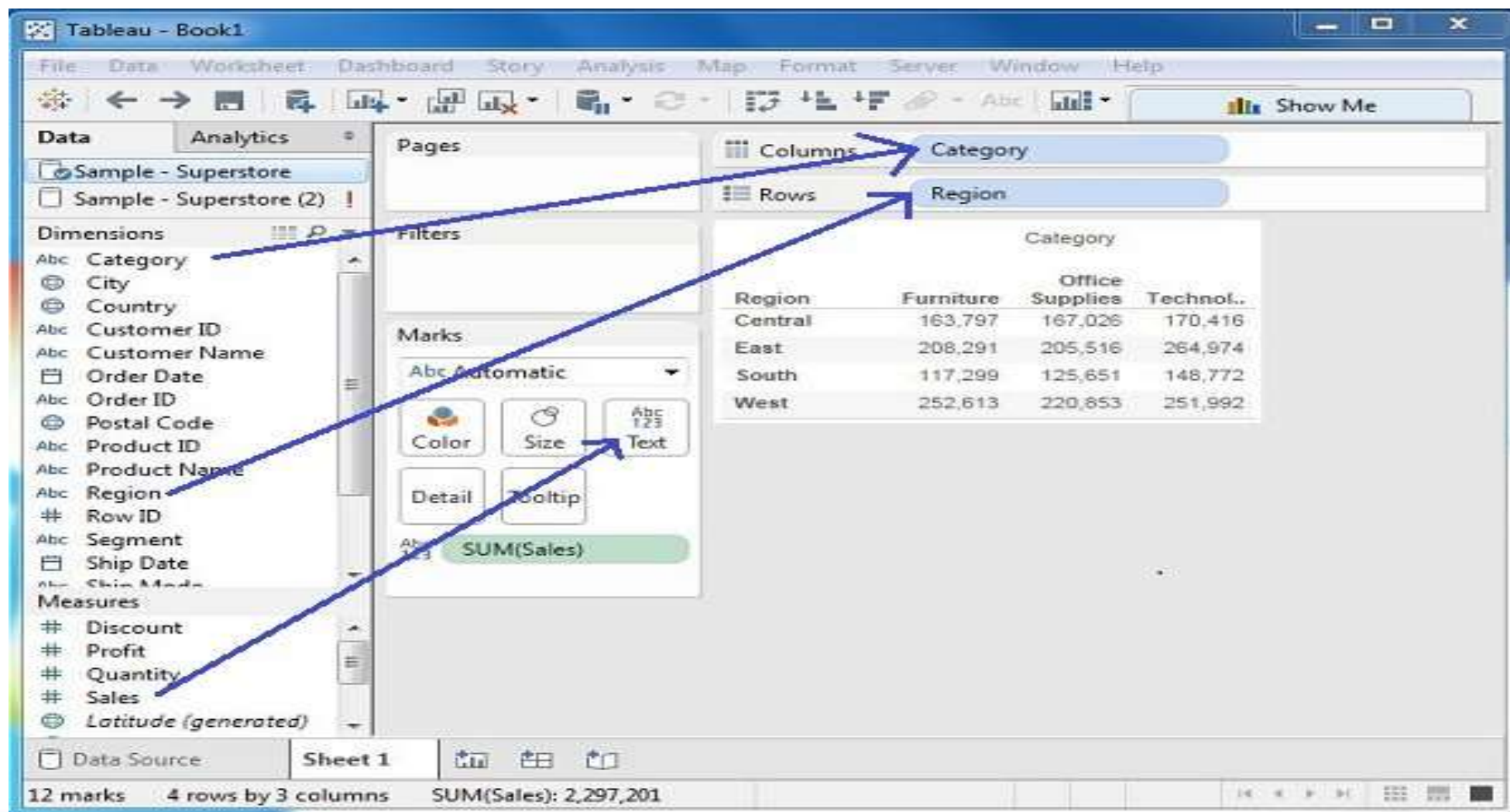


Dashboard Menu

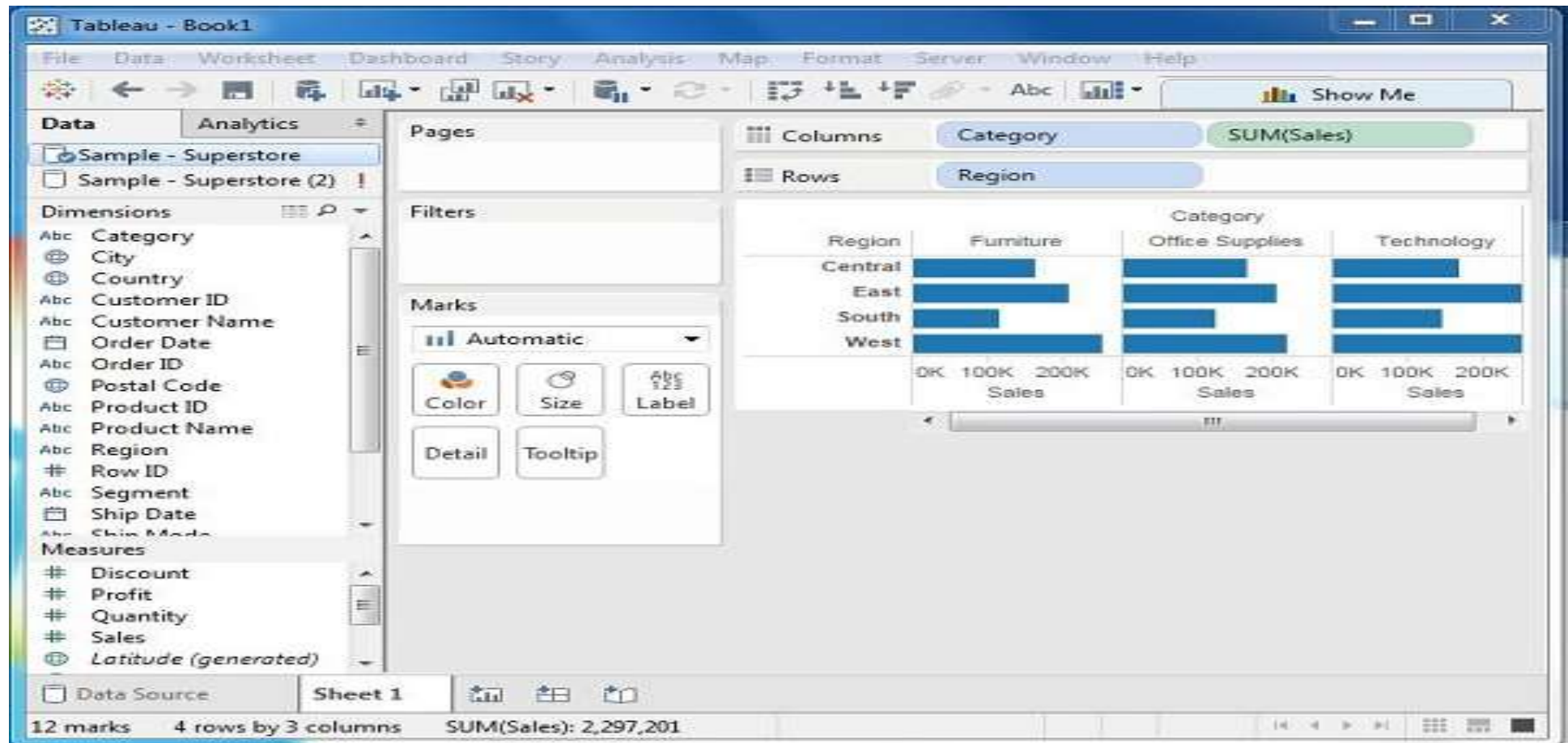


Choose the Dimensions and Measures

- Dimensions are the descriptive data
- Measures are numeric data



Apply Visualization Technique





Data Analytics

- Sample - Superstore
- Sample - Superstore (2)

Dimensions

- Category
- City
- Country
- Customer ID
- Customer Name
- Order Date
- Order ID
- Postal Code
- Product ID
- Product Name
- Region
- Row ID
- Segment
- Ship Date
- Ship Mode

Measures

Pages

Filters

Marks

Bar

Color Size Label

Detail Tooltip

Segment

Columns Category SUM(Sales)

Rows Region



Measure names and Measure values

Dimensions

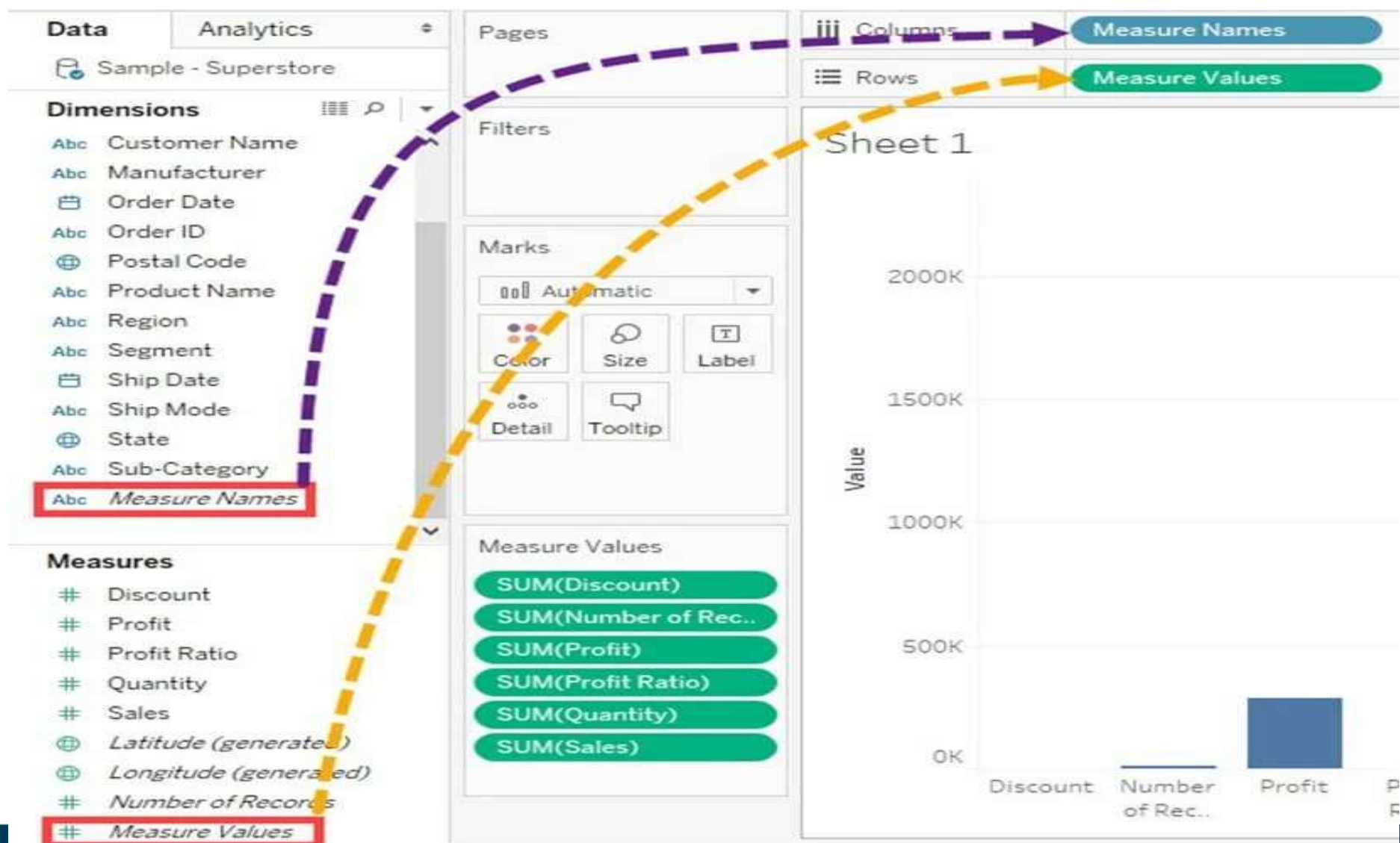
- Abc Customer Name
- Abc Manufacturer
- Order Date
- Abc Order ID
- Postal Code
- Abc Product Name
- Abc Region
- Abc Segment
- Ship Date
- Abc Ship Mode
- State
- Abc Sub-Category
- Abc Measure Names**

Discrete values

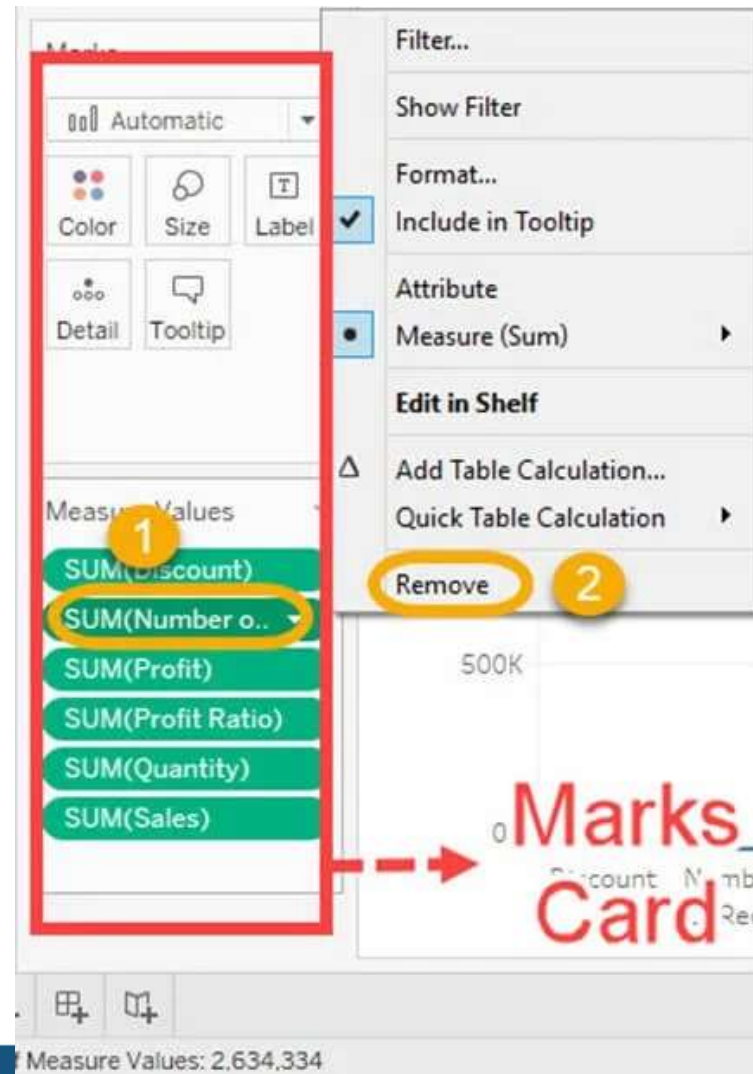
Measures

- # Discount
- # Profit
- # Profit Ratio
- # Quantity
- # Sales
- Latitude (generated)
- Longitude (generated)
- # Number of Records
- # Measure Values**

Continuous values



Remove measure



iii Columns **1** Measure Names

Rows Measure Values

Sheet 1

2000K

- Edit Filter...
- ☒ Show Measure Values Shelf
- Show Filter
- Show Highlighter
- Sort...
- Format...
- ☒ Show Header
- Edit Aliases... 2**
- Remove

Edit Aliases [Measure Names] **2**

Member	Has Alias	Value (Alias)
Discount		Discount
Number of Records		Number of Records
Profit		Profit
Profit Ratio		Profit Ratio
Quantity *		Volume Sales 1
Sales		Sales

OK

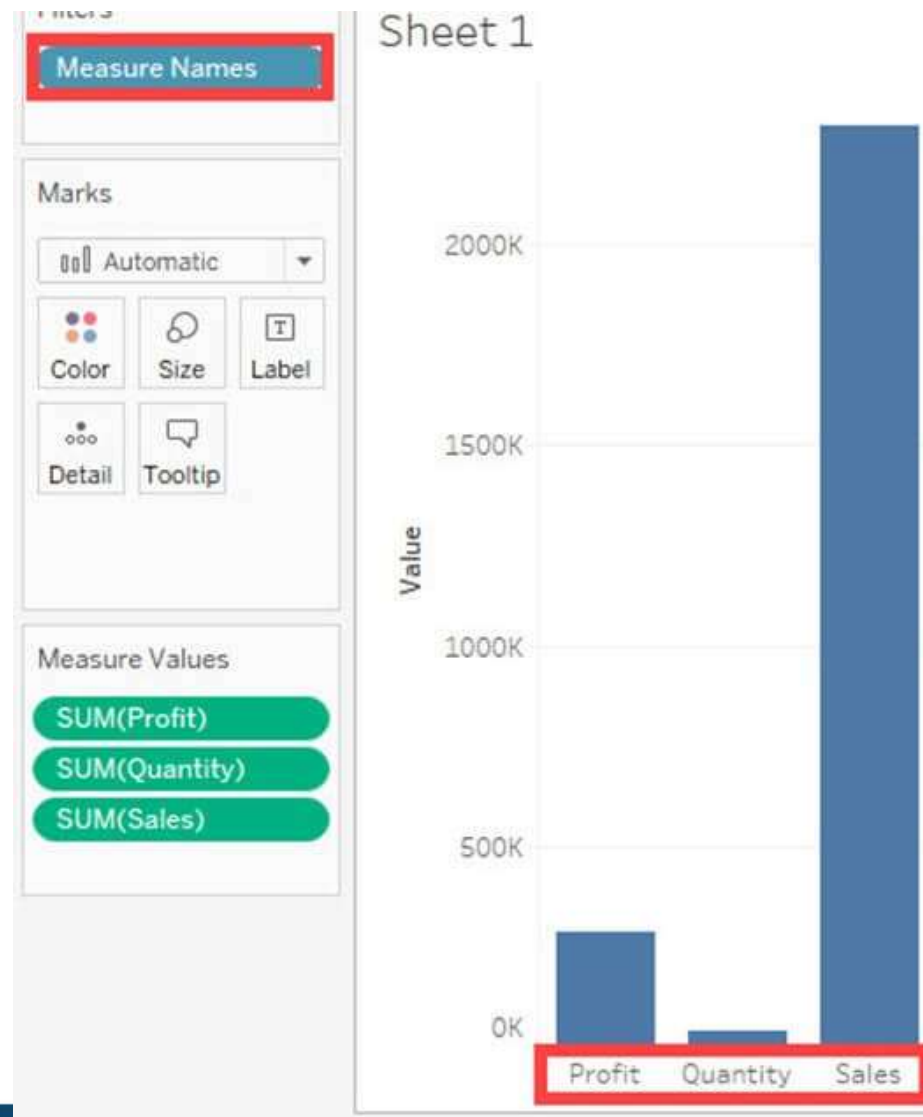
Cancel



Analyze multiple measures in a single visual

The screenshot illustrates the steps to filter multiple measures in a single visual in Tableau. The interface includes the Data pane on the left, the Columns and Rows shelves, and the Marks card. The 'Measure Names' field is highlighted in the Dimensions list, and a red box labeled '1' is placed next to it. A green dashed arrow points from this box to the 'Filters' shelf, which is also highlighted with a red box. The 'Filters' shelf is labeled 'Filters' and has a red box labeled '2' next to it. The 'Marks' card is set to 'Automatic'. The 'Columns' shelf is labeled 'Columns' and the 'Rows' shelf is labeled 'Rows'. The 'Sheet 1' tab is visible. The 'Filter [Measure Names]' dialog box is open, showing the 'General' tab. The 'Enter search text' field is empty. The 'Discount' and 'Number of Records' checkboxes are unchecked. The 'Profit', 'Profit Ratio', 'Quantity', and 'Sales' checkboxes are checked, and a red box labeled '3' is placed next to them. The 'All' and 'None' buttons are at the bottom. The 'Summary' section shows 'Field: [Measure Names]', 'Selection: Selected 3 of 6 values', 'Wildcard:', 'Condition:', and 'Limit:'. The 'Reset', 'OK', 'Cancel', and 'Apply' buttons are at the bottom of the dialog box.

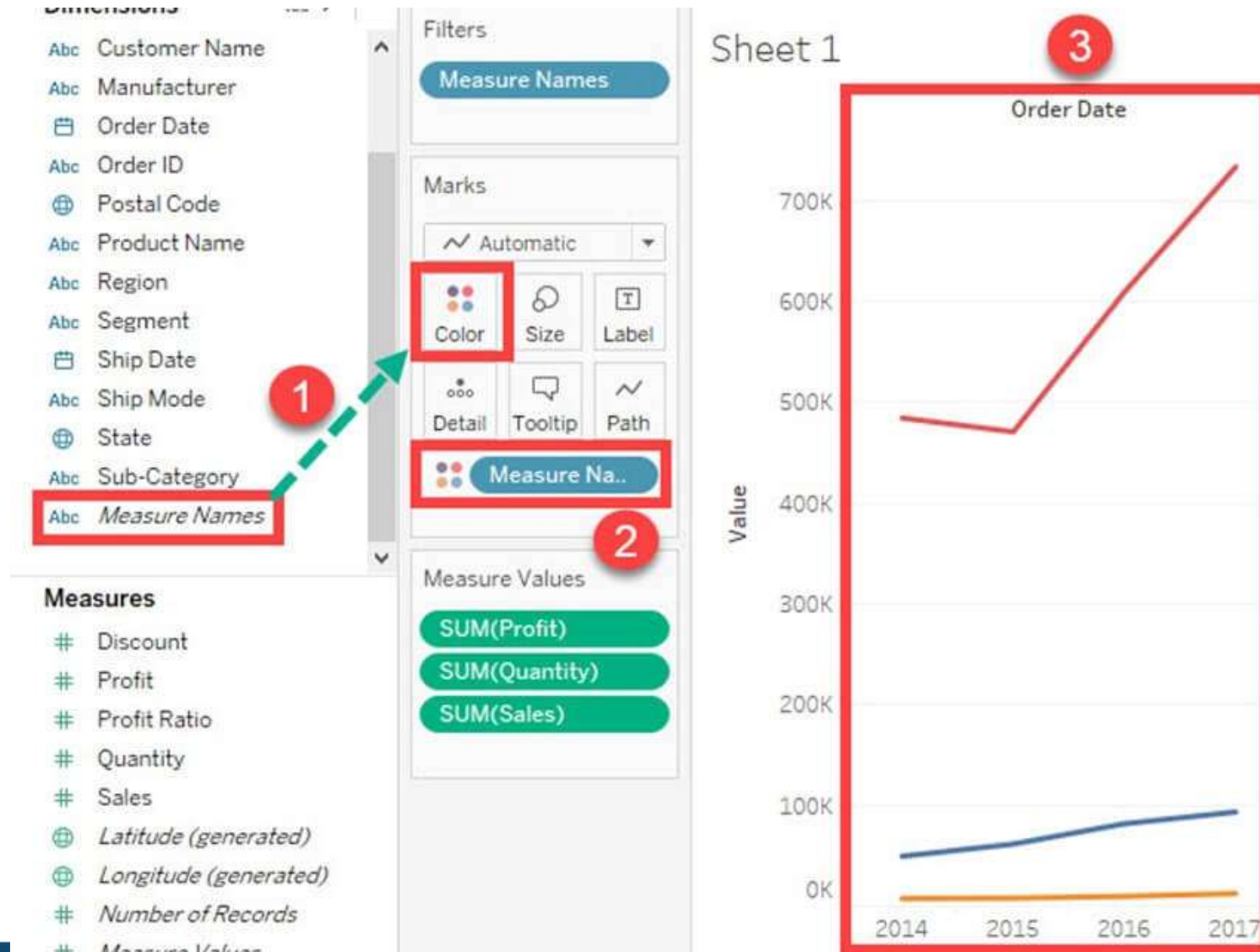
Drag measure values



Adding color

1. Drag Measure Names into 'Color' option present in the marks card.

2. It specifies different color to different measure names present in the visual.



Exercise

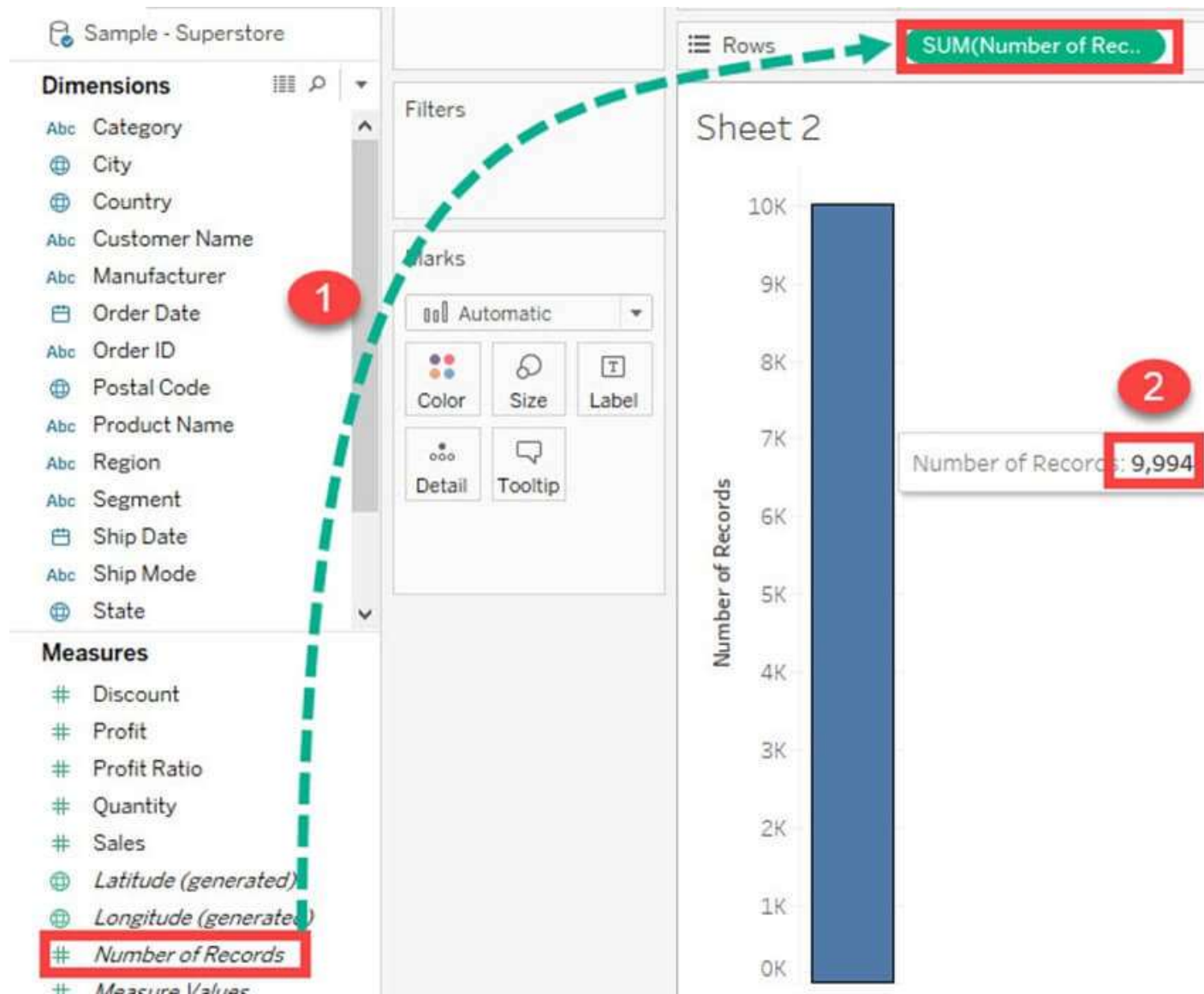
Using the global super store data available in moodle, see if you can arrive at the correct answers listed below each question

1. Which country is least profitable?
2. Which country is most profitable?
3. How much profit have we made in Japan?

Generated Fields

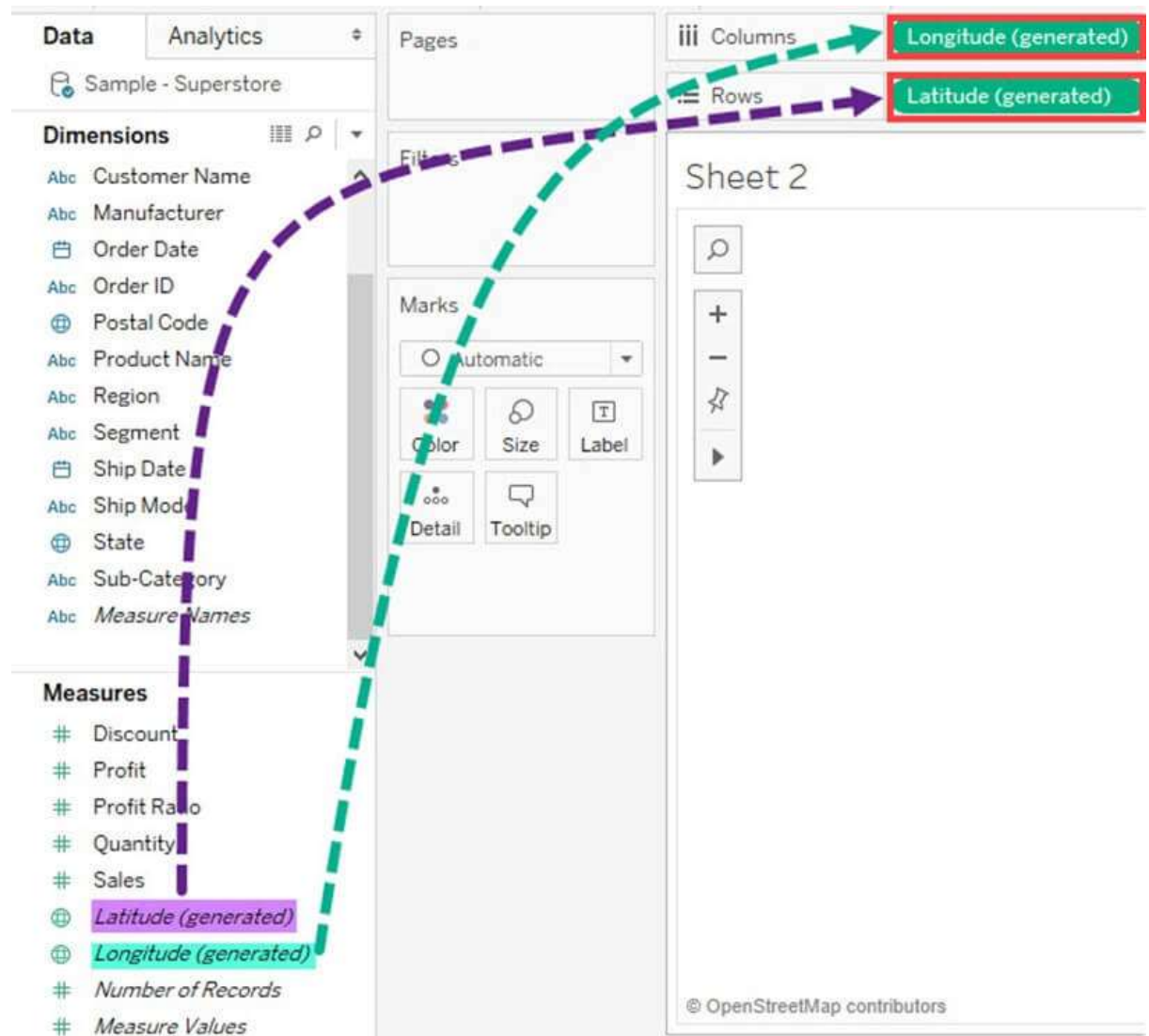
- Measure Names
- Measure Values
- Number of Records
- Longitude
- Latitude

Number of Records



Longitude and Latitude

- Longitude and Latitude (generated) fields are associated with the geographical detail present in the data.



Dimensions

- Abc Customer Name
- Abc Manufacturer
- Order Date
- Abc Order ID
- Postal Code
- Abc Product Name
- Abc Region
- Abc Segment
- Ship Date
- Abc Ship Mode
- State**
- Abc Sub-Category
- Abc Measure Names

Measures

- # Discount
- # Profit

Filters

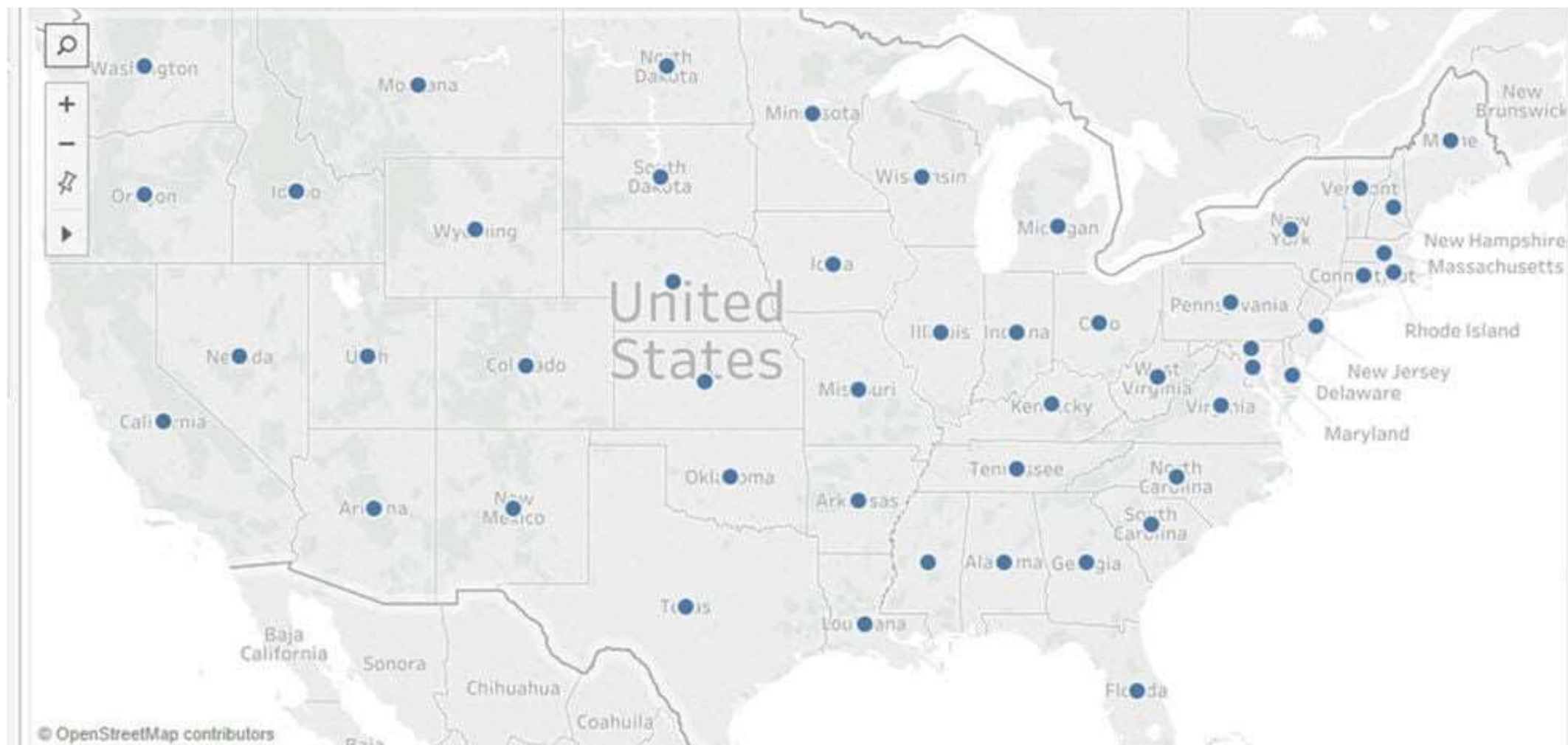
Marks

○ Automatic

Color Size Label

Detail Tooltip

State



https://public.tableau.com/views/DataVisualizationQuiz/DataVisualizationIQQuiz?%3Aembed=y&%3AshowVizHome=no&%3Adisplay_count=y&%3Adisplay_static_image=y

Summary

- Connect to a Data Source
- Choose the Dimensions and Measures
- Navigational features