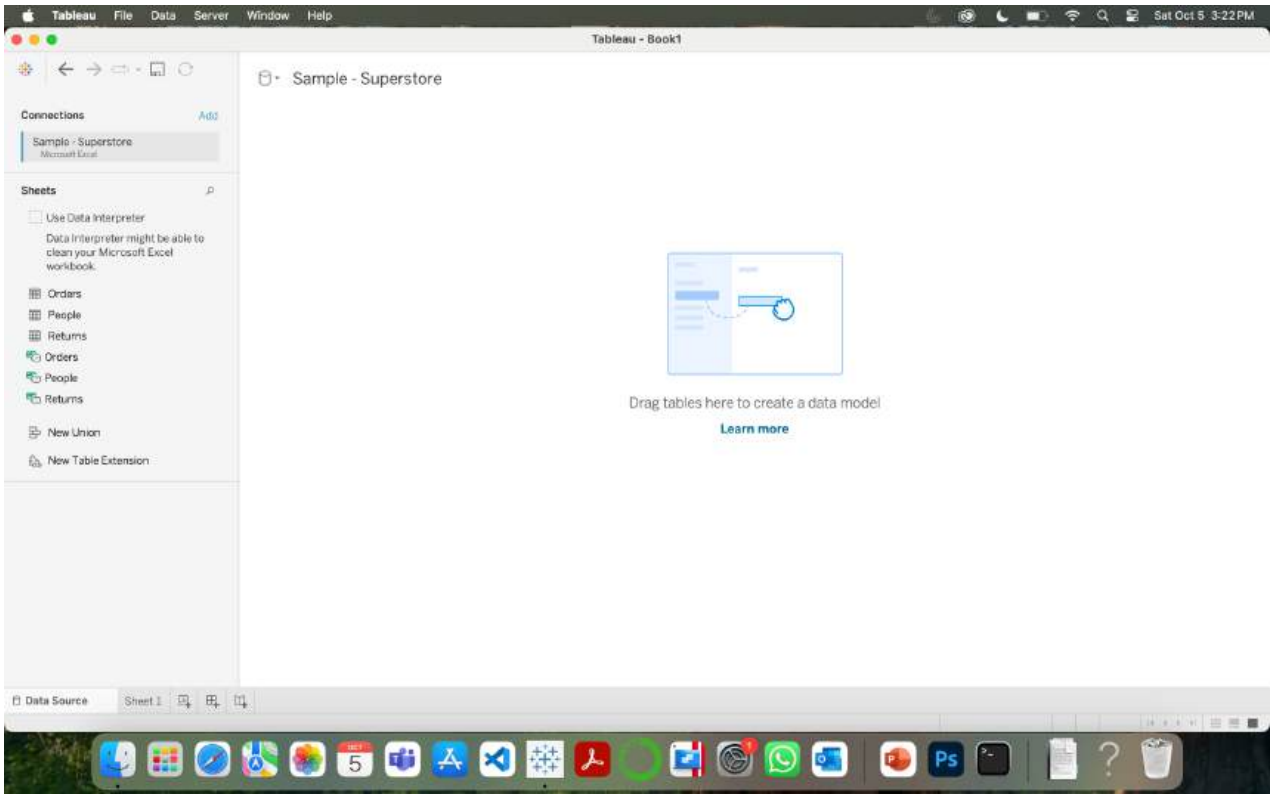
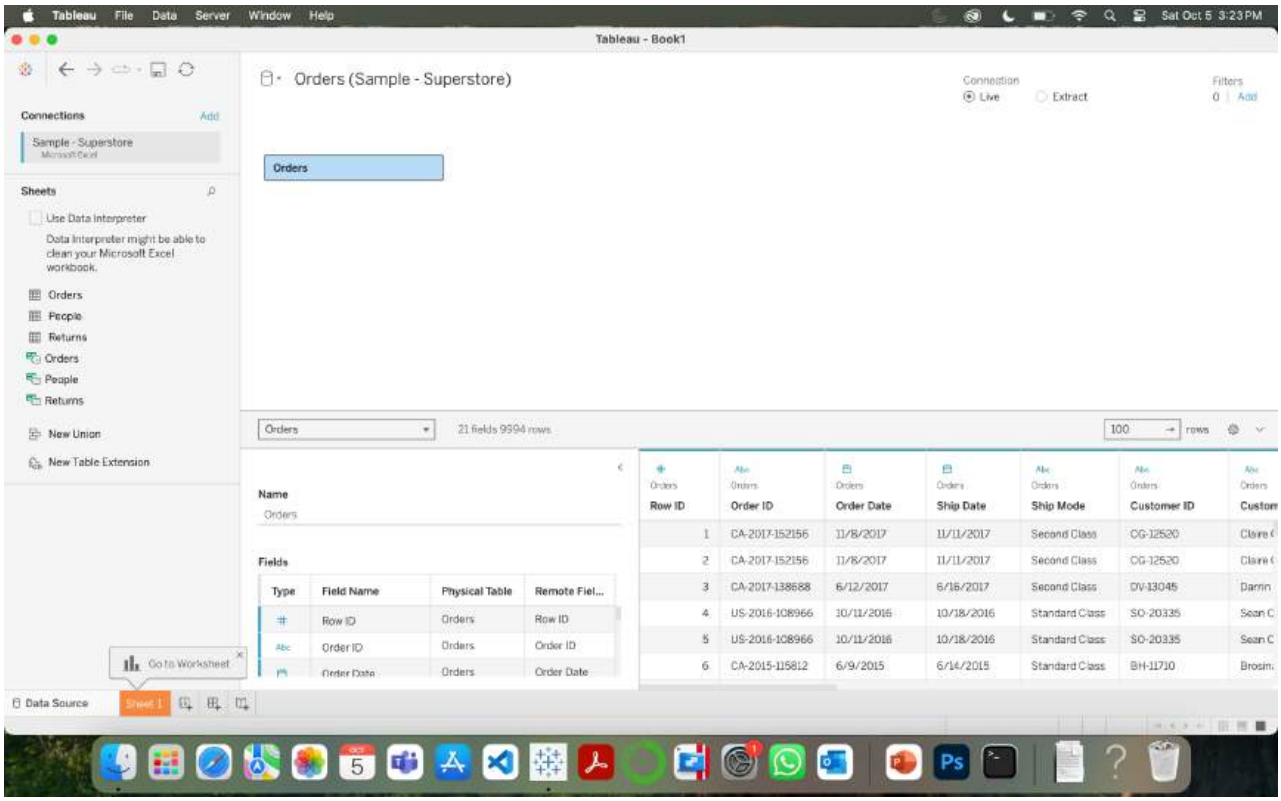
Name: Sai Sandhya Nannapaneni
ID: 11683731

TASK -1

Step 1 : Connecting the Sample-Superstore Excel file.

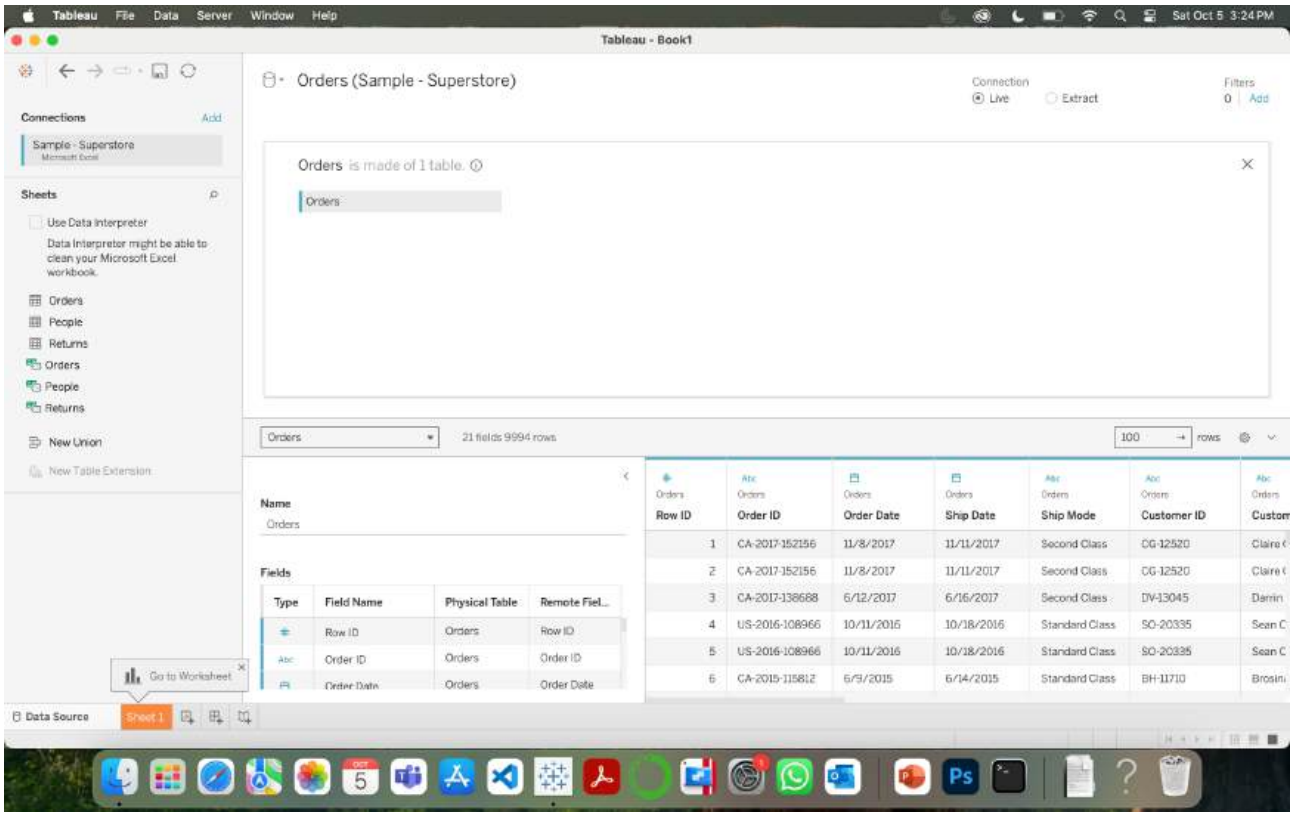


Step 2: In the Data Source tab we are dragging the Orders table from the left pane to the data canvas and the table will be displayed.



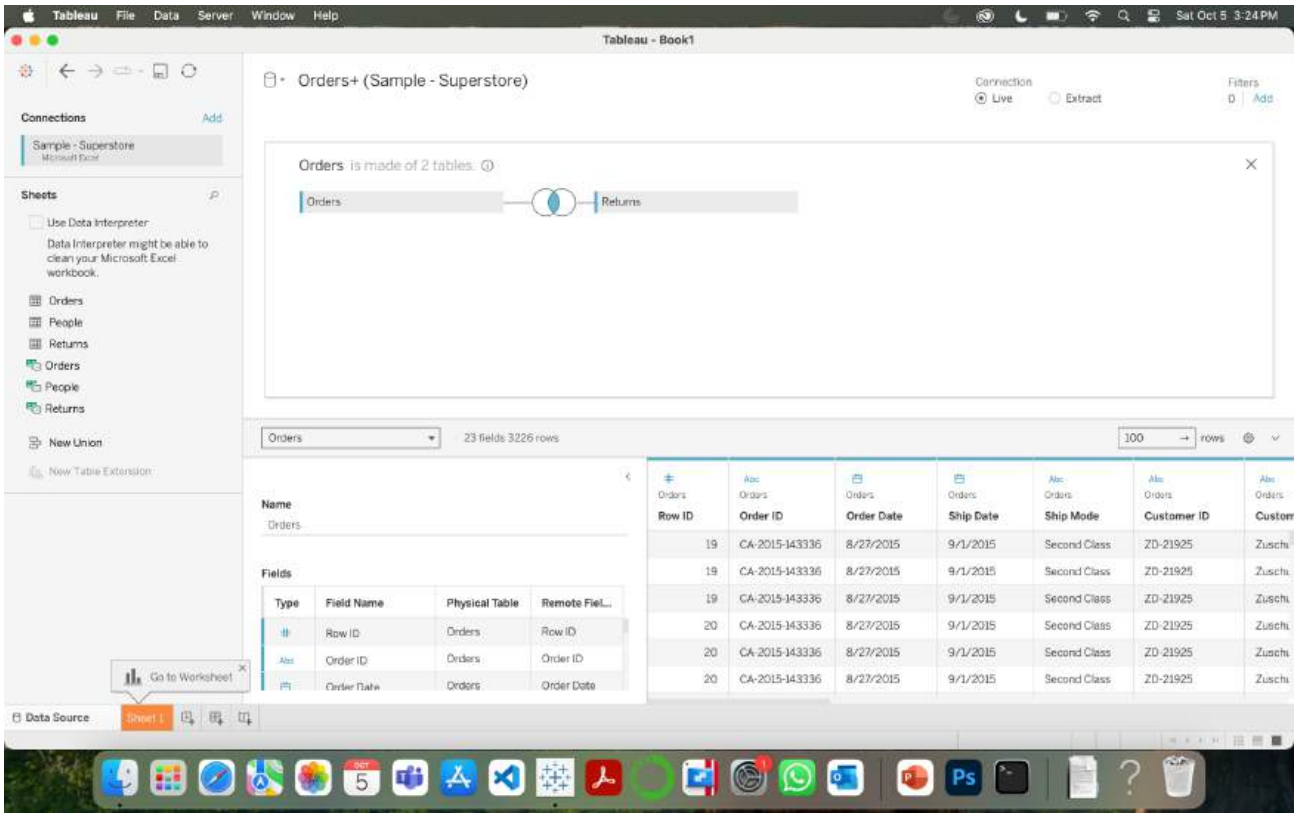
Step 3:

The Order Table will be displayed after double clicking on the Orders Table box.

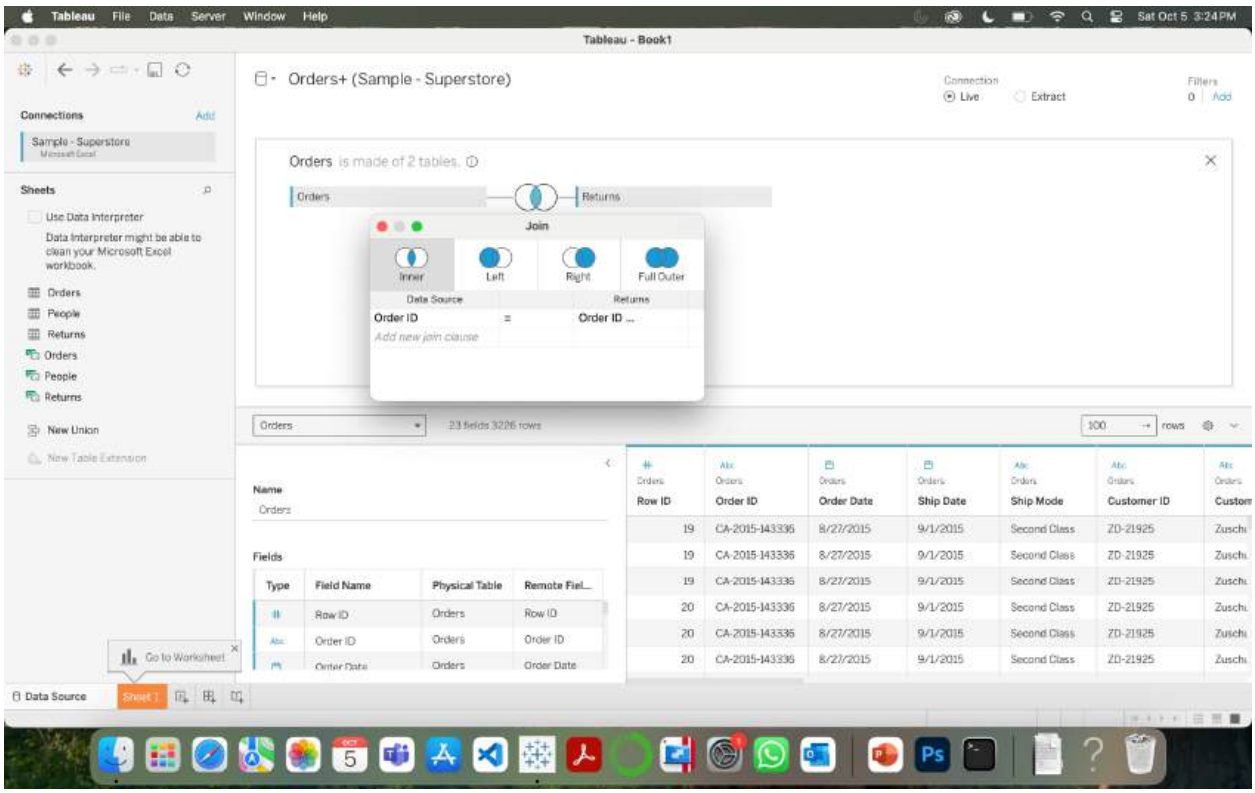


Step 4:

Adding the Return table onto the canvas and join it to orders

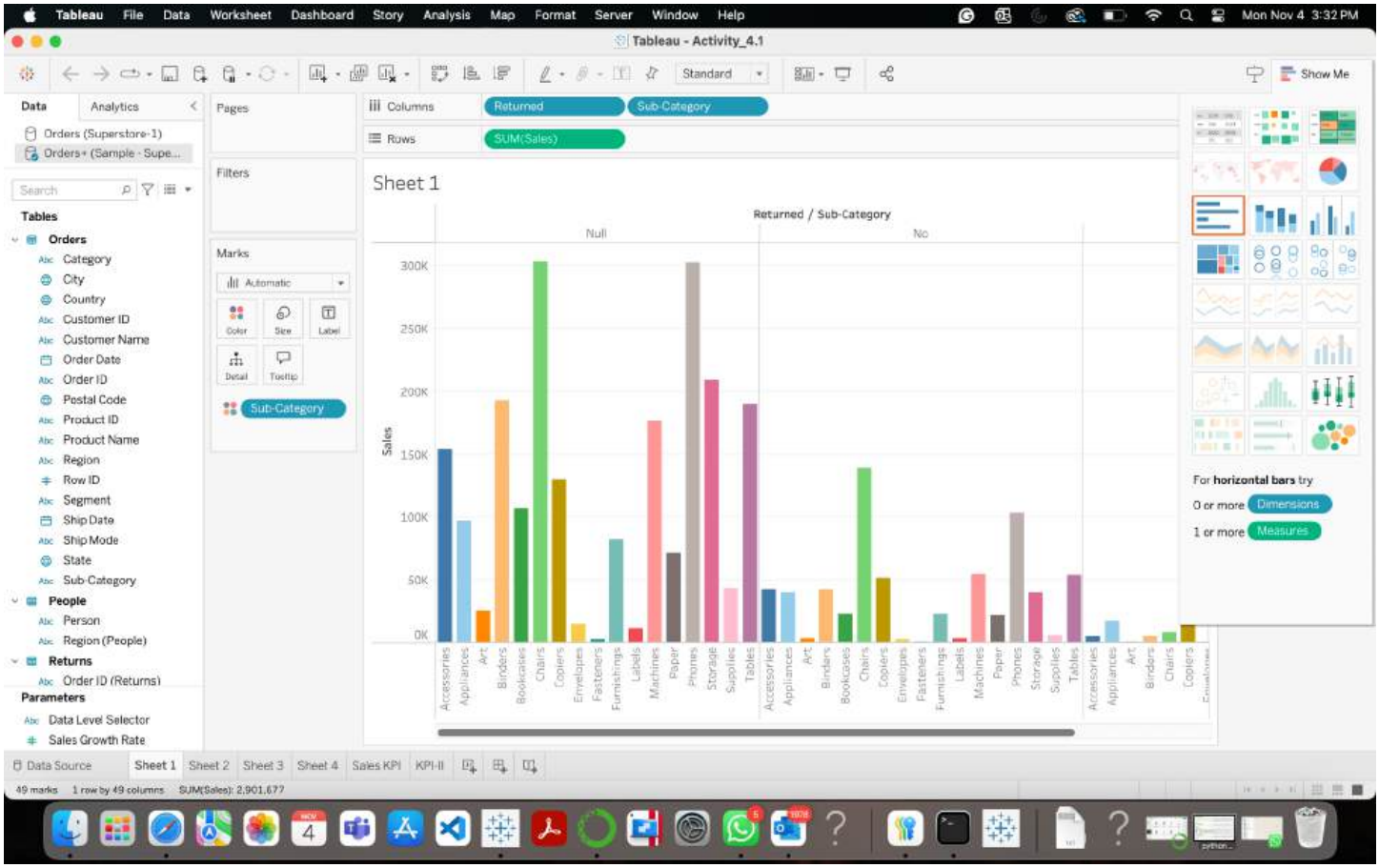


Step 5
Joining the return to orders based on order id using the Inner join.



Step 6

Creating sheet 1 and building the visualization. Showing Sales by Sub-Category with colors representing whether items are returned or not.



Step 7

Add the people table to the data source and join it with orders on Customer Name and person from people using inner join

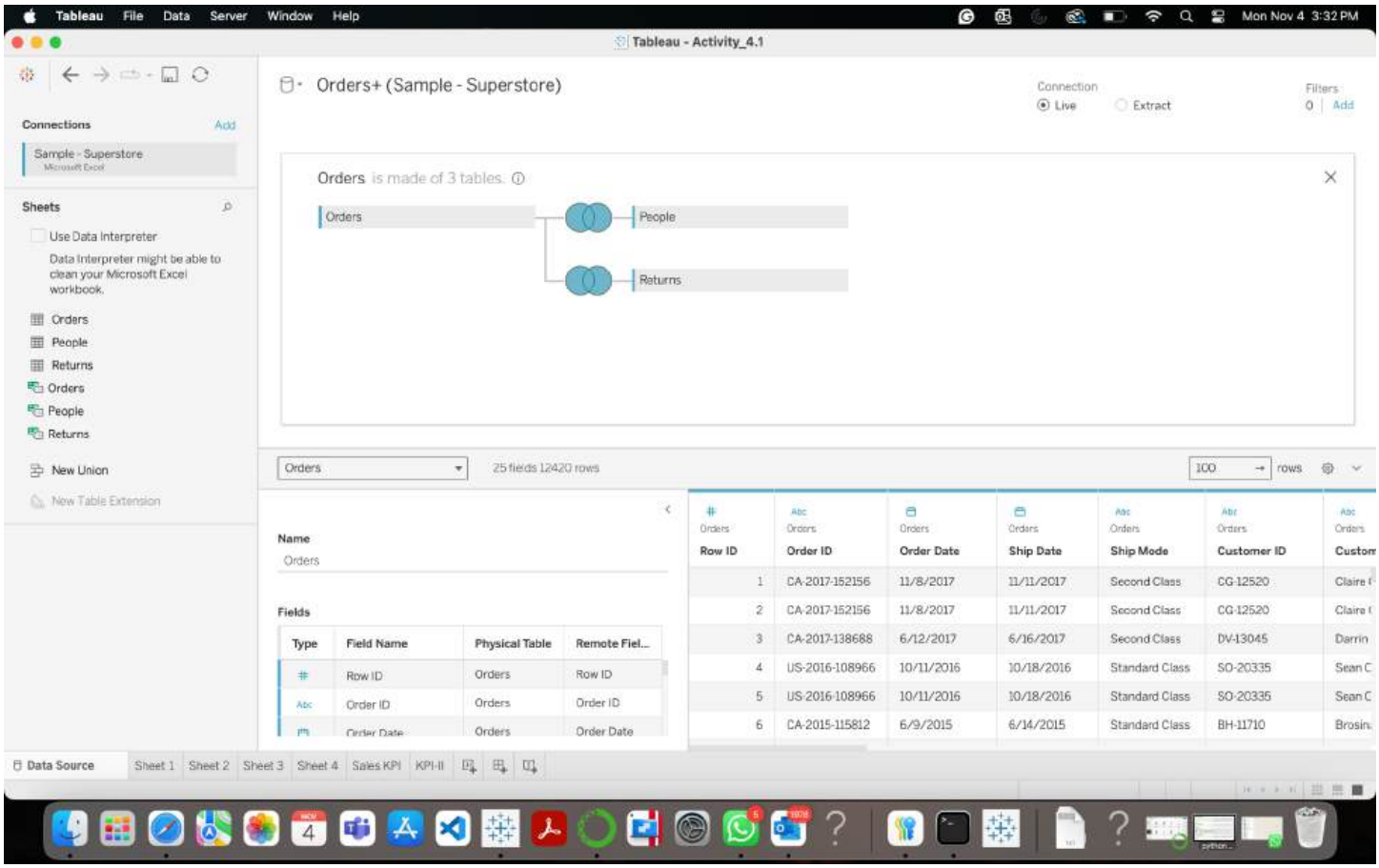


Tableau File Data Server Window Help
Mon Nov 4 3:32 PM
Tableau - Activity_4.1
Orders+ (Sample - Superstore)
Connection
Live
Extract
Filters
0 Add
Connections
Add
Sample - Superstore
Sheets
Use Data Interpreter
Data Interpreter might be able to clean your Microsoft Excel workbook.
Orders
People
Returns
New Union
New Table Extension
Orders is made of 3 tables.
Orders
People
Returns
Orders
25 fields 12420 rows
100
rows
Name
Orders
Fields
Type
Field Name
Physical Table
Remote Fiel...
Row ID
Order ID
Order Date
Ship Date
Ship Mode
Customer ID
CA-2017-152156
11/8/2017
11/11/2017
Second Class
CG-12520
CA-2017-138688
6/12/2017
6/16/2017
DV-13045
US-2016-108966
10/11/2016
10/18/2016
Standard Class
SO-20335
CA-2015-115812
6/9/2015
6/14/2015
BH-11710
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II

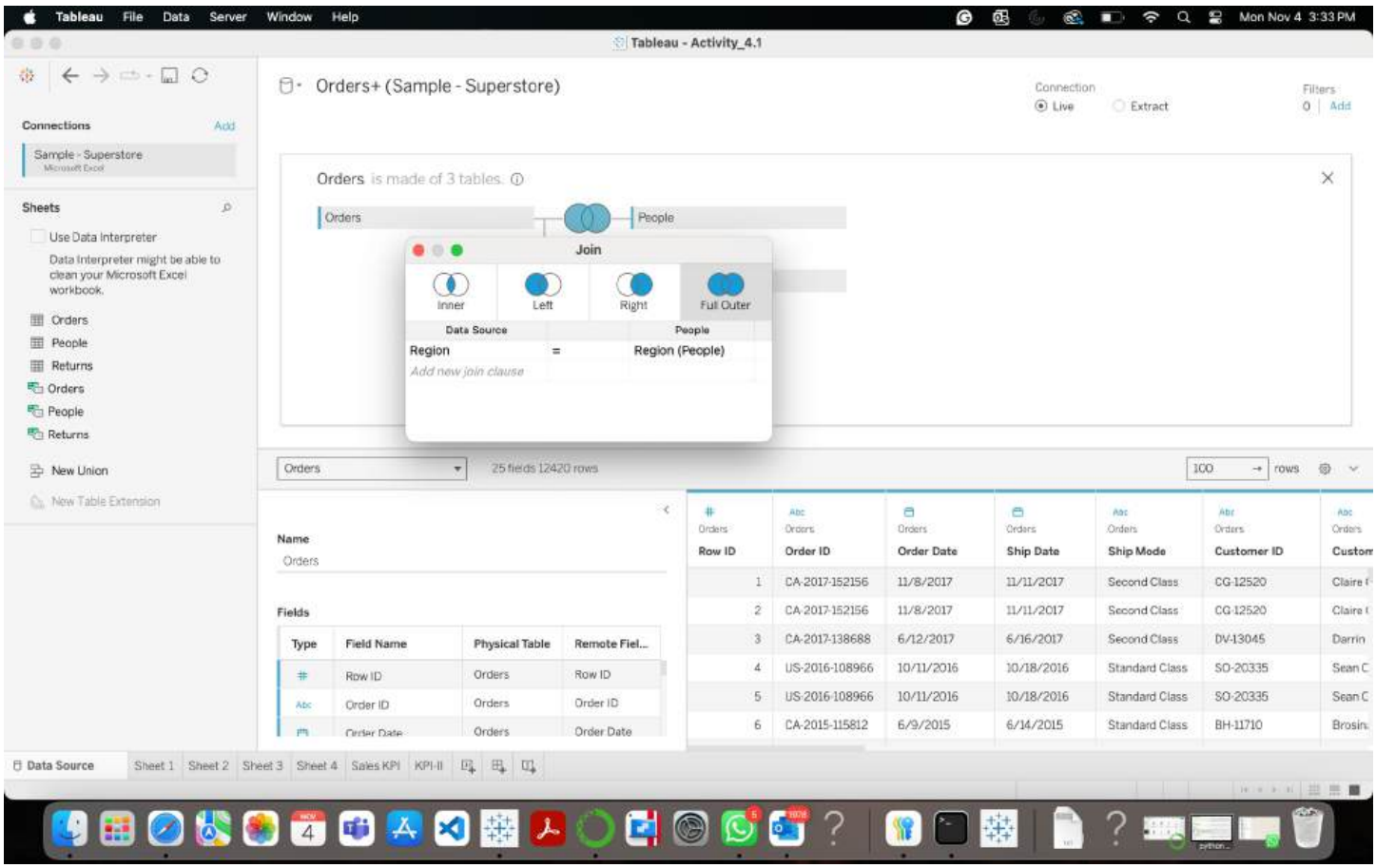
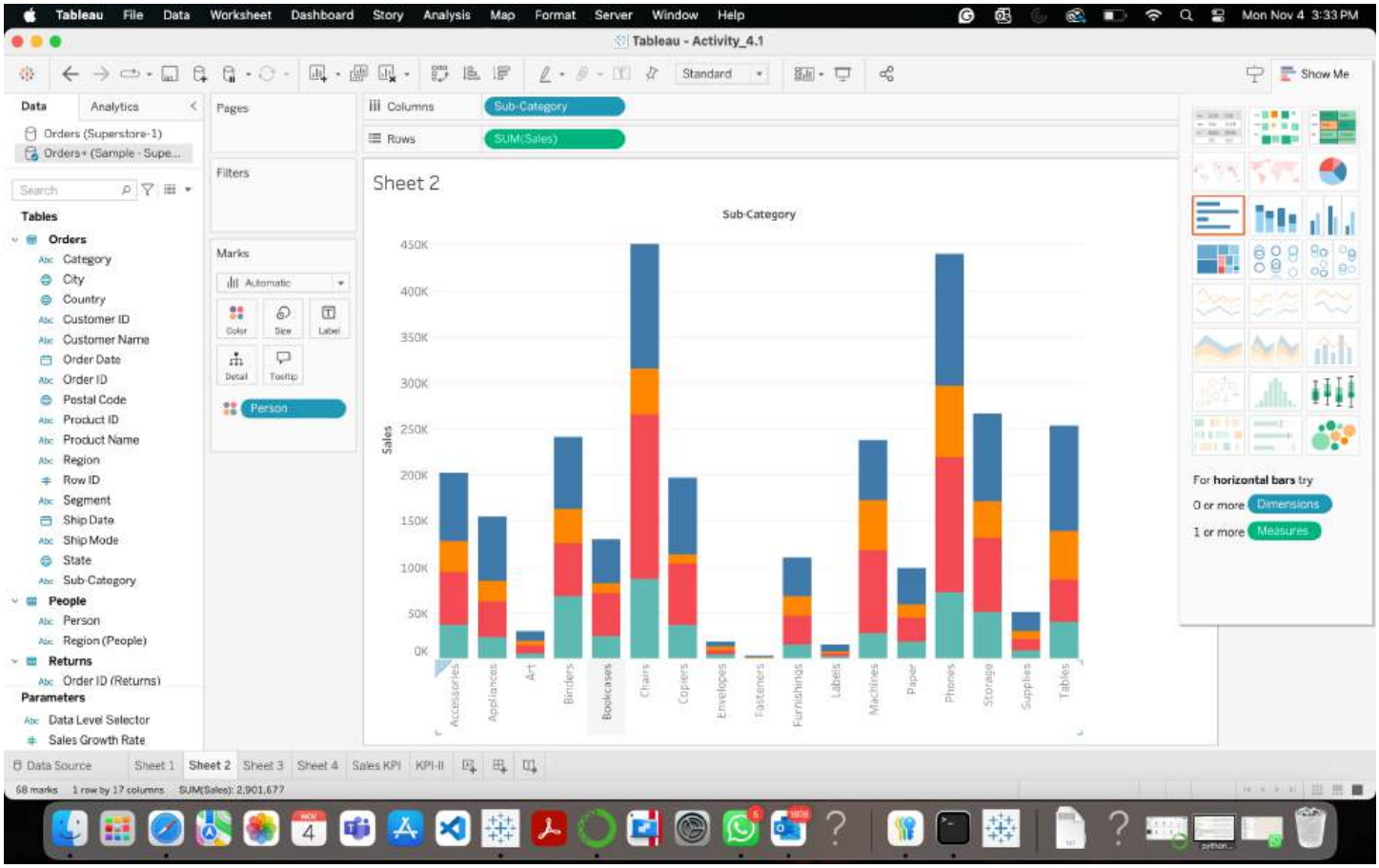


Tableau File Data Server Window Help
Mon Nov 4 3:33 PM
Tableau - Activity_4.1
Orders+ (Sample - Superstore)
Connection
Live
Extract
Filters
0 Add
Connections
Add
Sample - Superstore
Sheets
Use Data Interpreter
Data Interpreter might be able to clean your Microsoft Excel workbook.
Orders
People
Returns
New Union
New Table Extension
Orders is made of 3 tables.
Orders
People
Join
Inner
Left
Right
Full Outer
Data Source
People
Region
=
Region (People)
Add new join clause
Orders
25 fields 12420 rows
100
rows
Name
Orders
Fields
Type
Field Name
Physical Table
Remote Fiel...
Row ID
Order ID
Order Date
Ship Date
Ship Mode
Customer ID
CA-2017-152156
11/8/2017
11/11/2017
Second Class
CG-12520
CA-2017-138688
6/12/2017
6/16/2017
DV-13045
US-2016-108966
10/11/2016
10/18/2016
Standard Class
SO-20335
CA-2015-115812
6/9/2015
6/14/2015
BH-11710
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II

Step 8 :

Creating the step 2 and building the visualization. Placing the Sales in row, sub-category on columns and people to the color shelf.



QUESTION 1

-> Analyzing the impact of joins and visualizing the changes.

=> Inner Joins

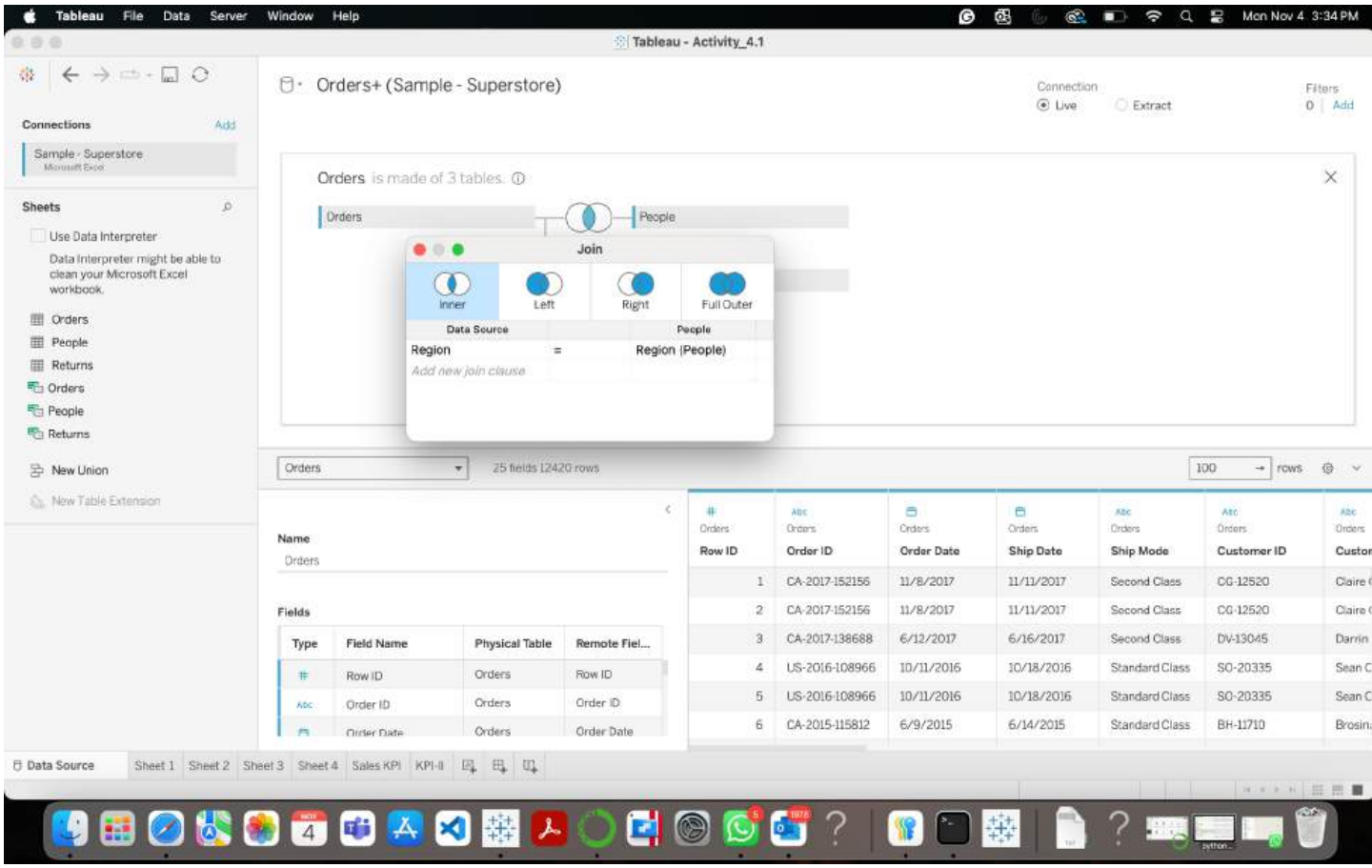


Tableau File Data Server Window Help
Mon Nov 4 3:34 PM
Tableau - Activity_4.1
Orders+ (Sample - Superstore)
Connection
Live
Extract
Filters
0 | Add
Connections
Add
Sample - Superstore
Sheets
Use Data Interpreter
Data Interpreter might be able to clean your Microsoft Excel workbook.
Orders
People
Returns
New Union
New Table Extension
Orders is made of 3 tables.
Orders
People
Join
Inner
Left
Right
Full Outer
Data Source
People
Region
=
Region (People)
Add new join clause
25 fields 12420 rows
100
rows
Name
Orders
Fields
Type
Field Name
Physical Table
Remote Fiel...
Row ID
Order ID
Order Date
Ship Date
Ship Mode
Customer ID
Row ID
Order ID
Order Date
Ship Date
Ship Mode
Customer ID
1 CA-2017-152156 11/8/2017 11/11/2017 Second Class CG-12520
2 CA-2017-152156 11/8/2017 11/11/2017 Second Class CG-12520
3 CA-2017-138688 6/12/2017 6/16/2017 Second Class DV-13045
4 US-2016-108966 10/11/2016 10/18/2016 Standard Class SO-20335
5 US-2016-108966 10/11/2016 10/18/2016 Standard Class SO-20335
6 CA-2015-115812 6/9/2015 6/14/2015 Standard Class BH-11710
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II

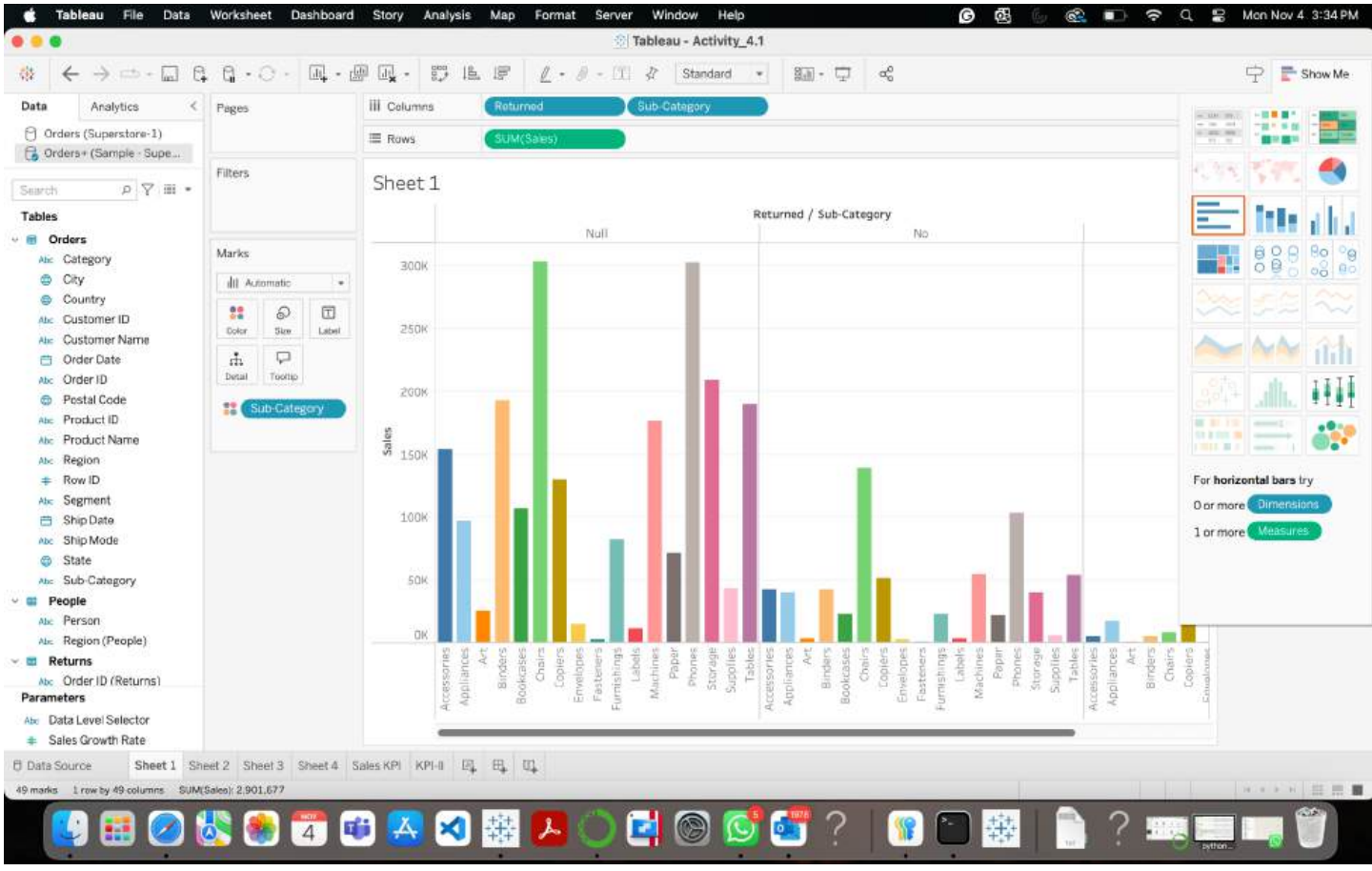
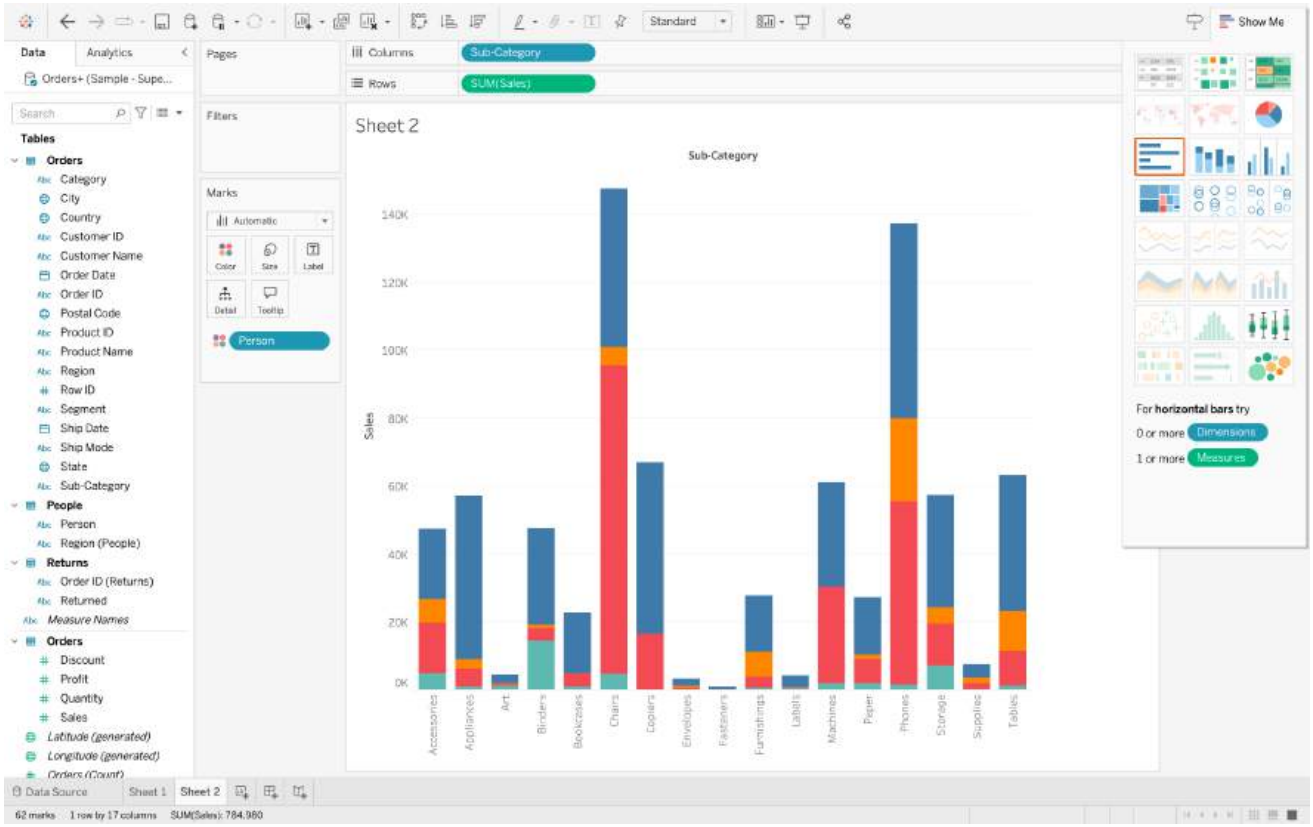


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 3:34 PM
Tableau - Activity_4.1
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Search
Tables
Orders
Category
City
Country
Customer ID
Customer Name
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
People
Person
Region (People)
Returns
Order ID (Returns)
Parameters
Data Level Selector
Sales Growth Rate
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Sub-Category
Columns
Returned
Sub-Category
Rows
SUM(Sales)
Sheet 1
Returned / Sub-Category
Null
No
Sales
300K
250K
200K
150K
100K
50K
0K
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
For horizontal bars try
0 or more
Dimensions
1 or more
Measures
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
49 marks
1 row by 49 columns
SUM(Sales): 2,901,677


Data
Analytics
Orders+ (Sample - Supe...
Search
Tables
Orders
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
State
Sub-Category
People
Person
Region (People)
Returns
Order ID (Returns)
Returned
Measure Names
Orders
Discount
Profit
Quantity
Sales
Latitude (generated)
Longitude (generated)
Orders (Count)
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Person
Columns
Sub-Category
Rows
SUM(Sales)
Sheet 2
Sub-Category
Sales
140K
120K
100K
80K
60K
40K
20K
0K
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
Show Me
For horizontal bars try
0 or more Dimensions
1 or more Measures
Data Source
Sheet 1
Sheet 2
62 marks
1 row by 17 columns
SUM(Sales): 784,960

=> Left Join

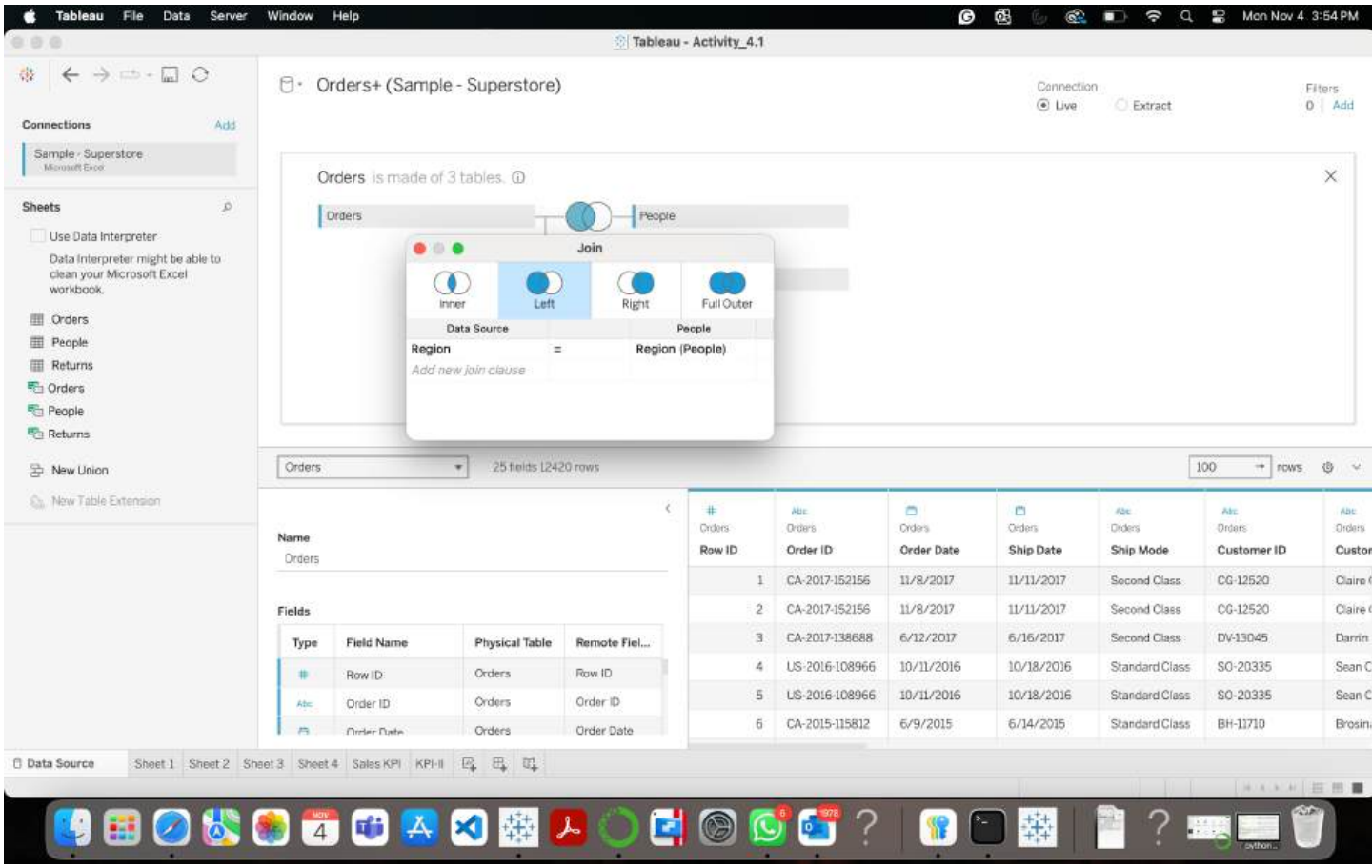


Tableau File Data Server Window Help
Mon Nov 4 3:54 PM
Tableau - Activity_4.1
Orders+ (Sample - Superstore)
Connection
Live
Extract
Filters
0 | Add
Connections
Add
Sample - Superstore
Sheets
Use Data Interpreter
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Orders
People
Returns
Orders
People
Returns
New Union
New Table Extension
Orders is made of 3 tables.
Orders
People
Join
Inner
Left
Right
Full Outer
Data Source
People
Region
=
Region (People)
Add new join clause
Orders
25 fields 12420 rows
100
rows
Name
Orders
Fields
Type
Field Name
Physical Table
Remote Fiel...
Row ID
Orders
Order ID
Order Date
Ship Date
Ship Mode
Customer ID
1 CA-2017-152156 11/8/2017 11/11/2017 Second Class CG-12520
2 CA-2017-152156 11/8/2017 11/11/2017 Second Class CG-12520
3 CA-2017-138688 6/12/2017 6/16/2017 Second Class DV-13045
4 US-2016-108966 10/11/2016 10/18/2016 Standard Class SO-20335
5 US-2016-108966 10/11/2016 10/18/2016 Standard Class SO-20335
6 CA-2015-115812 6/9/2015 6/14/2015 Standard Class BH-11710
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II

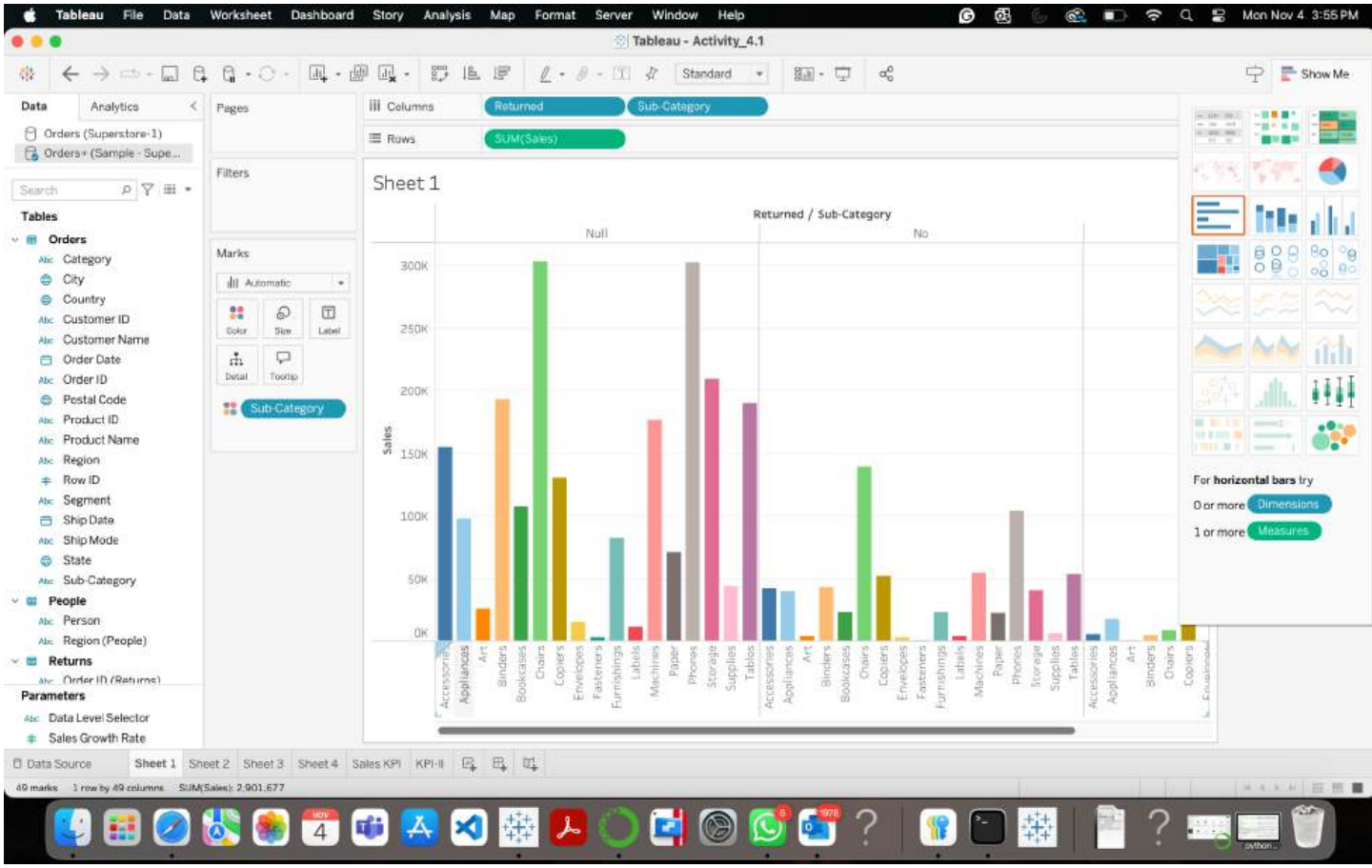


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 3:55 PM
Tableau - Activity_4.1
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Search
Tables
Orders
Category
City
Country
Customer ID
Customer Name
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
People
Person
Region (People)
Returns
Parameters
Data Level Selector
Sales Growth Rate
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Sub-Category
Columns
Returned
Sub-Category
Rows
SUM(Sales)
Sheet 1
Returned / Sub-Category
Null
No
Sales
300K
250K
200K
150K
100K
50K
0K
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
For horizontal bars try
0 or more
Dimensions
1 or more
Measures
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
49 marks
1 row by 49 columns
SUM(Sales): 2,901,677

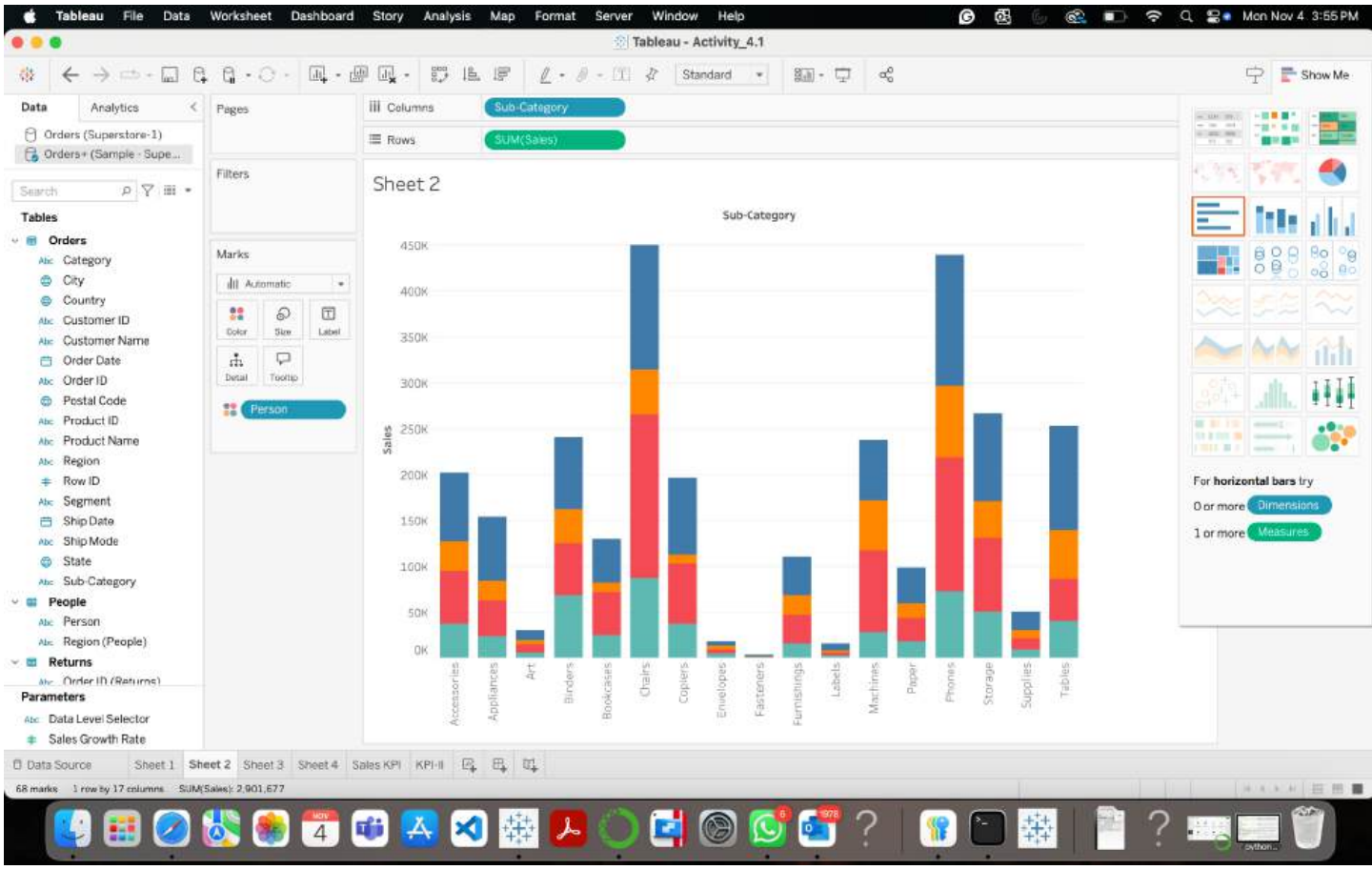


Tableau - Activity_4.1
Sheet 2
Sub-Category
Sales
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables

=> Right Join

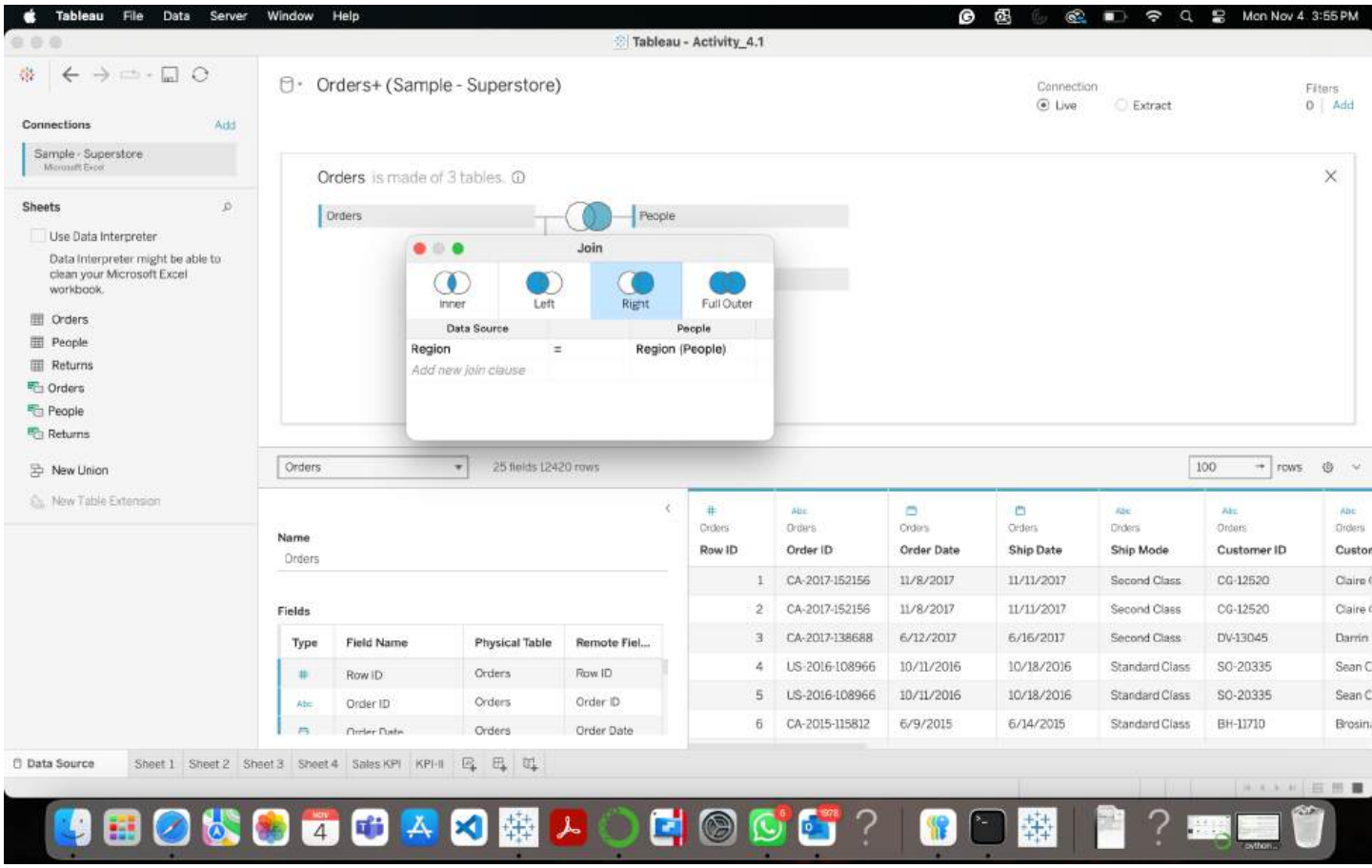


Tableau File Data Server Window Help
Mon Nov 4 3:55 PM
Tableau - Activity_4.1
Orders+ (Sample - Superstore)
Connection
Live
Extract
Filters
0 | Add
Connections
Add
Sample - Superstore
Sheets
Use Data Interpreter
Data Interpreter might be able to clean your Microsoft Excel workbook.
Orders
People
Returns
Orders
People
Returns
New Union
New Table Extension
Orders is made of 3 tables.
Orders
People
Join
Inner
Left
Right
Full Outer
Data Source
People
Region
=
Region (People)
Add new join clause
Orders
25 fields 12420 rows
100
rows
Name
Orders
Fields
Type
Field Name
Physical Table
Remote Fiel...
Row ID
Orders
Order ID
Order Date
Ship Date
Ship Mode
Customer ID
1 CA-2017-152156 11/8/2017 11/11/2017 Second Class CG-12520
2 CA-2017-152156 11/8/2017 11/11/2017 Second Class CG-12520
3 CA-2017-138688 6/12/2017 6/16/2017 Second Class DV-13045
4 US-2016-108966 10/11/2016 10/18/2016 Standard Class SO-20335
5 US-2016-108966 10/11/2016 10/18/2016 Standard Class SO-20335
6 CA-2015-115812 6/9/2015 6/14/2015 Standard Class BH-11710
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II

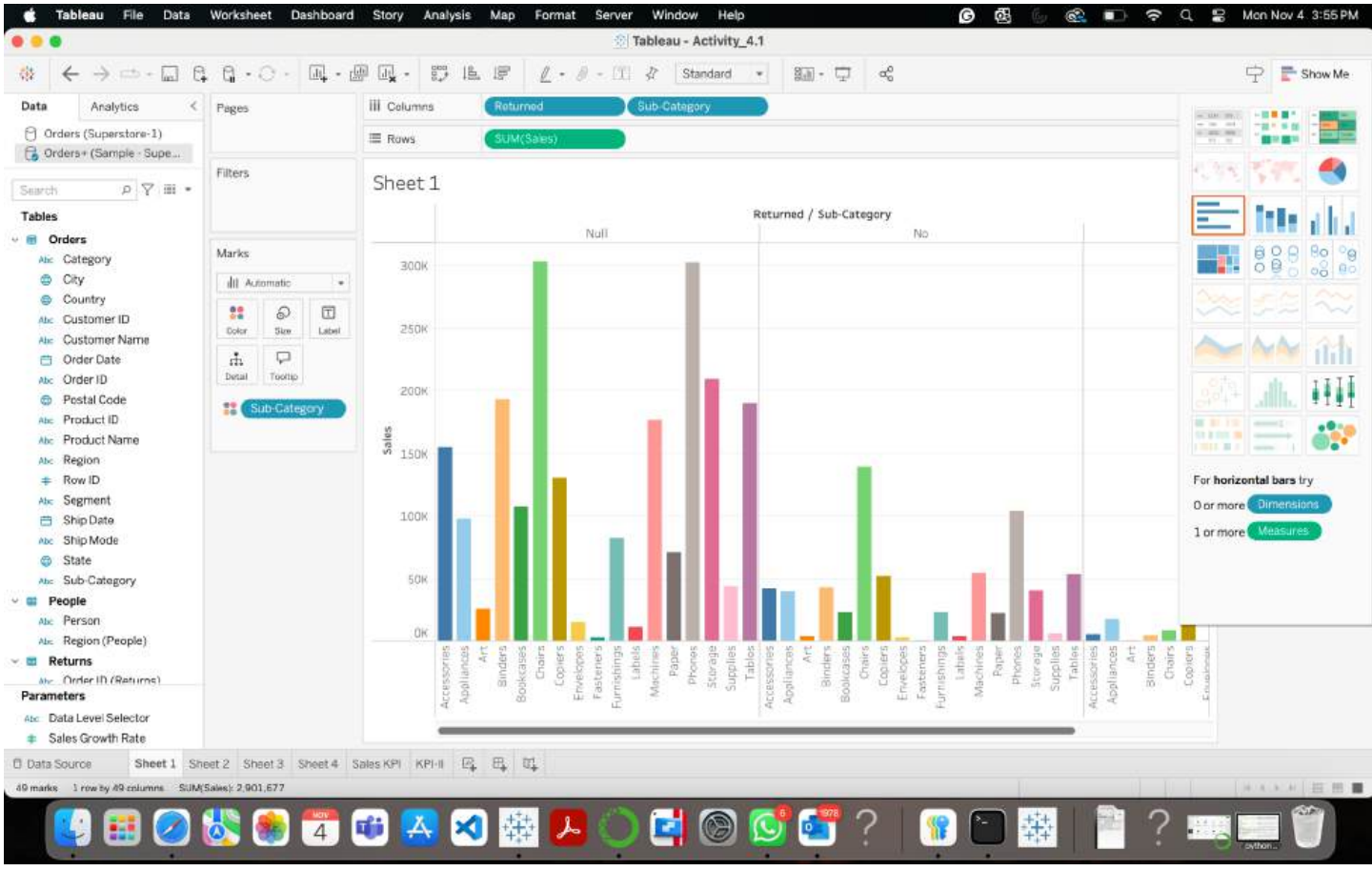
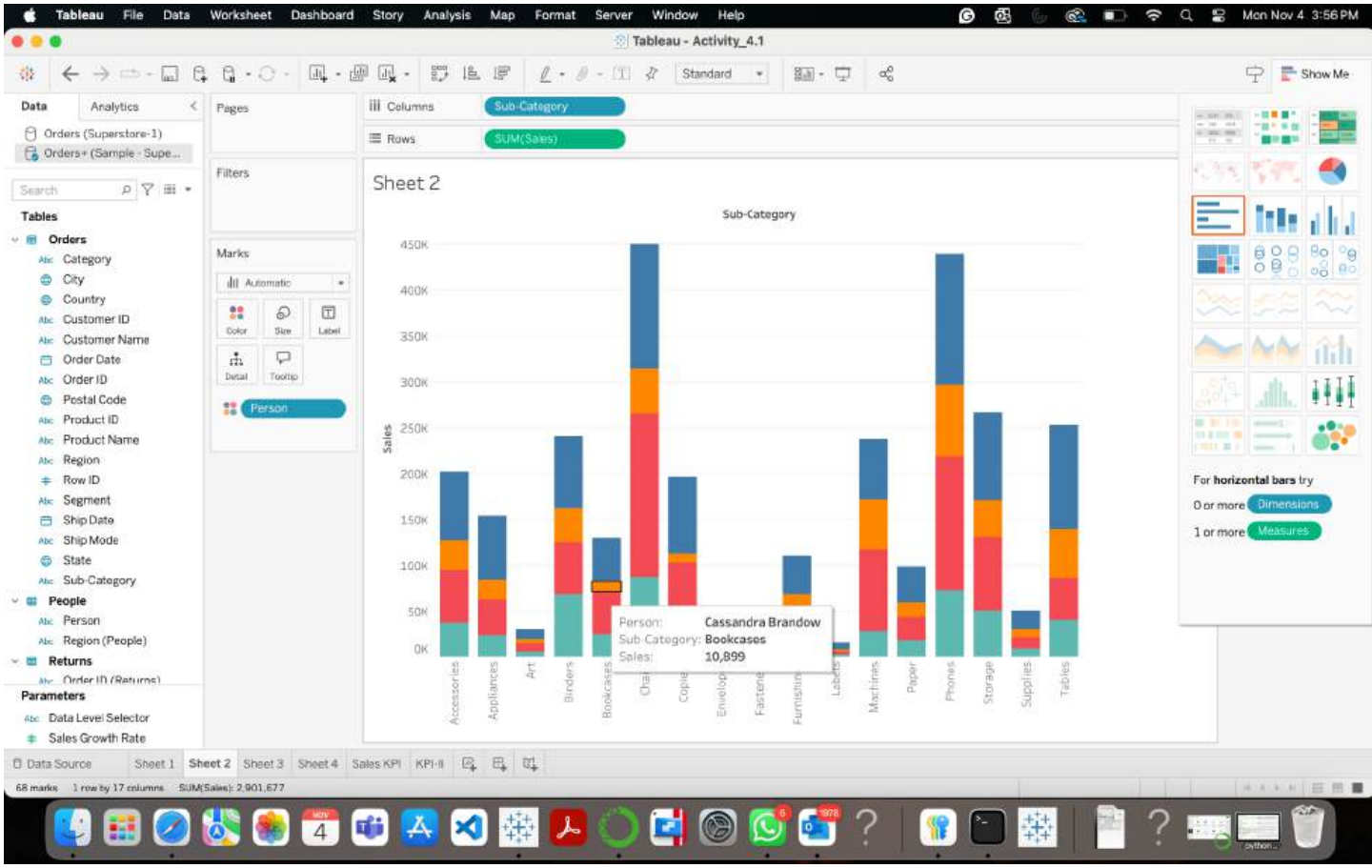


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 3:55 PM
Tableau - Activity_4.1
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Search
Tables
Orders
Category
City
Country
Customer ID
Customer Name
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
People
Person
Region (People)
Returns
Parameters
Data Level Selector
Sales Growth Rate
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Sub-Category
Columns
Returned
Sub-Category
Rows
SUM(Sales)
Sheet 1
Returned / Sub-Category
Null
No
Sales
300K
250K
200K
150K
100K
50K
0K
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
For horizontal bars try
0 or more
Dimensions
1 or more
Measures
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
49 marks
1 row by 49 columns
SUM(Sales): 2,901,677



=>Full Outer Join

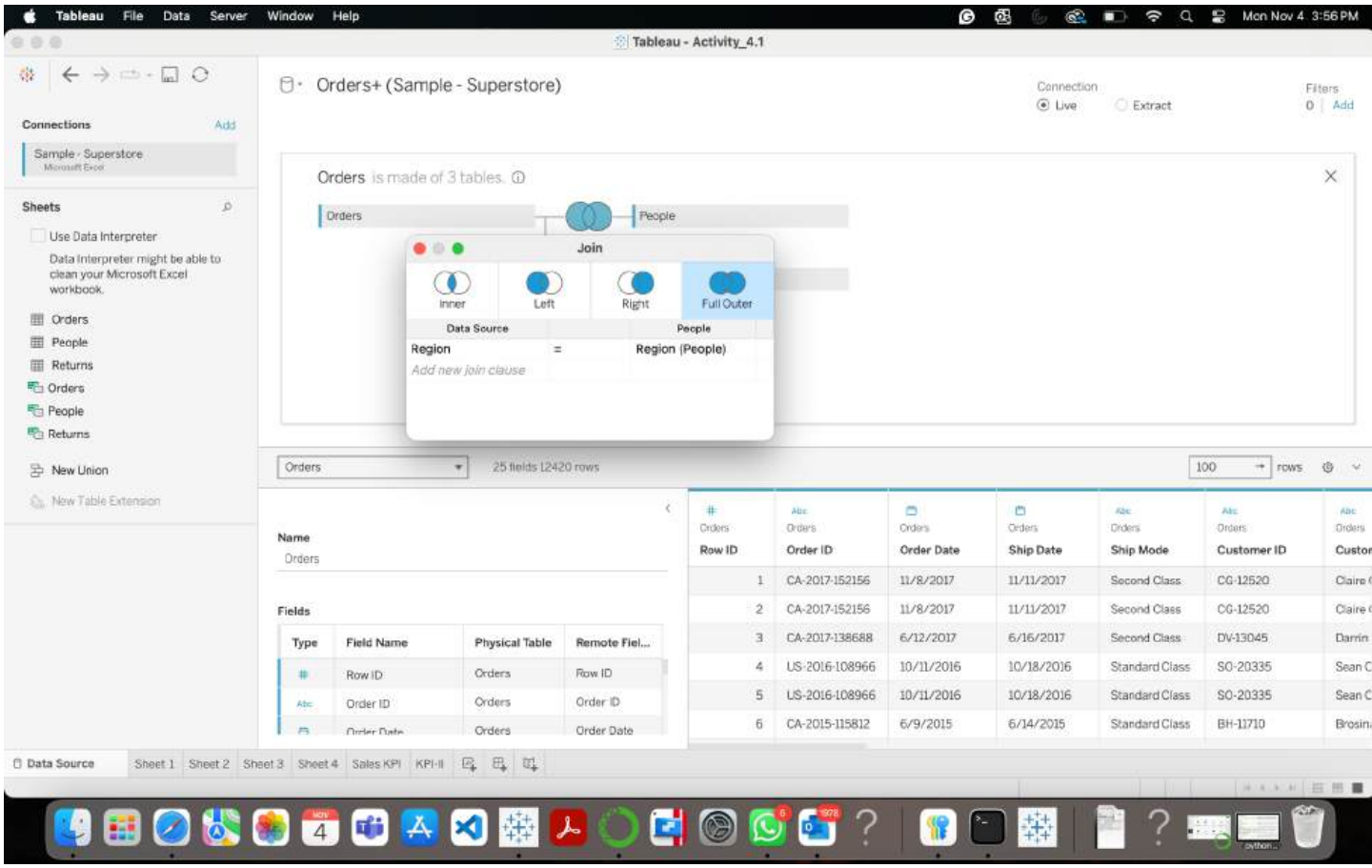


Tableau File Data Server Window Help
Mon Nov 4 3:56 PM
Tableau - Activity_4.1
Orders+ (Sample - Superstore)
Connection
Live
Extract
Filters
0 | Add
Connections
Add
Sample - Superstore
Sheets
Use Data Interpreter
Data Interpreter might be able to clean your Microsoft Excel workbook.
Orders
People
Returns
Orders
People
Returns
New Union
New Table Extension
Orders is made of 3 tables.
Orders
People
Join
Inner
Left
Right
Full Outer
Data Source
People
Region
=
Region (People)
Add new join clause
Orders
25 fields 12420 rows
100
rows
Name
Orders
Fields
Type
Field Name
Physical Table
Remote Fiel...
Row ID
Orders
Row ID
Order ID
Orders
Order ID
Order Date
Orders
Order Date
Row ID
Order ID
Order Date
Ship Date
Ship Mode
Customer ID
1 CA-2017-152156 11/8/2017 11/11/2017 Second Class CG-12520
2 CA-2017-152156 11/8/2017 11/11/2017 Second Class CG-12520
3 CA-2017-138688 6/12/2017 6/16/2017 Second Class DV-13045
4 US-2016-108966 10/11/2016 10/18/2016 Standard Class SO-20335
5 US-2016-108966 10/11/2016 10/18/2016 Standard Class SO-20335
6 CA-2015-115812 6/9/2015 6/14/2015 Standard Class BH-11710
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II

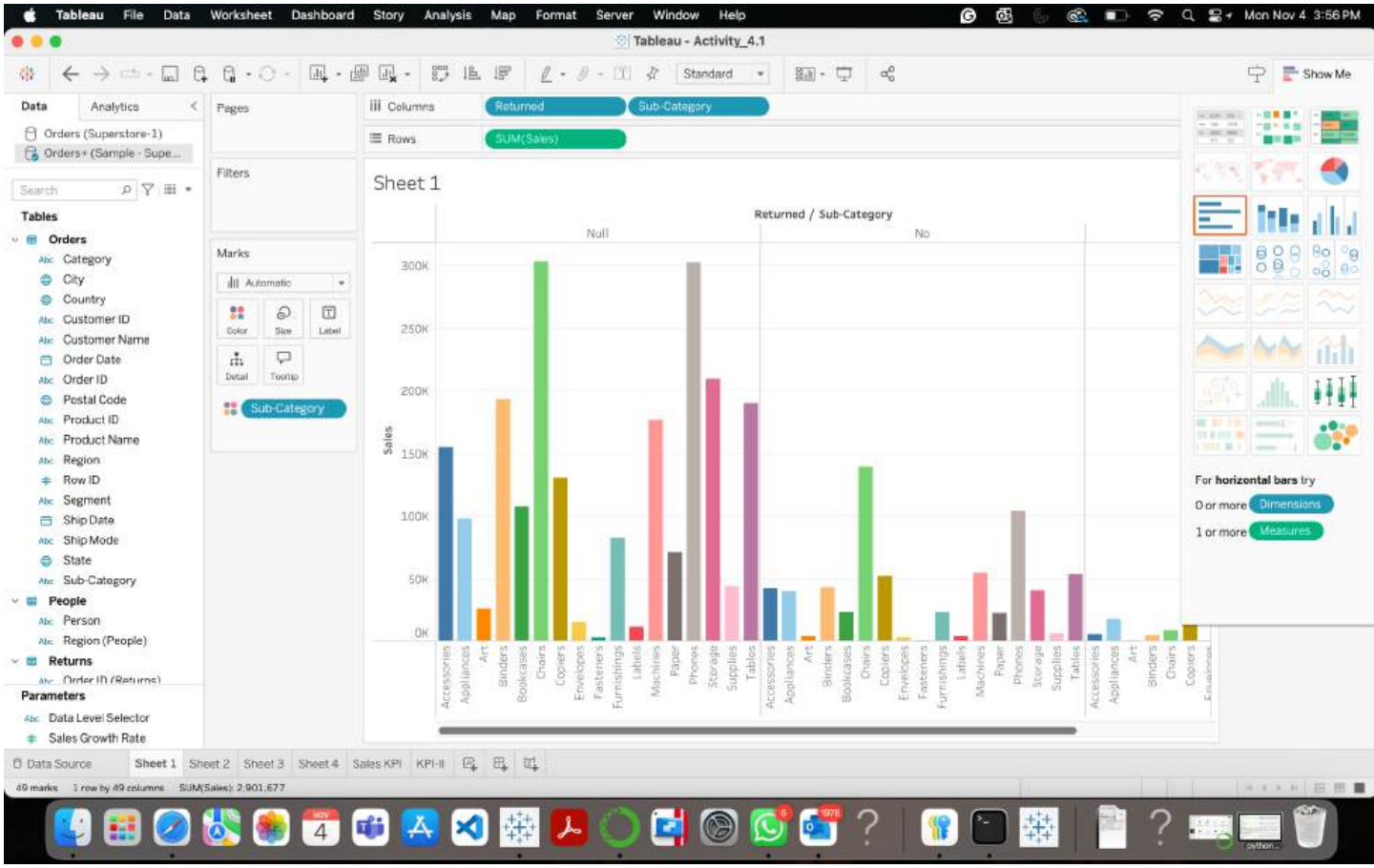


Tableau - Activity_4.1
Columns
Returned
Sub-Category
Rows
SUM(Sales)
Sheet 1
Returned / Sub-Category
Null
No
Sales
300K
250K
200K
150K
100K
50K
0K
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
Sub-Category

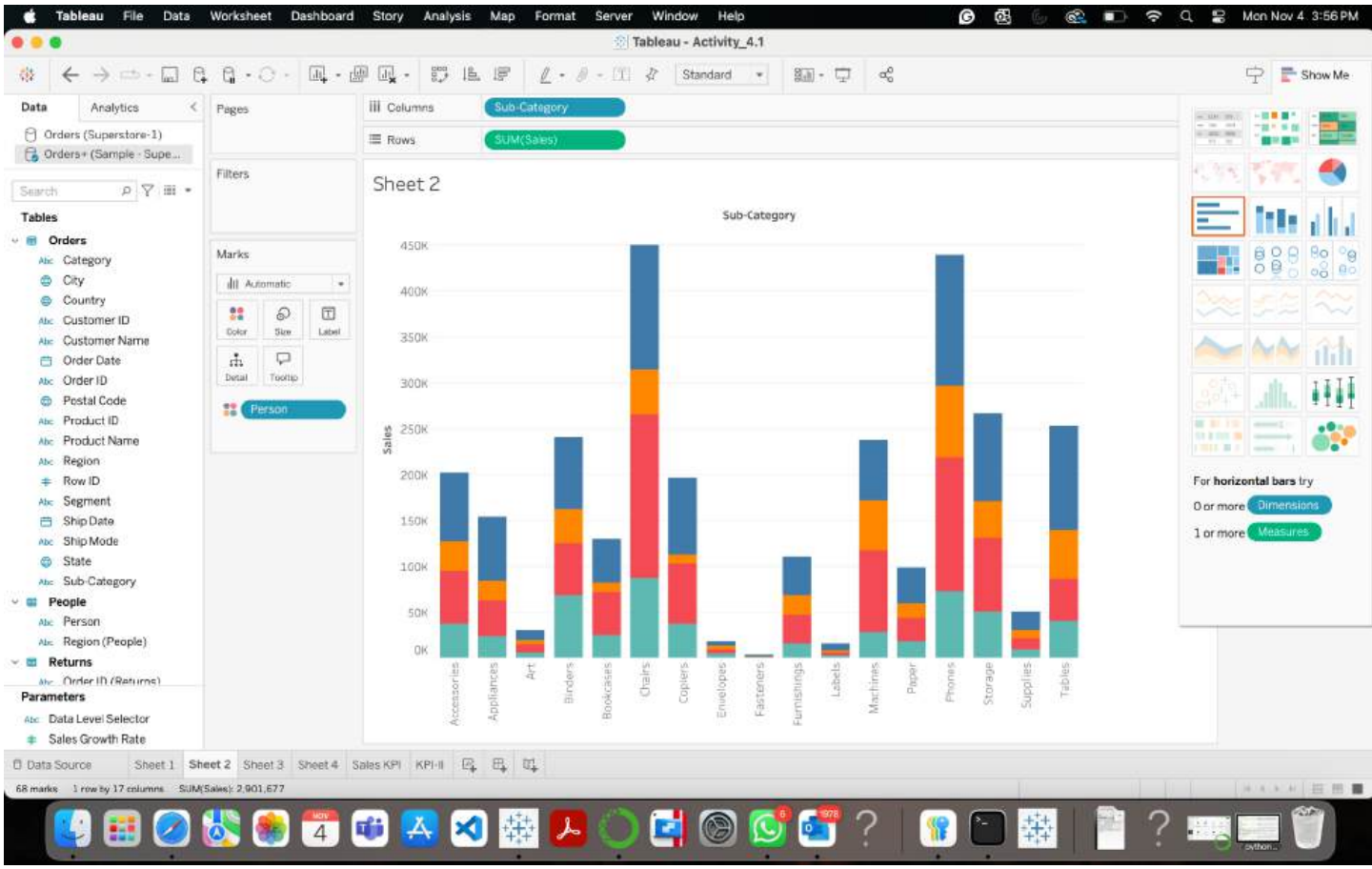
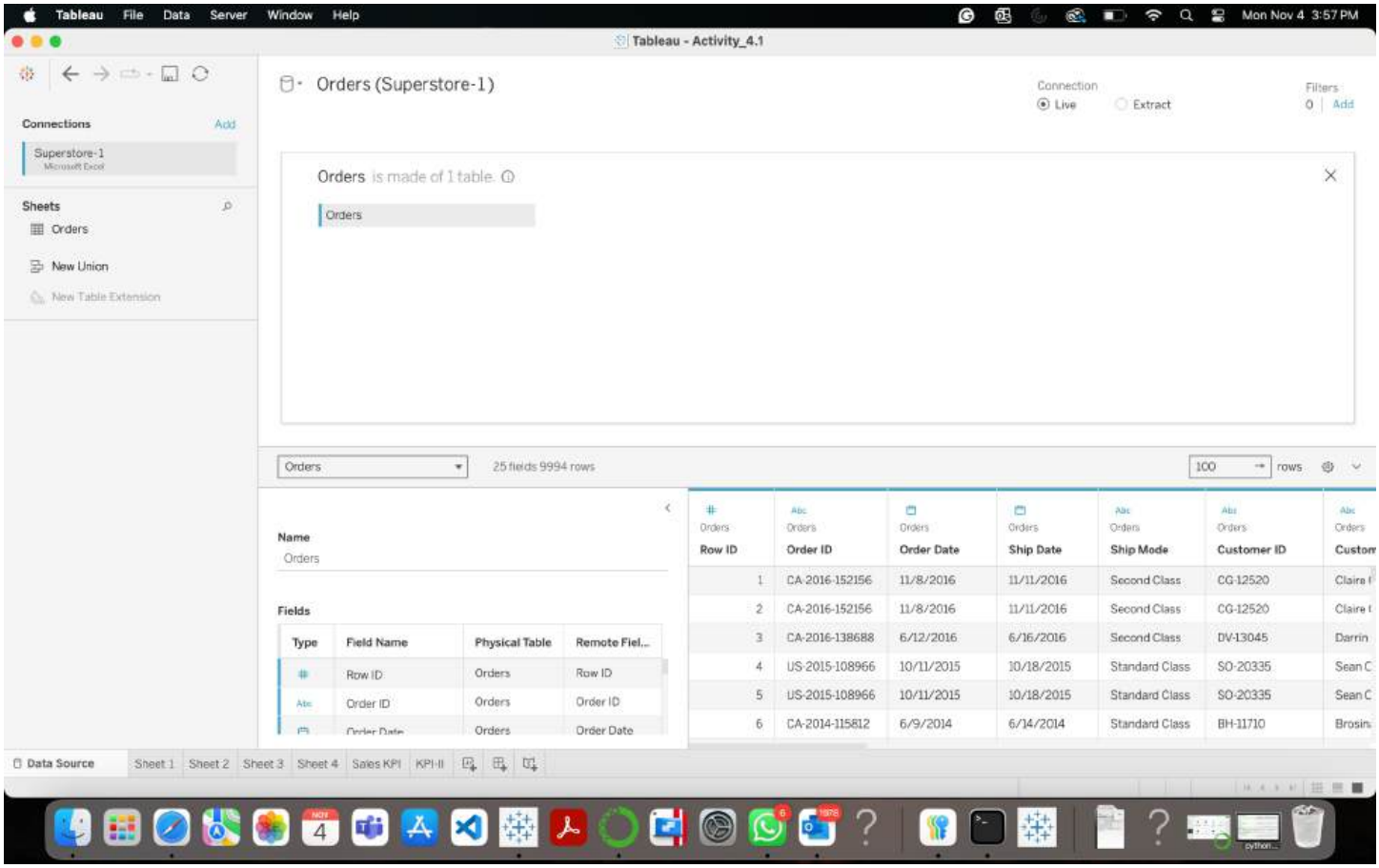


Tableau - Activity_4.1
Columns
Sub-Category
Rows
SUM(Sales)
Sheet 2
Sub-Category
Sales
450K
400K
350K
300K
250K
200K
150K
100K
50K
0K
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
Person

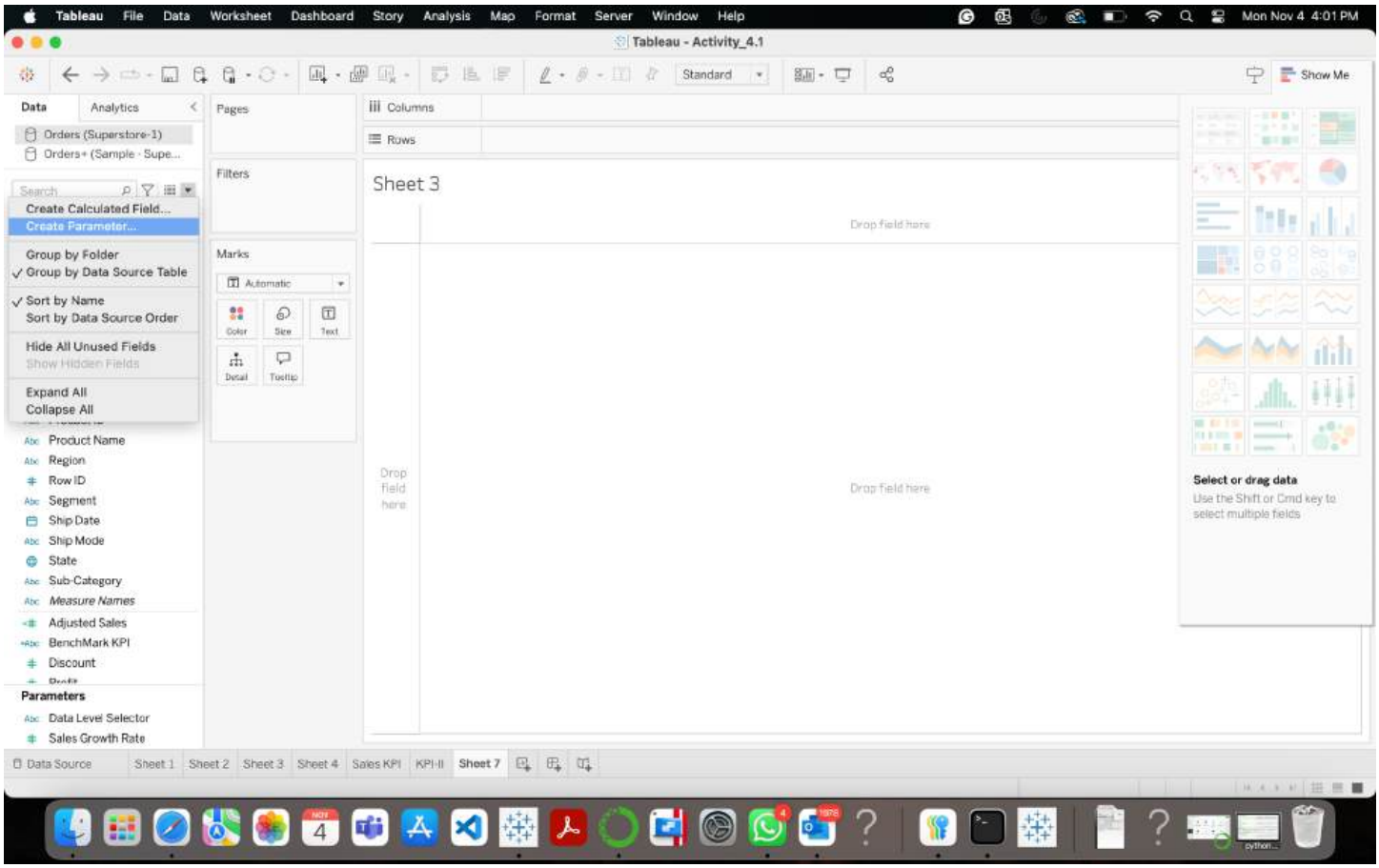
The impact of cross joins on sales data displays cannot be overestimated they're as important. An Inner Join eliminates the need to view all categories and sales members and focuses at rows that correspond to each other from both tables so that it shows only successful clusters. In contrast, a Left Join provides broader perspective showing all the data from the left-most table and considering non-matching records as NULL. This strategy helps to identify the missing gaps in sales improvement area and barriers to any potential growth across all goods categories. In comparison to the aFull Outer Join offerings, a Right Join emphasizes and undersigns the efforts of sales staff in the areas where sales are not being done and even if they are doing it at all how is it possible. A Full Outer Join is the broadest of them all as it shows every row from every table or tables joined together and domains any mismatching records with NULL values.

TASK - 2

Step 1:
Connecting the Superstore excel file to the data source.



Step 2:
Creating the by selecting the New parameter to open the parameter creation dialog box



Step 3:

Giving the inputs as Parameter name is Data Level Selector, Data Type as String, and selecting the allowable values as List. Then we give the specific values you want to include in the parameter and click ok.

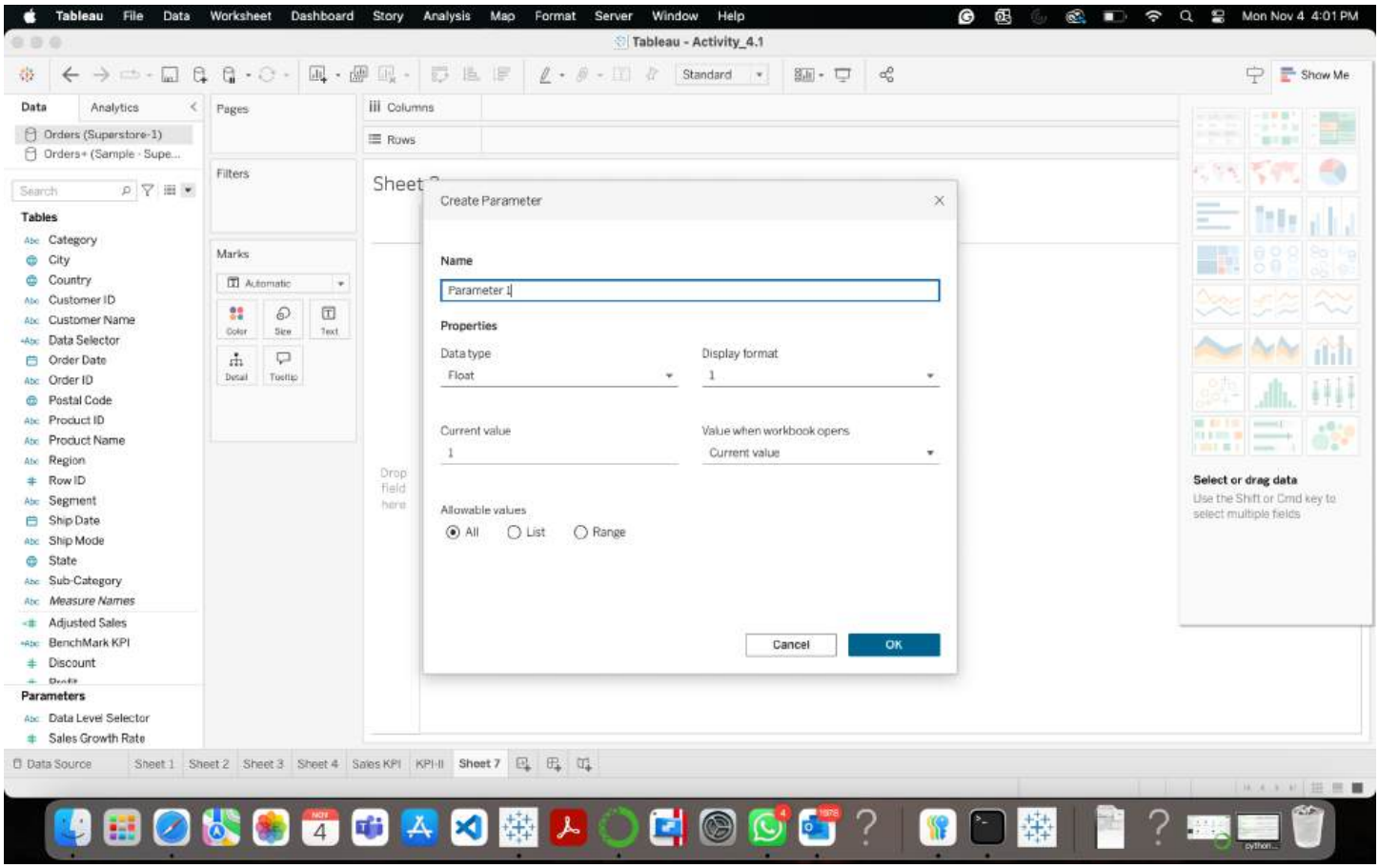


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 4:01 PM
Tableau - Activity_4.1
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Search
Tables
Category
City
Country
Customer ID
Customer Name
Data Selector
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Adjusted Sales
BenchMark KPI
Discount
Parameters
Data Level Selector
Sales Growth Rate
Pages
Filters
Marks
Automatic
Color
Size
Text
Detail
Tooltip
Columns
Rows
Sheet 2
Drop field here
Create Parameter
Name
Parameter 1
Properties
Data type
Float
Display format
1
Current value
1
Value when workbook opens
Current value
Allowable values
All
List
Range
Cancel
OK
Select or drag data
Use the Shift or Cmd key to select multiple fields
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
Sheet 7

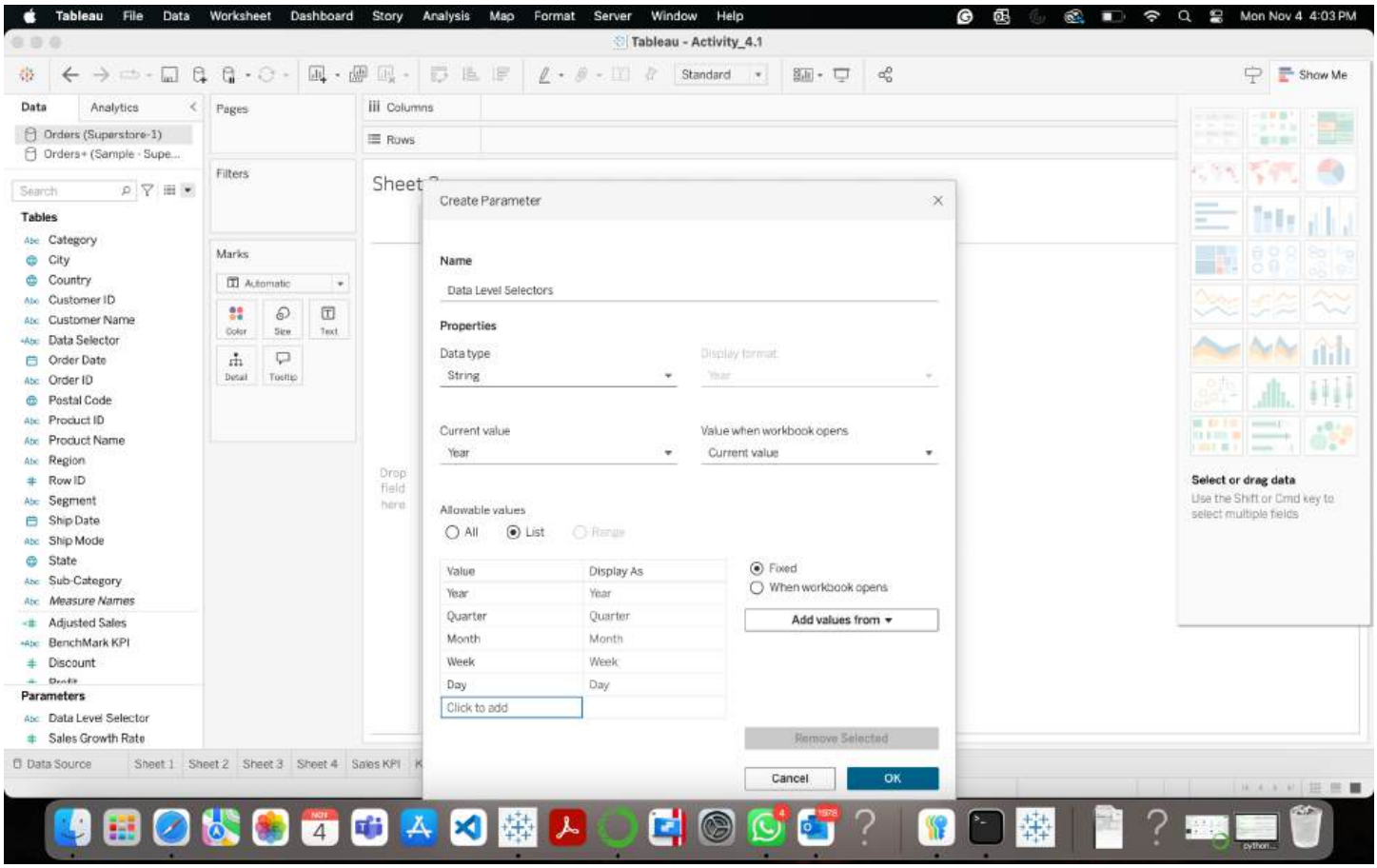
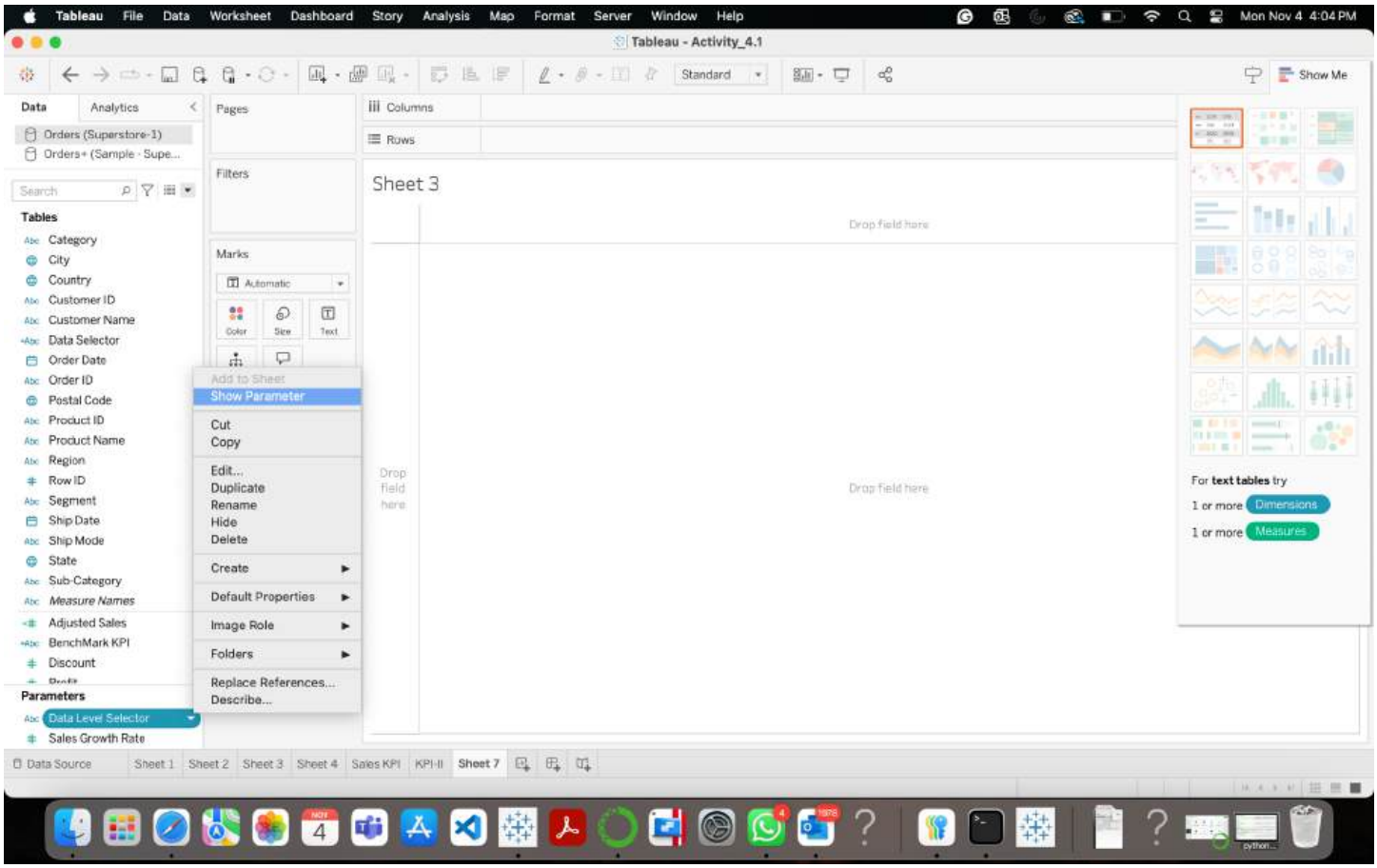


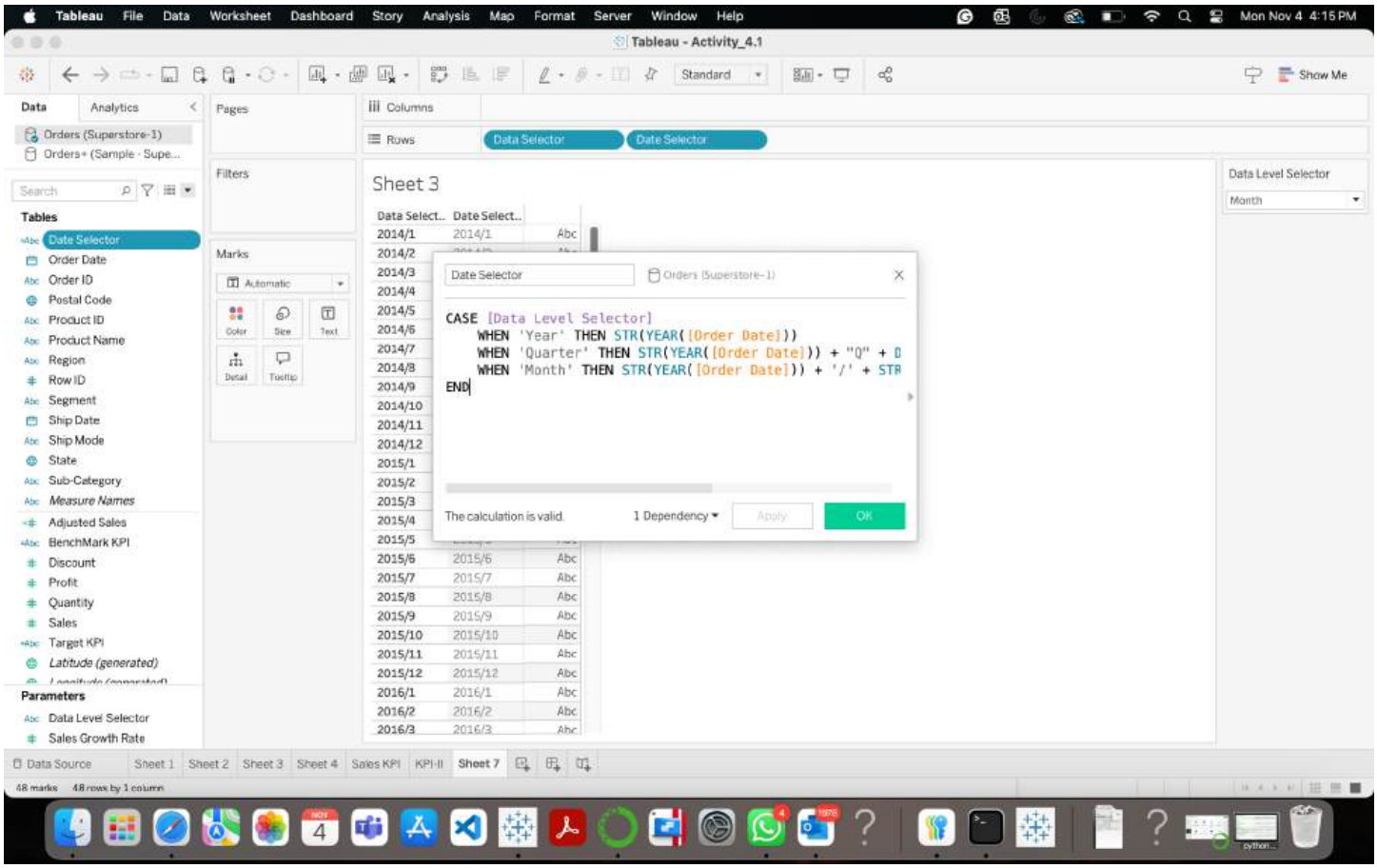
Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 4:03 PM
Tableau - Activity_4.1
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Search
Tables
Category
City
Country
Customer ID
Customer Name
Data Selector
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Adjusted Sales
BenchMark KPI
Discount
Parameters
Data Level Selector
Sales Growth Rate
Pages
Filters
Marks
Automatic
Color
Size
Text
Detail
Tooltip
Columns
Rows
Sheet 2
Drop field here
Create Parameter
Name
Data Level Selectors
Properties
Data type
String
Display format
Year
Current value
Year
Value when workbook opens
Current value
Allowable values
All
List
Range
Value
Display As
Year
Year
Quarter
Quarter
Month
Month
Week
Week
Day
Day
Click to add
Fixed
When workbook opens
Add values from
Remove Selected
Cancel
OK
Select or drag data
Use the Shift or Cmd key to select multiple fields
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI

Step 4: Now the newly created parameter is created, right click on that and click on Show parameter.



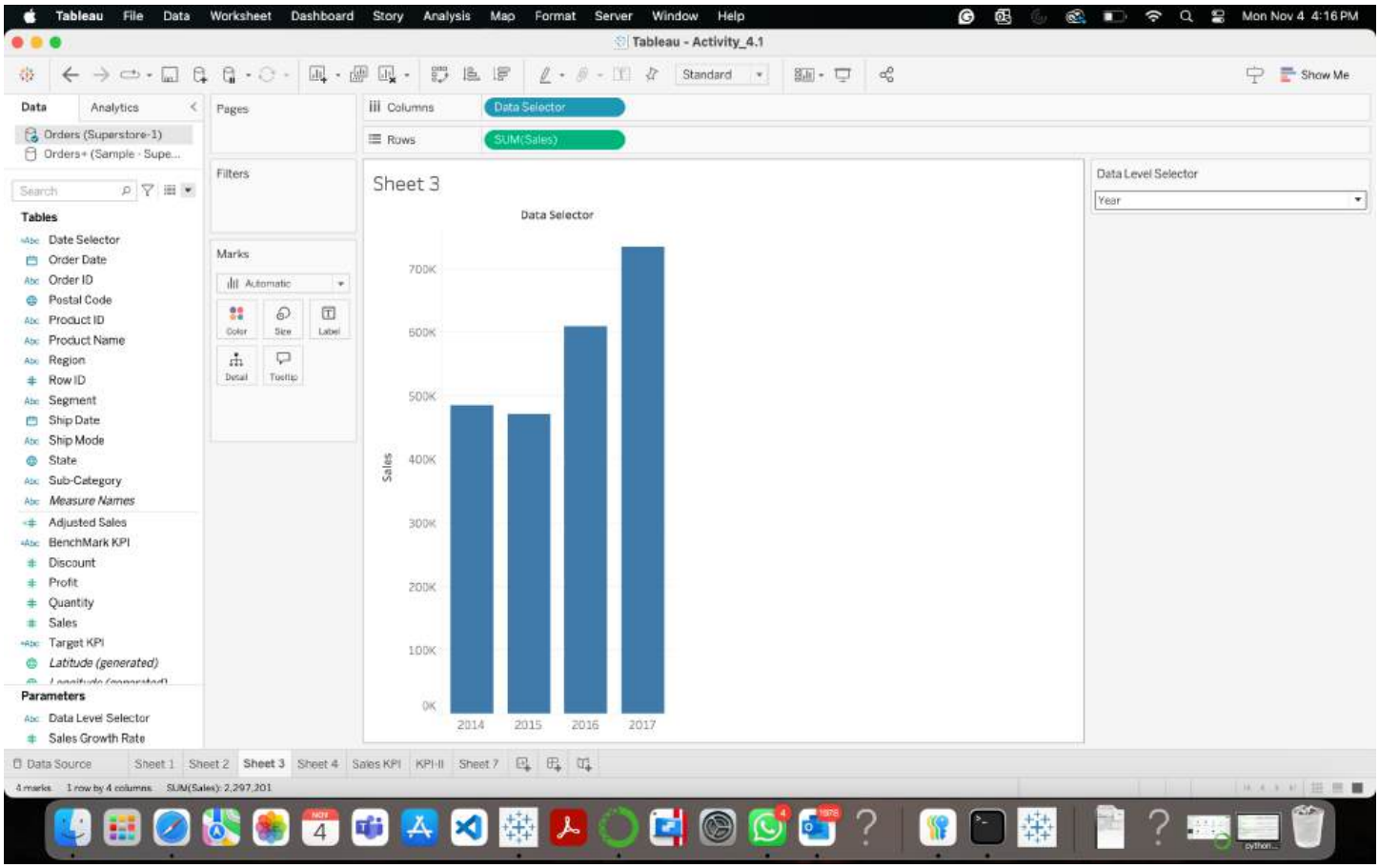
Step 5:

Creating the new calculated field named Date Selector and we will be entering the function and click on OK.



Step 6:

Create the visualization to display the sales data by keeping the Data Selector on the columns and sales on the rows.



Step 7:

Changing the mark type to “LINE”. The visualization will be transformed to a line chart and then we can visualize the sales over the selected date intervals.

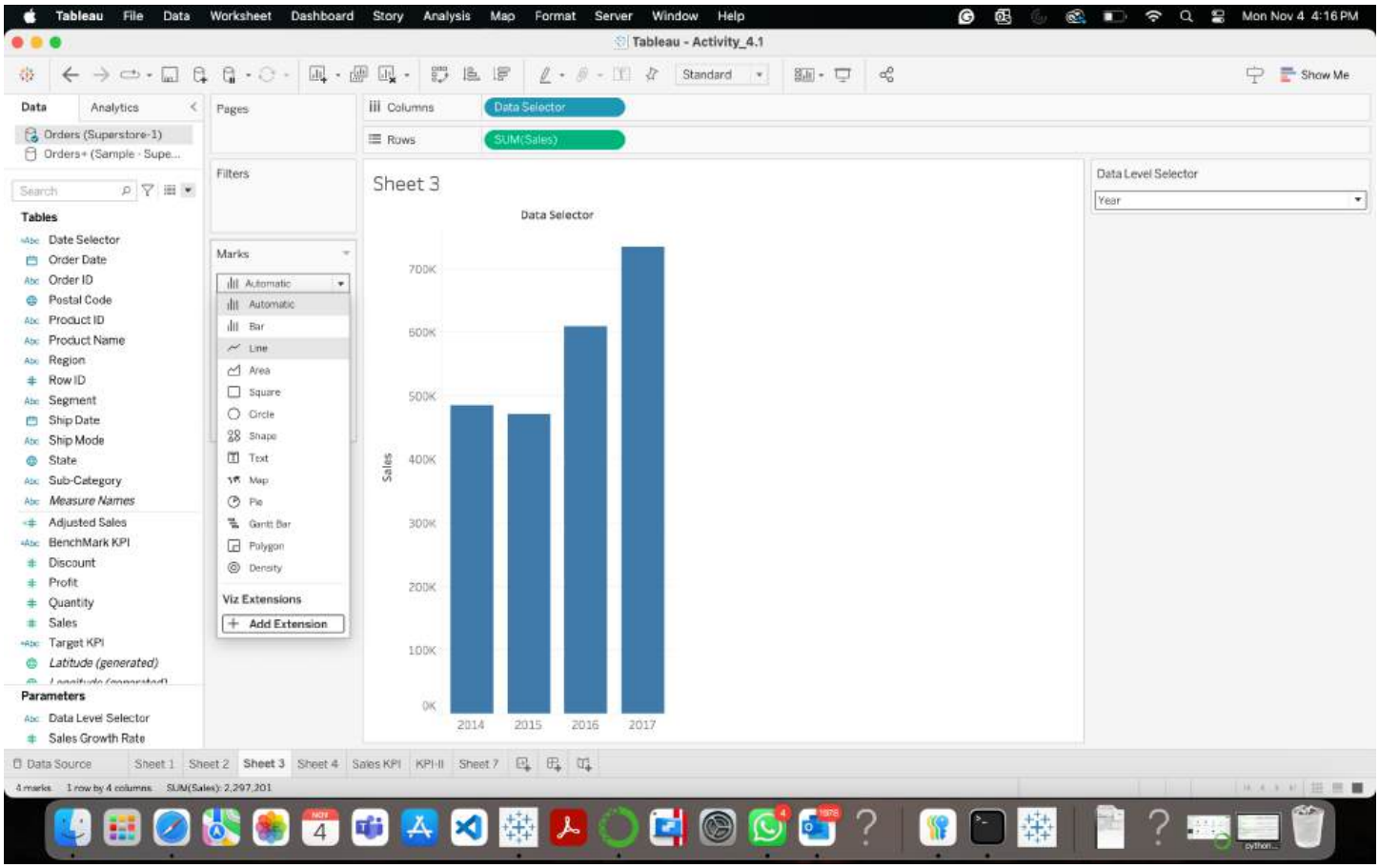


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 4:16 PM
Tableau - Activity_4.1
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Pages
Filters
Marks
Automatic
Bar
Line
Area
Square
Circle
Shape
Text
Map
Pie
Gantt Bar
Polygon
Density
Viz Extensions
Add Extension
Columns
Data Selector
Rows
SUM(Sales)
Sheet 3
Data Selector
Sales
700K
600K
500K
400K
300K
200K
100K
0K
2014
2015
2016
2017
Data Level Selector
Year
Tables
Date Selector
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Adjusted Sales
BenchMark KPI
Discount
Profit
Quantity
Sales
Target KPI
Latitude (generated)
Parameters
Data Level Selector
Sales Growth Rate
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
Sheet 7
4 marks
1 row by 4 columns
SUM(Sales): 2,297,201

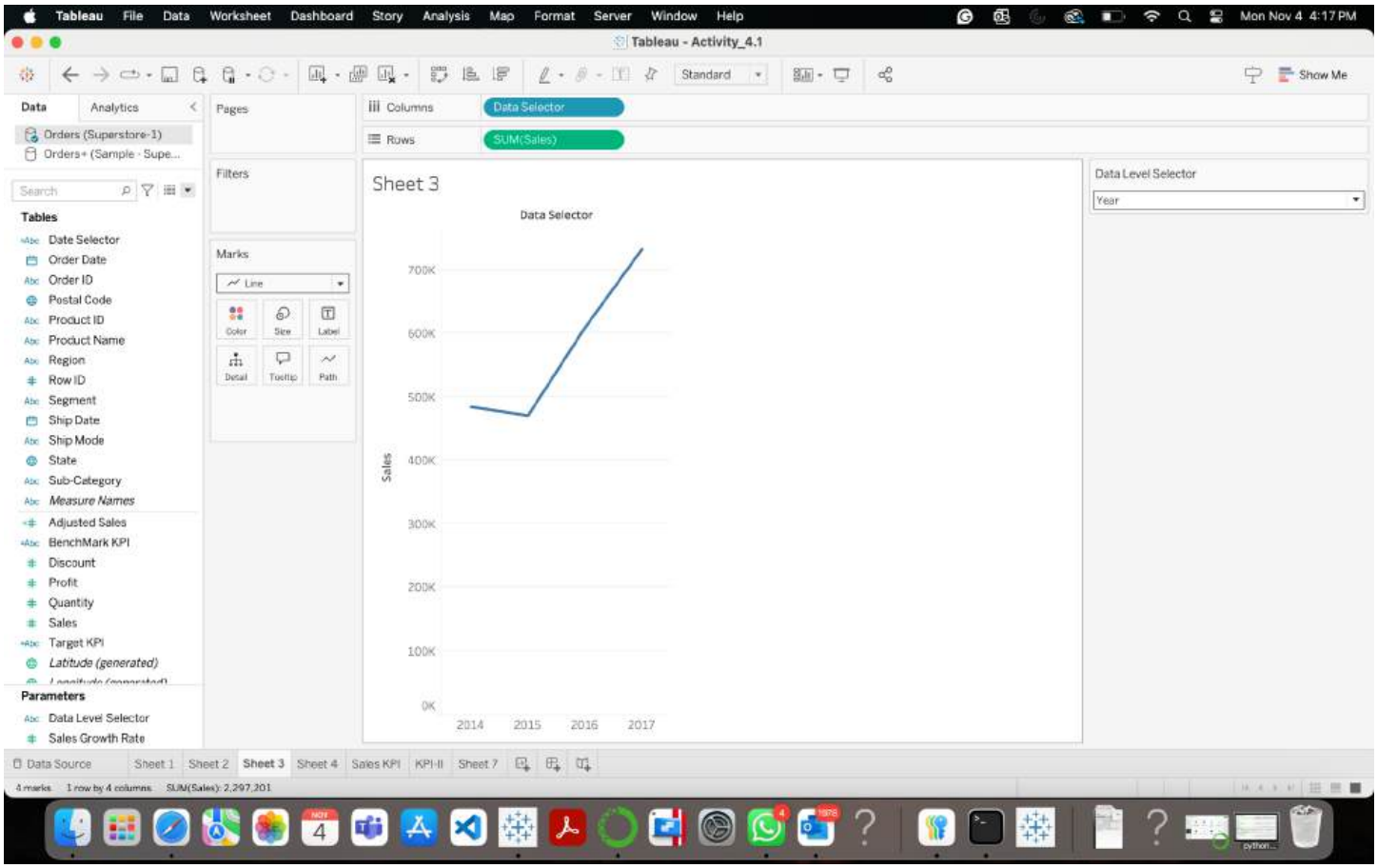
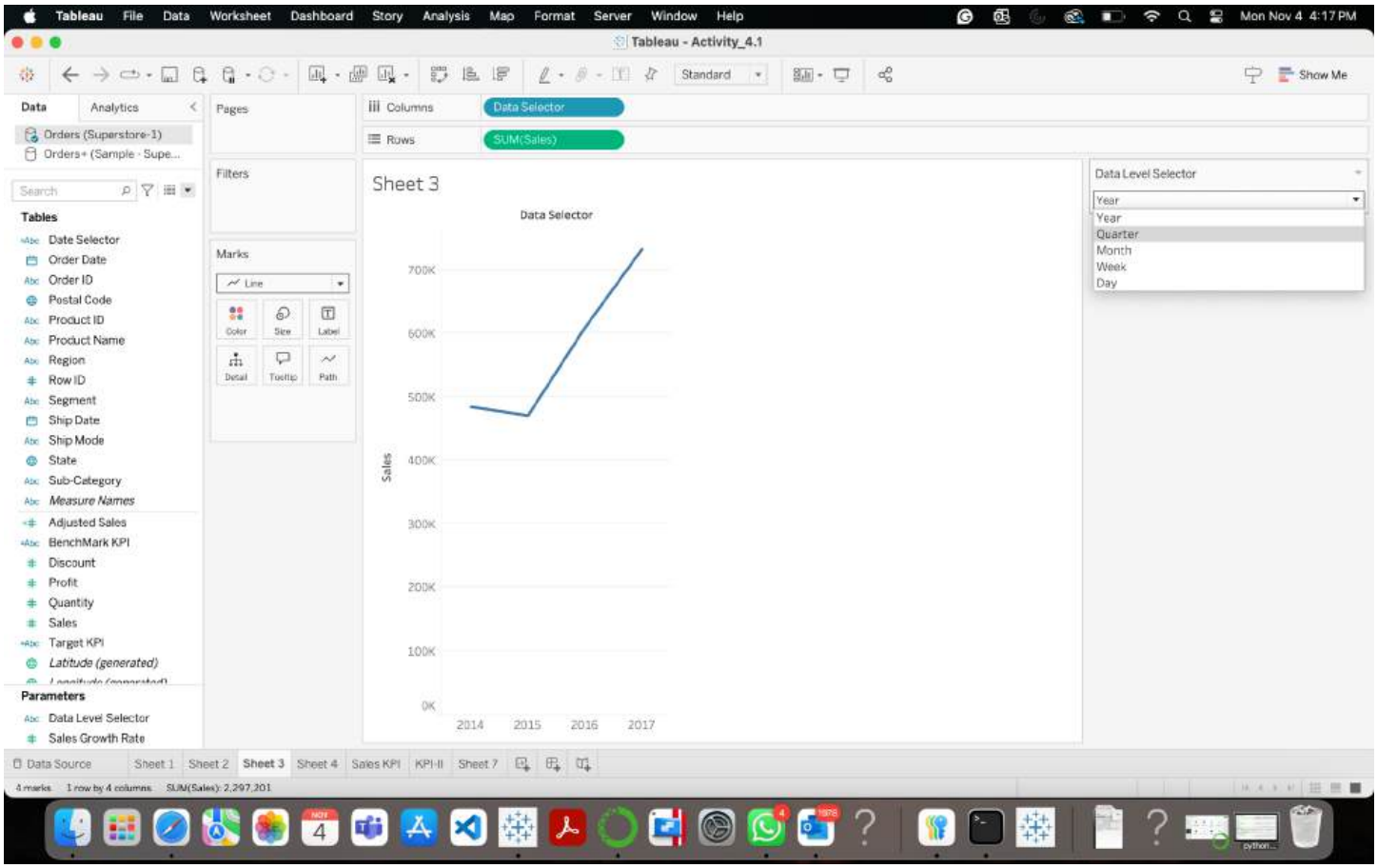
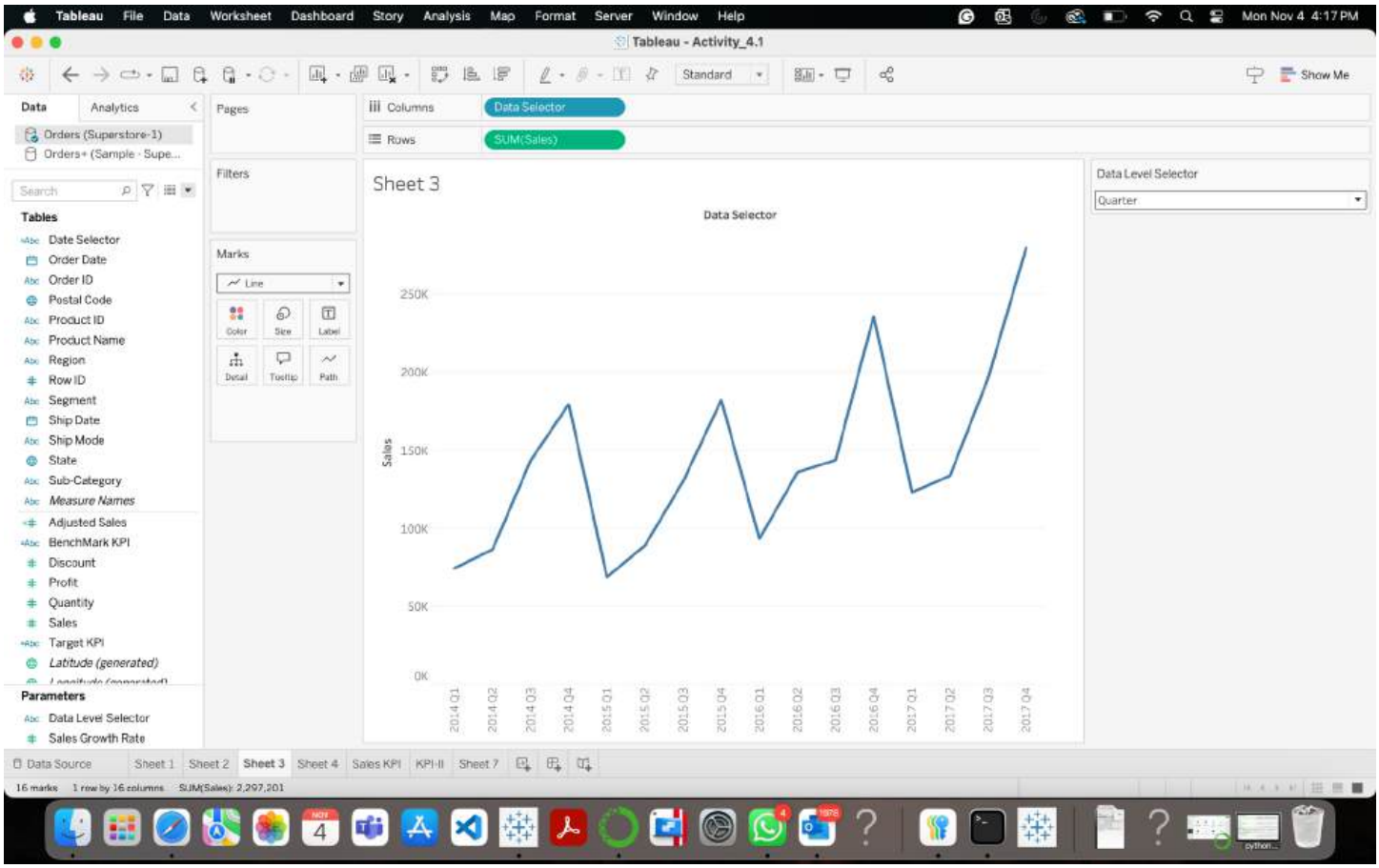


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 4:17 PM
Tableau - Activity_4.1
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Pages
Filters
Marks
Line
Color
Size
Label
Detail
Tooltip
Path
Columns
Data Selector
Rows
SUM(Sales)
Sheet 3
Data Selector
Sales
700K
600K
500K
400K
300K
200K
100K
0K
2014
2015
2016
2017
Data Level Selector
Year
Tables
Date Selector
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Adjusted Sales
BenchMark KPI
Discount
Profit
Quantity
Sales
Target KPI
Latitude (generated)
Parameters
Data Level Selector
Sales Growth Rate
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
Sheet 7
4 marks
1 row by 4 columns
SUM(Sales): 2,297,201

Step 8:

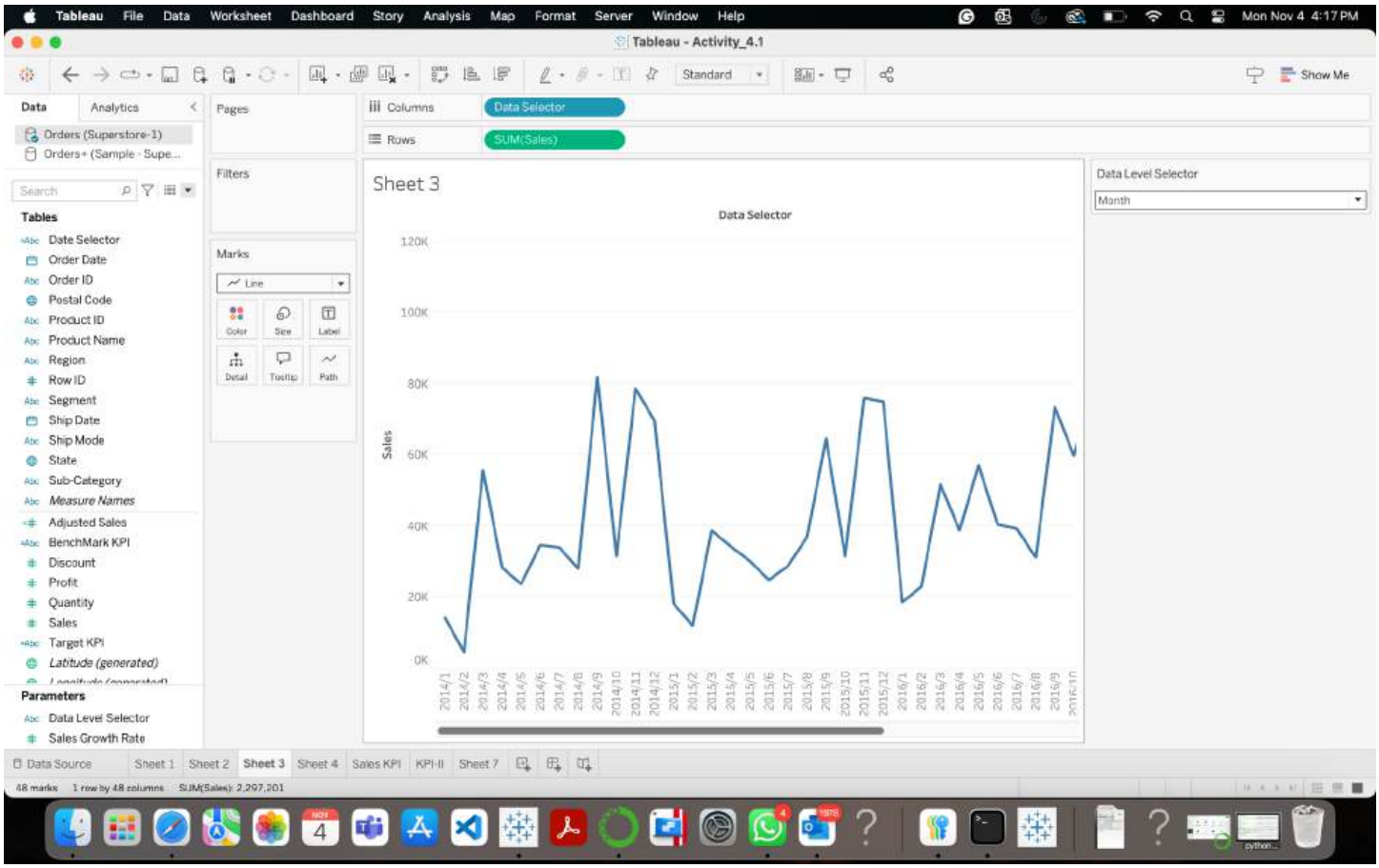
Changing the Date Level Selector parameter to Quarter.This will display the sales figures within the selected quarters in the line chart.





Step 9:

Change the Date Level Selector parameter to Month.This will display the sales figures within the selected Month and it gives a more detailed analysis in the line chart.



Step 10:

Change the Date Level Selector parameter to week and Day. This will display the sales figures within the selected week and Day in the line chart.

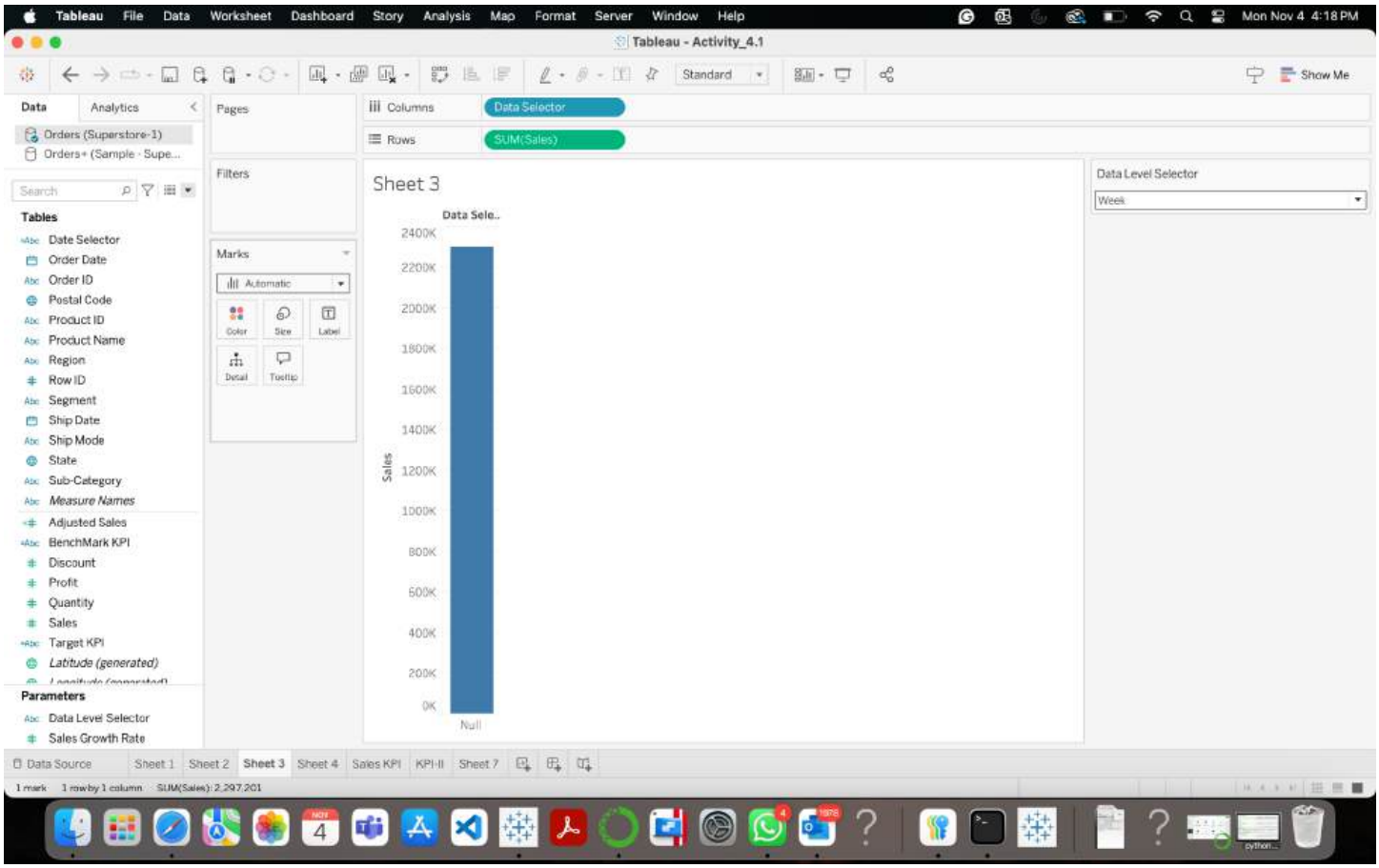


Tableau - Activity_4.1
Columns
Data Selector
Rows
SUM(Sales)
Sheet 3
Data Sele..
Sales
Null
Data Level Selector
Week

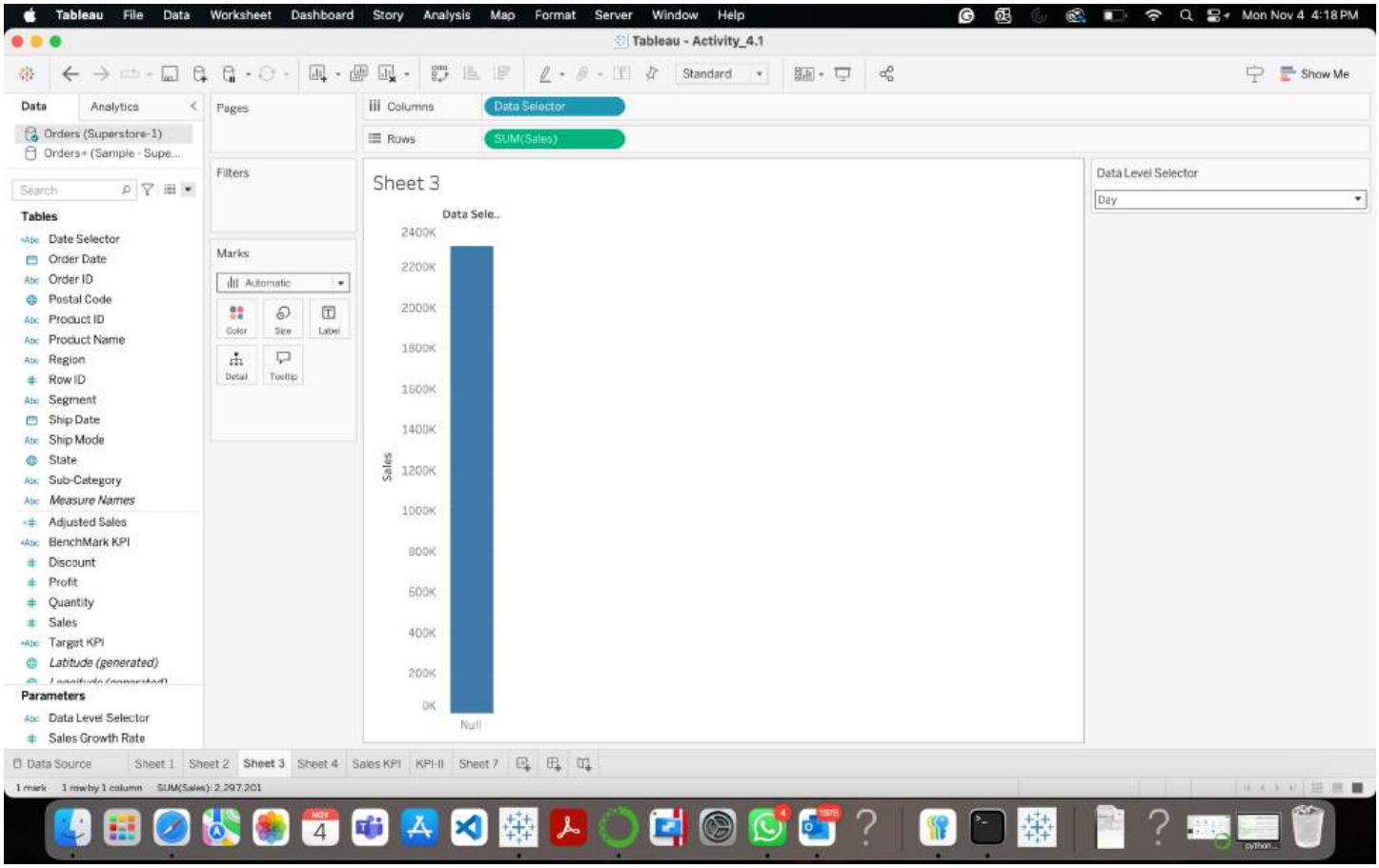
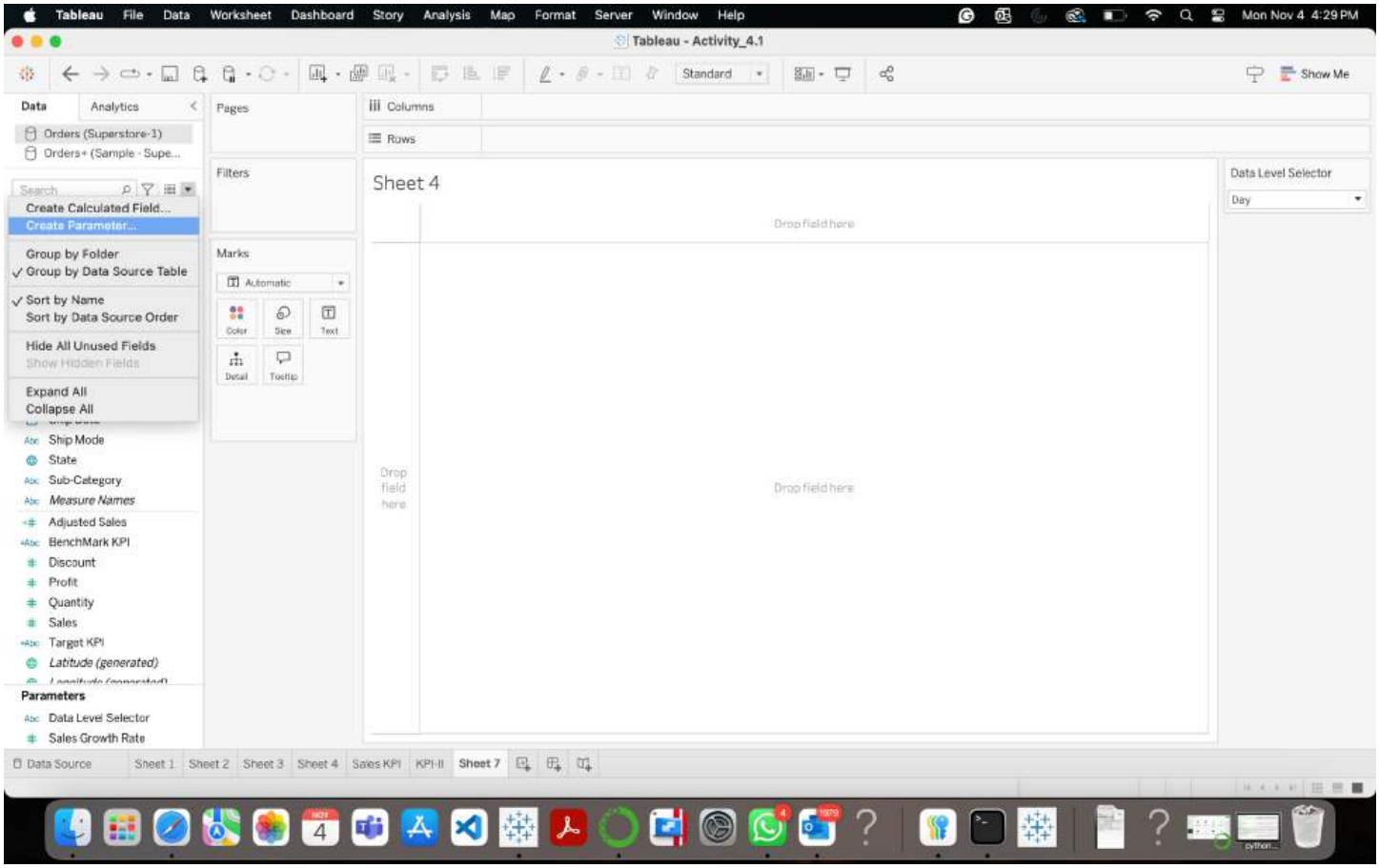
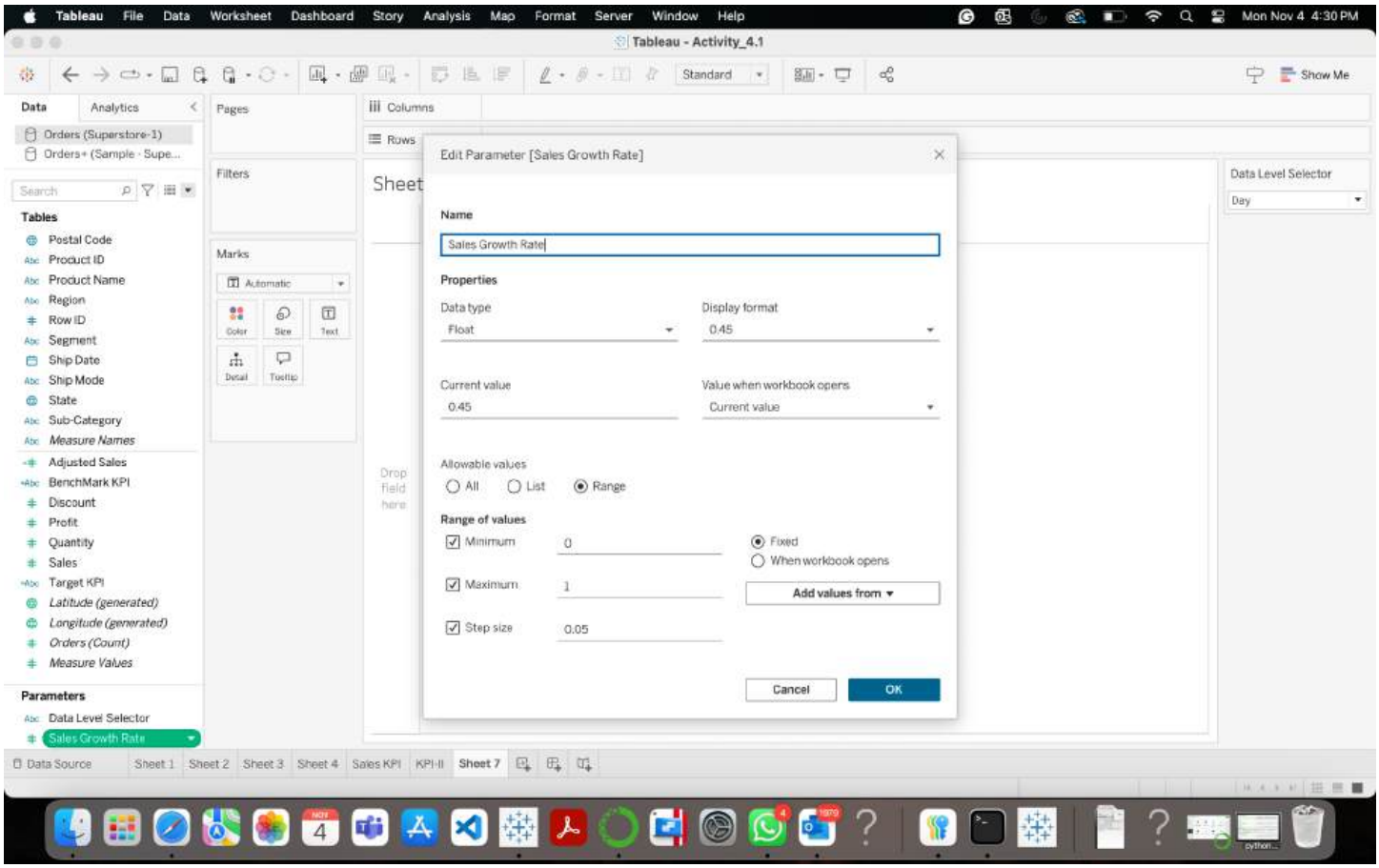


Tableau - Activity_4.1
Columns
Data Selector
Rows
SUM(Sales)
Sheet 3
Data Sele..
Sales
Null
Data Level Selector
Day

Question 2

1) Connecting the Superstore excel file to the data source.





2)Create a new calculated field named `Adjusted Sales` using the formula:
SUM([Sales]) * (1 + [Sales Growth Rate])

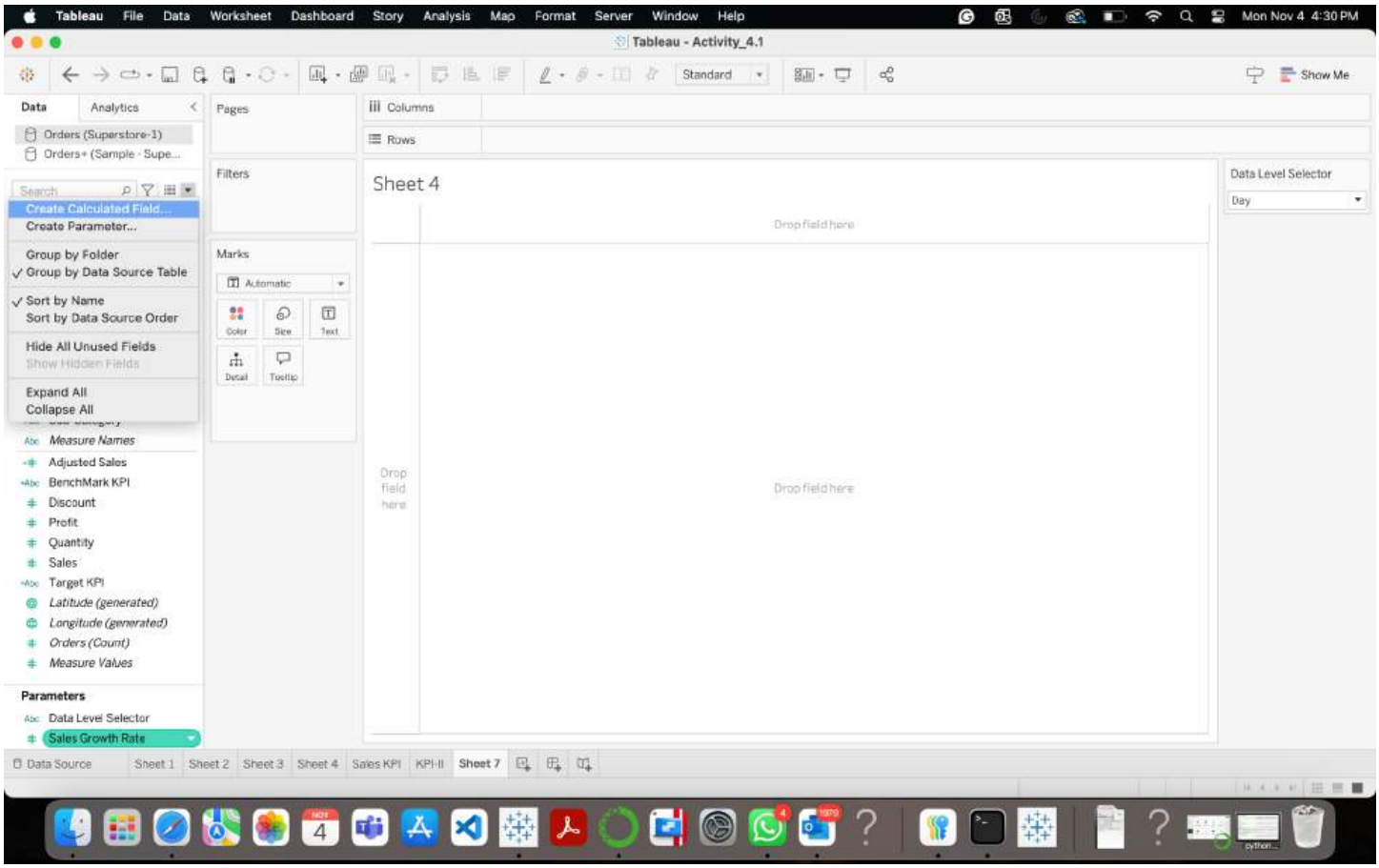


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 4:30 PM
Tableau - Activity_4.1
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Search
Create Calculated Field...
Create Parameter...
Group by Folder
Group by Data Source Table
Sort by Name
Sort by Data Source Order
Hide All Unused Fields
Show Hidden Fields
Expand All
Collapse All
Measure Names
Adjusted Sales
BenchMark KPI
Discount
Profit
Quantity
Sales
Target KPI
Latitude (generated)
Longitude (generated)
Orders (Count)
Measure Values
Parameters
Data Level Selector
Sales Growth Rate
Pages
Filters
Marks
Automatic
Color
Size
Text
Detail
Tooltip
Columns
Rows
Sheet 4
Drop field here
Drop field here
Drop field here
Data Level Selector
Day
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
Sheet 7

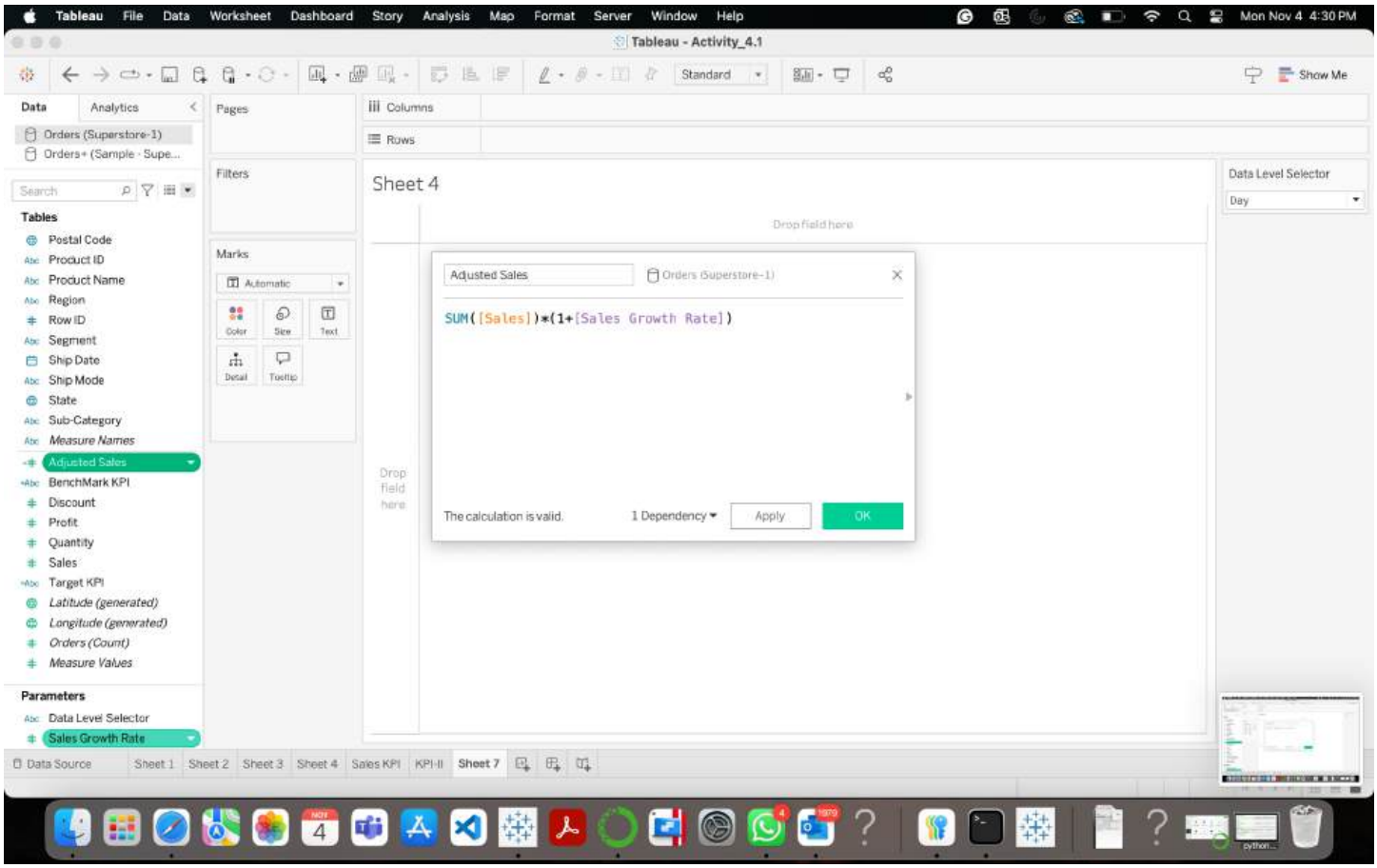
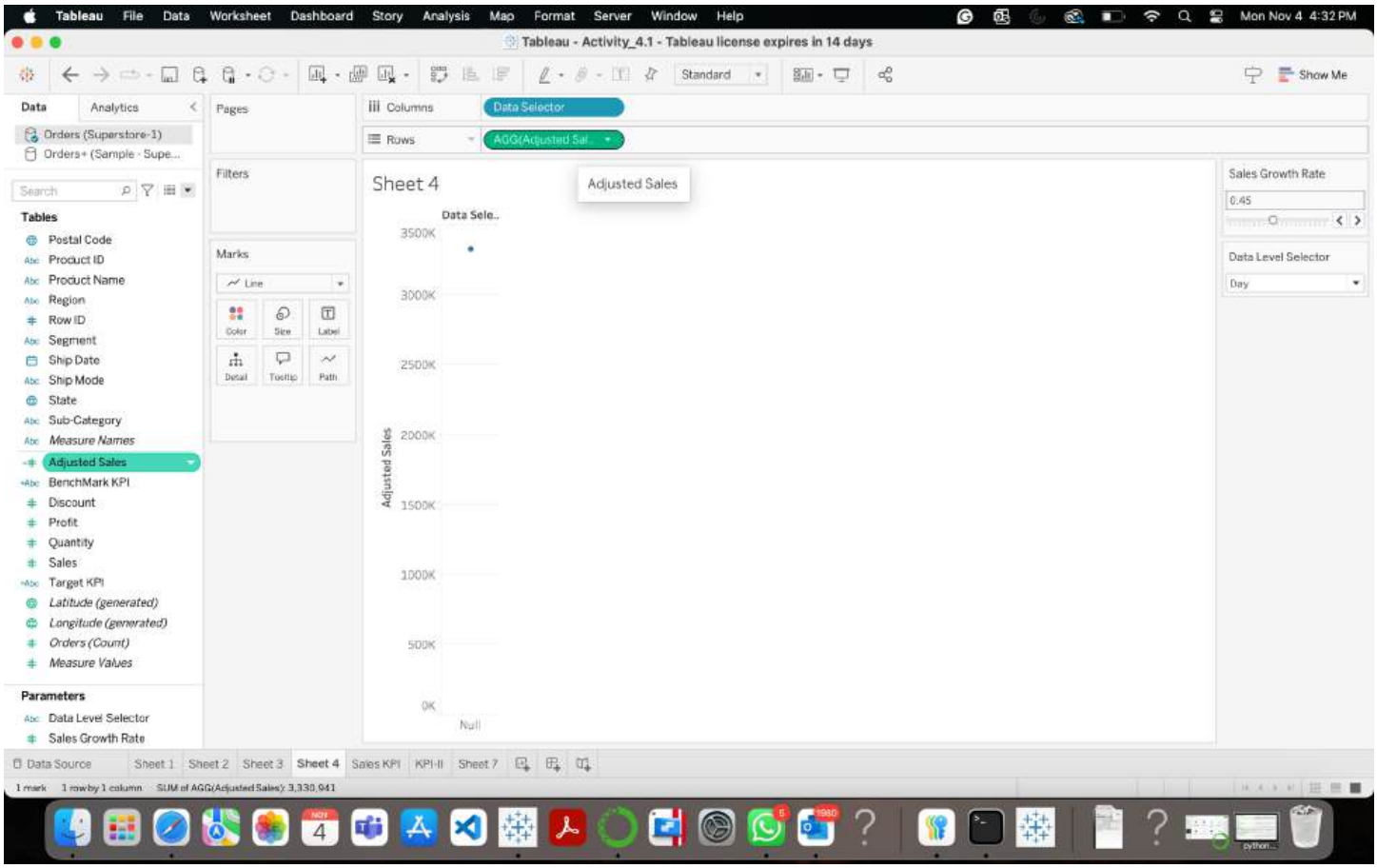


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 4:30 PM
Tableau - Activity_4.1
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Search
Tables
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Adjusted Sales
BenchMark KPI
Discount
Profit
Quantity
Sales
Target KPI
Latitude (generated)
Longitude (generated)
Orders (Count)
Measure Values
Parameters
Data Level Selector
Sales Growth Rate
Pages
Filters
Marks
Automatic
Color
Size
Text
Detail
Tooltip
Columns
Rows
Sheet 4
Drop field here
Drop field here
Drop field here
Adjusted Sales
Orders (Superstore-1)
SUM([Sales])*(1+[Sales Growth Rate])
The calculation is valid.
1 Dependency
Apply
OK
Data Level Selector
Day
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
Sheet 7

3) Using the `Adjusted Sales` in the line chart to compare sales with different growth rates by modifying the `Sales Growth Rate` parameter.



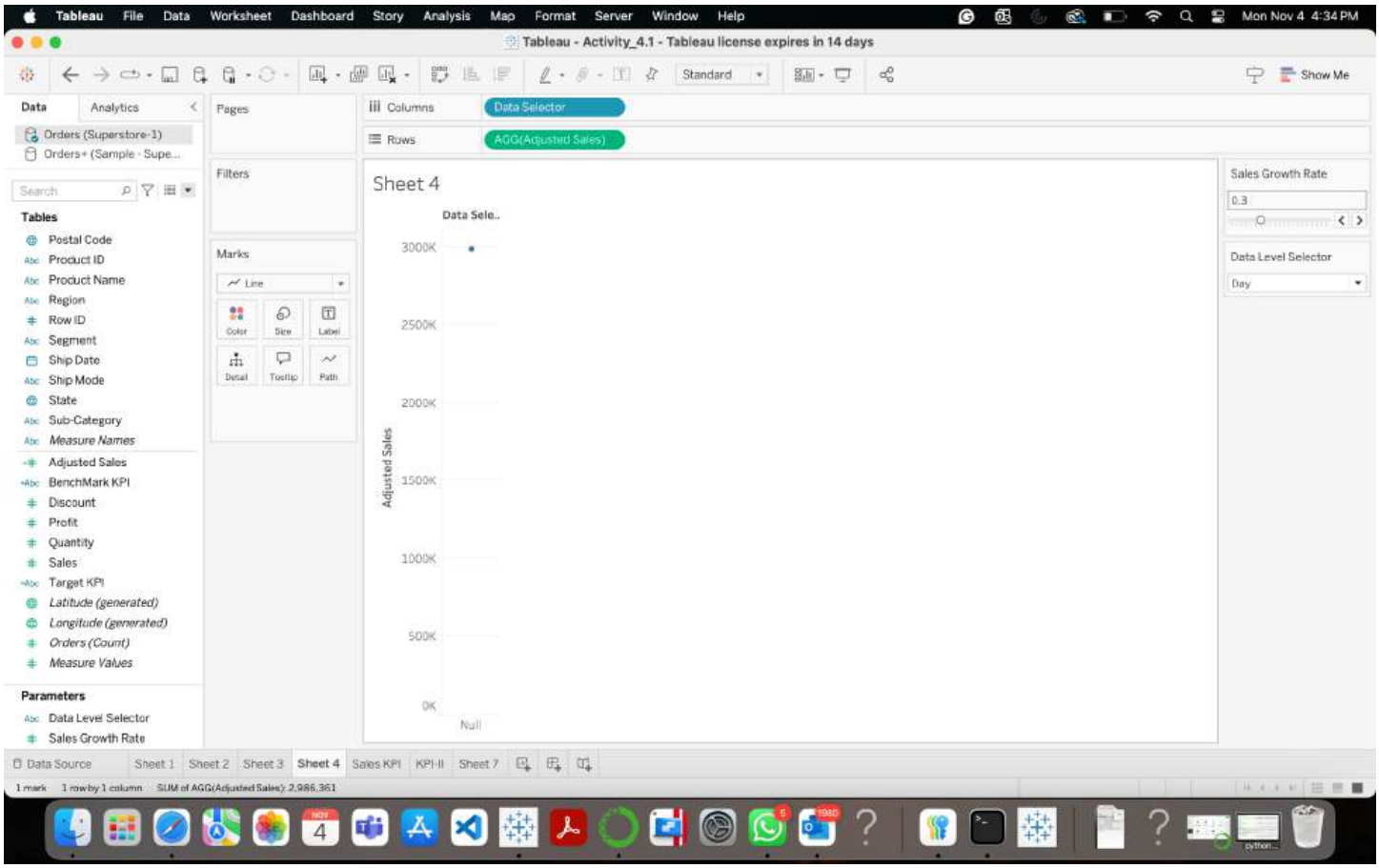


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 4:34 PM
Tableau - Activity_4.1 - Tableau license expires in 14 days
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Search
Tables
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Adjusted Sales
BenchMark KPI
Discount
Profit
Quantity
Sales
Target KPI
Latitude (generated)
Longitude (generated)
Orders (Count)
Measure Values
Parameters
Data Level Selector
Sales Growth Rate
Pages
Filters
Marks
Line
Color
Size
Label
Detail
Tooltip
Path
Columns
Data Selector
Rows
AGG(Adjusted Sales)
Sheet 4
Data Sele..
3000K
2500K
2000K
1500K
1000K
500K
0K
Adjusted Sales
Null
Sales Growth Rate
0.3
Data Level Selector
Day
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
Sheet 7
1 mark
1 row by 1 column
SUM of AGG(Adjusted Sales): 2,986,361

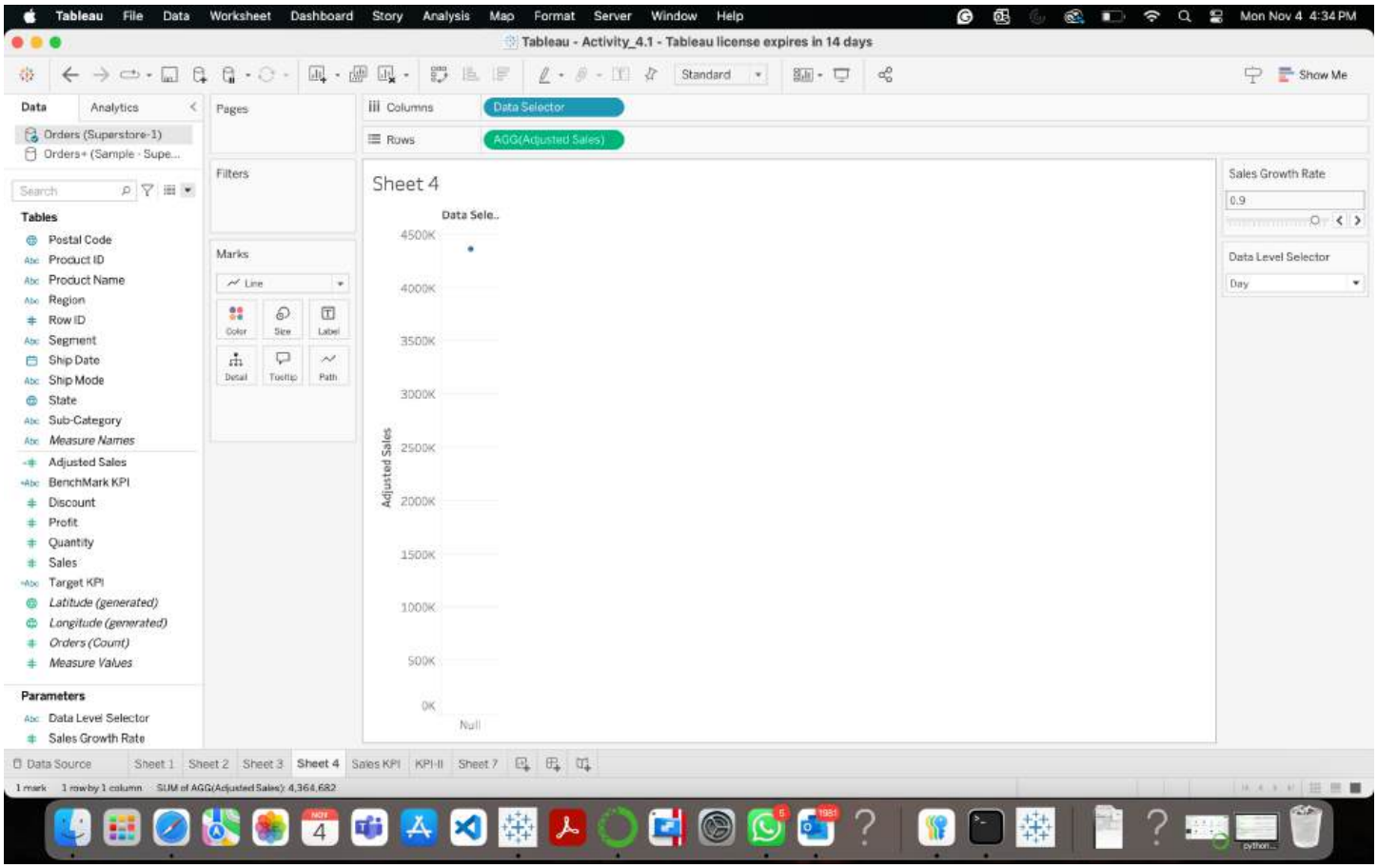
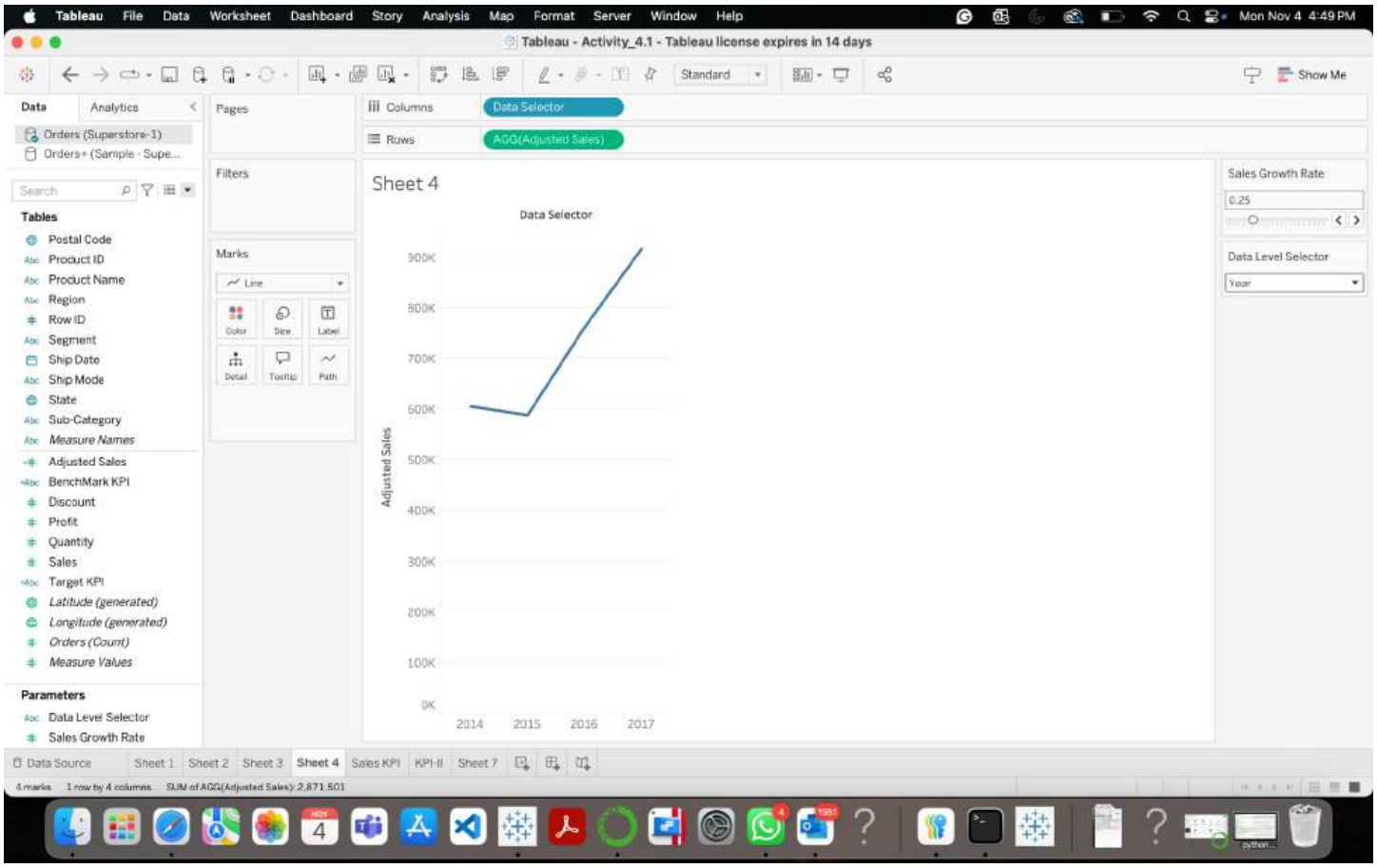


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 4:34 PM
Tableau - Activity_4.1 - Tableau license expires in 14 days
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Search
Tables
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Adjusted Sales
BenchMark KPI
Discount
Profit
Quantity
Sales
Target KPI
Latitude (generated)
Longitude (generated)
Orders (Count)
Measure Values
Parameters
Data Level Selector
Sales Growth Rate
Pages
Filters
Marks
Line
Color
Size
Label
Detail
Tooltip
Path
Columns
Data Selector
Rows
AGG(Adjusted Sales)
Sheet 4
Data Sele..
4500K
4000K
3500K
3000K
2500K
2000K
1500K
1000K
500K
0K
Adjusted Sales
Null
Sales Growth Rate
0.9
Data Level Selector
Day
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
Sheet 7
1 mark
1 row by 1 column
SUM of AGG(Adjusted Sales): 4,364,682

4) Switching between the Year, Quarter, and Month using the Data Level Selector parameter.



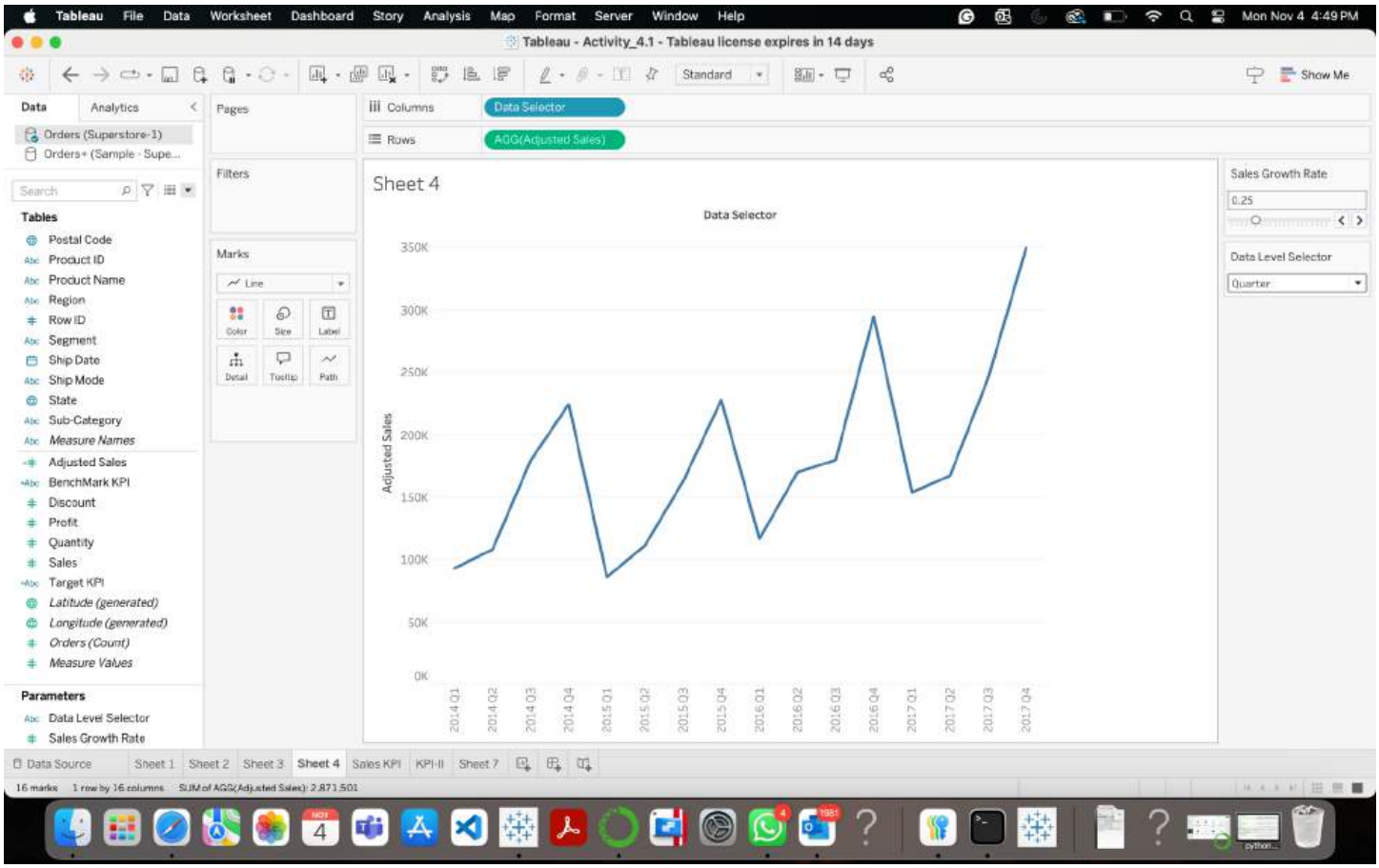


Tableau - Activity_4.1 - Tableau license expires in 14 days
Columns
Data Selector
Rows
AGG(Adjusted Sales)
Sheet 4
Data Selector
Adjusted Sales
Sales Growth Rate
0.25
Data Level Selector
Quarter

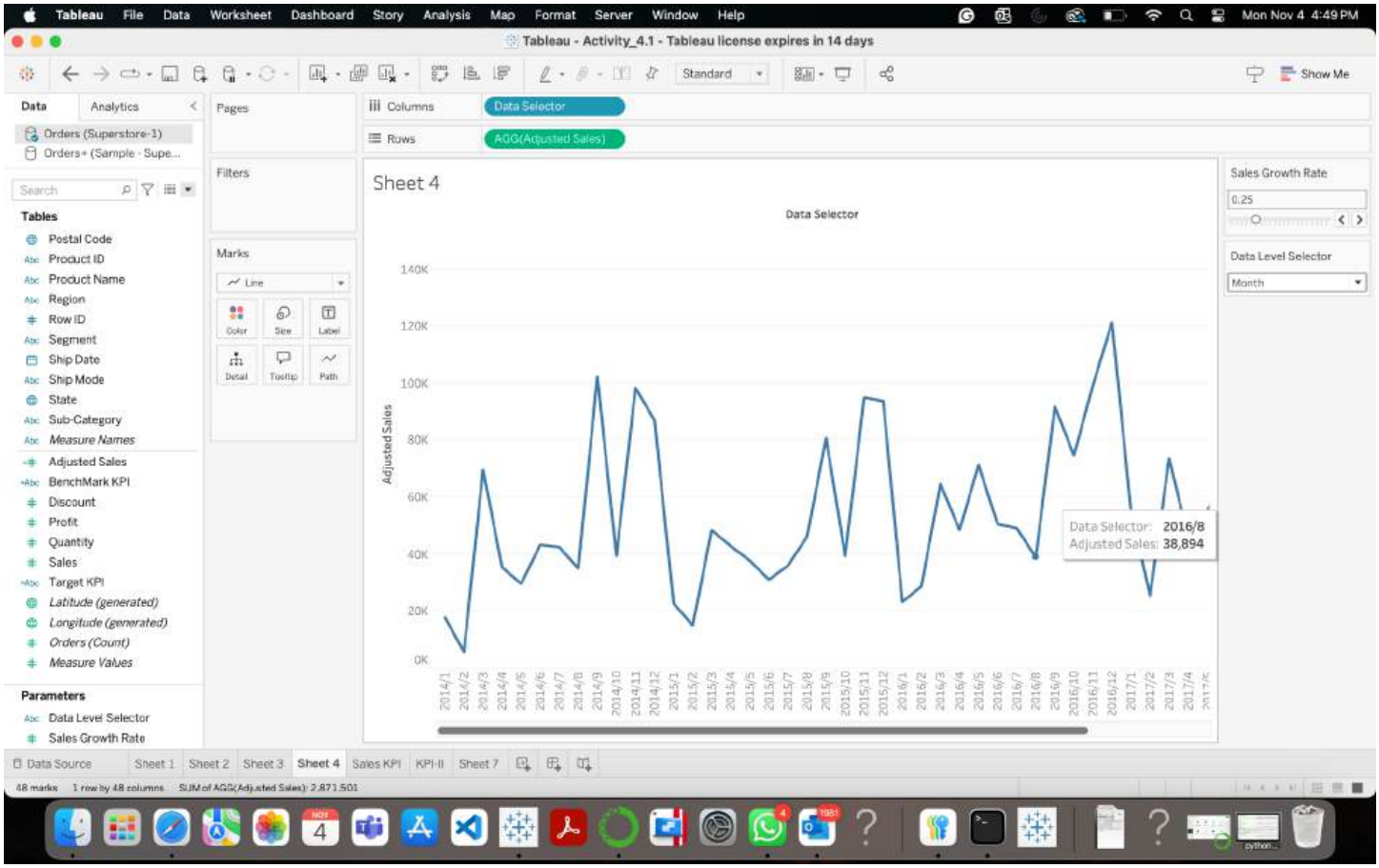


Tableau - Activity_4.1 - Tableau license expires in 14 days
Columns
Data Selector
Rows
AGG(Adjusted Sales)
Sheet 4
Data Selector
Adjusted Sales
Data Selector: 2016/8
Adjusted Sales: 38,894
Sales Growth Rate
0.25
Data Level Selector
Month

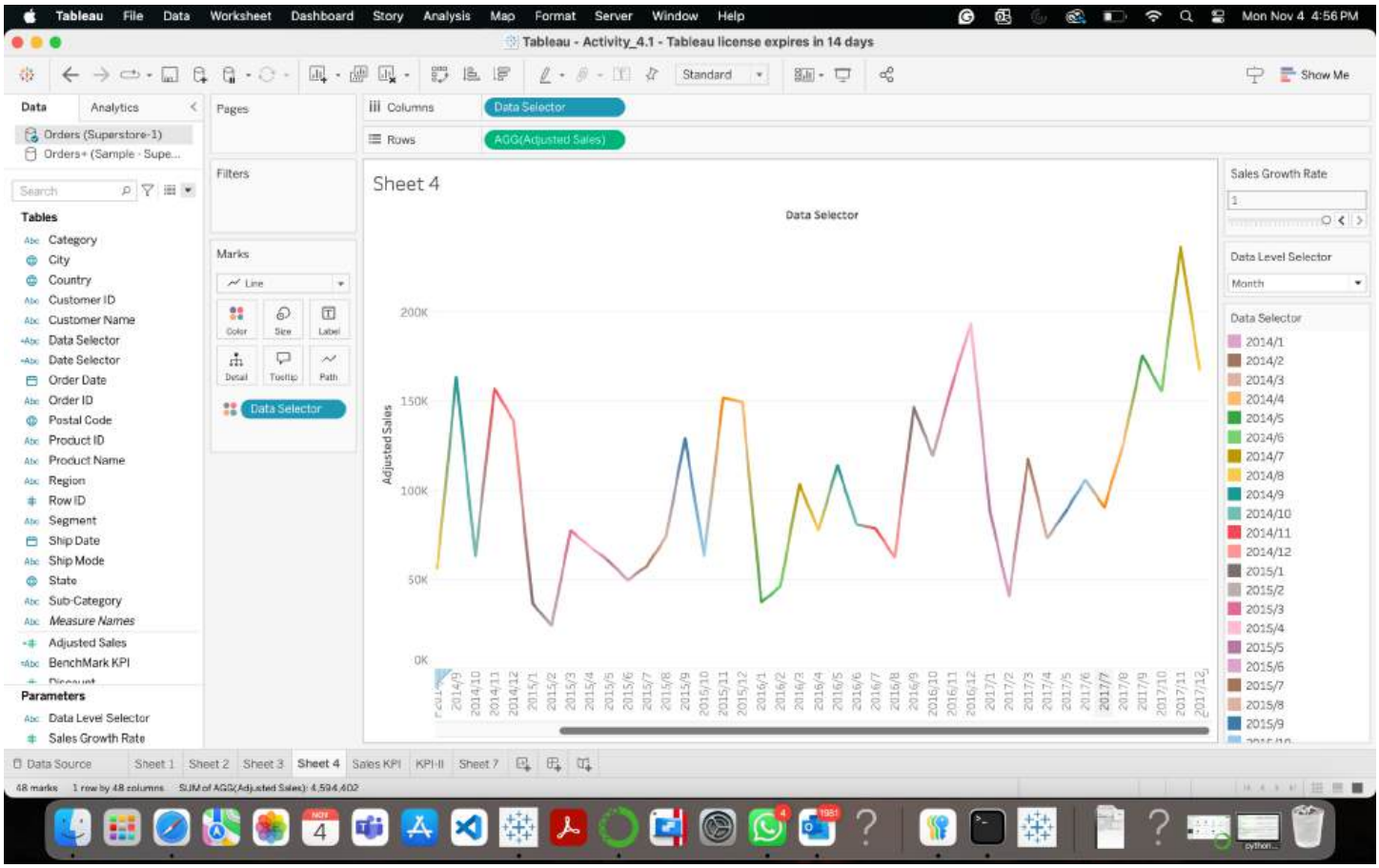


Tableau - Activity_4.1 - Tableau license expires in 14 days
Columns
Data Selector
Rows
AGG(Adjusted Sales)
Sheet 4
Data Selector
Adjusted Sales
Sales Growth Rate
Data Level Selector
Month
Data Selector
2014/1
2014/2
2014/3
2014/4
2014/5
2014/6
2014/7
2014/8
2014/9
2014/10
2014/11
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2015/1
2015/2
2015/3
2015/4
2015/5
2015/6
2015/7
2015/8
2015/9

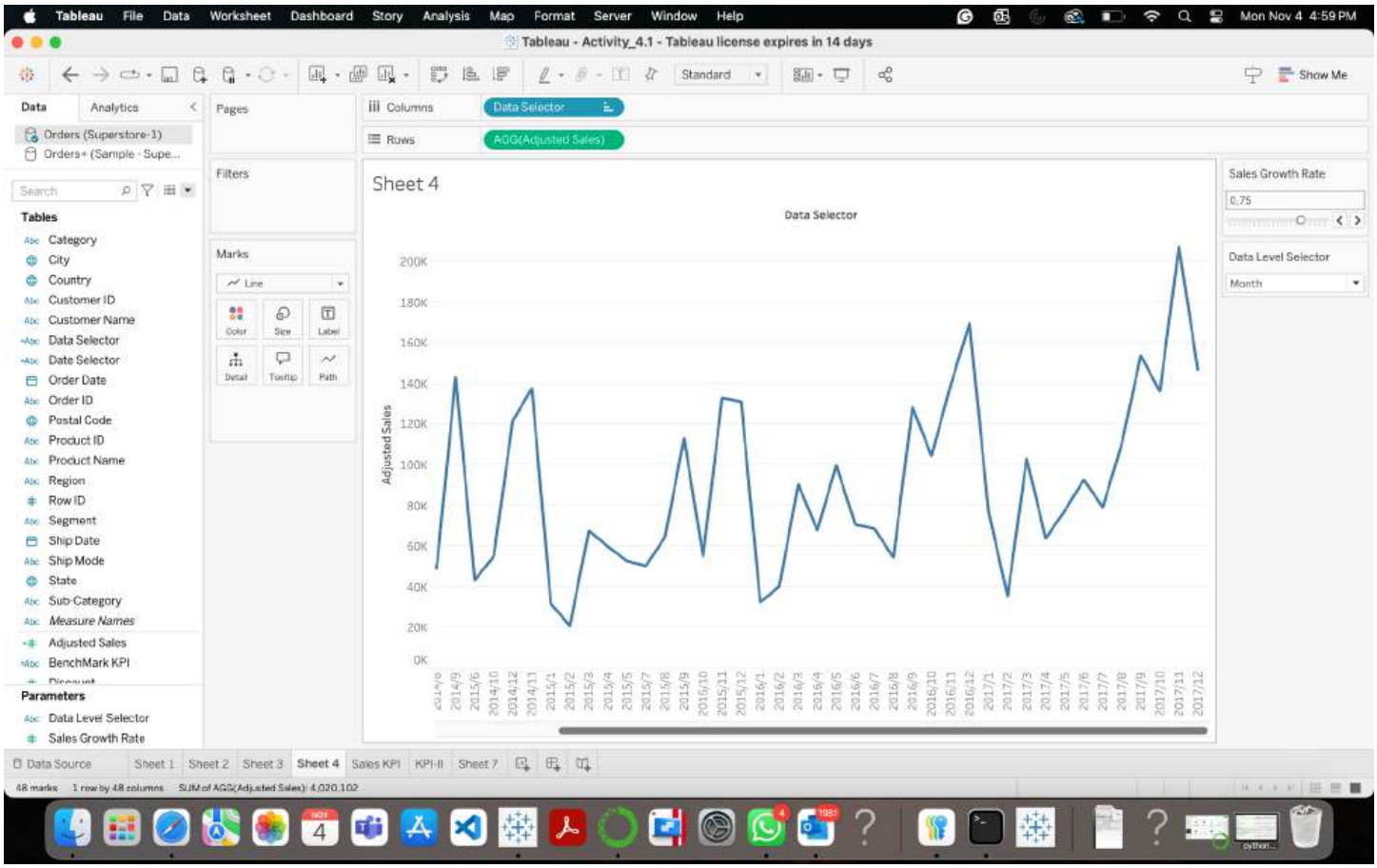


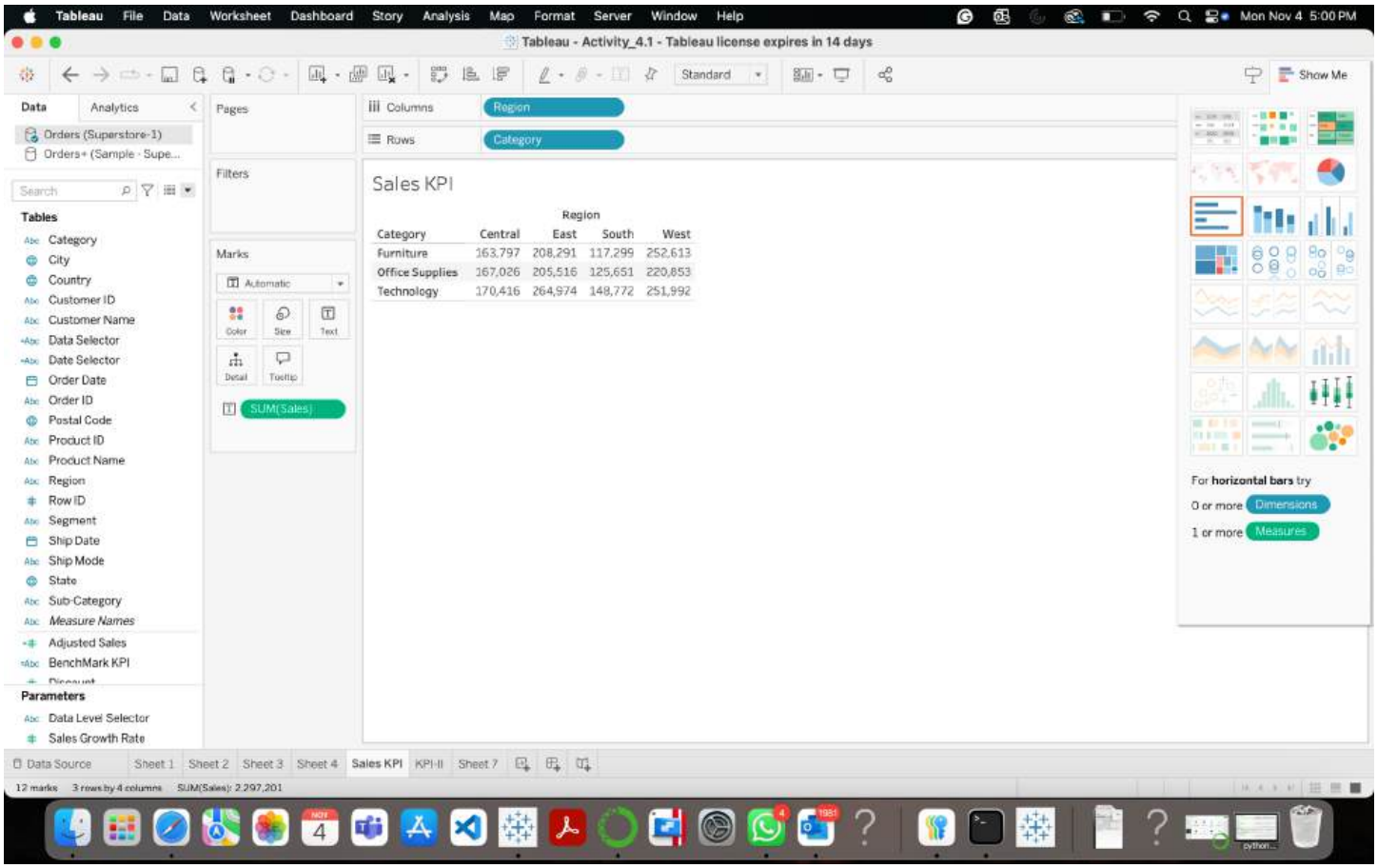
Tableau - Activity_4.1 - Tableau license expires in 14 days
Columns
Data Selector
Rows
AGG(Adjusted Sales)
Sheet 4
Data Selector
Adjusted Sales
Sales Growth Rate
0.75
Data Level Selector
Month

5) When designs are implemented, according to the defined jurisdiction, it will create free space in respect to the different datatypes in the databases used- the most pertinent ones and leave others remaining as is although appending them is not mandatory. Let us consider some of the popular applications of Joins.

- Inner Join: Uses each feature from two tables (like for example Orders and Products, Tables are referring to tables) and merges them based on their intersection/ two common columns, these are by pillars and rows. They merge all the records from both tables but only based on what both tables contain. Consider there to be a big 100 records file and two columns. Cat and Dog columns, The Dog column represents things that are outside both sides of the occupies of the Dog as represented by the 100th row and the diagram below (15, 10).
- Left Join: In this type of join, every record from the live is picked, and all the corresponding records are also joined to it from the table on the right.
- Right Join: In this kind of join, it is very easy to get every record from the plane as well as the health most appropriate record to the requested one.
- Full Outer Join: When we sum up all the records from the two tables together, we include all of them, irrespective of whether there is a match or not a match. All the elements are not corner valid, meaning that join can work even if individual attribute variables of tables have missing values.

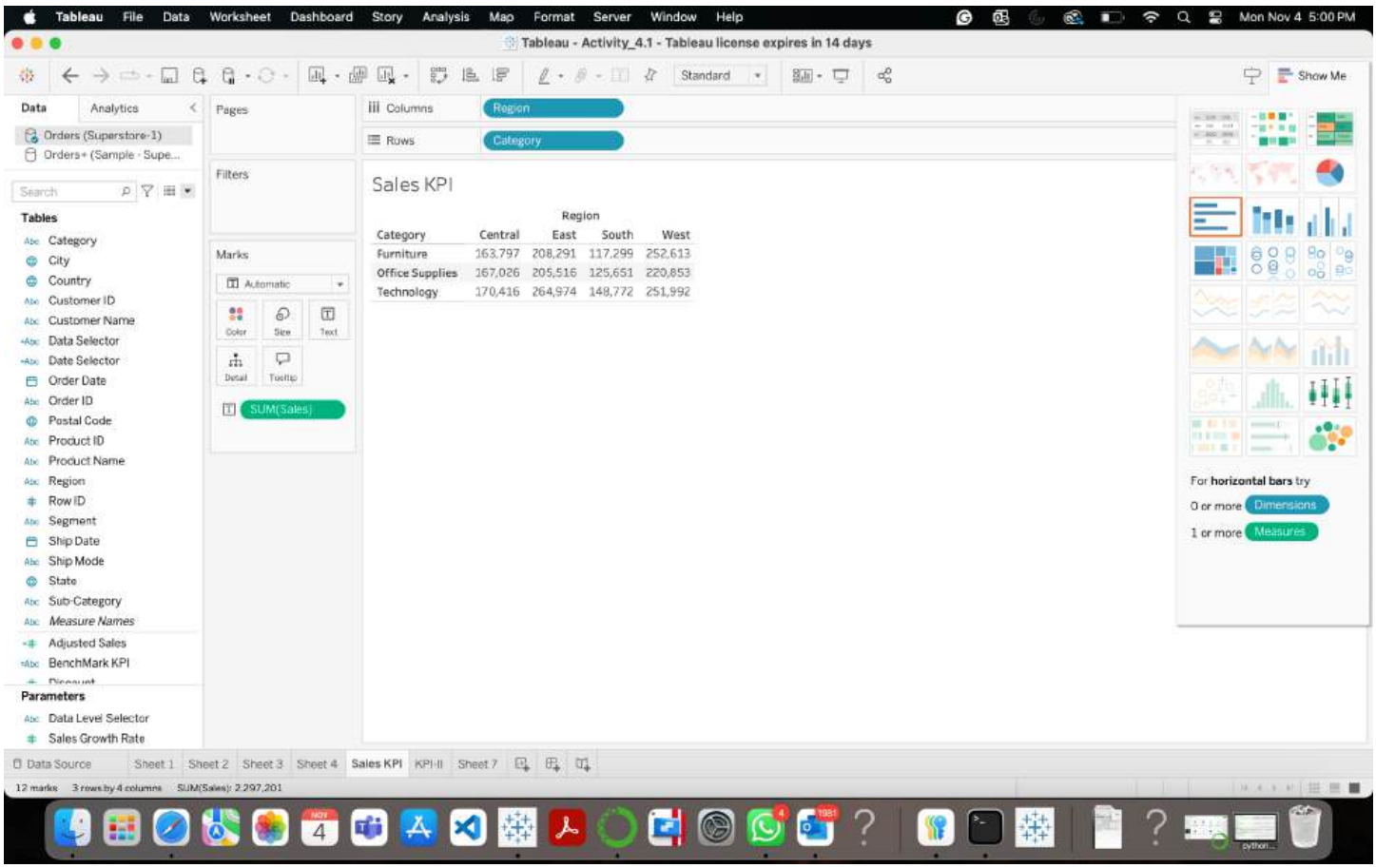
TASK - 3

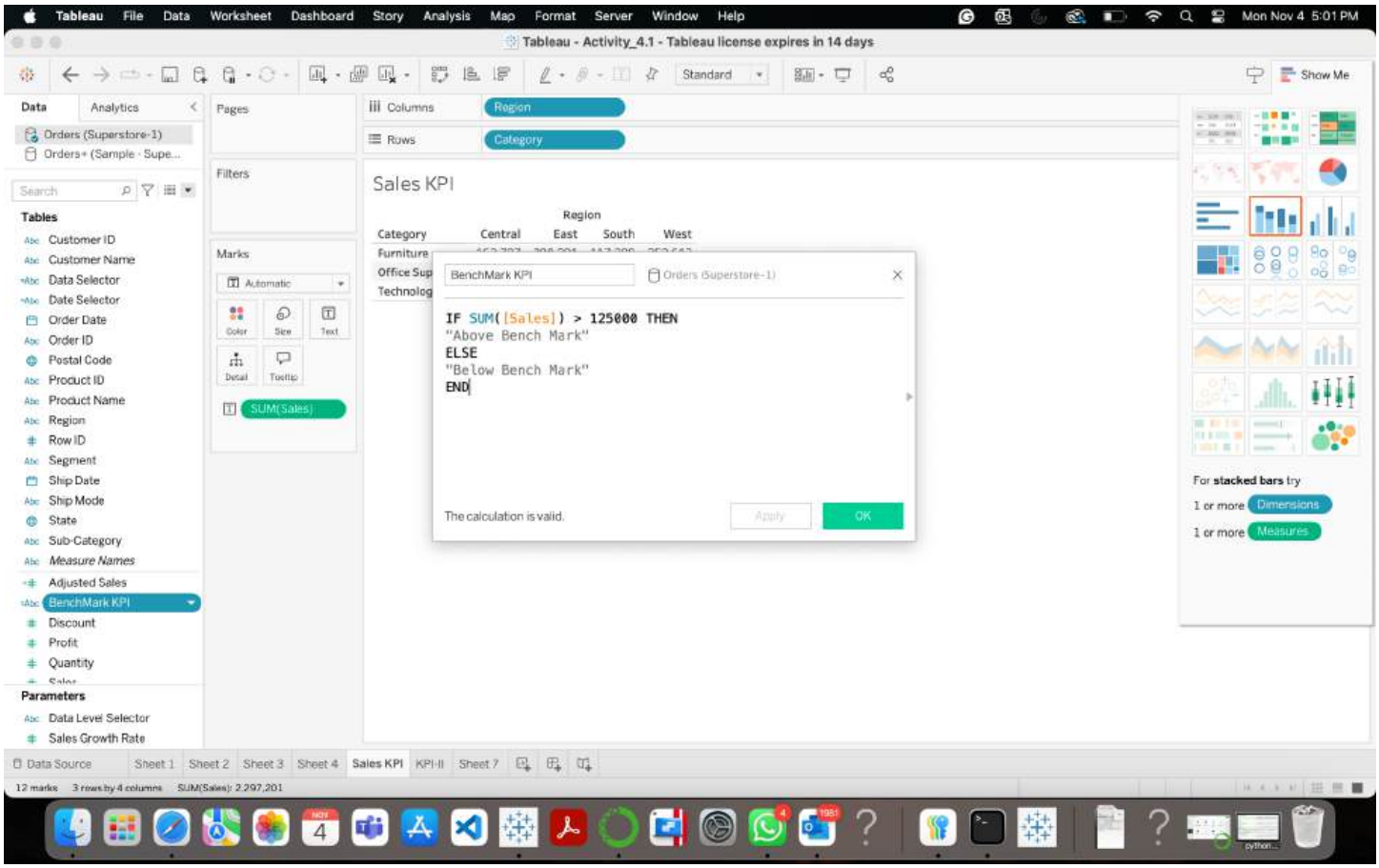
Step 1: Using the Superstore dataset and creating a new worksheet named Sales KPI and placing the categories in rows shelf and region in column and sales in text shelf.



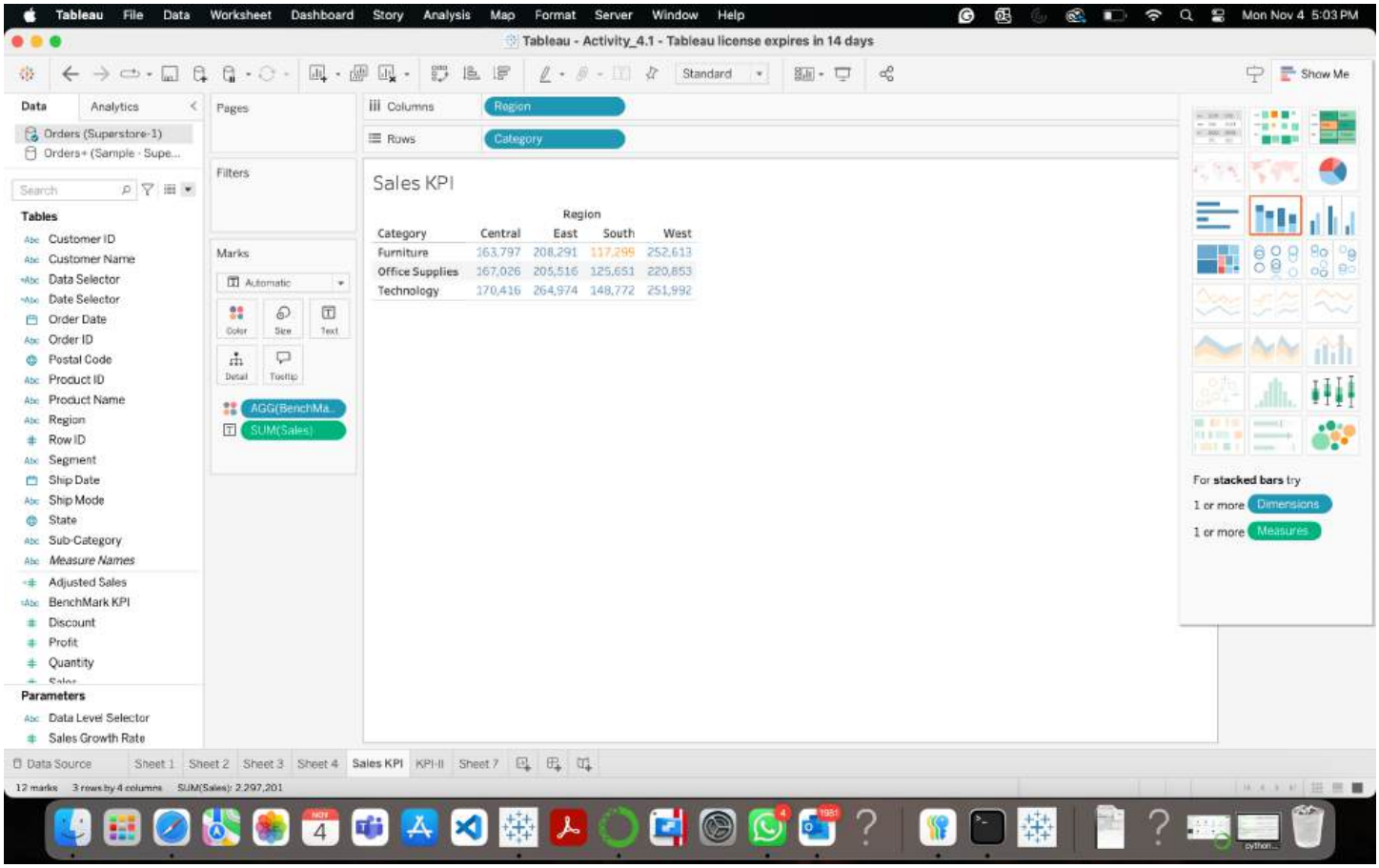
Step 2: Creating the calculated field and named as BenchMark KPI and giving the below function and clicking ok.

IF SUM([Sales]) > 50000 THEN
"Above Benchmark"
ELSE
"Below Benchmark"
END

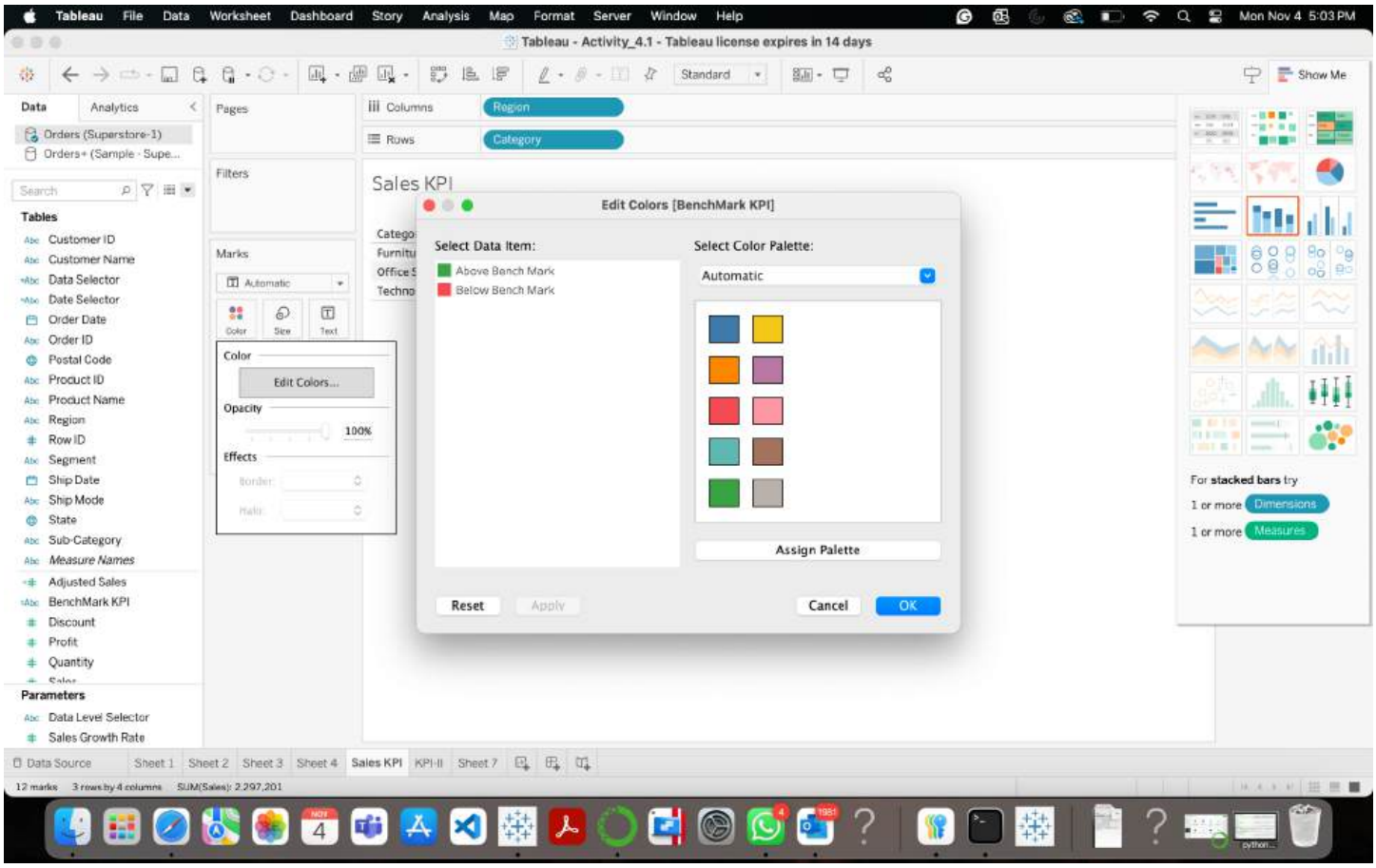


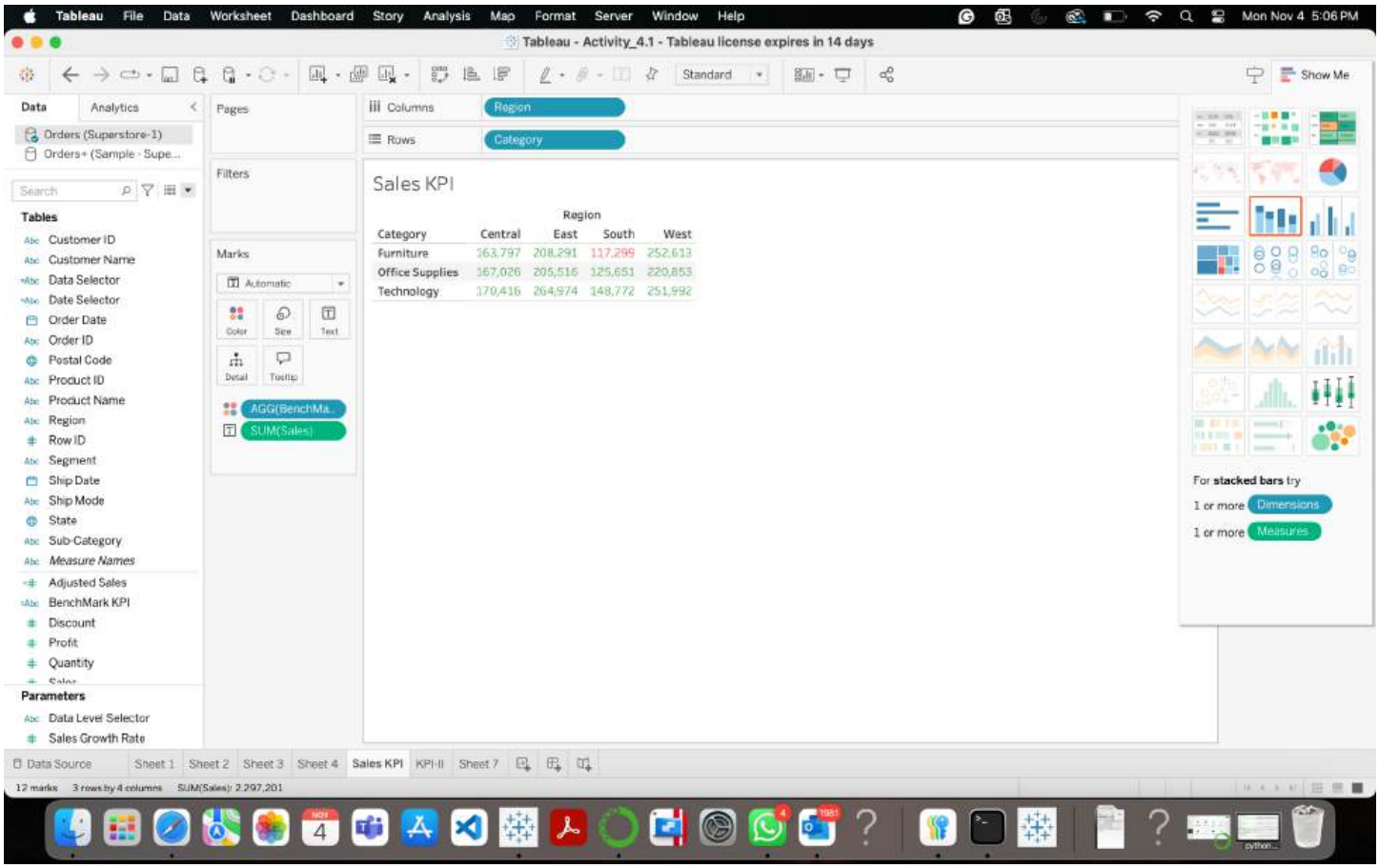


Step 3: Dragging the BenckMark KPI into Color shelf.

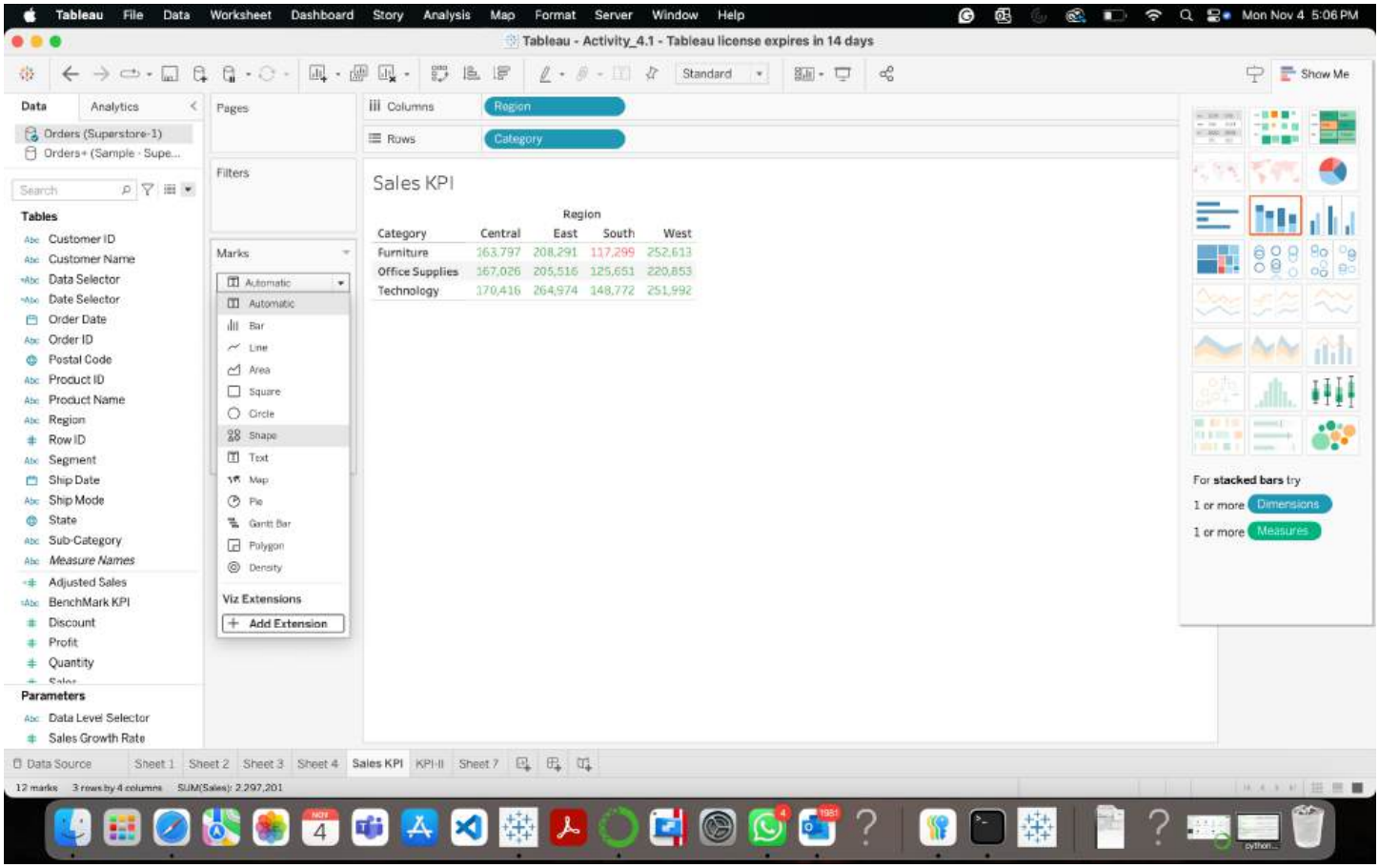


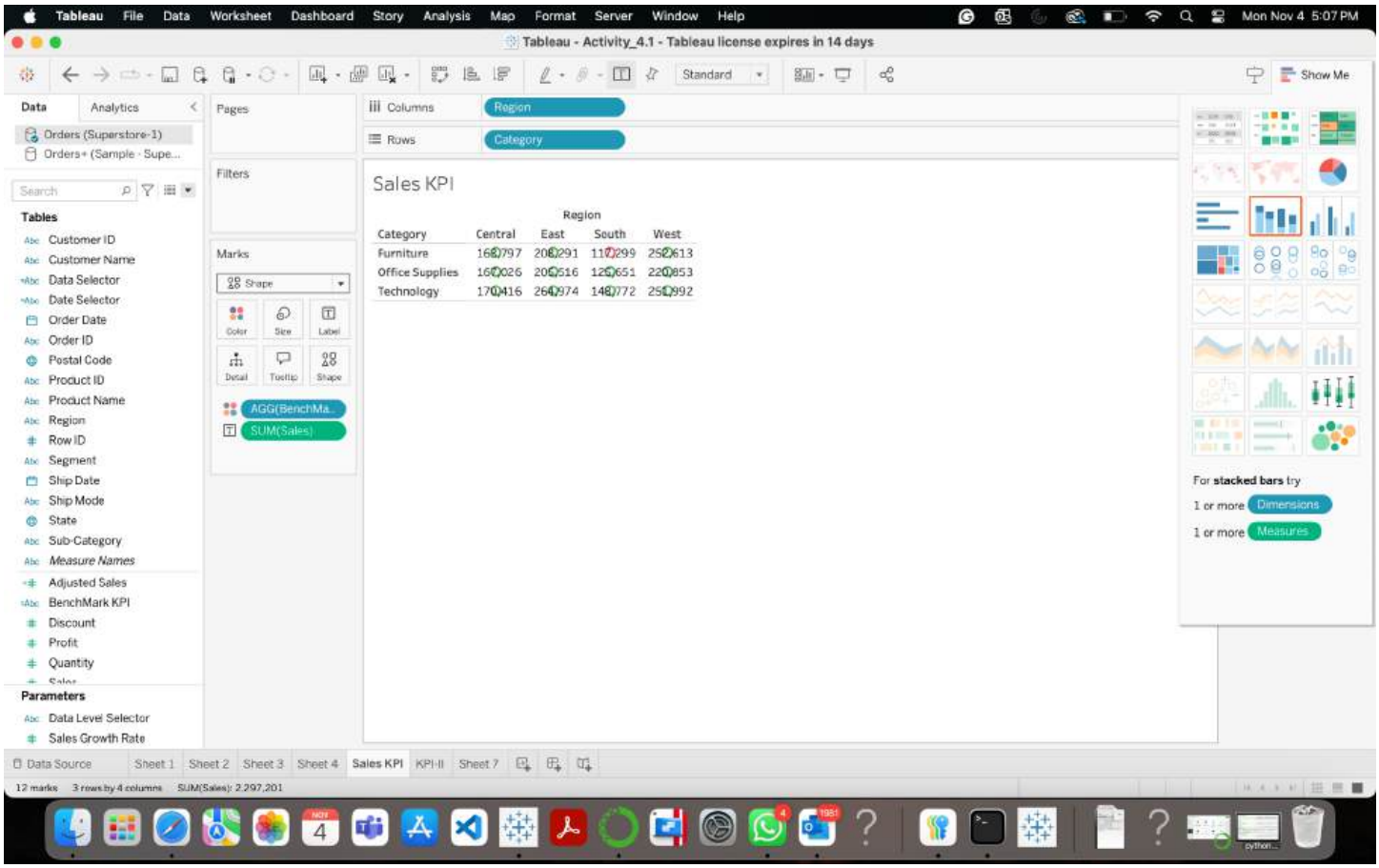
Step 4: Customizing the colors by editing them and assigning the green for values above them and red for values below them.





Step 5: changing the shape in Mark Type





Step 6: The Tableau uses the hollow circle shape. We are moving the sales information to the detail shelf and we are not displaying the sales values.

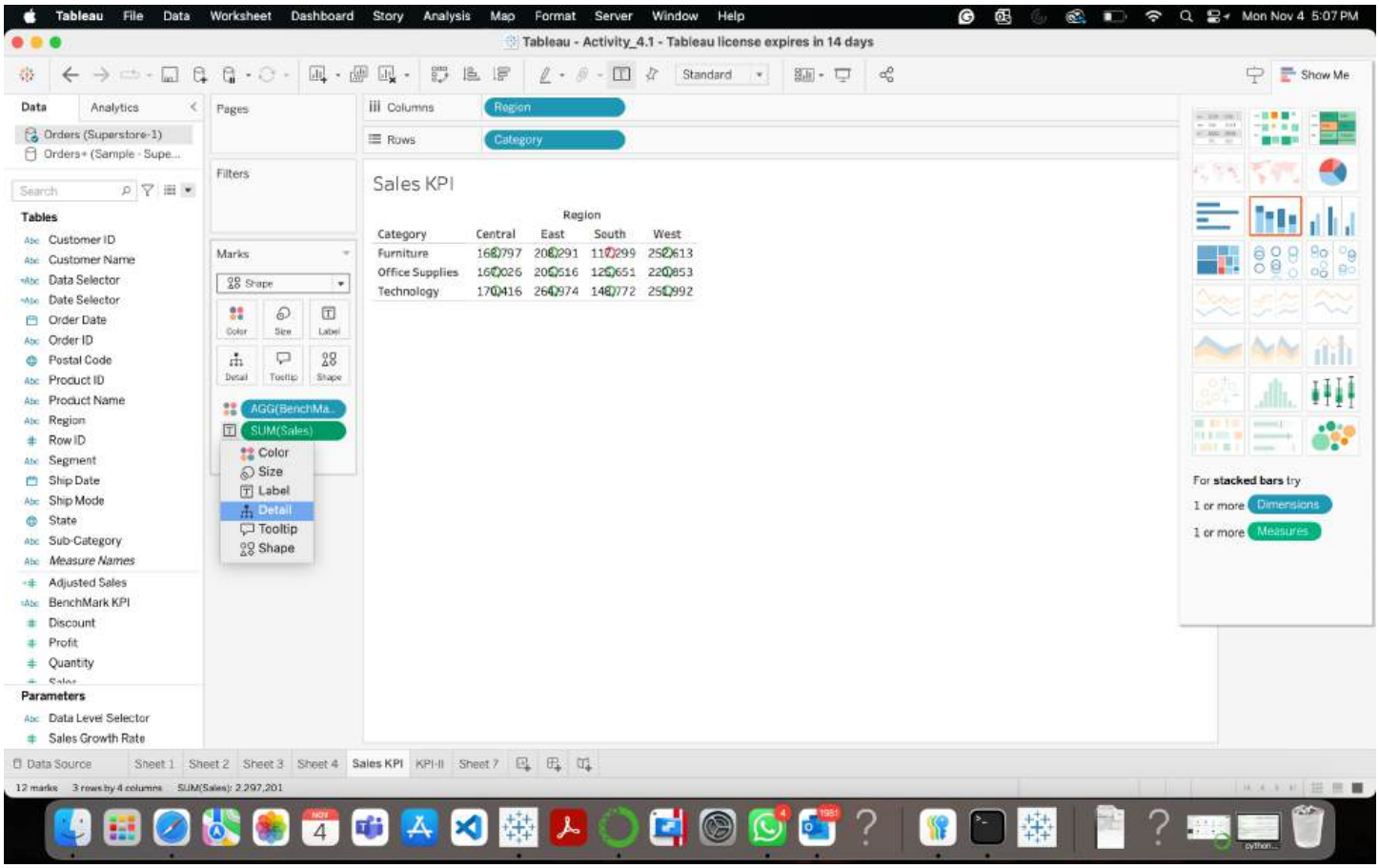


Tableau - Activity_4.1 - Tableau license expires in 14 days
Columns
Region
Rows
Category
Sales KPI
Region
Category Central East South West
Furniture 168797 208291 117299 252613
Office Supplies 167026 205516 125651 220853
Technology 170416 264974 148772 251992
Color
Size
Label
Detail
Tooltip
Shape
For stacked bars try
1 or more Dimensions
1 or more Measures

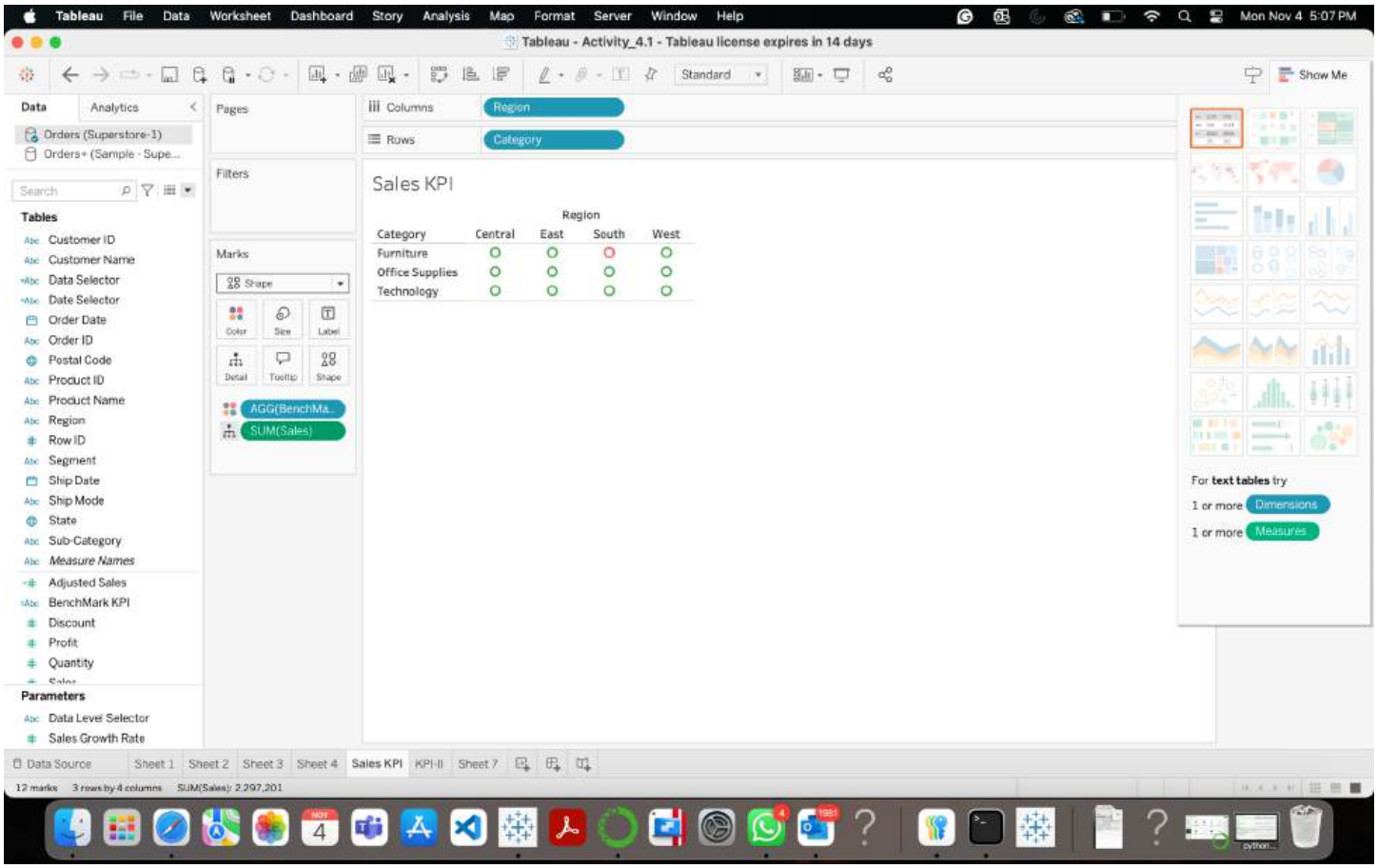


Tableau - Activity_4.1 - Tableau license expires in 14 days
Columns
Region
Rows
Category
Sales KPI
Region
Category Central East South West
Furniture
Office Supplies
Technology
For text tables try
1 or more Dimensions
1 or more Measures

Step 7: We are changing the shape by clicking on the shape shelf >> More shapes>> KPI in shape palette >> selecting the desired shape >> click on done >> click ok and apply changes.

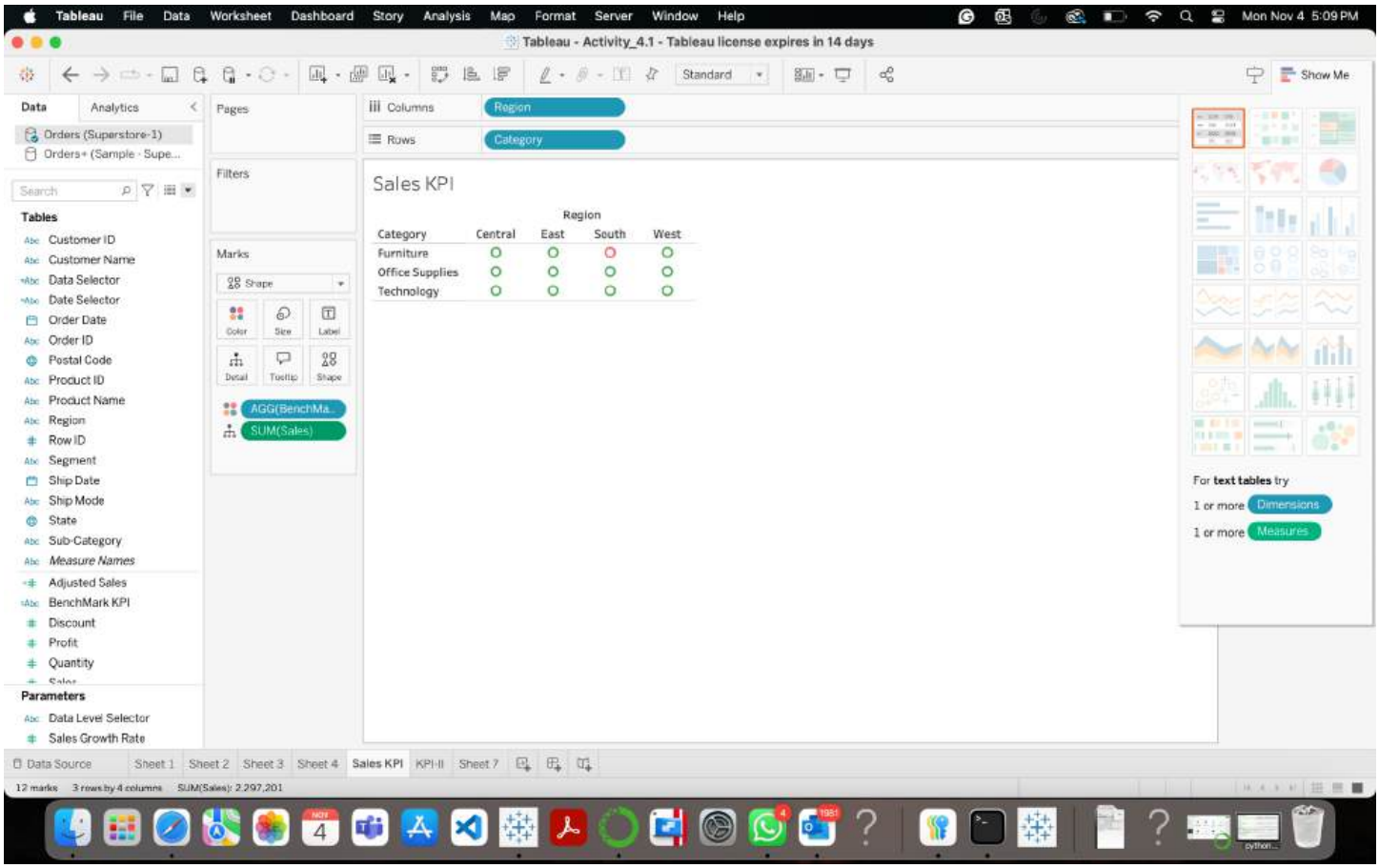


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 5:09 PM
Tableau - Activity_4.1 - Tableau license expires in 14 days
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Pages
Filters
Marks
Shape
Color
Size
Label
Detail
Tooltip
Shape
AGG(BenchMa...
SUM(Sales)
Columns
Region
Rows
Category
Sales KPI
Region
Category
Central
East
South
West
Furniture
Office Supplies
Technology
Tables
Customer ID
Customer Name
Data Selector
Date Selector
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Adjusted Sales
BenchMark KPI
Discount
Profit
Quantity
Parameters
Data Level Selector
Sales Growth Rate
For text tables try
1 or more Dimensions
1 or more Measures
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
Sheet 7
12 marks
3 rows by 4 columns
SUM(Sales): 2,297,201

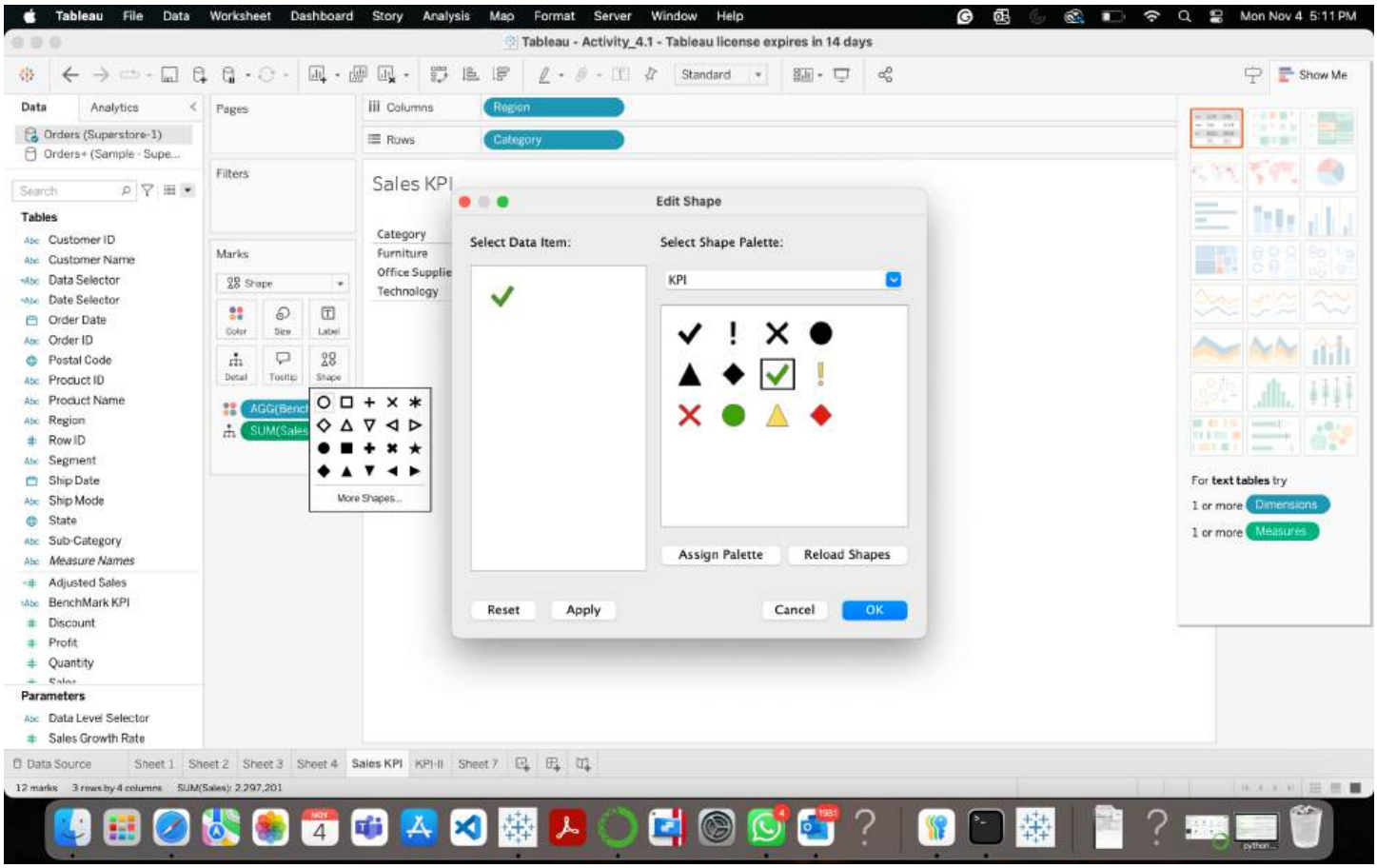
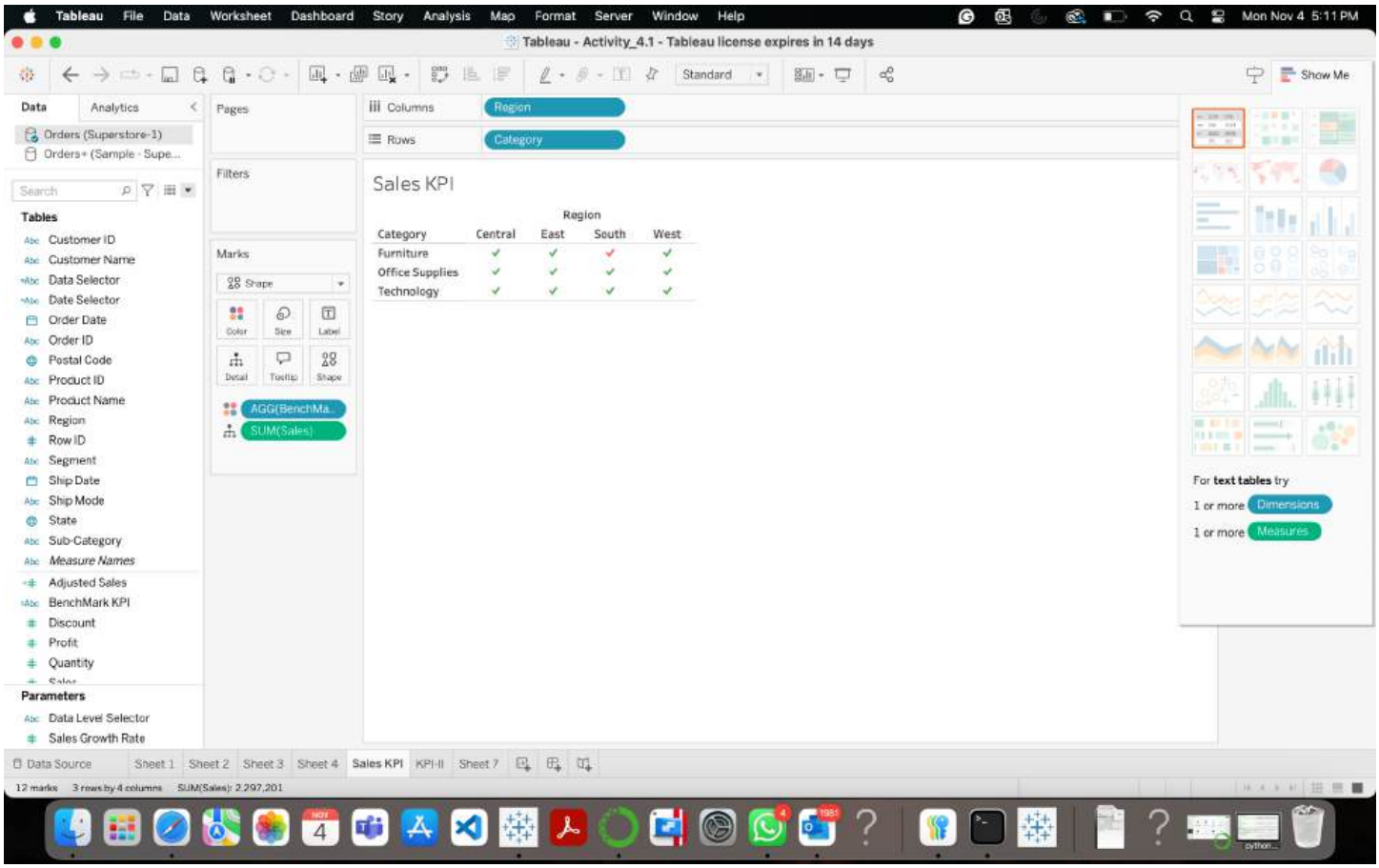


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 5:11 PM
Tableau - Activity_4.1 - Tableau license expires in 14 days
Edit Shape
Select Data Item:
Select Shape Palette:
KPI
Assign Palette
Reload Shapes
More Shapes...
Reset
Apply
Cancel
OK
Sales KPI
Furniture
Technology
For text tables try
1 or more Dimensions
1 or more Measures



Question - 3

1) Create a new worksheet named Sales KPI-II. And Setting up the visualization: Drag Sub-category to the Rows shelf. Drag Order Date to the Columns shelf. Drag Sales to the Text shelf.

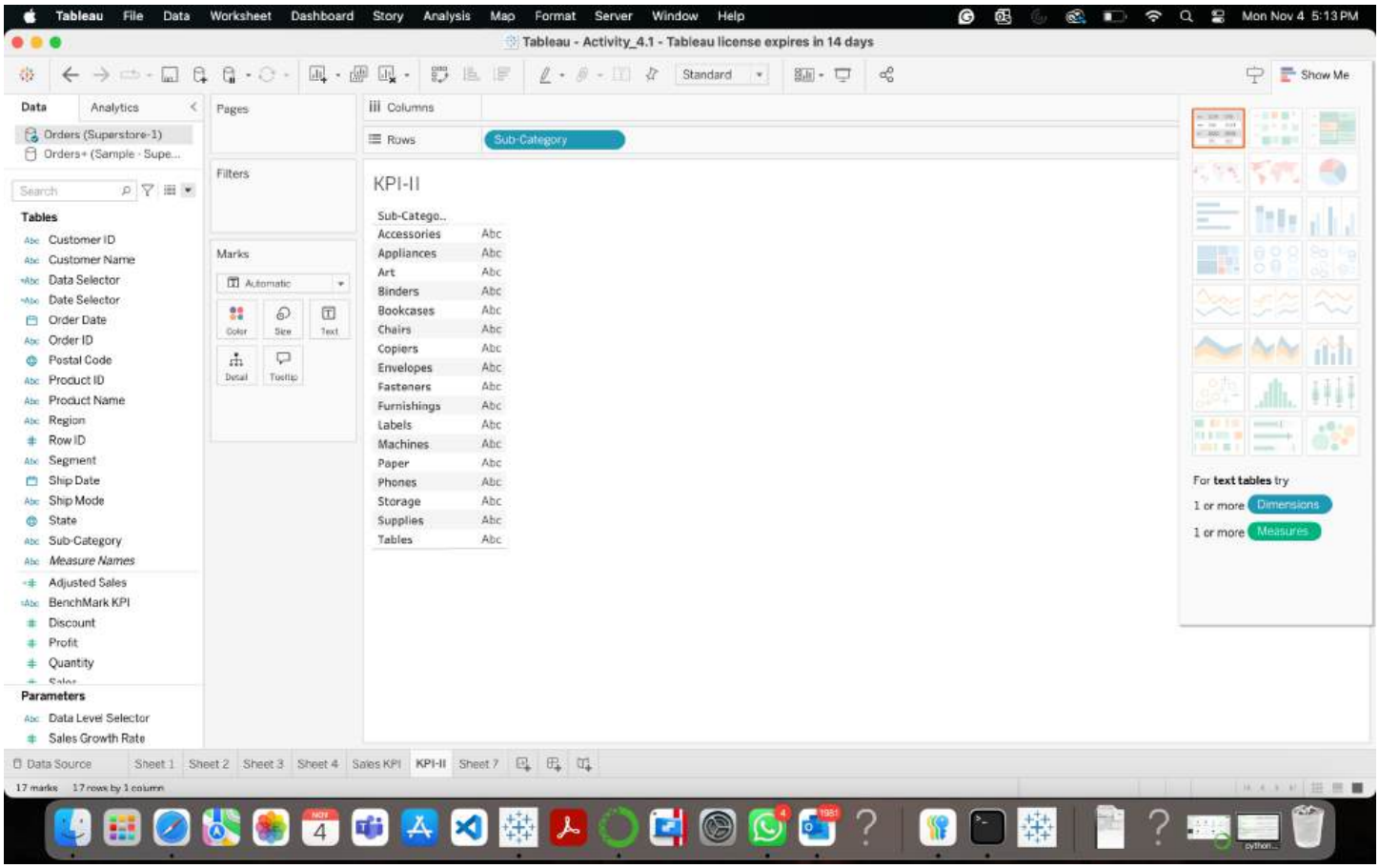


Tableau - Activity_4.1 - Tableau license expires in 14 days
Columns
Rows
Sub-Category
KPI-II
Sub-Catego..
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
For text tables try
1 or more Dimensions
1 or more Measures
17 marks 17 rows by 1 column

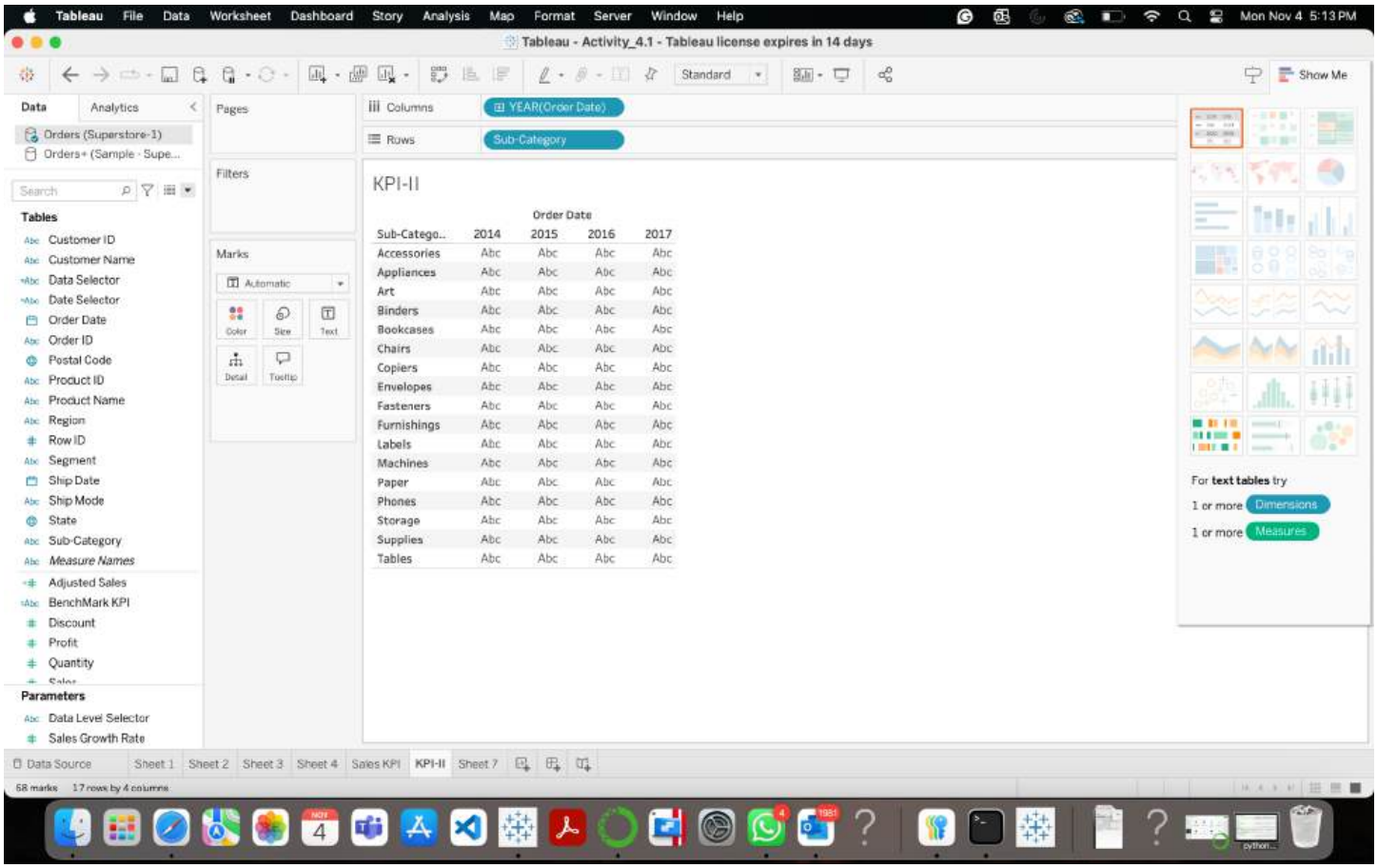
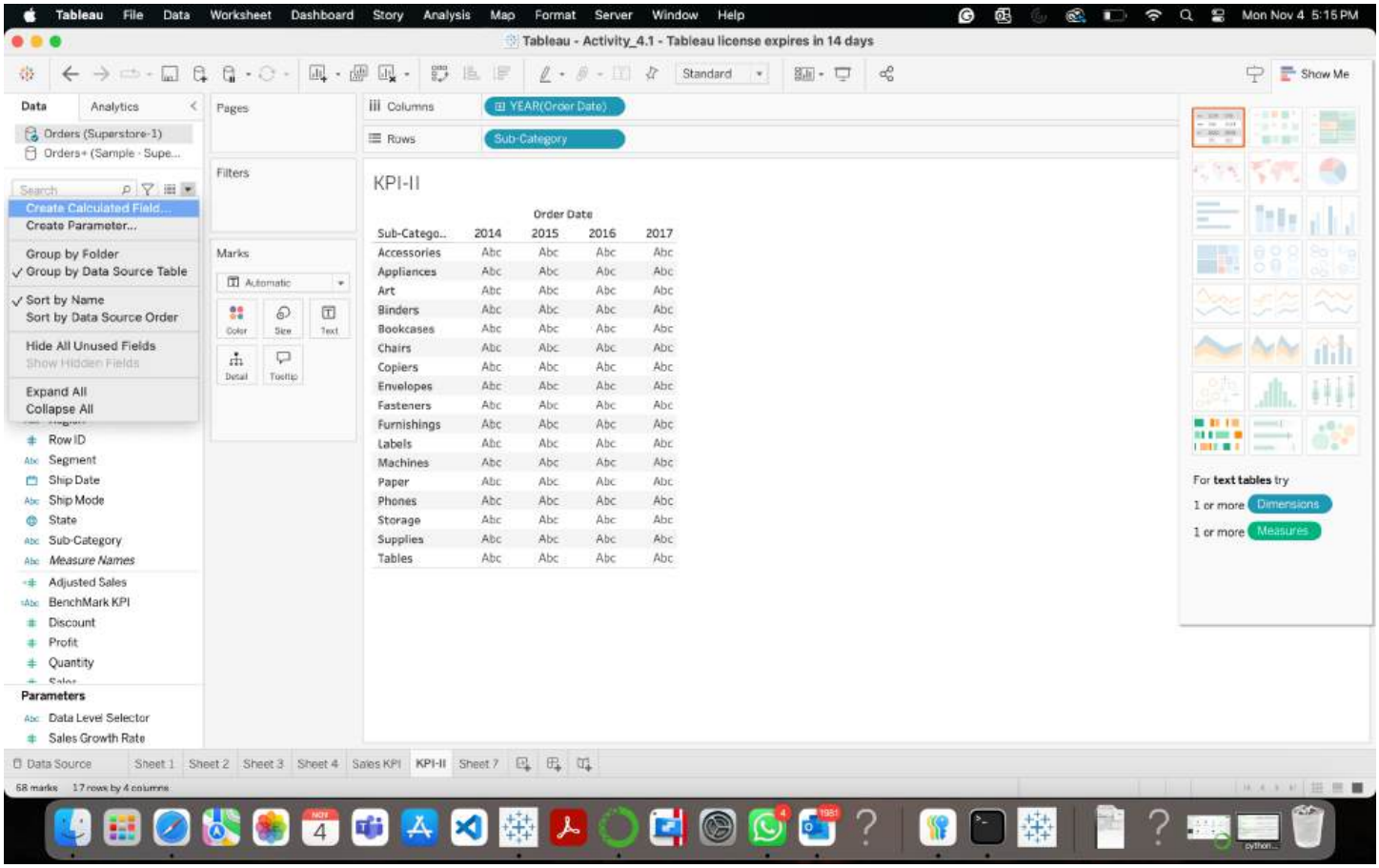
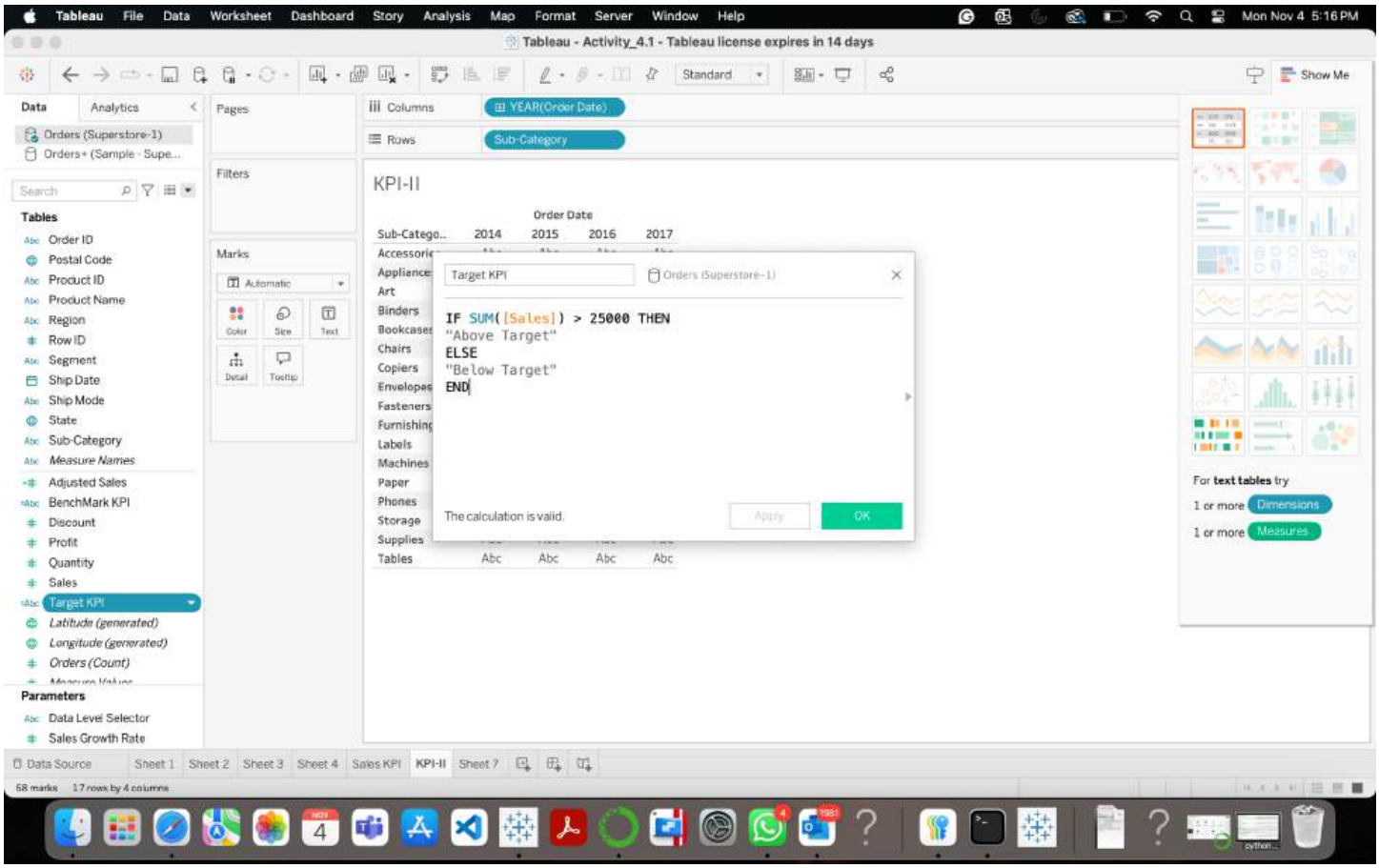


Tableau - Activity_4.1 - Tableau license expires in 14 days
Columns
YEAR(Order Date)
Rows
Sub-Category
KPI-II
Order Date
Sub-Catego..
2014
2015
2016
2017
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
For text tables try
1 or more Dimensions
1 or more Measures
68 marks 17 rows by 4 columns

2) Creating a new calculated field named `Target KPI` using the formula:

```
IF SUM([Sales]) > 25000 THEN
"Above Target"
ELSE
"Below Target"
END
```





3) Changing the default shapes to tick marks and assign colors accordingly. Analyze the results to identify which subcategories are performing above or below target levels.

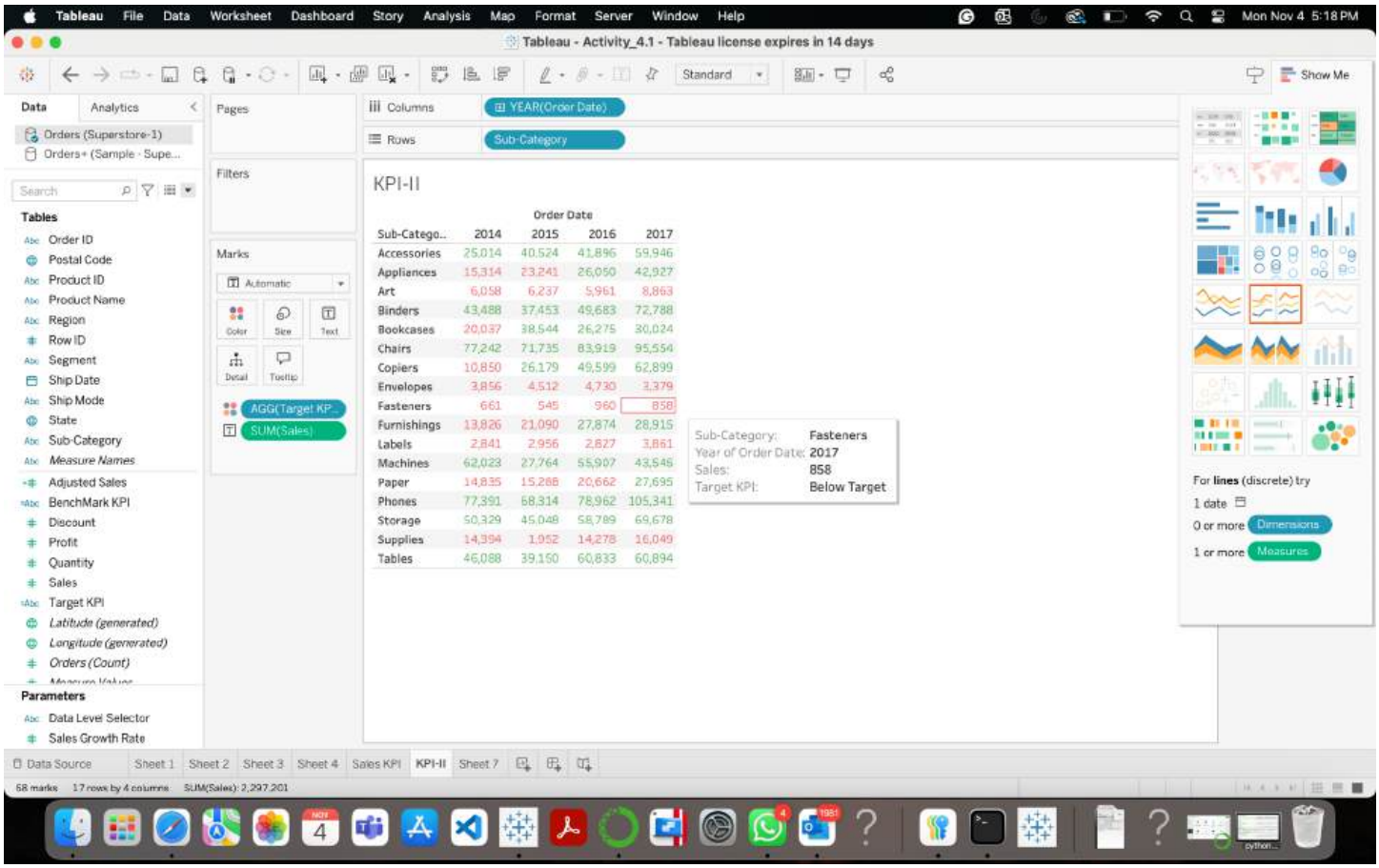


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
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Tableau - Activity_4.1 - Tableau license expires in 14 days
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Tables
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Adjusted Sales
BenchMark KPI
Discount
Profit
Quantity
Sales
Target KPI
Latitude (generated)
Longitude (generated)
Orders (Count)
Parameters
Data Level Selector
Sales Growth Rate
Pages
Filters
Marks
Automatic
Color
Size
Text
Detail
Tooltip
AGG(Target KP...
SUM(Sales)
Columns
YEAR(Order Date)
Rows
Sub-Category
KPI-II
Order Date
Sub-Catego.. 2014 2015 2016 2017
Accessories 25,014 40,524 41,896 59,946
Appliances 15,314 23,241 26,050 42,927
Art 6,058 6,237 5,961 8,863
Binders 43,488 37,453 49,683 72,788
Bookcases 20,037 38,544 26,275 30,024
Chairs 77,242 71,735 83,919 95,554
Copiers 10,850 26,179 49,599 62,899
Envelopes 3,856 4,512 4,730 3,379
Fasteners 661 545 960 858
Furnishings 13,826 21,090 27,874 28,915
Labels 2,841 2,956 2,827 3,861
Machines 62,023 27,764 55,907 43,546
Paper 14,835 15,288 20,662 27,695
Phones 77,391 68,314 78,962 105,341
Storage 50,329 45,048 58,789 69,678
Supplies 14,394 1,952 14,278 16,049
Tables 46,088 39,150 60,833 60,894
Sub-Category: Fasteners
Year of Order Date: 2017
Sales: 858
Target KPI: Below Target
For lines (discrete) try
1 date
0 or more Dimensions
1 or more Measures
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
Sheet 7
68 marks
17 rows by 4 columns
SUM(Sales): 2,297,201

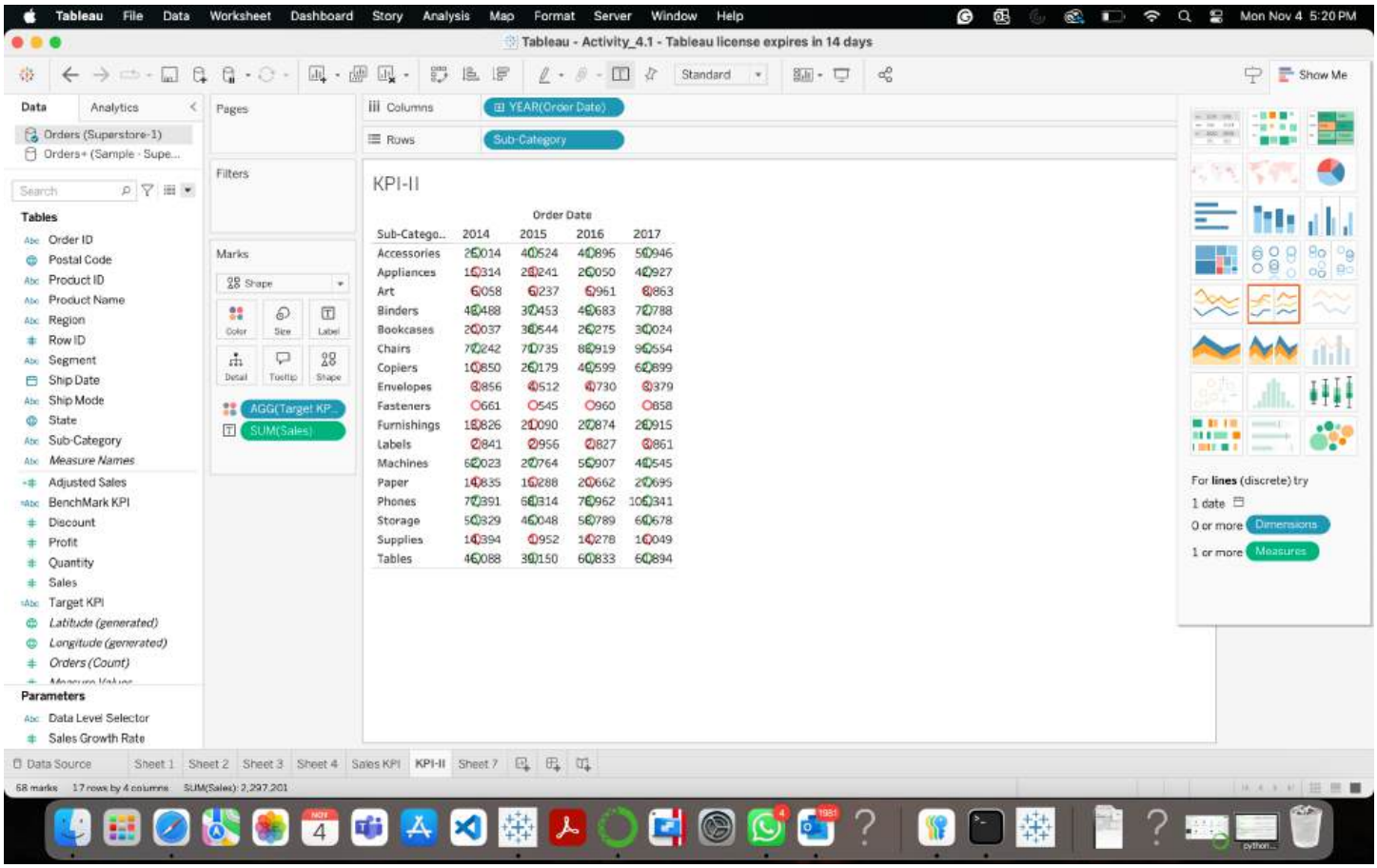
Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
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Tableau - Activity_4.1 - Tableau license expires in 14 days
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Tables
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Adjusted Sales
BenchMark KPI
Discount
Profit
Quantity
Sales
Target KPI
Latitude (generated)
Longitude (generated)
Orders (Count)
Parameters
Data Level Selector
Sales Growth Rate
Pages
Filters
Marks
Shape
Color
Size
Label
Detail
Tooltip
Shape
AGG(Target KP...
SUM(Sales)
Columns
YEAR(Order Date)
Rows
Sub-Category
KPI-II
Order Date
Sub-Catego.. 2014 2015 2016 2017
Accessories 25,014 40,524 41,896 59,946
Appliances 15,314 23,241 26,050 42,927
Art 6,058 6,237 5,961 8,863
Binders 43,488 37,453 49,683 72,788
Bookcases 20,037 38,544 26,275 30,024
Chairs 77,242 71,735 83,919 95,554
Copiers 10,850 26,179 49,599 62,899
Envelopes 3,856 4,512 4,730 3,379
Fasteners 661 545 960 858
Furnishings 13,826 21,090 27,874 28,915
Labels 2,841 2,956 2,827 3,861
Machines 62,023 27,764 55,907 43,546
Paper 14,835 15,288 20,662 27,695
Phones 77,391 68,314 78,962 105,341
Storage 50,329 45,048 58,789 69,678
Supplies 14,394 1,952 14,278 16,049
Tables 46,088 39,150 60,833 60,894
For lines (discrete) try
1 date
0 or more Dimensions
1 or more Measures
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
Sheet 7
68 marks
17 rows by 4 columns
SUM(Sales): 2,297,201

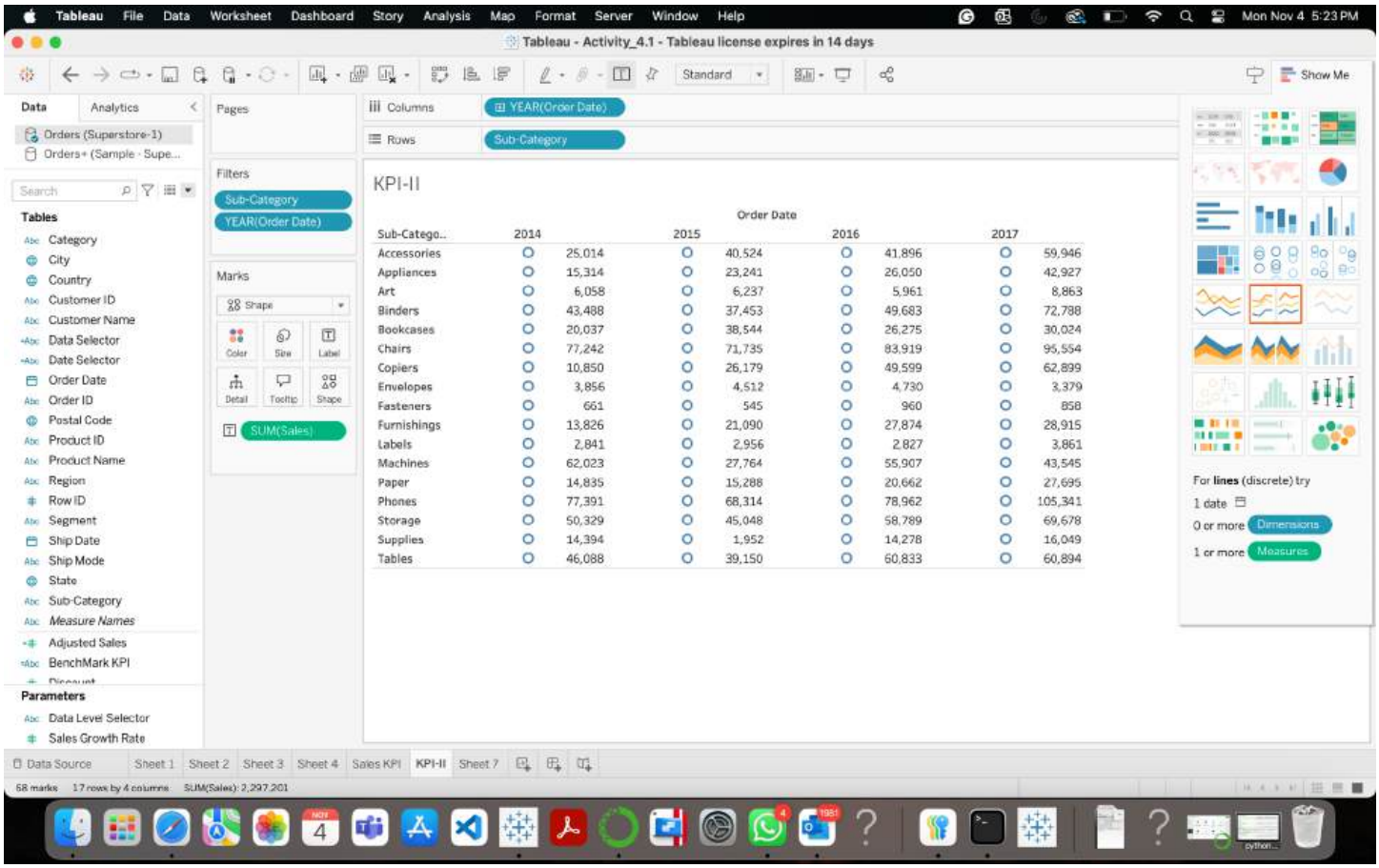


Tableau - Activity_4.1 - Tableau license expires in 14 days
Columns
YEAR(Order Date)
Rows
Sub-Category
KPI-II
Order Date
Sub-Catego.. 2014 2015 2016 2017
Accessories 25,014 40,524 41,896 59,946
Appliances 15,314 23,241 26,050 42,927
Art 6,058 6,237 5,961 8,863
Binders 43,488 37,453 49,683 72,788
Bookcases 20,037 38,544 26,275 30,024
Chairs 77,242 71,735 83,919 95,554
Copiers 10,850 26,179 49,599 62,899
Envelopes 3,856 4,512 4,730 3,379
Fasteners 661 545 960 858
Furnishings 13,826 21,090 27,874 28,915
Labels 2,841 2,956 2,827 3,861
Machines 62,023 27,764 55,907 43,545
Paper 14,835 15,288 20,662 27,695
Phones 77,391 68,314 78,962 105,341
Storage 50,329 45,048 58,789 69,678
Supplies 14,394 1,952 14,278 16,049
Tables 46,088 39,150 60,833 60,894

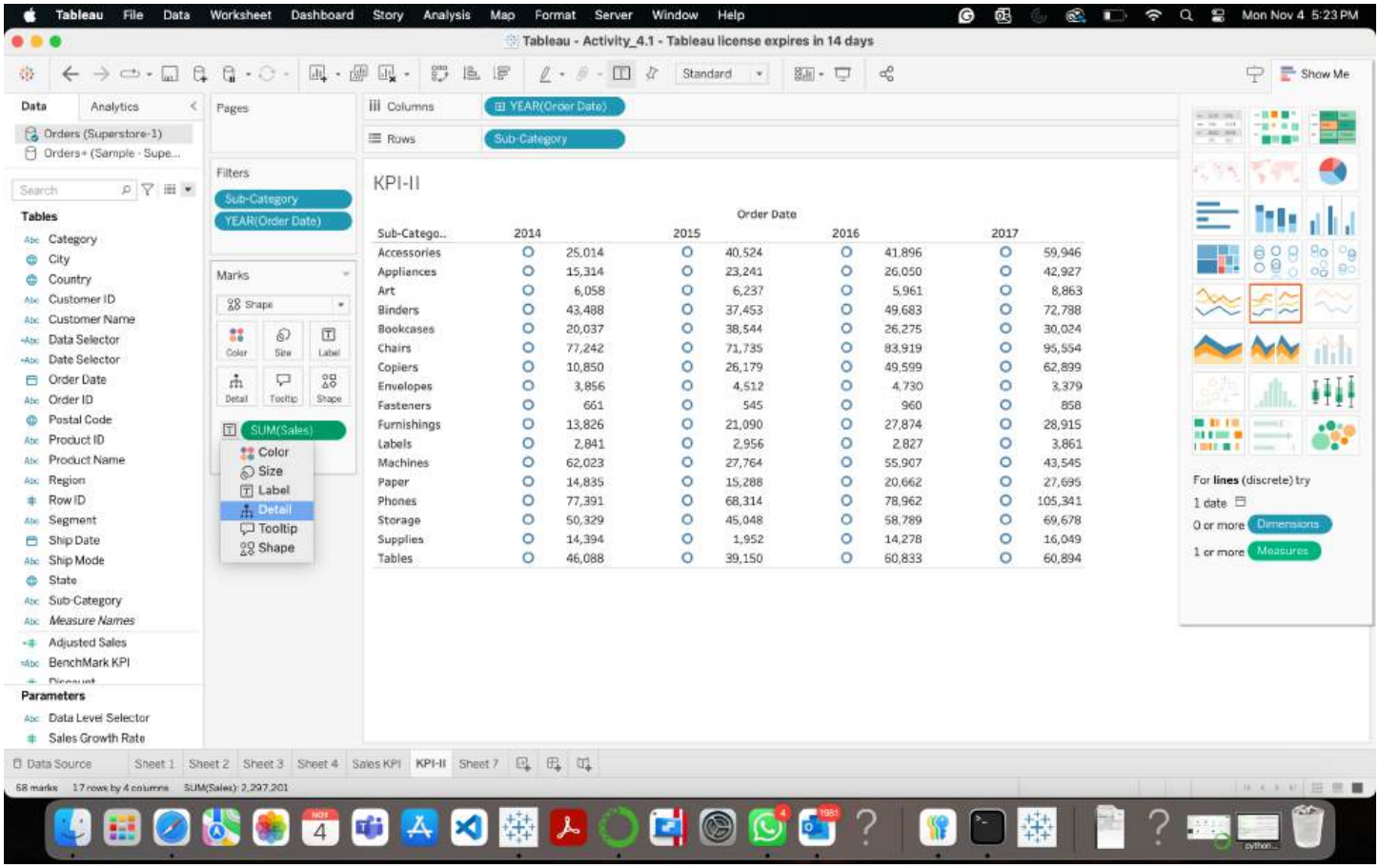
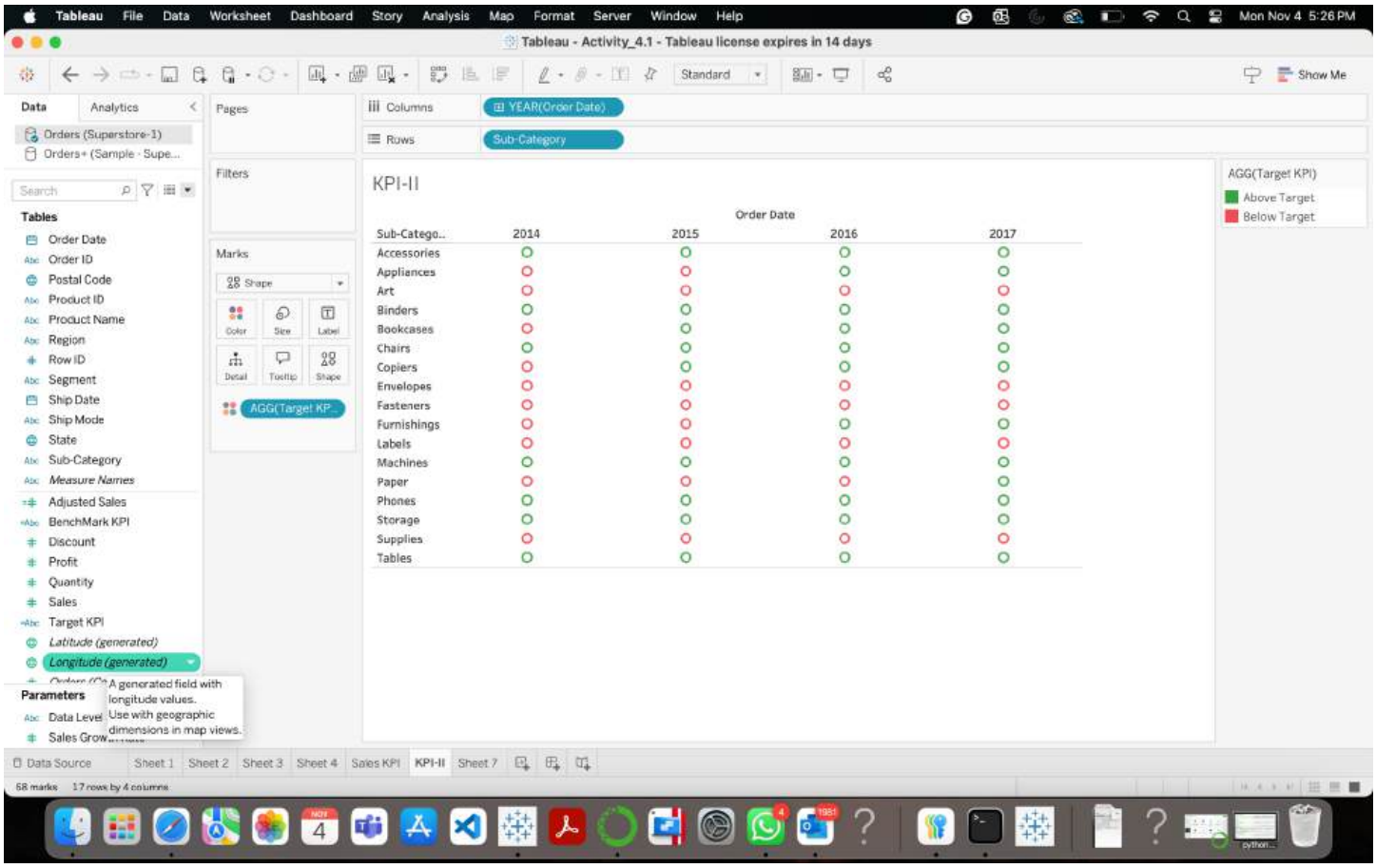


Tableau - Activity_4.1 - Tableau license expires in 14 days
Columns
YEAR(Order Date)
Rows
Sub-Category
KPI-II
Order Date
Sub-Catego.. 2014 2015 2016 2017
Accessories 25,014 40,524 41,896 59,946
Appliances 15,314 23,241 26,050 42,927
Art 6,058 6,237 5,961 8,863
Binders 43,488 37,453 49,683 72,788
Bookcases 20,037 38,544 26,275 30,024
Chairs 77,242 71,735 83,919 95,554
Copiers 10,850 26,179 49,599 62,899
Envelopes 3,856 4,512 4,730 3,379
Fasteners 661 545 960 858
Furnishings 13,826 21,090 27,874 28,915
Labels 2,841 2,956 2,827 3,861
Machines 62,023 27,764 55,907 43,545
Paper 14,835 15,288 20,662 27,695
Phones 77,391 68,314 78,962 105,341
Storage 50,329 45,048 58,789 69,678
Supplies 14,394 1,952 14,278 16,049
Tables 46,088 39,150 60,833 60,894
Color
Size
Label
Detail
Tooltip
Shape



4) Change the mark type to Shape, move `Sales` from the Text shelf to the Detail shelf, and drag `Target KPI` to the Color shelf.

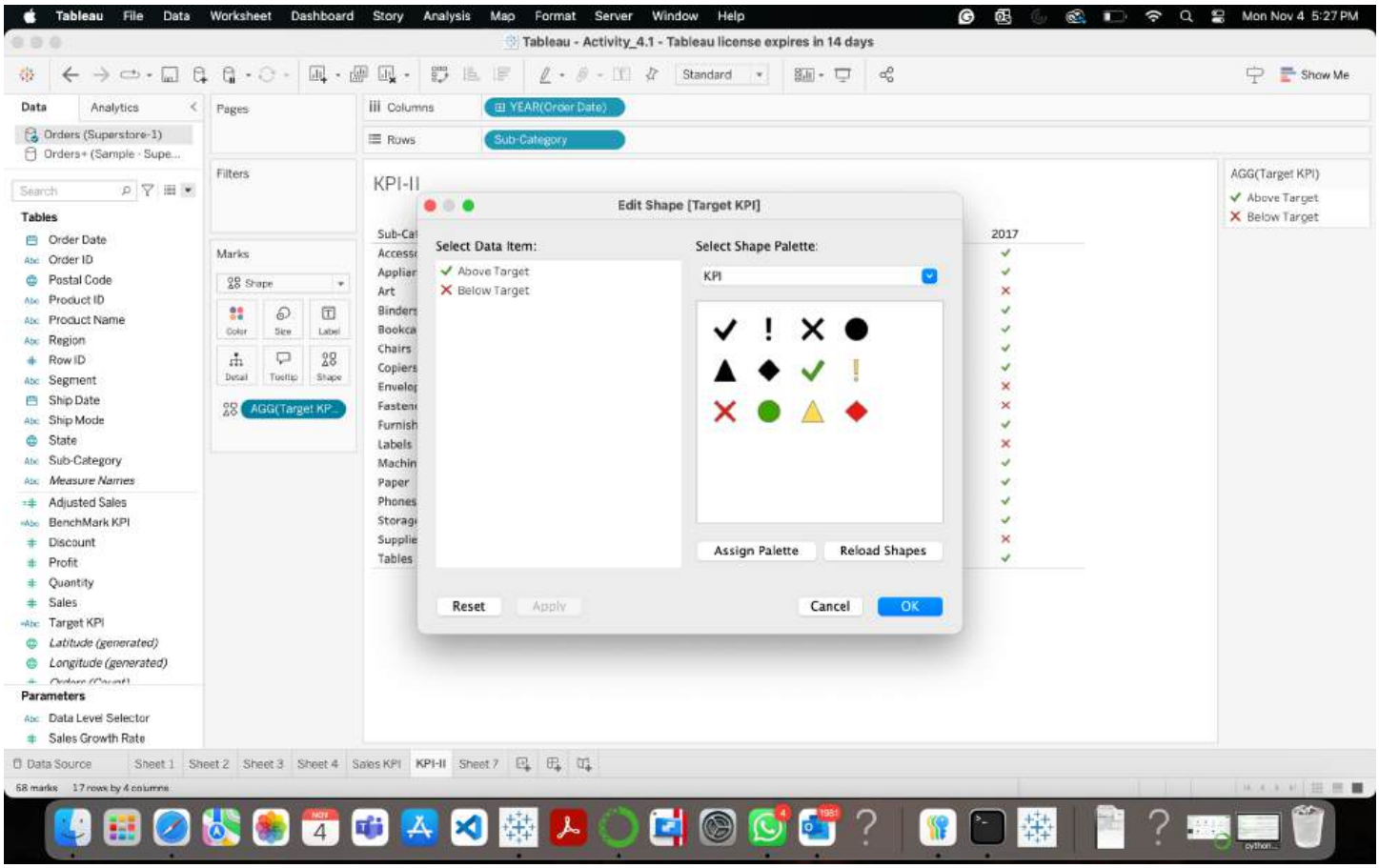
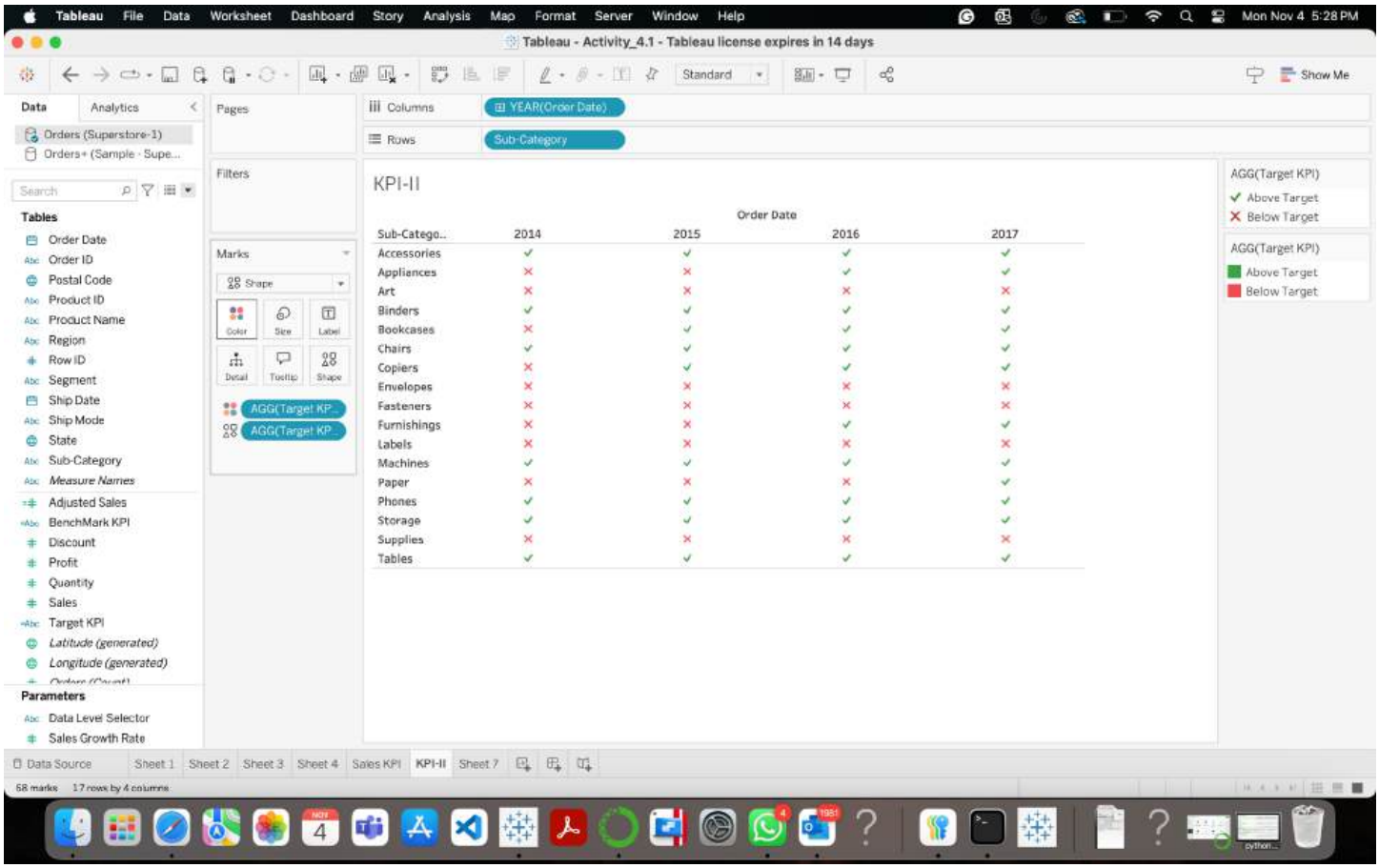


Tableau File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Mon Nov 4 5:27 PM
Tableau - Activity_4.1 - Tableau license expires in 14 days
Show Me
Data
Analytics
Orders (Superstore-1)
Orders+ (Sample - Supe...
Tables
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Adjusted Sales
BenchMark KPI
Discount
Profit
Quantity
Sales
Target KPI
Latitude (generated)
Longitude (generated)
Parameters
Data Level Selector
Sales Growth Rate
Pages
Filters
Marks
Shape
Color
Size
Label
Detail
Tooltip
AGG(Target KP...
Columns
YEAR(Order Date)
Rows
Sub-Category
KPI-II
2017
AGG(Target KPI)
Above Target
Below Target
Edit Shape [Target KPI]
Select Data Item:
Above Target
Below Target
Select Shape Palette:
KPI
Assign Palette
Reload Shapes
Reset
Apply
Cancel
OK
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sales KPI
KPI-II
Sheet 7
68 marks
17 rows by 4 columns



5) I performed in this section was an attempt to come forth with a series of very constructive indicators or key performance indicators. A determination was reached commercially that “target” would be any sale over $25,000 and ‘nontarget’ would be any sale less than or equal to $25,000. This was indeed necessary to further understand how individual subcategories performed in sales during different periods. Representation of these categories using geometrical figures with extreme specificity allowed one to see graphically clusters of excellent and poor performance subcategories. Design of superior and inferior performance subcategories for specified time intervals was easy to distinguish using color in a way particularly check marks show above target in green and below target in red thus resource and strategy allocation needs of marketing.