

DATA ANALYTICS

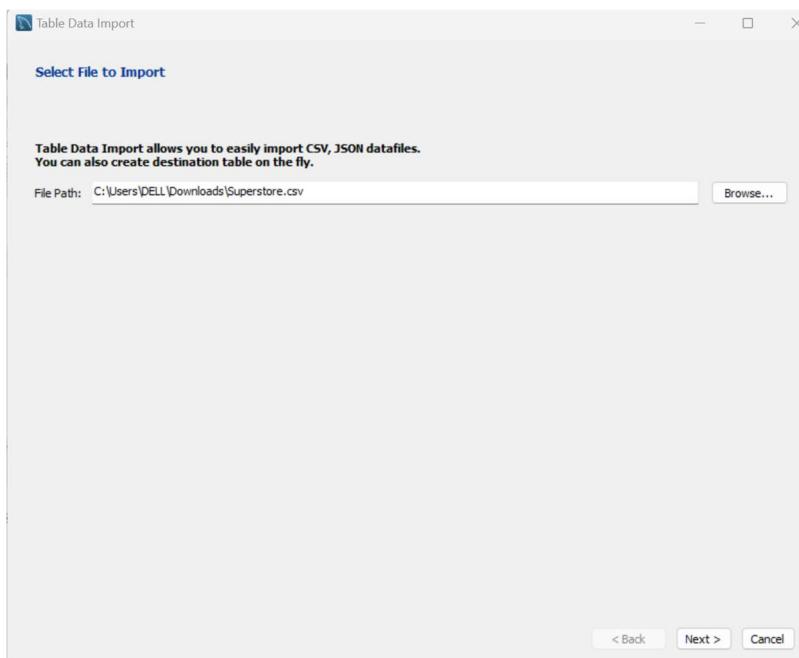
ASSIGNMENT-2

SUBMITTED BY
20BCT0285
JALLIPALLI LAKSHMI SUSMITHA JAYASRI

Step-1: Open Tableau and MySQL workbench

The image displays two side-by-side screenshots of data management software. On the left is the Tableau interface, showing a 'Connect' sidebar with options like 'Search for Data', 'Tableau Server', 'To a File' (Microsoft Excel, Text file, JSON file, Microsoft Access, PDF file, Spatial file, Statistical file, More...), and 'To a Server' (Microsoft SQL Server, Oracle, Amazon Redshift, MySQL, More...). The main area shows 'Open' and 'Discover' sections, with 'Discover' containing links to 'Training' (View all 87 training videos) and 'Resources' (Get Tableau Prep, Tableau Blueprint Assessment, Tableau Community Forums, Tableau Accelerators, Blog - Read latest post). On the right is the MySQL Workbench interface, featuring a dark sidebar with icons for Home, Database, Tools, Scripting, and Help. The main area has a large 'Welcome to MySQL Workbench' heading. Below it is a description of MySQL Workbench's features: 'MySQL Workbench is the official graphical user interface (GUI) tool for MySQL. It allows you to design, create and browse your database schemas, work with database objects and insert data as well as design and run SQL queries to work with stored data. You can also migrate schemas and data from other database vendors to your MySQL database.' At the bottom of the MySQL window, there are links to 'Browse Documentation >', 'Read the Blog >', and 'Discuss on the Forums >'. The MySQL sidebar also lists 'MySQL Connections' with a local instance named 'wampmysqld64'.

Step-2: Connect to MYSQL and create schema and upload dataset (sales_superstore)



The screenshot shows the MySQL Workbench interface. The 'Navigator' pane on the left shows the 'sales' schema with its tables, including 'us superstore data'. The 'SQL File 3' tab in the center contains the following SQL code:

```
1 • use sales;
2 • select * from `us superstore data`;
```

The 'Result Grid' below displays the data from the 'us superstore data' table:

Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name	Segment	Country
349	CA-2017-134306	08-07-2017	12-07-2017	Standard Class	TD-20995	Tamara Dahlén	Consumer	United States
350	CA-2016-129714	01-09-2016	03-09-2016	First Class	AB-10060	Adam Bellavance	Home Off...	United States
351	CA-2016-129714	01-09-2016	03-09-2016	First Class	AB-10060	Adam Bellavance	Home Off...	United States

The 'Information' pane on the left shows details for the 'us superstore data' table, including its columns: Row ID, Order ID, Order Date, Ship Date, Ship Mode, and Customer. The 'Output' pane at the bottom shows the execution history:

#	Time	Action	Message	Duration / Fetch
1	13:06:31	use sales	0 row(s) affected	0.000 sec
2	13:06:31	select * from `us superstore data` LIMIT 0, 1000	341 row(s) returned	0.000 sec / 0.000 sec

Step-3: Now connect Tableau to MYSQL Server

MySQL X

General Initial SQL

Server
localhost

Port
3306

Database
sales

Username
root

Password
.....

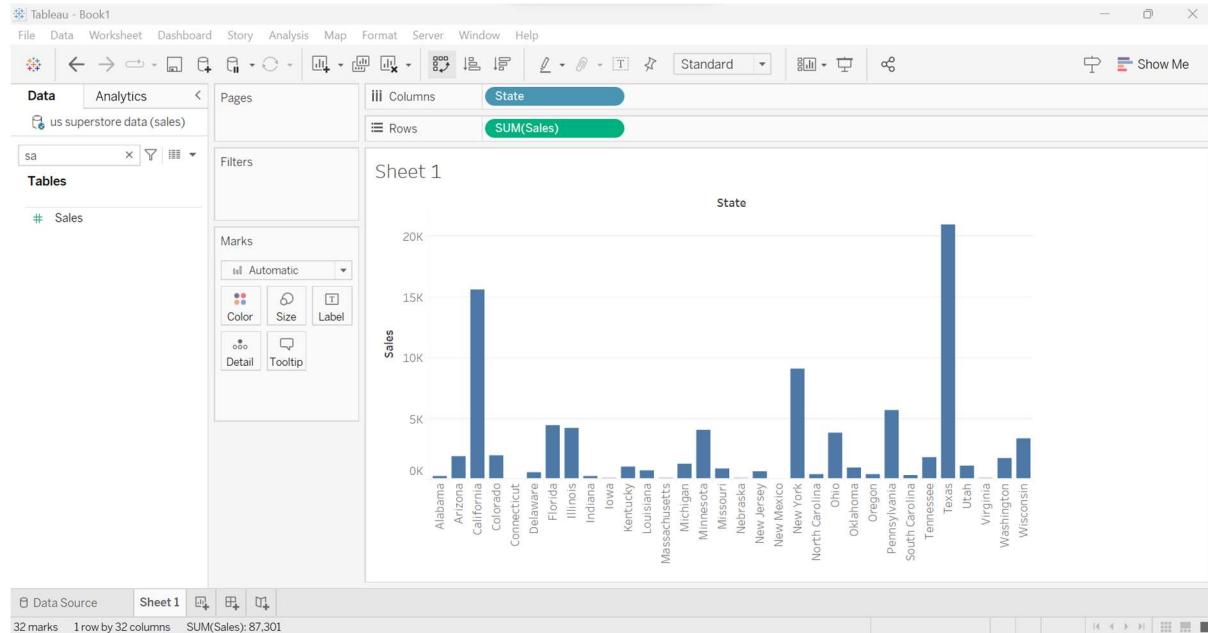
Require SSL

Sign In

QUESTION-1:

Create any 7 visualizations/charts and perform the following

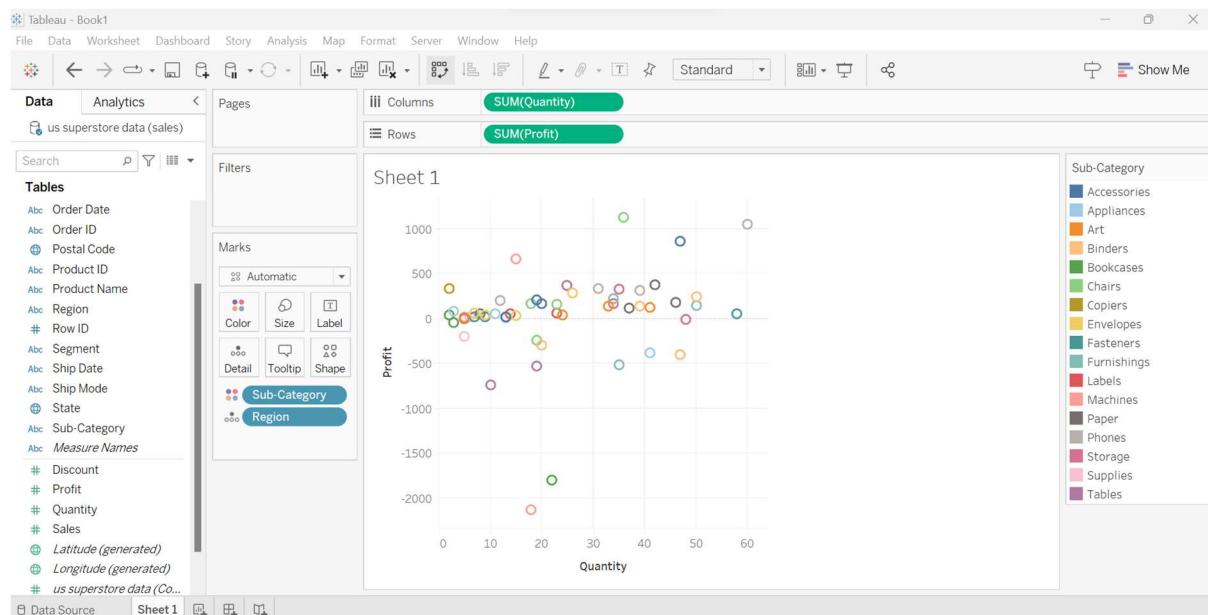
1) Bar-chart (State vs Sales)



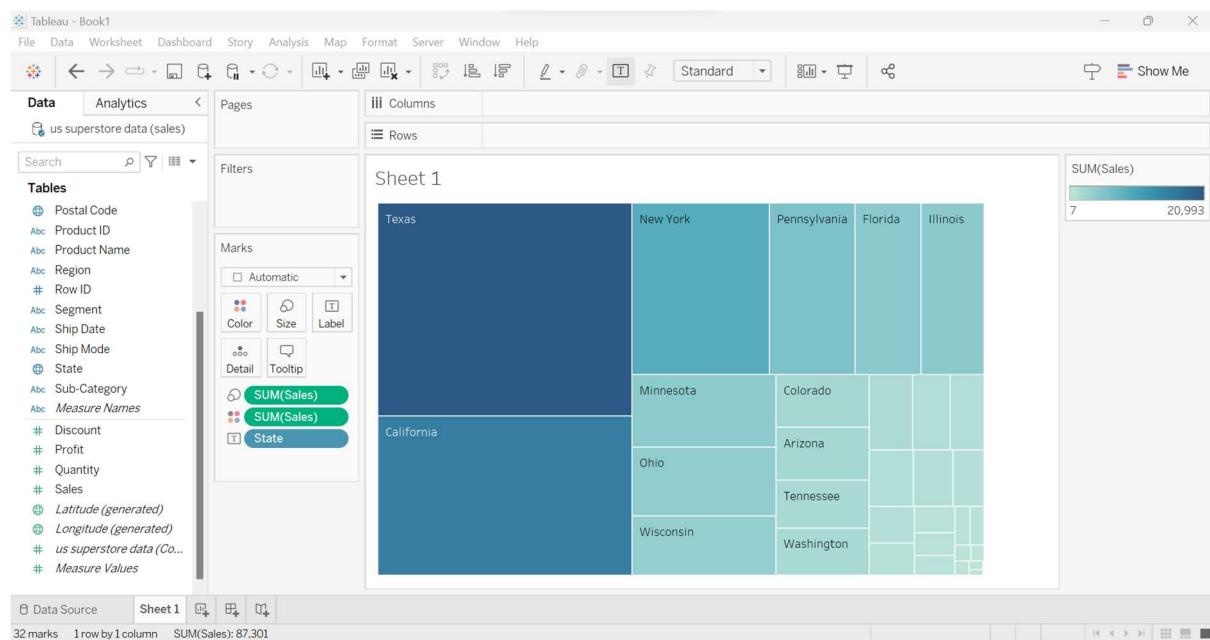
2) Scatterplot (Quantity vs profit)

Sub-Category – color mark

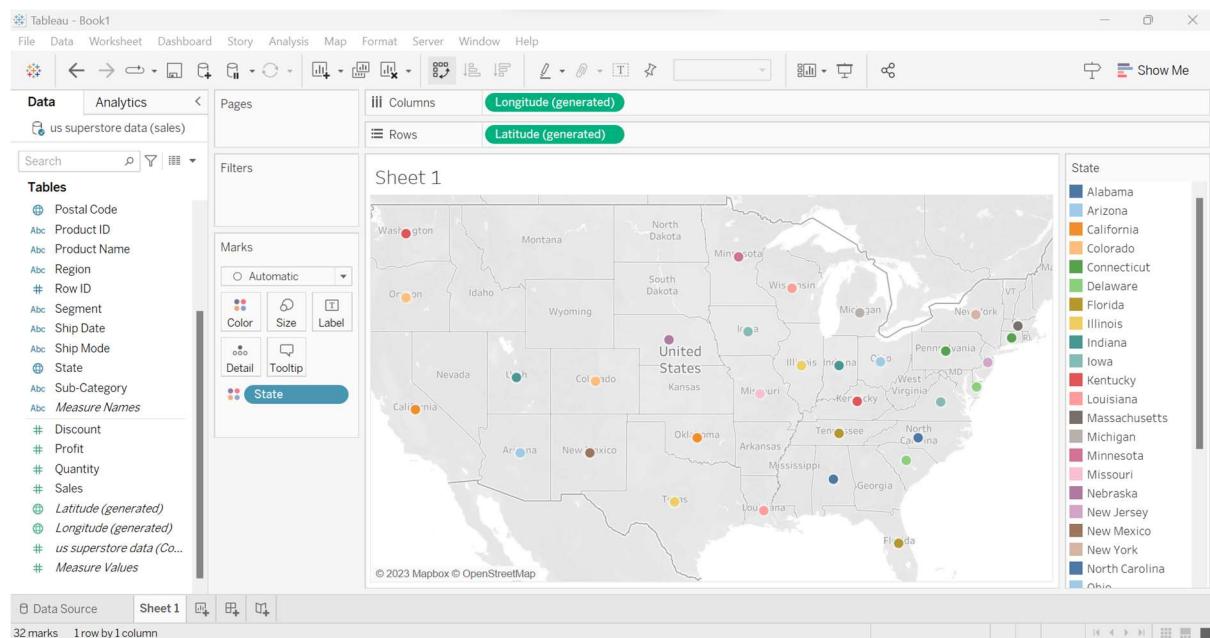
Region – Detail mark



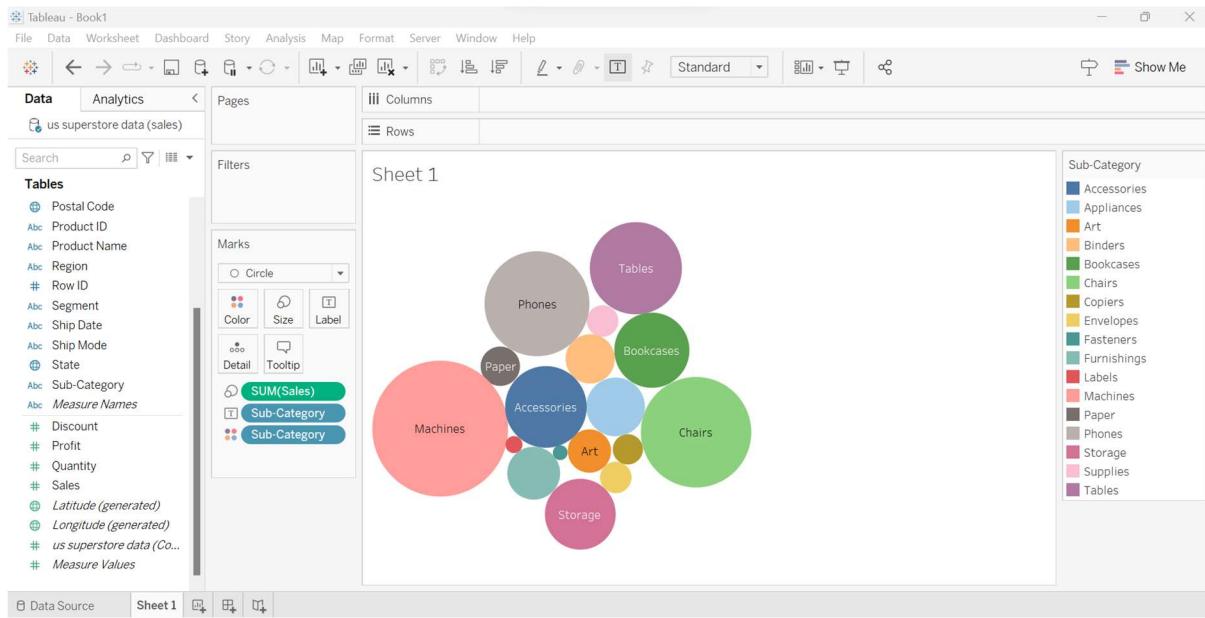
3) Treemap (Sales vs Sub-category)



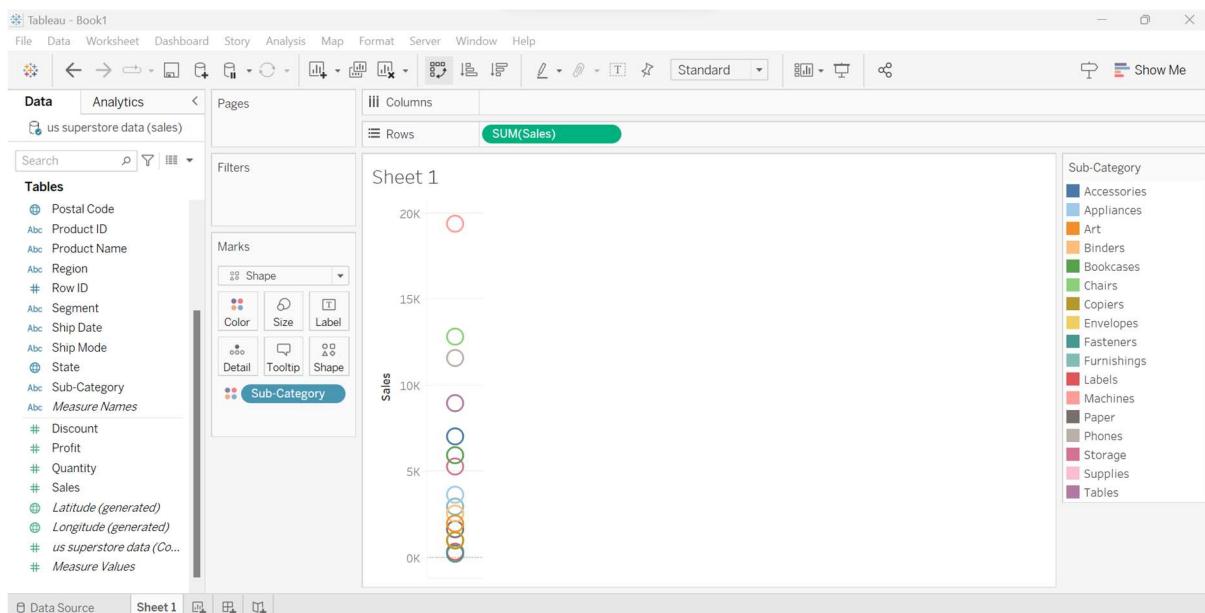
4) Map



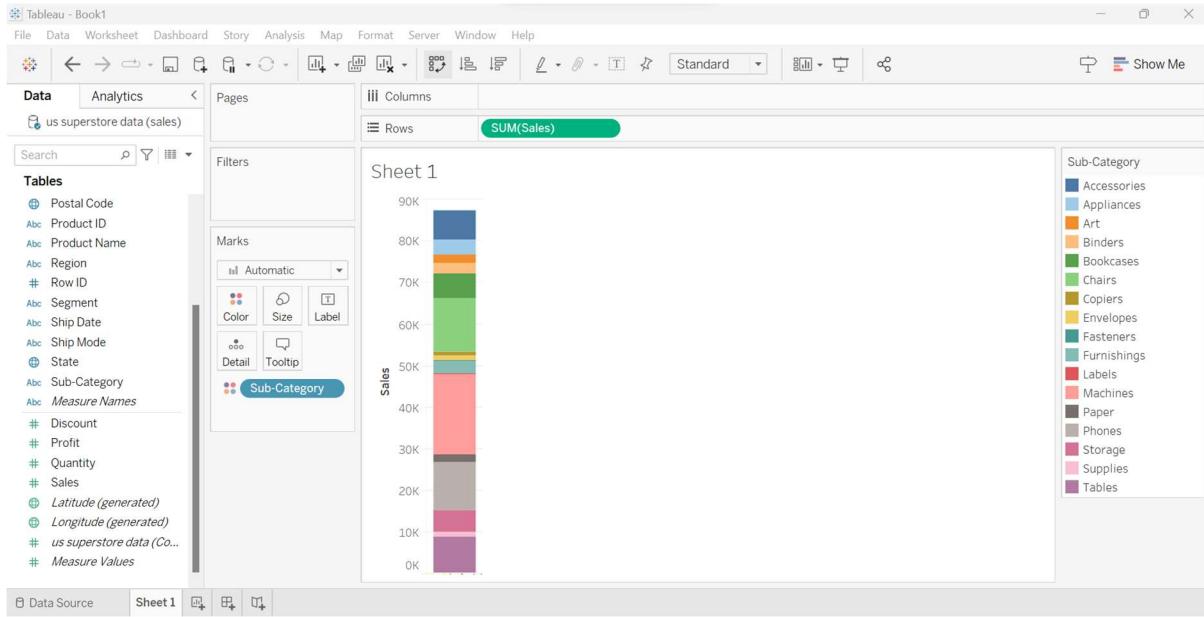
5) Bubblechart (Subcategory vs Sales)



6) Circle views of sales with color mark(subcategory)



7) Stacked bars of sales with color mark(sub category)



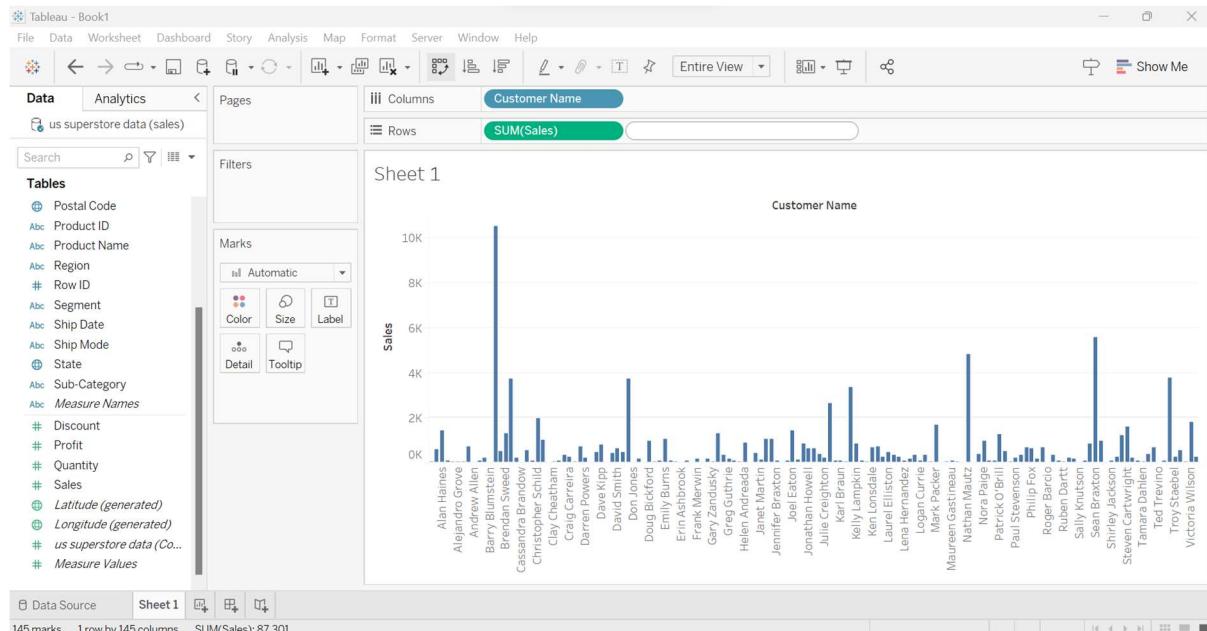
QUESTION-2

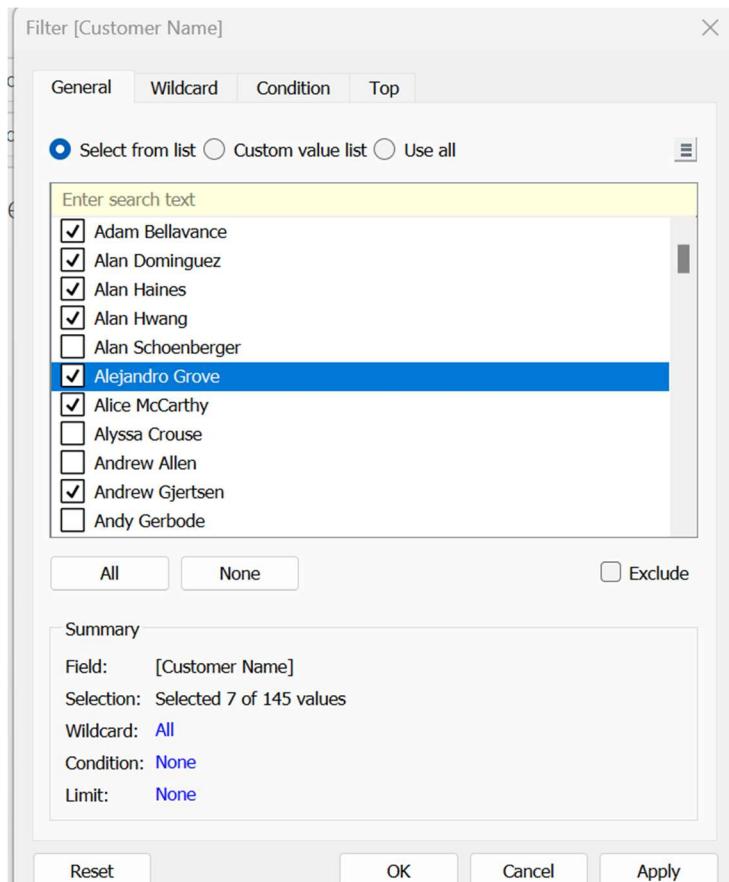
Apply dimension filter, measure filter and context filters on any of 3 filters

DIMENSION FILTER

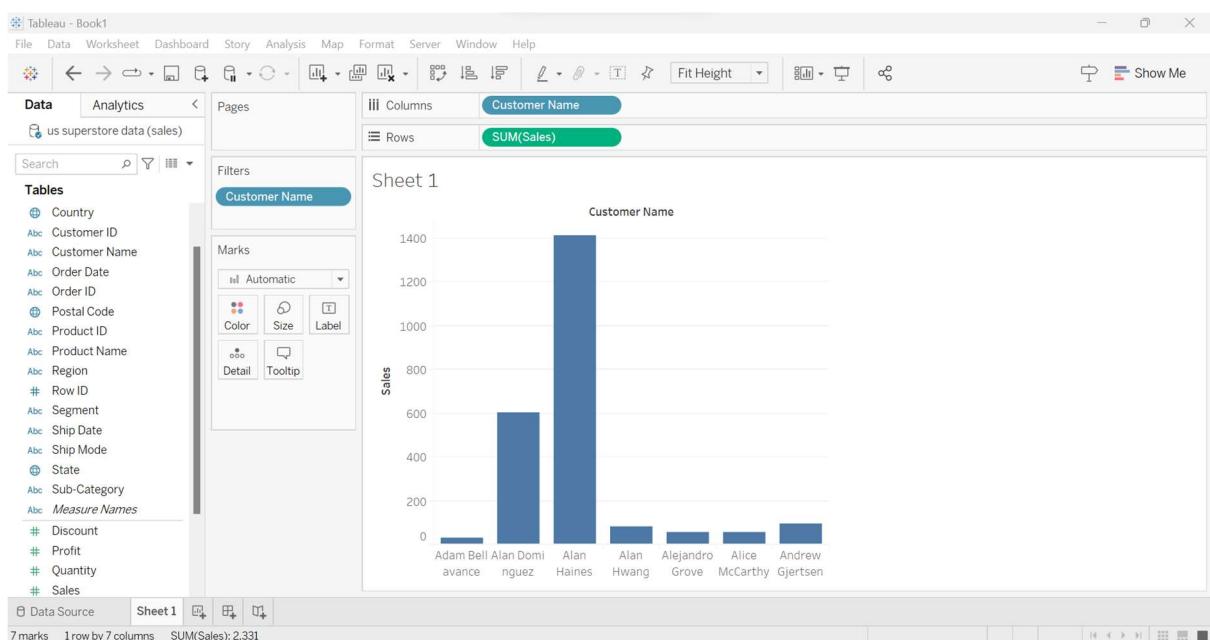
1) BAR CHART (CUSTOMER NAME VS SALES)

Before applying dimension filter



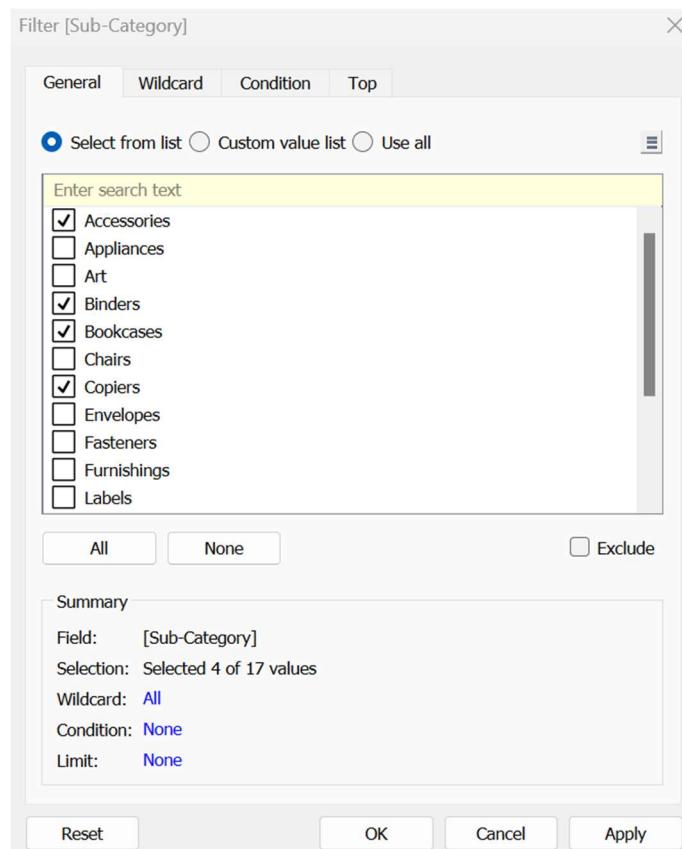
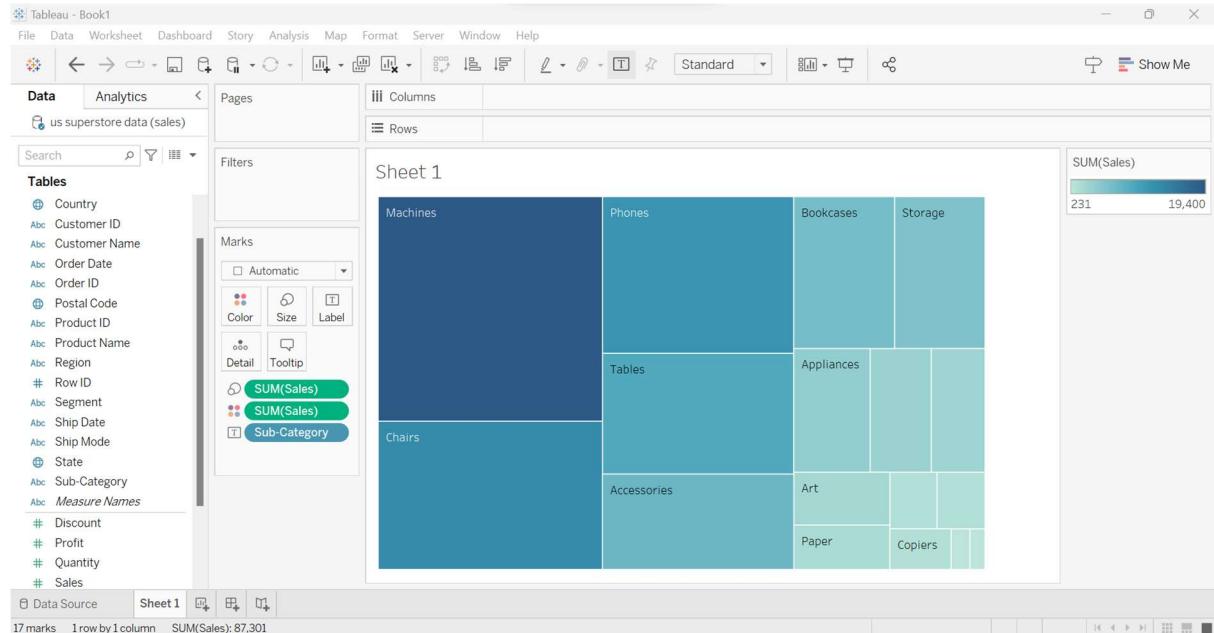


After applying dimension filter

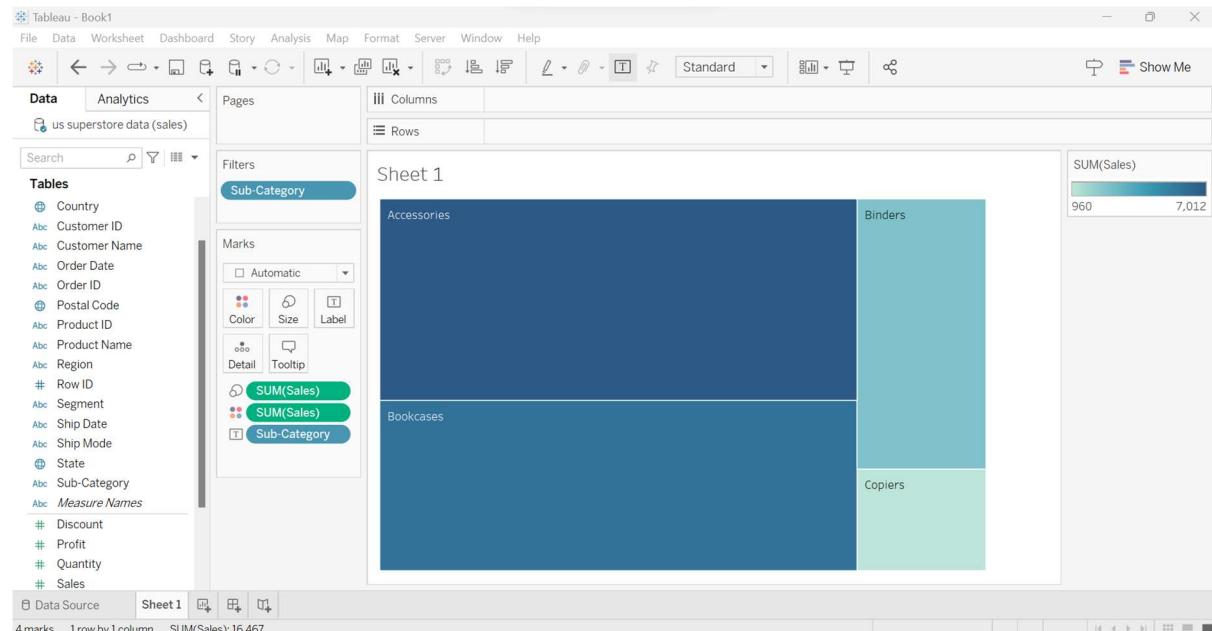


2) TREEMAP (SUBCATEGORY VS SALES)

Before applying dimension filter

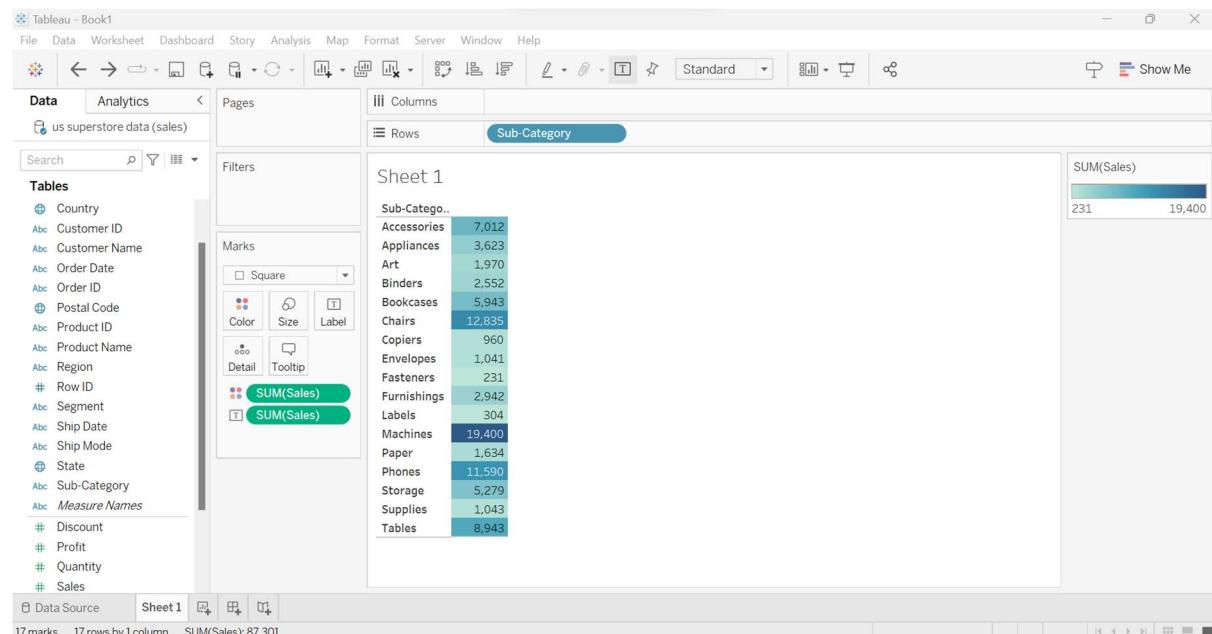


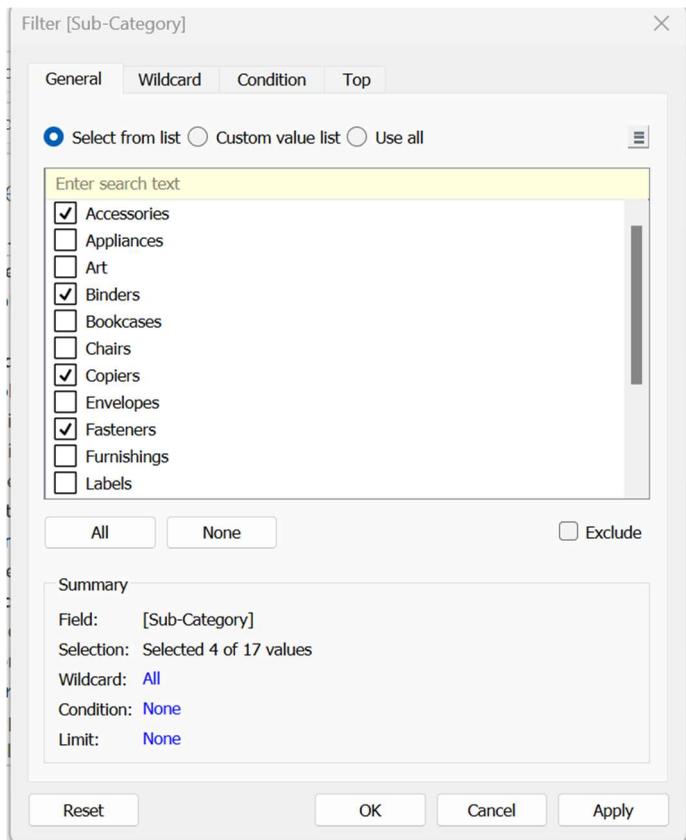
After applying dimension filter



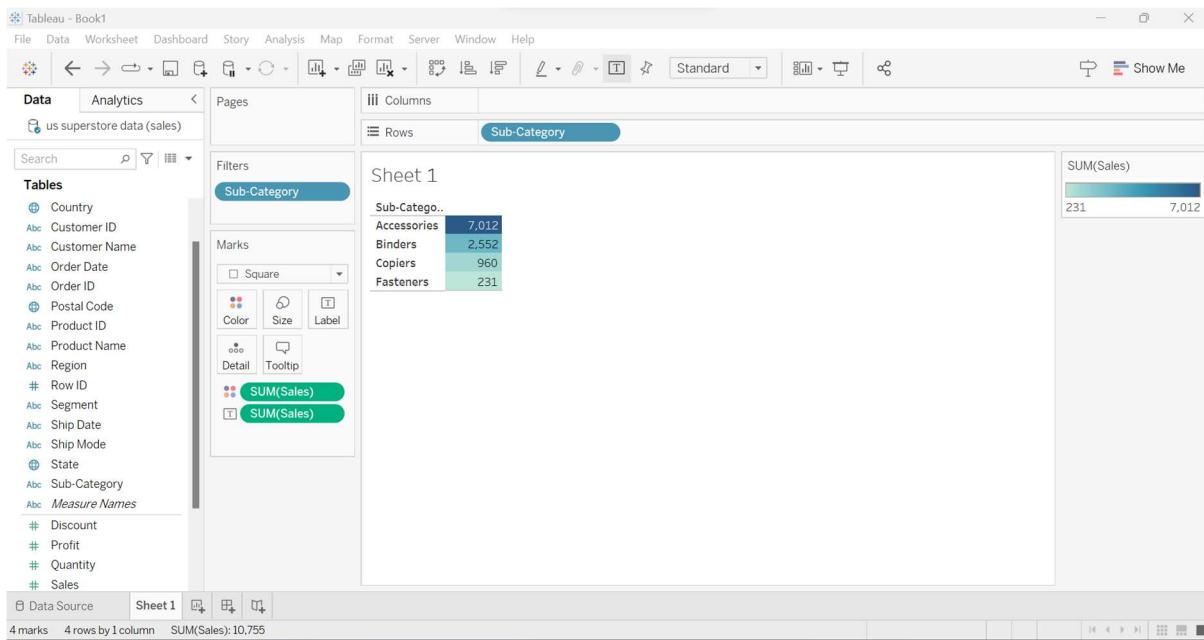
3) HIGHLIGHT TABLE (SUBCATEGORY VS SALES)

Before applying dimension filter





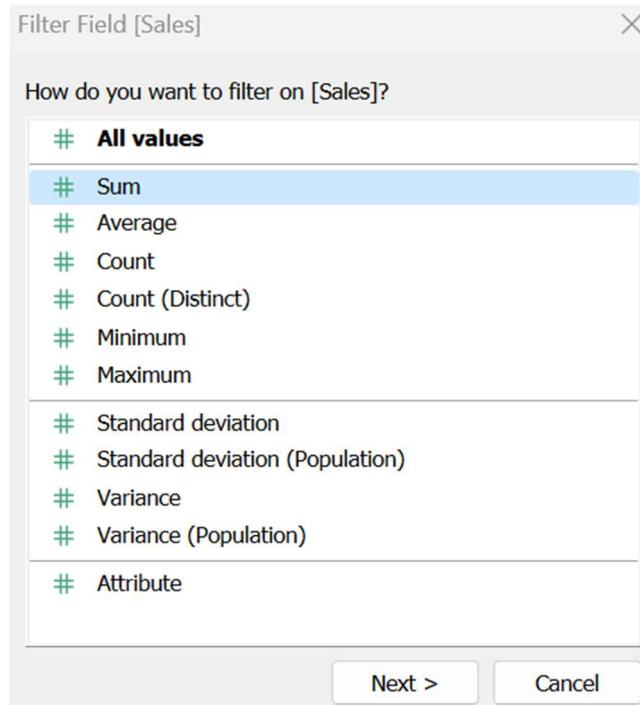
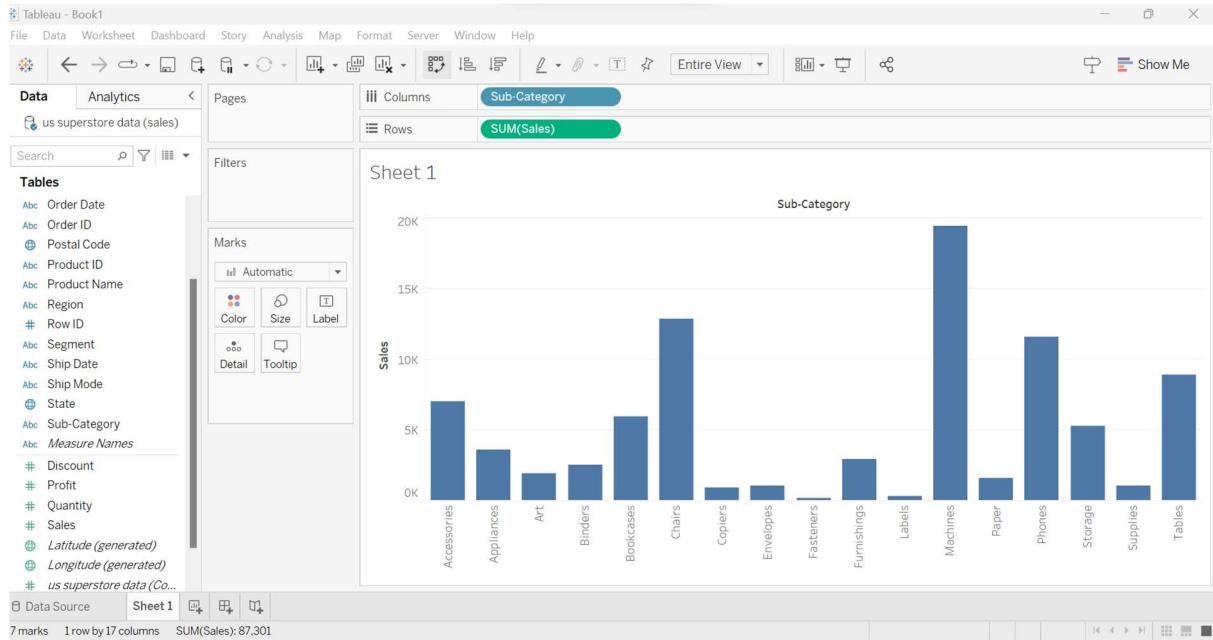
After applying dimension filter

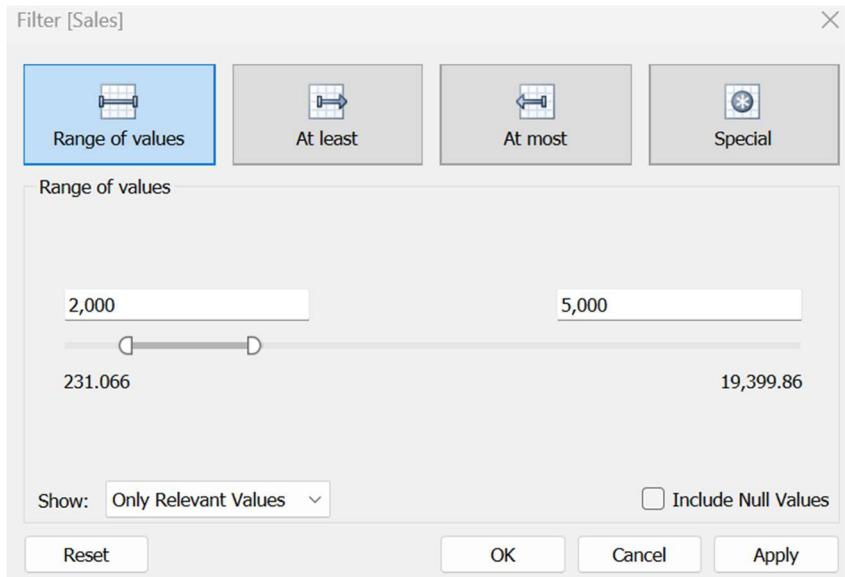


B) MEASURE FILTER

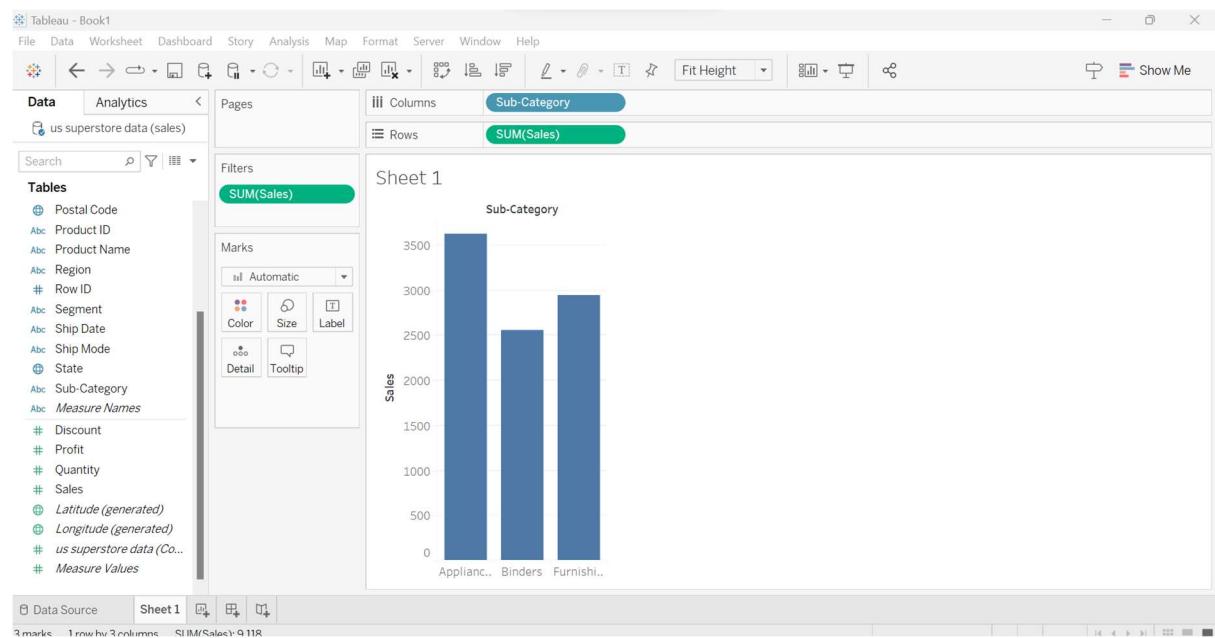
1) BAR CHART (SUBCATEGORY VS SALES)

Before applying measure filter



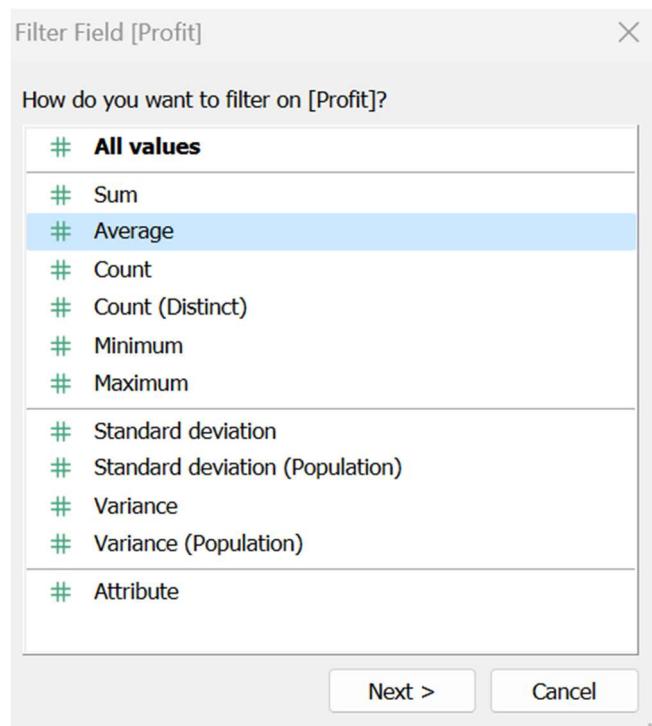
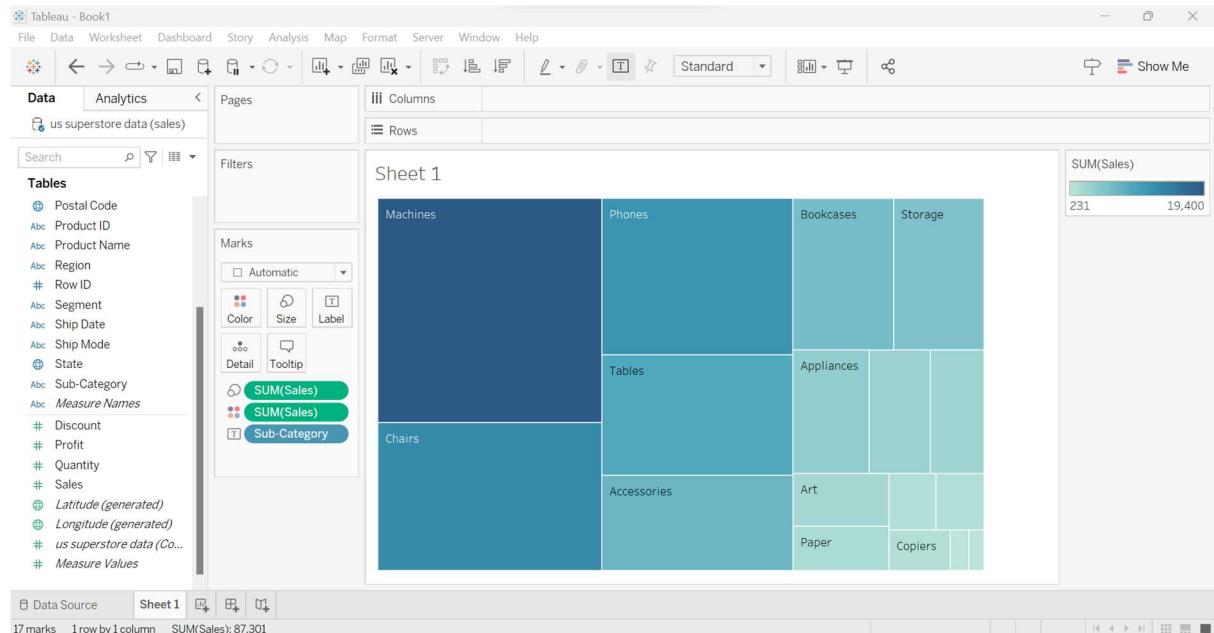


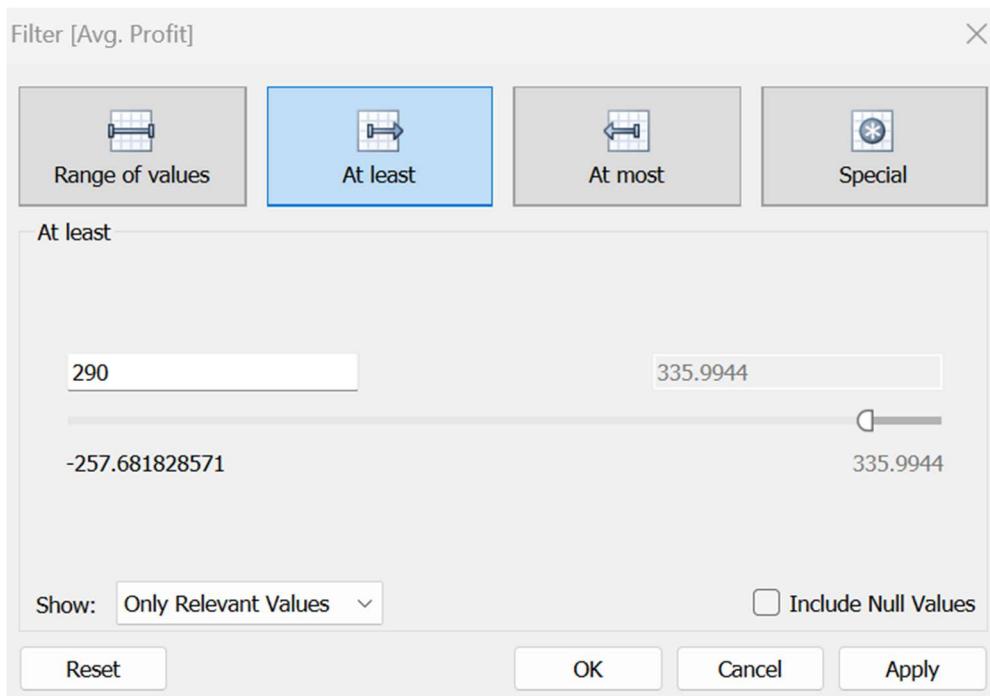
After applying measure filter



2) TREEMAP (SUBCATEGORY VS SALES)

Before applying measure filter

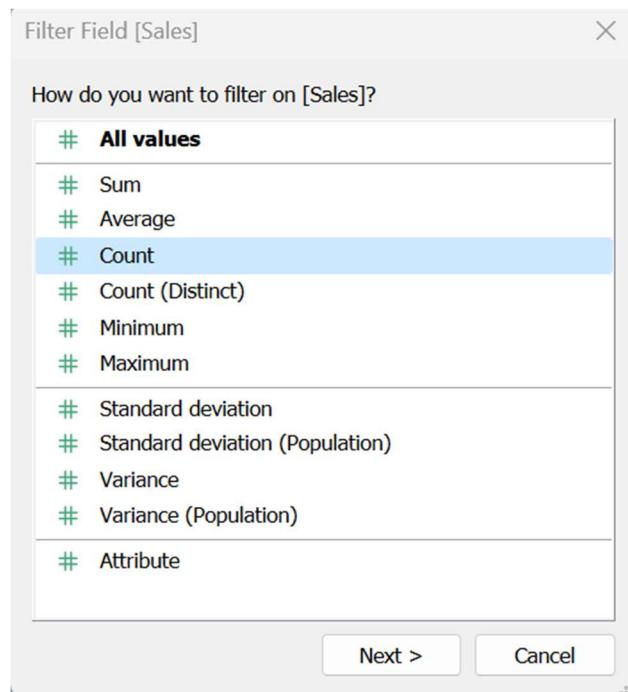
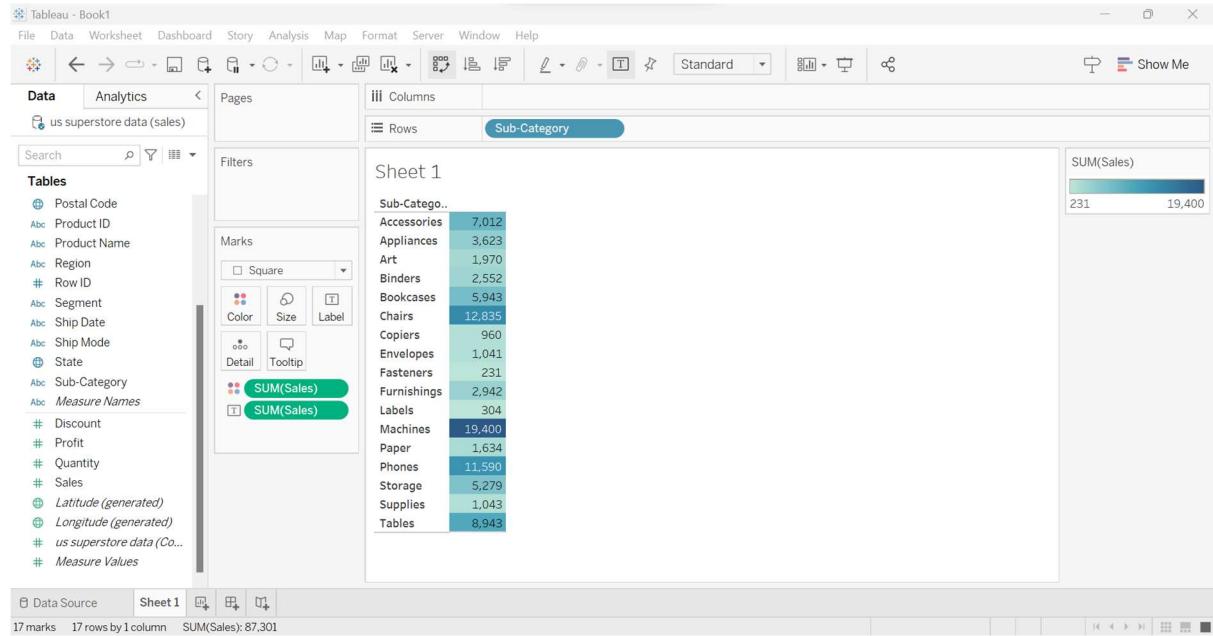


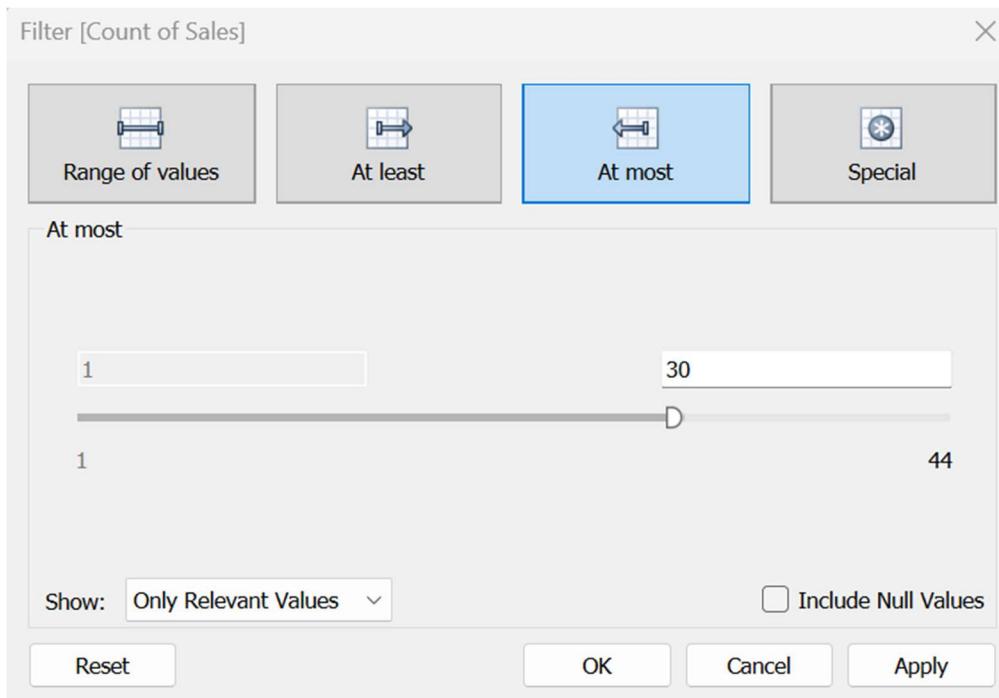


After applying measure filter

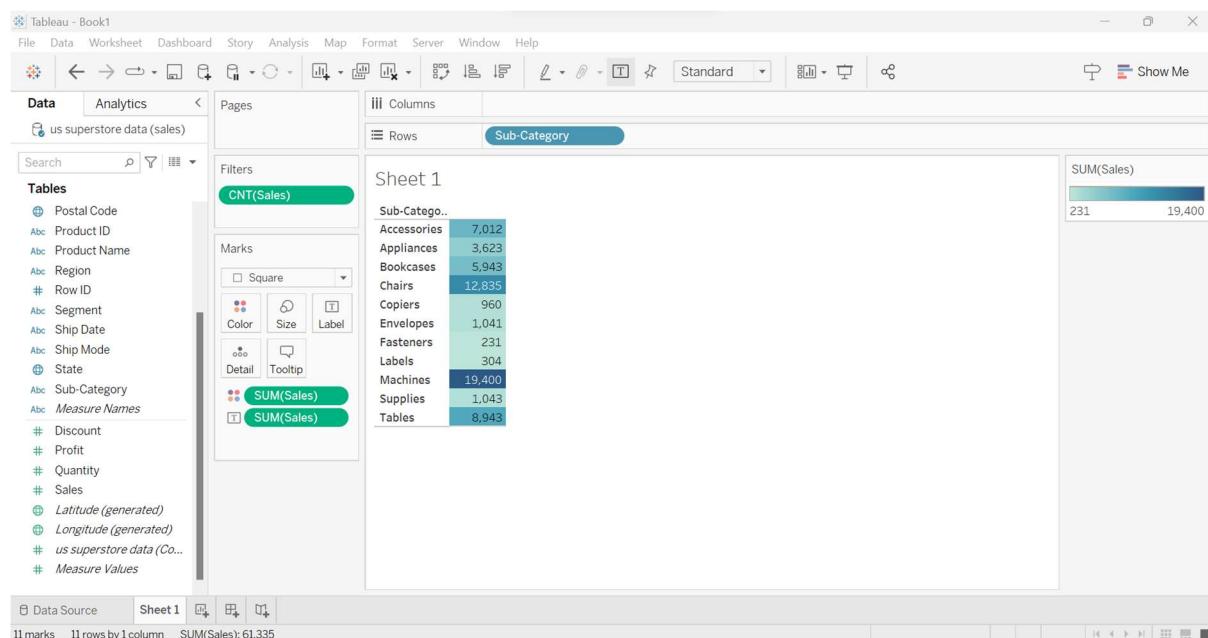
3) HIGHLIGHT TABLE (SUBCATEGORY VS SALES)

Before applying measure filter





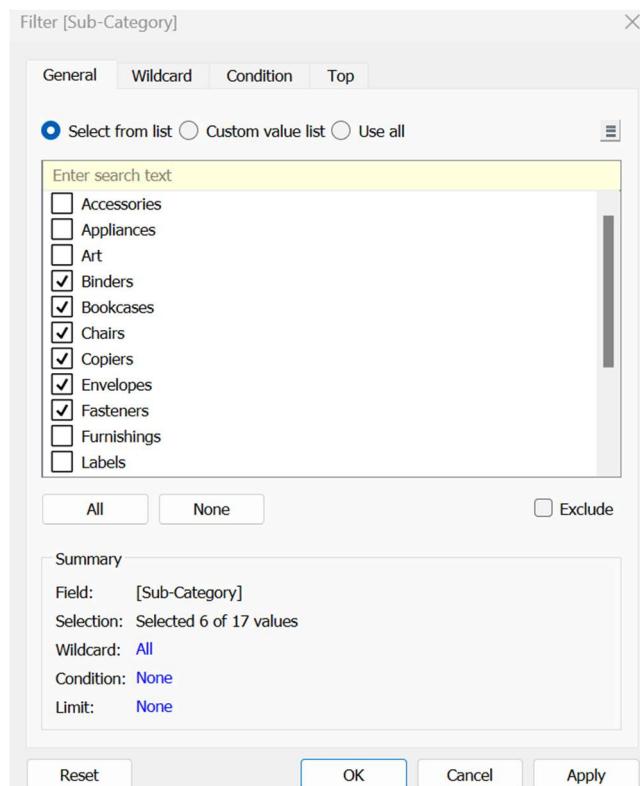
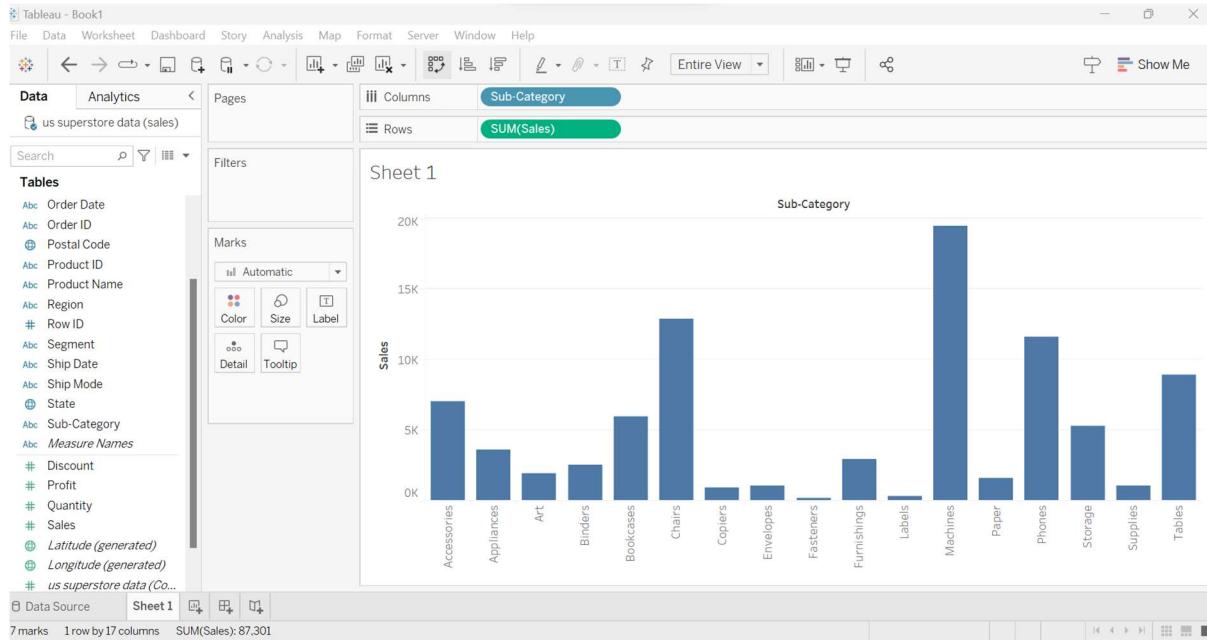
After applying measure filter



C) CONTEXT FILTER

1) BAR CHART (SUBCATEGORY VS SALES)

Before applying context filter



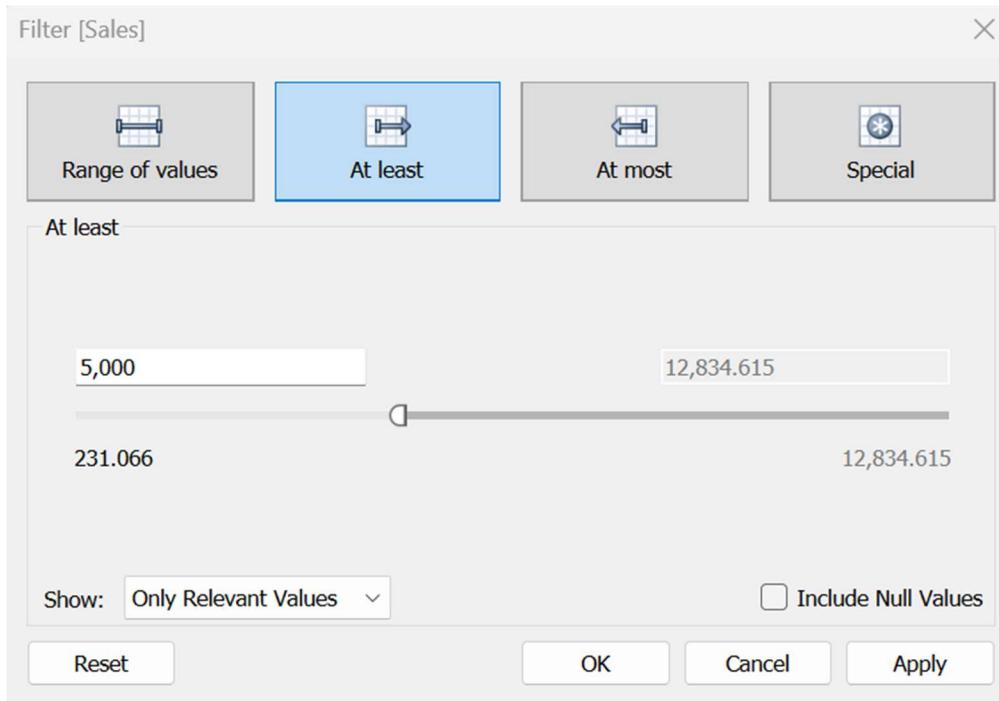


Tableau - Book1

File Data Worksheet Dashboard Story Analysis Map Format

Data Analytics <

us superstore data (sales)

Search

Tables

Product ID
Product Name
Product Name (group)
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Quantity
Sales
Latitude (generated)
Longitude (generated)
us superstore data (Co...
Measure Values

Pages

Filters Sub-Category

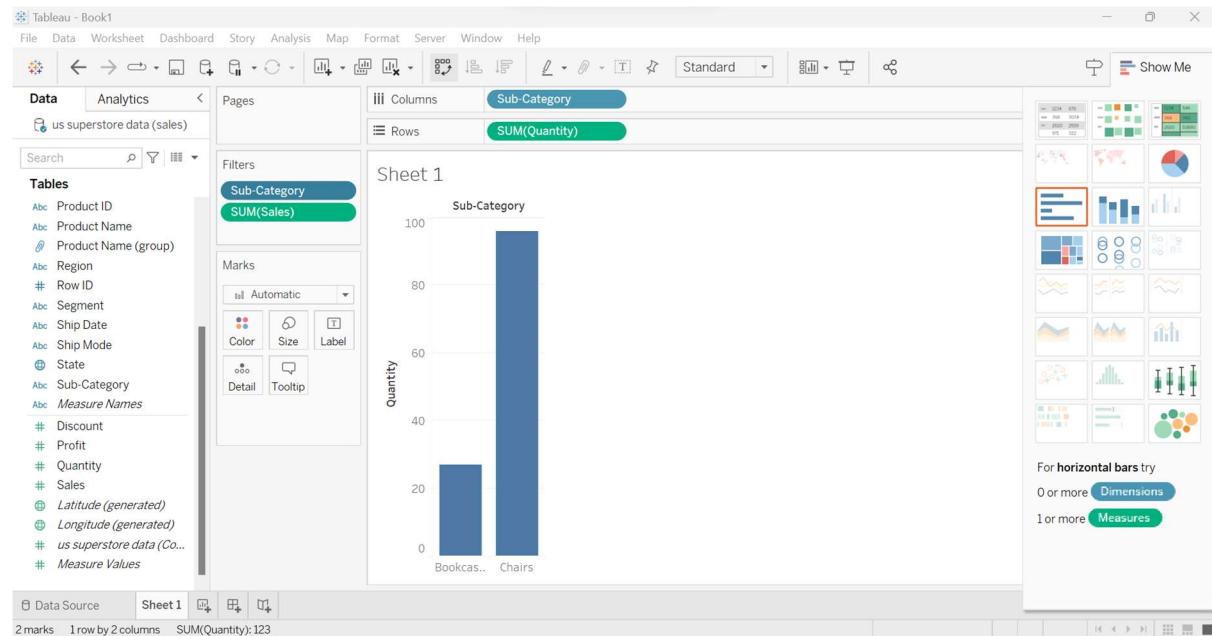
Edit Filter... Show Filter Show Highlighter Clear Filter Add to Context Apply to Worksheets Sort... Create Set... Dimension Attribute Measure Remove

Sheet 1

2 marks 1 row by 2 columns SUM(Quantity):123

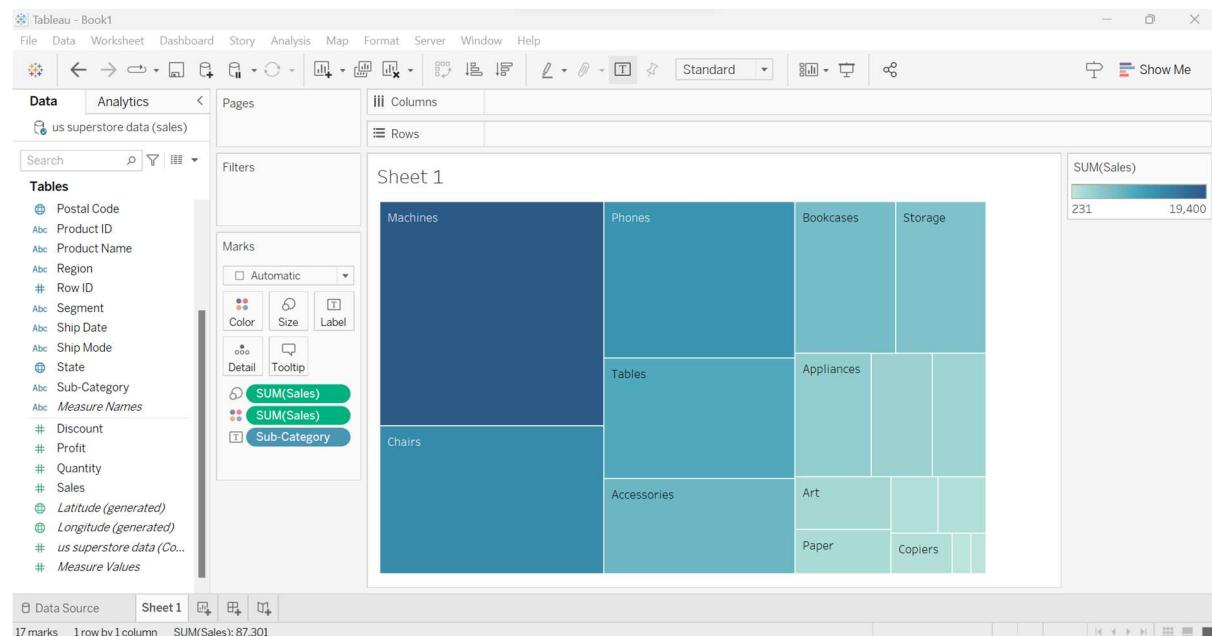
This screenshot shows the Tableau interface with the 'Book1' data source loaded. The 'Data' tab is selected. A context menu is open over a filter entry in the 'Filters' shelf, specifically for the 'Sub-Category' filter. The menu options include: 'Edit Filter...', 'Show Filter', 'Show Highlighter', 'Clear Filter', 'Add to Context' (which is highlighted in blue), 'Apply to Worksheets', 'Sort...', 'Create Set...', and a dimension/attribute/measures section with 'Dimension', 'Attribute', 'Measure', and 'Remove' options.

After applying context filter

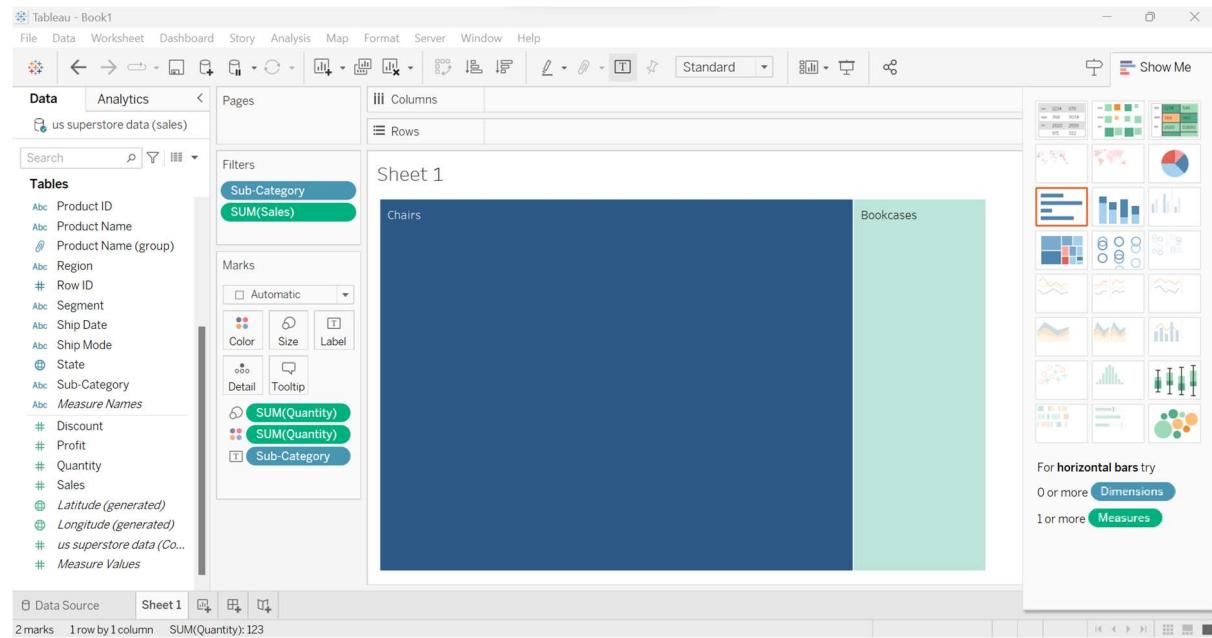


2) TREEMAP (SUBCATEGORY VS SALES)

Before applying context filter

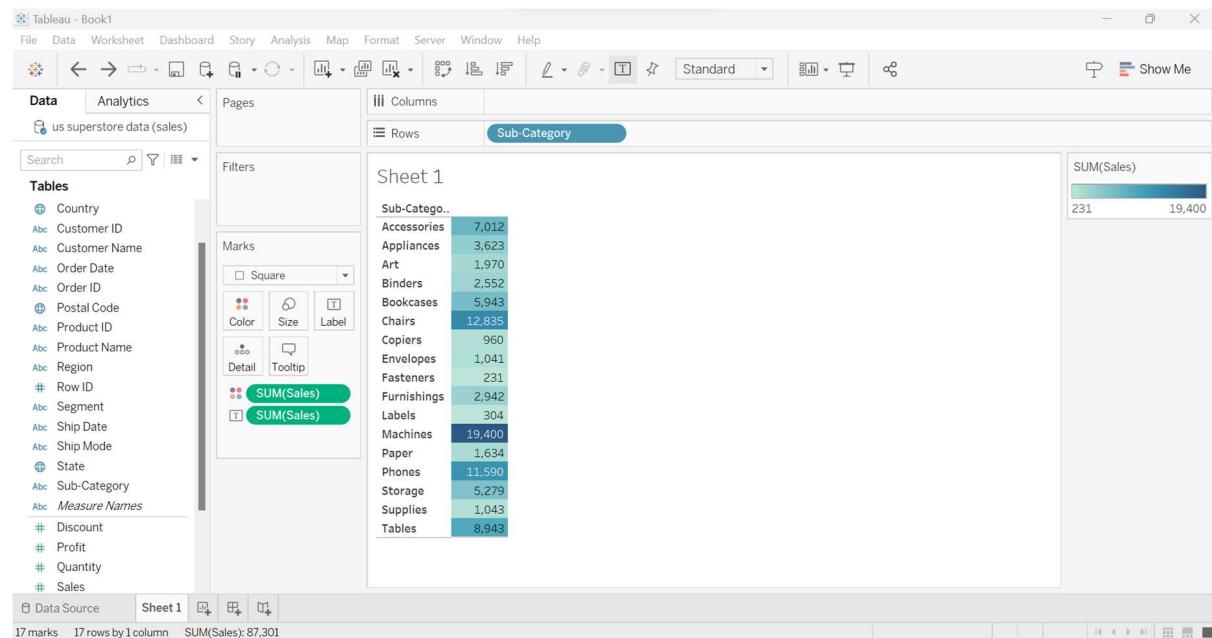


After applying context filter(same as before)

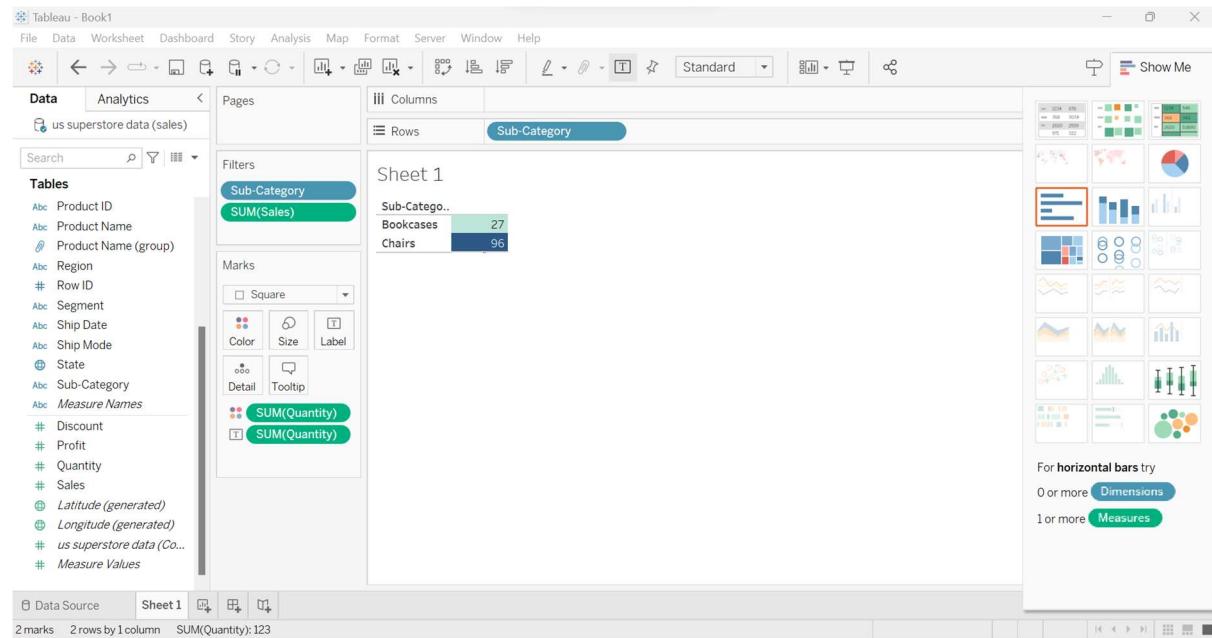


3) HIGHLIGHT TABLE (SUBCATEGORY VS SALES)

Before applying context filter



After applying context filter(same as before)



QUESTION-3:

Perform following manipulations on your dataset

- a) Create a hierarchy
- b) Create a set
- c) Create a group

HIERARCHY

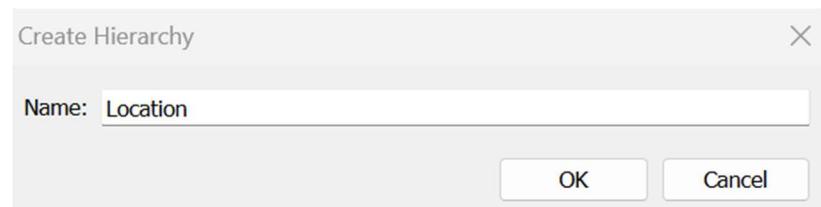


Tableau - Book1

File Data Worksheet Dashboard

Data Analytics <

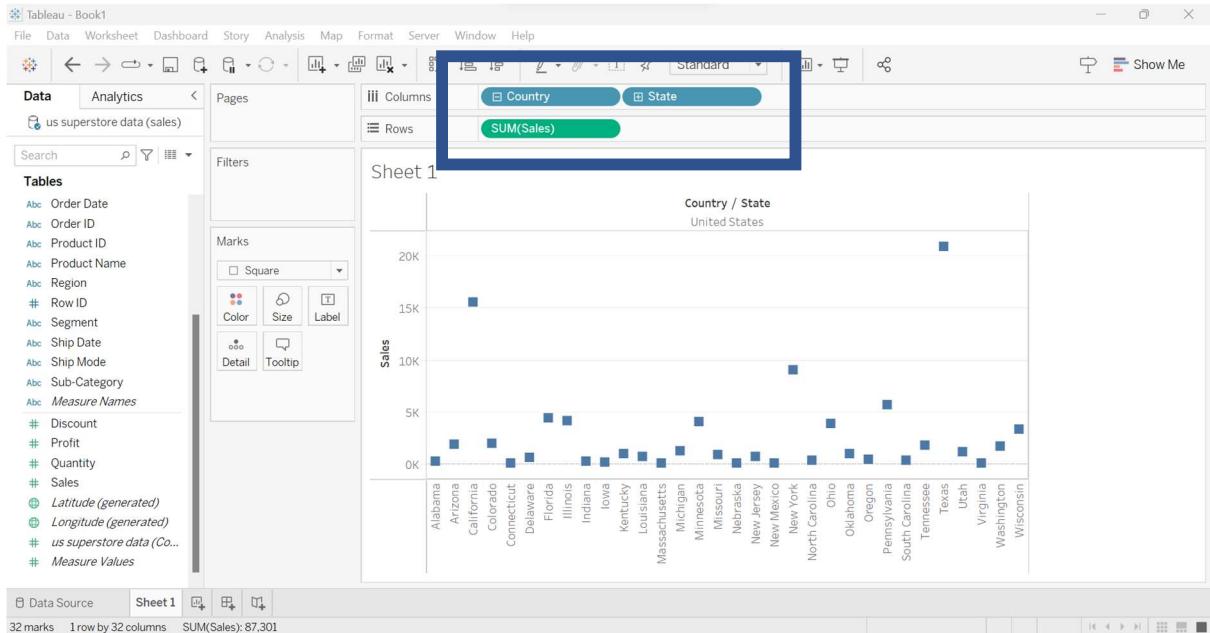
us superstore data (sales)

Search

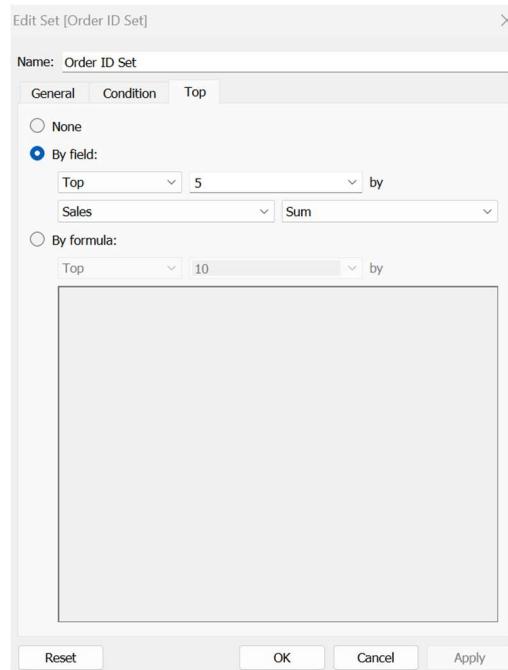
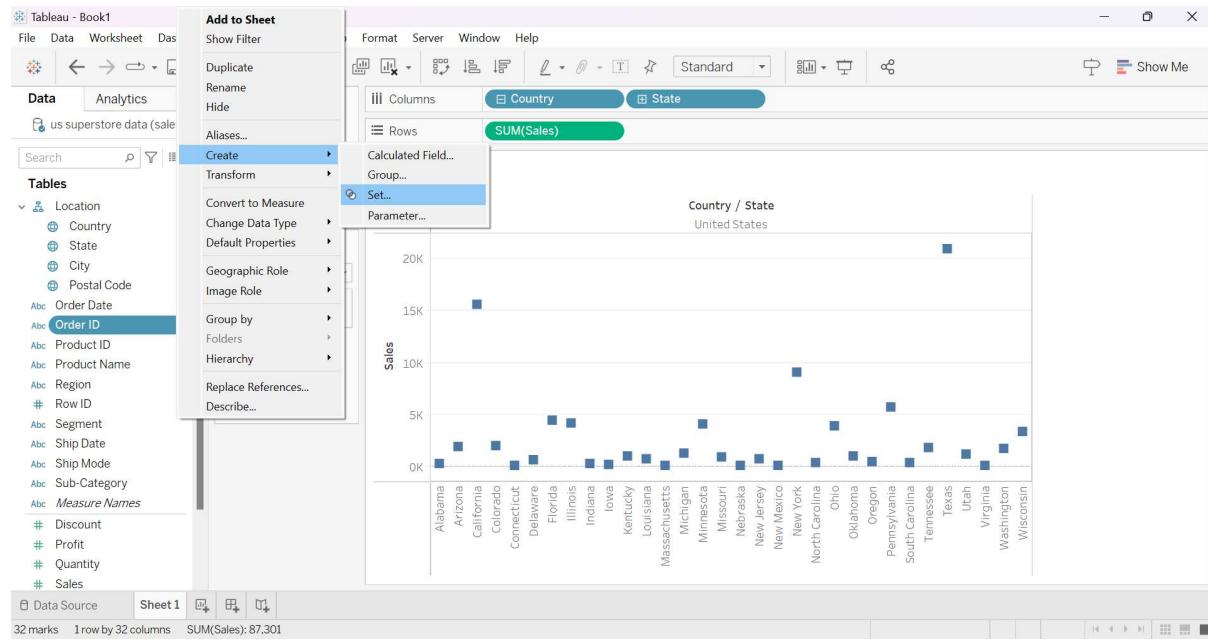
Tables

- Abc Category
- Abc Customer ID
- Abc Customer Name
- v **Location**
 - 🌐 Country
 - 🌐 State
 - 🌐 **City**
 - 🌐 Postal Code
- Abc Order Date
- Abc Order ID
- Abc Product ID
- Abc Product Name
- Abc Region
- # Row ID
- Abc Segment
- Abc Ship Date
- Abc Ship Mode
- Abc Sub-Category
- Abc *Measure Names*
- # Discount

Data Source Sheet 1



SET



The screenshot shows the Tableau Data pane. At the top, there are tabs for 'Data' and 'Analytics'. Below the tabs, a search bar contains the text 'us superstore data (sales)'. Under the 'Tables' section, a list of tables is displayed. One table, 'Order ID Set', is highlighted with a blue selection box.

- Abc Category
- Abc Customer ID
- Abc Customer Name
- ✓ Location
 - 🌐 Country
 - 🌐 State
 - 🌐 City
 - 🌐 Postal Code
- Abc Order Date
- Abc Order ID**
- Order ID Set**
- Abc Product ID
- Abc Product Name
- Abc Region
- # Row ID
- Abc Segment
- Abc Ship Date
- Abc Ship Mode
- Abc Sub-Category
- Abc Measure Names

Order set has been created

GROUP:

The screenshot shows the Tableau context menu for the 'Order ID Set' table. The 'Create' option is expanded, and the 'Group...' option is selected. The menu also includes options like 'Transform', 'Calculated Field...', 'Set...', and 'Parameter...'. In the background, the Tableau interface shows a data view with columns for 'Country' and 'State', and a chart titled 'Country / State'.

File Data Worksheet Dashboard
Data Analytics
us superstore data (sales)
Search Tables
Abc Category
Abc City
Abc Country
Abc Customer ID
Abc Customer Name
Abc Order Date
Abc Order ID
Order ID Set
Abc Product ID
Abc Product Name
Abc Region
Row ID
Abc Segment
Abc Ship Date
Abc Ship Mode
Abc State
Abc Sub-Category
Abc Measure Names
Discount

Add to Sheet
Show Filter
Duplicate
Rename
Hide
Aliases...
Create
Transform
Convert to Measure
Change Data Type
Default Properties
Geographic Role
Image Role
Group by
Folders
Hierarchy
Replace References...
Describe...

Format Server Window Help
Columns Country State
Rows IN/OUT(Order ID ..)
Calculated Field... Group... Set... Parameter...
In / Out of Order ID Set
In
Out

Country / State

	North	South
Abc New York	■	■
Abc Carolina	■	■
Abc Ohio	■	■
Abc Oklahoma	■	■
Abc Oregon	■	■
Abc Pennsylv...	■	■
Abc Carolina	■	■
Abc Tenness...	■	■
Abc Texas	■	■
Abc Utah	■	■
Abc Virginia	■	■
Abc Washington	■	■
Abc Wisconsin	■	■

Data Source Sheet 1 37 marks 2 rows by 32 columns

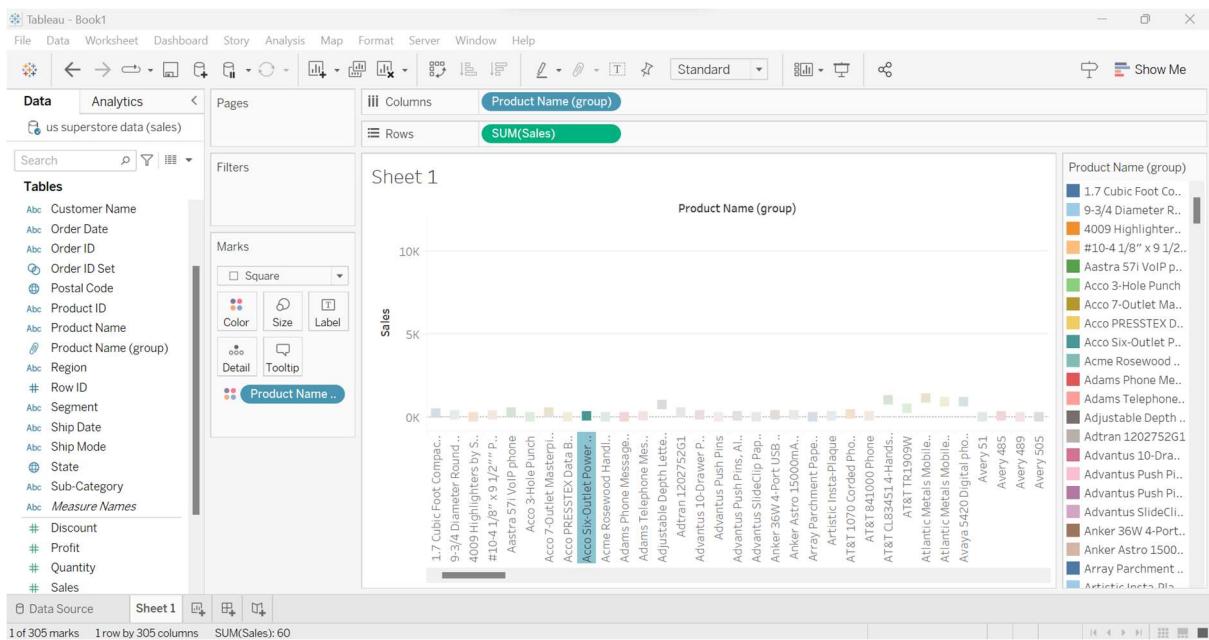
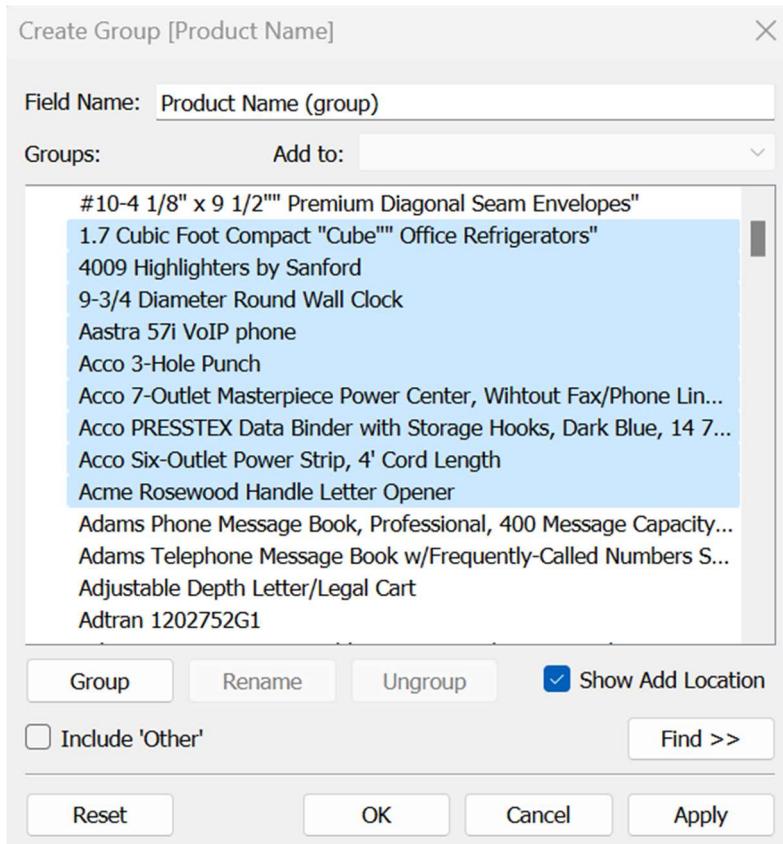


Tableau - Book1

File Data Worksheet Dashboard

Data Analytics <

us superstore data (sales)

Search

Tables

- Abc Customer Name
- Abc Order Date
- Abc Order ID
- Order ID Set
- Postal Code
- Abc Product ID
- Abc Product Name
- Product Name (group)**
- Abc Region
- # Row ID
- Abc Segment
- Abc Ship Date
- Abc Ship Mode
- State
- Sub-Category
- Measure Names
- # Discount
- # Profit
- # Quantity
- # Sales

THE END
