



Chapter 4

TABLEAU Advanced

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Multiple Data Sources

Time Series Visualization

Visualizing GeoMap

Creating CALCULATED FIELDS

Aggregating Values

Device Specific Dashboard

Dynamic Dashboards

Multiple Data Sources in TABLEAU

You can load multiple data sources in TABLEAU. In **Data Source** tab, click on **ADD** under connections and chose the relevant data source. Once loaded, you can also connect multiple data sources by relative fields.

The screenshot shows the Tableau Desktop interface with the 'Sample - Superstore' workbook. The 'Connections' pane on the left lists two data sources: 'Sample - Superstore' (Microsoft Excel) and 'Orders' (Microsoft Excel). The 'Orders' source is selected. The 'Data Source' tab is active, showing a diagram where the 'Orders' source is connected to three other sources: 'People', 'Returns', and 'Sample - Superstore_Orde...'. The 'Orders' source is highlighted in the diagram. Below the diagram, the 'Orders' source is selected, showing 20 fields and 10194 rows. A table of data is displayed, showing columns for Order ID, Order Date, Ship Date, Ship Mode, Customer Name, Segment, and Country/Region. The 'Data Source' tab is highlighted in the bottom pane.

Connections Add

- Sample - Superstore (Microsoft Excel)
- Orders (Microsoft Excel)

Sheets

- Use Data Interpreter (Data Interpreter might be able to clean your Microsoft Excel workbook.)
- Orders
- People
- Returns
- People
- Returns
- New Union
- New Table Extension

Sample - Superstore

Connection: ☒ Live ☐ Extract Filters: 0 Add

Orders

People

Returns

Sample - Superstore_Orde...

Orders 20 fields 10194 rows 100 rows

Name	Order ID	Order Date	Ship Date	Ship Mode	Customer Name	Segment	Country/Region
Orders	US-2019-103800	1/3/2019	1/7/2019	Standard Class	Darren Powers	Consumer	United States
Orders	US-2019-112326	1/4/2019	1/8/2019	Standard Class	Phillina Ober	Home Office	United States
Orders	US-2019-112326	1/4/2019	1/8/2019	Standard Class	Phillina Ober	Home Office	United States
Orders	US-2019-112326	1/4/2019	1/8/2019	Standard Class	Phillina Ober	Home Office	United States
Orders	US-2019-141817	1/5/2019	1/12/2019	Standard Class	Mick Brown	Consumer	United States
Orders	US-2019-167199	1/6/2019	1/10/2019	Standard Class	Maria Etezadi	Home Office	United States

Data Source Regional Sales Regional Segment Sales Regional Map of Sales Monthly Sales Dashboard 1 Dashboard 1 (2) Sheet 5 Calculated F Geo map

TABLEAU Time Series Visuals

TABLEAU allows you to use hierarchies. You can have details of time series data using TABLEAU. You can drill down to quarter, month, week or day level as per your requirement.



TABLEAU Calculated Fields

Under the **ANALYSIS** Menu, you can find **CREAT CALCULATED FIELD**. This function allows to use multiple built in and customized formulas. The Window also give you description and syntax suggestions. Calculated fields data types are normally shown with '=' sign as shown in red below

The screenshot displays the Tableau interface with the 'Data' pane on the left, the 'Columns' shelf containing 'Region' and 'AGG(Practice)', and the 'Rows' shelf. The 'Marks' card is set to 'Automatic'. A 'Calculated F' table is shown in the center, listing 'Region', 'Practice', and 'Sales' values. A red box highlights the 'Practice' field in the 'Columns' shelf, showing the formula `SUM([Sales]) < 400000`. Another red box highlights the 'Measure Names' field in the 'Columns' shelf, showing the formula `Calculation1`. A third red box highlights the 'Practice' field in the 'Columns' shelf, showing the formula `Practice`. A fourth red box highlights the 'Profit Ratio' field in the 'Columns' shelf, showing the formula `Profit Ratio`. A fifth red box highlights the 'Practice' field in the 'Columns' shelf, showing the formula `Practice`. A sixth red box highlights the 'Profit Ratio' field in the 'Columns' shelf, showing the formula `Profit Ratio`. A seventh red box highlights the 'Practice' field in the 'Columns' shelf, showing the formula `Practice`. An eighth red box highlights the 'Profit Ratio' field in the 'Columns' shelf, showing the formula `Profit Ratio`. A ninth red box highlights the 'Practice' field in the 'Columns' shelf, showing the formula `Practice`. A tenth red box highlights the 'Profit Ratio' field in the 'Columns' shelf, showing the formula `Profit Ratio`.

Region	Practice	Sales
Central	False	503,171
East	False	691,828
South	True	391,722
West	False	739,814

Calculated F

Practice

`SUM([Sales]) < 400000`

Measure Names

`Calculation1`

`Practice`

`Profit Ratio`

1 Dependency

Apply OK

AVG (expression)

Returns the average of all the values in the expression. AVG can be used with numeric fields only. Null values are ignored.

Example: `AVG([Profit])`

Search

ACOS

AND

AREA

ASCII

ASIN

ATAN

ATAN2

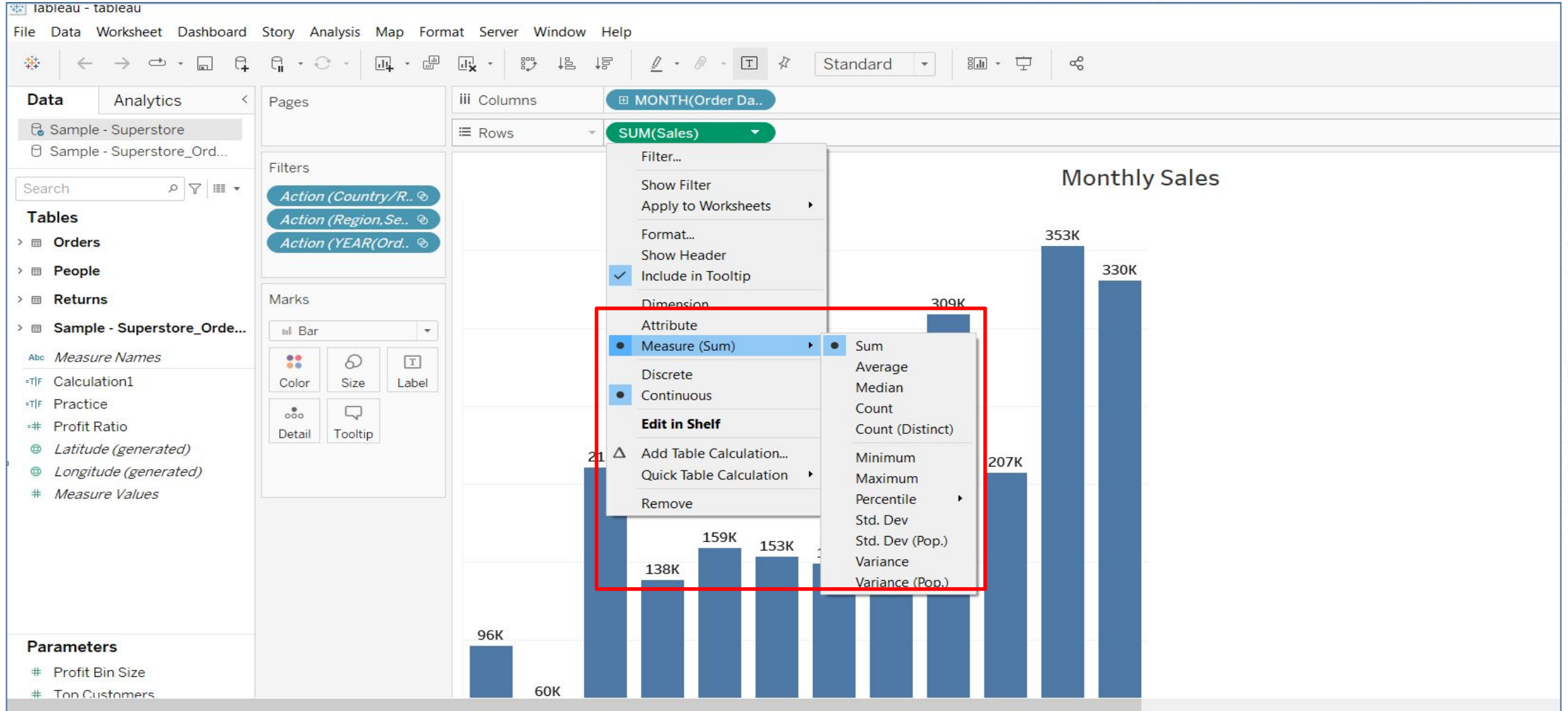
ATTR

AVG

RUFFER

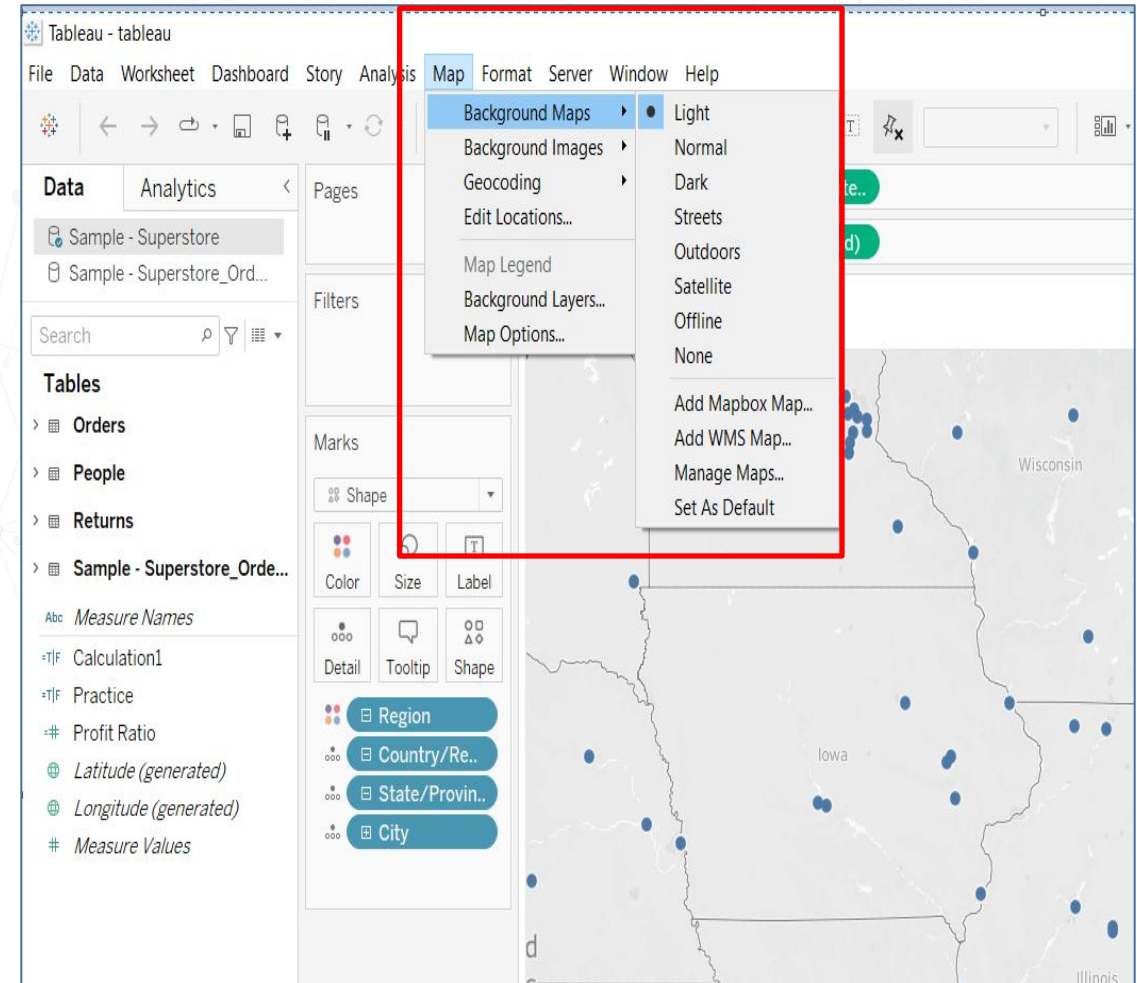
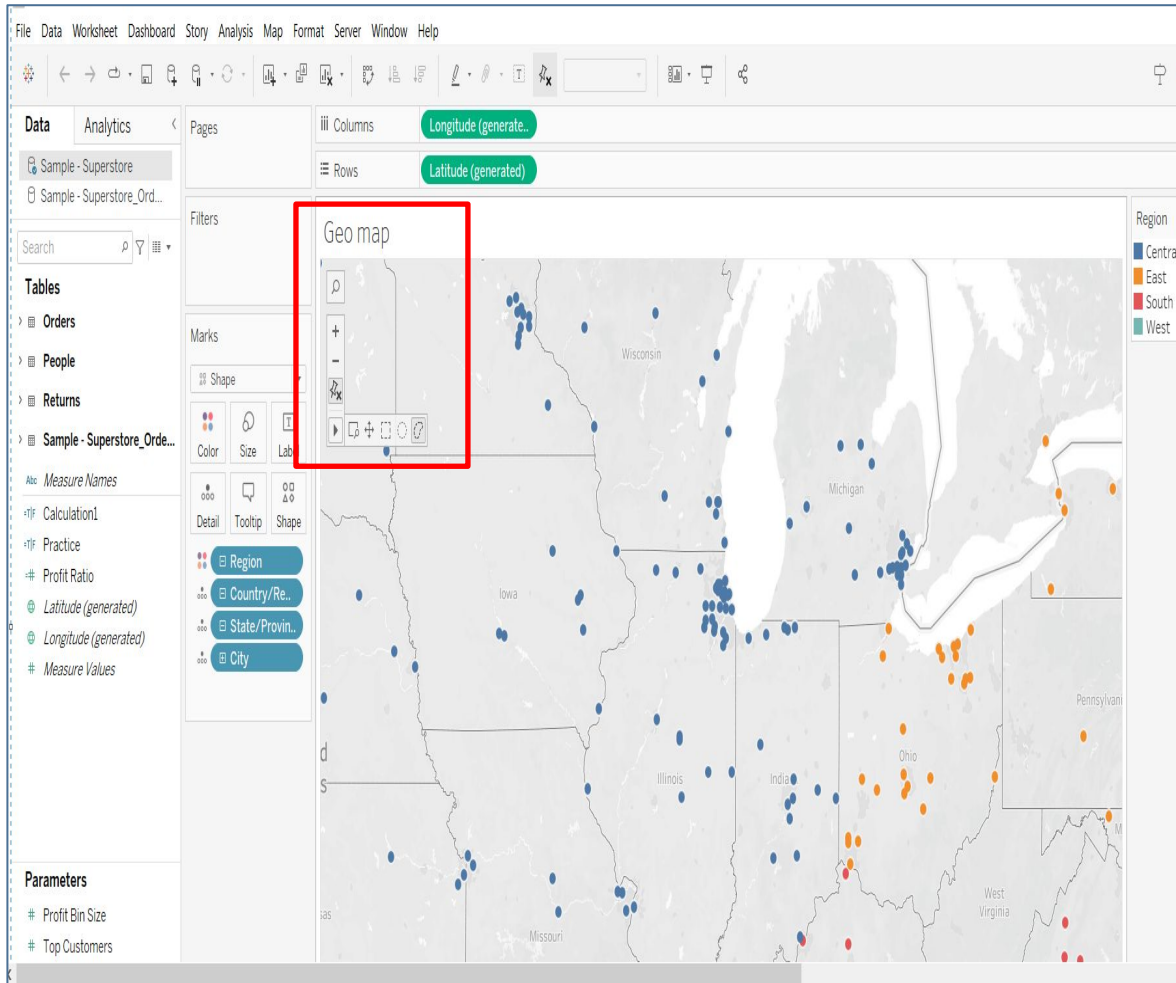
Data Aggregation in TABLEAU

Under the **ANALYSIS** Menu, you can find **Aggregate Measures**. This function enables to aggregate data. Aggregation can be done as SUM, COUNT, DISTINCT COUNT, MAX, MIN, AVERAGE etc. You can find these options by clicking on drop down of **measures** (colored in green)



Geo Map Visual in TABLEAU

*We can have customized maps and views in TABLEAU. You can always change map background under **MAP** Menu. Within a visual, you have option to zoom in/out, selected radius, polygon or customized selection.*



Device Specific Dashboard

DEVICE PREVIEW button enables another tool bar where you can make selection of device type. You can switch devices and TABLEAU will give you preview. You can always make customized changes after adding the desired layout (TABLET, PHONE, DEKSTOP)

The screenshot shows the Tableau Desktop interface with a dashboard titled "Practice TABLEAU Dashboard" in Device Preview mode for a Tablet. The interface includes a menu bar, a toolbar, and a sidebar with various options. The dashboard content is as follows:

Regional Segment Sales

Segment	Central	East	South	West
Consumer	253,962	357,142	195,581	363,975
Corporate	157,996	203,577	121,886	232,348
Home Office	91,213	131,110	74,255	143,491

Regional Map of Sales

A map of the United States showing sales data points. © 2022 Mapbox © OpenStreetMap

Monthly Sales

Month	Sales (K)
January	96K
February	60K
March	211K
April	138K
May	159K
June	153K
July	149K
August	162K
September	309K
October	207K
November	353K
December	330K

Regional Sales

Year	Region 1 (K)	Region 2 (K)	Region 3 (K)	Region 4 (K)
2022	148K	217K	123K	258K
2021	149K	183K	94K	189K
2019	104K	135K	104K	151K
2020	103K	157K	142K	142K

Interactive Dashboards

To make visuals interactive with each other, we have to allow visuals to be used as filters. You can enable this function by clicking on funnel like icon as shown in visual below. Once this funnel is active, this means this visual is set to be interactive. .

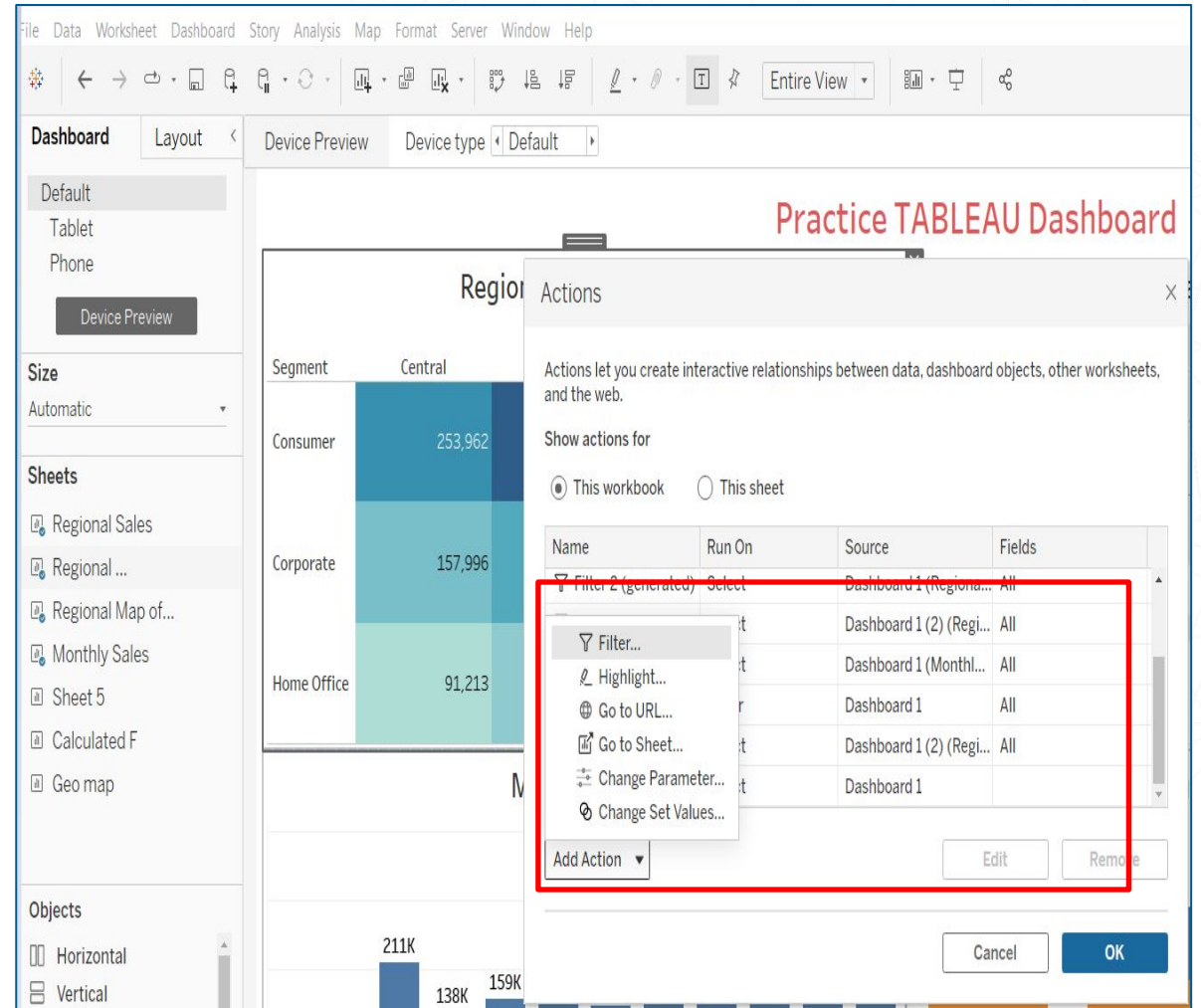
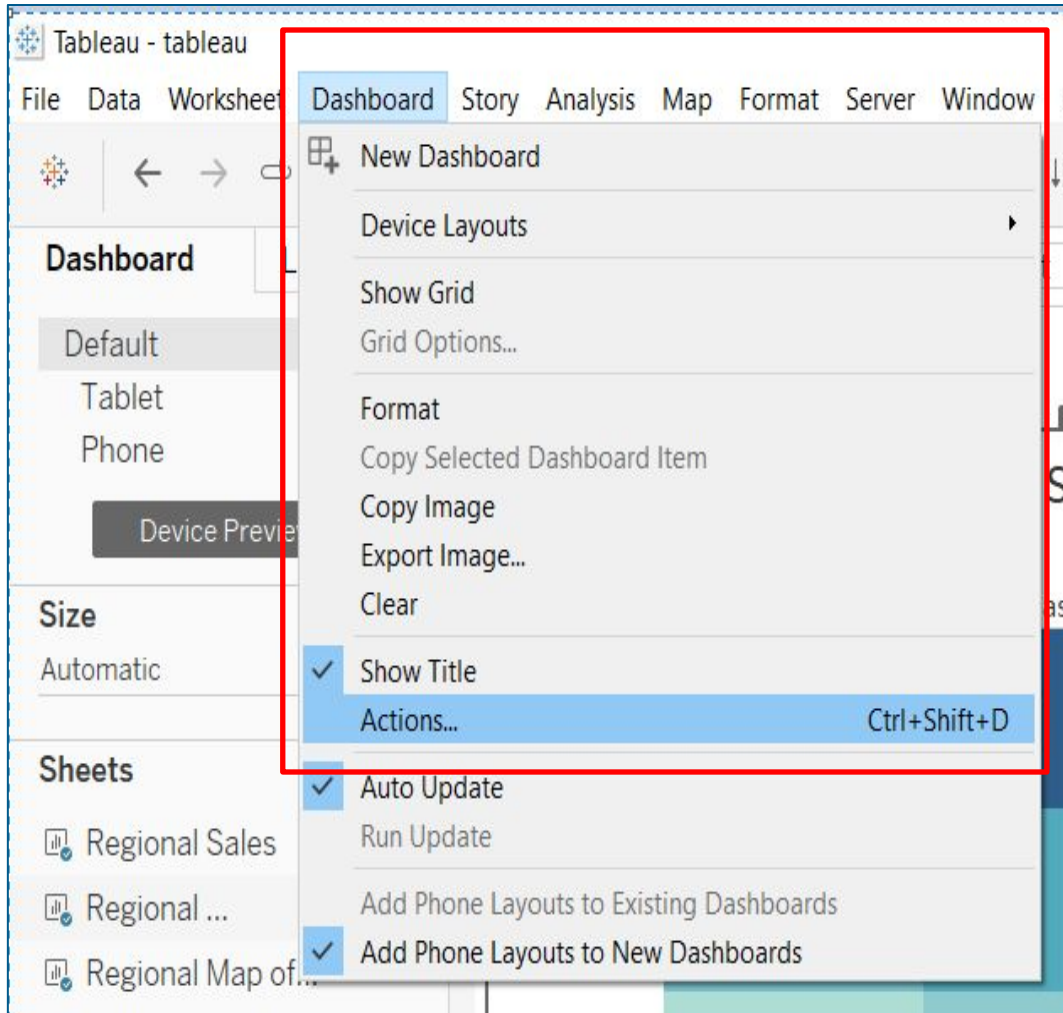
The screenshot shows the Tableau Desktop interface. The main view is a table titled 'Regional Segment Sales'. The table has columns for 'Segment' and 'Region' (Central, East, South, West). The rows represent different segments: Consumer, Corporate, and Home Office. The values are displayed in a heatmap format. A red box highlights the 'Use as Filter' icon (funnel) in the top right corner of the table.

Regional Segment Sales

Segment	Central	East	South	West
Consumer	253,962	357,142	195,581	363,975
Corporate	157,996	203,577	121,886	232,348
Home Office	91,213	131,110	74,255	143,491

Dynamic DASHBOARD using ACTIONS

Under **DASHBOARD** menu, you can find **ACTIONS**. In **ACTIONS**, you can configure if you want to make specific **HIGHLIGHT** or any other actions mentioned in below right snap. This configuration will also make your dashboard interactive.



Final Tips

Know your Purpose and Audience

Most viewed spot is left top corner. Keep important visual there.

Avoid too many visuals/clutter in dashboard.

Use appropriate color theme and font sizes

Make visuals interactive

Its good to use HIGHLIGHT Action

Keep dashboard spacious

Use contrast of colors to make visual attractive



`</talentlabs >`

Thank you