

# **DATA ANALYTICS WITH TABLEAU**

## **ASSIGNMENT-4**

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## **DATASET :** **Sample - Superstore.xls**

Task 1:- Create one fixed and one exclude LOD expression. Task 2:

Create any 2 map visualizations using geographical data.

Task 3: Create Top N and/or Dynamic dimension parameters and utilize those in your workbook.

### **Explain LOD Expression, Map Visualizations using geographical data and Top N, Dynamic dimension Parameters**

LOD Expression :-Level of Detail (LOD) expressions are used to run complex queries involving many dimensions at the data source level instead of bringing all the data to Tableau interface.

Different types of LOD functions :- There are three types LOD functions. They are:-

- 1.Fixed**
- 2.Include**
- 3. Exclude**

### **Map Visualization using geographical data :-**

Tableau is a tool for analyzing geographical data. It can automatically turn location data into interactive maps.

### **ZOOM Levels :-**

16 In Map Visualization, Geographical fields are double click on the field the data pane and tableau will create a map using generated latitude and longitude fields.

### **Top N Parameter:-**

Top N parameter uses a value selected by the user, where N is a value. The value can be static or controlled by a parameter. Top N parameter is also known as Bottom N. Tableau allows users to filter and display a certain percentage of their data.

### **Dynamic Dimension Parameters:-**

Create a Parameter. Create a new Parameter that lists your dimensions. Create a Calculated field that will be used as a dimension in your worksheet. Dimension to display when a particular parameter value is selected. Add the calculated fields to the canvas. 1) Colors 2) Filters 3) Select any ratings or price ranges.

# Tableau Starting

The screenshot displays the Tableau Desktop interface. At the top, the title bar reads 'Tableau - Book1' with standard window controls. Below it is a menu bar with 'File', 'Data', 'Server', and 'Help'. The left sidebar is a dark blue navigation pane with a 'Connect' section containing 'Search for Data' and 'Tableau Server'. Below this are 'To a File' options: 'Microsoft Excel', 'Text file', 'JSON file', 'Microsoft Access', 'PDF file', 'Spatial file', 'Statistical file', and 'More...'. Further down are 'To a Server' options: 'Microsoft SQL Server', 'MySQL', 'Oracle', 'Amazon Redshift', and 'More...'. At the bottom of the sidebar is 'Saved Data Sources' with 'Sample - EU Superstore', 'Sample - Superstore', and 'World Indicators'. The main workspace is light gray. The top section is titled 'Open' and features a large empty box labeled 'Book1' and a link 'Open a Workbook'. Below this is a 'Quick Start' section with a horizontal line. Under 'Accelerators', there's a description 'Jumpstart your analysis with pre-built templates' and a 'View More' link, followed by three accelerator thumbnails: 'Salesforce Sales Cloud', 'Customer Insights with ...', and 'Budget Controlling'. Below these are 'Sample Workbooks' with the text 'Explore what Tableau can do' and two workbook thumbnails. The right sidebar is light gray and titled 'Discover'. It includes a 'Meet Tableau' section with links for 'Get started', 'Tour the Tableau environment', 'Connect to and prepare data', and 'Learn more...'. Below is a 'Resources' section with links for 'Get Tableau Prep', 'Tableau Blueprint Assessment', 'Tableau Community Forums', 'Tableau Accelerators', and 'Blog - Read latest post'. At the bottom of the right sidebar is a promotional banner for 'Tableau 2023.3 available now' with the text 'See, understand and act on your data with Tableau 2023.3' and a 'Explore now' link with a right arrow.

Tableau - Book1

File Data Server Help

## Connect

Search for Data

Tableau Server

### To a File

- Microsoft Excel
- Text file
- JSON file
- Microsoft Access
- PDF file
- Spatial file
- Statistical file
- More...

### To a Server

- Microsoft SQL Server
- MySQL
- Oracle
- Amazon Redshift
- More...

### Saved Data Sources

- Sample - EU Superstore
- Sample - Superstore
- World Indicators

## Open

Open a Workbook

Book1

## Quick Start

### Accelerators

Jumpstart your analysis with pre-built templates  
[View More](#)

- Salesforce Sales Cloud - ...
- Customer Insights with ...
- Budget Controlling

### Sample Workbooks

Explore what Tableau can do

## Discover

### Meet Tableau

- [Get started](#)
- [Tour the Tableau environment](#)
- [Connect to and prepare data](#)
- [Learn more...](#)

### Resources

- [Get Tableau Prep](#)
- [Tableau Blueprint Assessment](#)
- [Tableau Community Forums](#)
- [Tableau Accelerators](#)
- [Blog - Read latest post](#)

## Tableau 2023.3 available now

See, understand and act on your data with Tableau 2023.3

[Explore now →](#)

# Upload The Dataset in Tableau

Tableau - BookA4

FileDataServerWindowHelp

Connections

Sample - Superstore

Microsoft Excel

Sheets

Orders

People

Returns

New Union

New Table Extension

Sample - Superstore

Connection: LiveExtract

Filters: 0Add

Orders

Need more data?

Drag tables here to relate them. [Learn more](#)

Orders

22 fields 9994 rows

100 rows

Name

Orders

Fields

Type	Field Name	Physical Table	Remote Fie...
#	Row ID	Orders	Row ID
Abc	Order ID	Orders	Order ID
Calendar	Order Date	Orders	Order Date

#	Abc	Calendar	Calendar	Abc	Abc	Abc
Orders	Orders	Orders	Orders	Orders	Orders	Orders
Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name
1	CA-2016-152156	08-11-2016	11-11-2016	Second Class	CG-12520	Claire Gute
2	CA-2016-152156	08-11-2016	11-11-2016	Second Class	CG-12520	Claire Gute
3	CA-2016-138688	12-06-2016	16-06-2016	Second Class	DV-13045	Darrin Van Huff
4	US-2015-108966	11-10-2015	18-10-2015	Standard Class	SO-20335	Sean O'Donnell
5	US-2015-108966	11-10-2015	18-10-2015	Standard Class	SO-20335	Sean O'Donnell
6	CA-2014-115812	09-06-2014	14-06-2014	Standard Class	BH-11710	Brosina Hoffman

Data Source

Fixed LOD Expression

Exclude LOD Expression

Geographical Data Map Visualiz...

Geographical data Map Visualiza...

Top N Example 1

Top N Example 2

Dynamic Dimension Parameter 1

Dynamic Dimension Parameter 2

14 4 31

# Create One Fixed LOD Expression and one exclude LOD expression

## One Fixed LOD

The screenshot shows the Tableau Desktop interface with a worksheet titled "Fixed LOD Expression". The data is sourced from "Sample - Superstore". The columns are "Customer Name", "Region", "Order ID", and "Product Name". The rows are "Customer N..", "Region", "Order ID", "Product Name", "FIXED..", "Quant..", and "Sales".

**Fixed LOD Expression**

Customer N..	Region	Order ID	Product Name	FIXED..	Quant..	Sales
Adam	Central	CA-2017-145877	Staple envelope	25.0	5.0	28.4
Shillingsburg	South	US-2017-108063	Newell 309	25.0	3.0	34.7
Alan Shonely	South	CA-2015-150749	Newell 333	13.0	2.0	5.6
Luke Foster	East	CA-2015-109512	Staple envelope	16.0	3.0	29.3
Philip Brown	South	CA-2014-107573	Staple envelope	11.0	3.0	23.5
Zuschuss	West	CA-2014-143336	Cisco SPA 501G IP P..	9.0	3.0	213.5
Donatelli			Newell 341	9.0	2.0	8.6
			Wilson Jones Hangl..	9.0	4.0	22.7
		CA-2017-141481	Kensington 6 Outlet ..	9.0	3.0	61.4

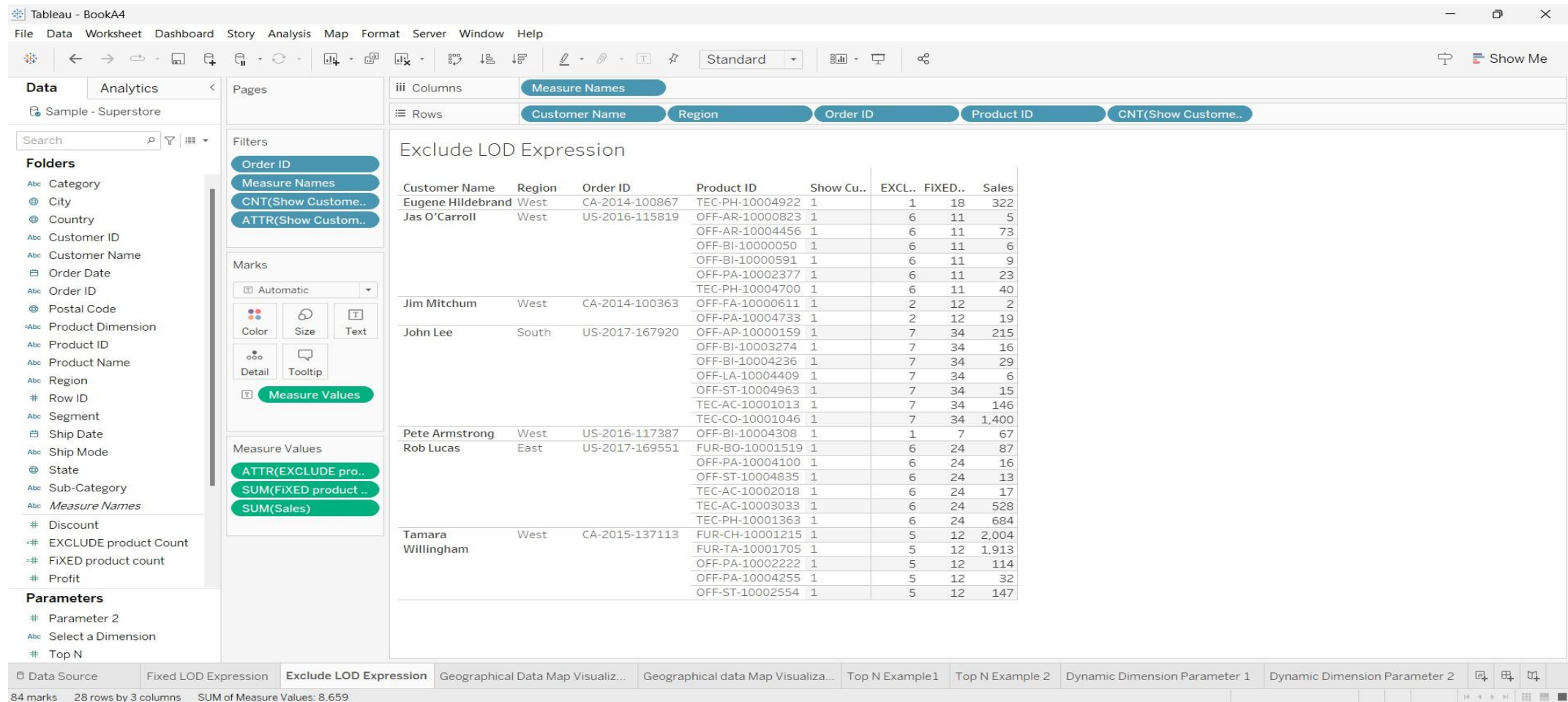
**Measure Values**

- SUM(FIXED product ..
- SUM(Quantity)
- SUM(Sales)

**Data Source** | **Fixed LOD Expression** | Exclude LOD Expression | Geographical Data Map Visualiz... | Geographical data Map Visualiza... | Top N Example1 | Top N Example 2 | Dynamic Dimension Parameter 1 | Dynamic Dimension Parameter 2

27 marks | 9 rows by 3 columns | SUM of Measure Values: 581.6

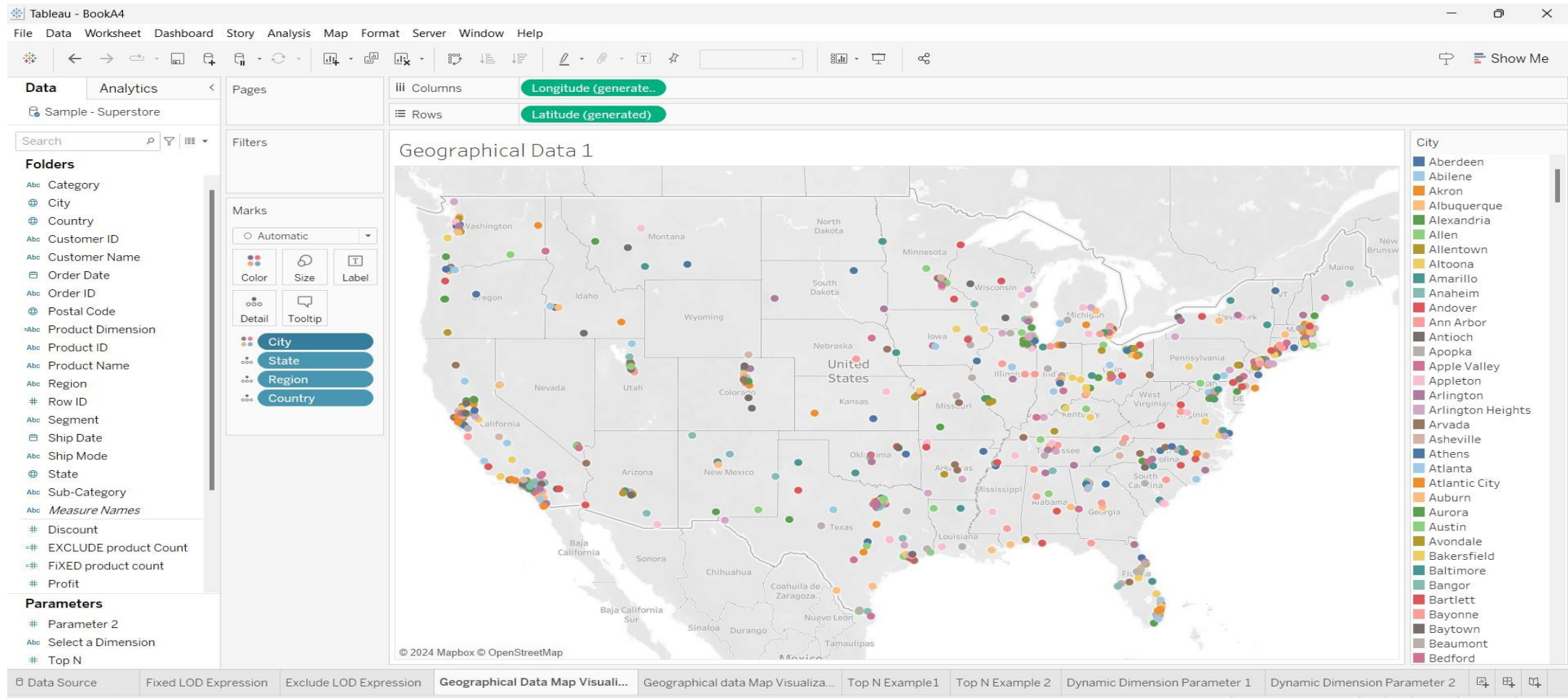
# One Exclude LOD Expression





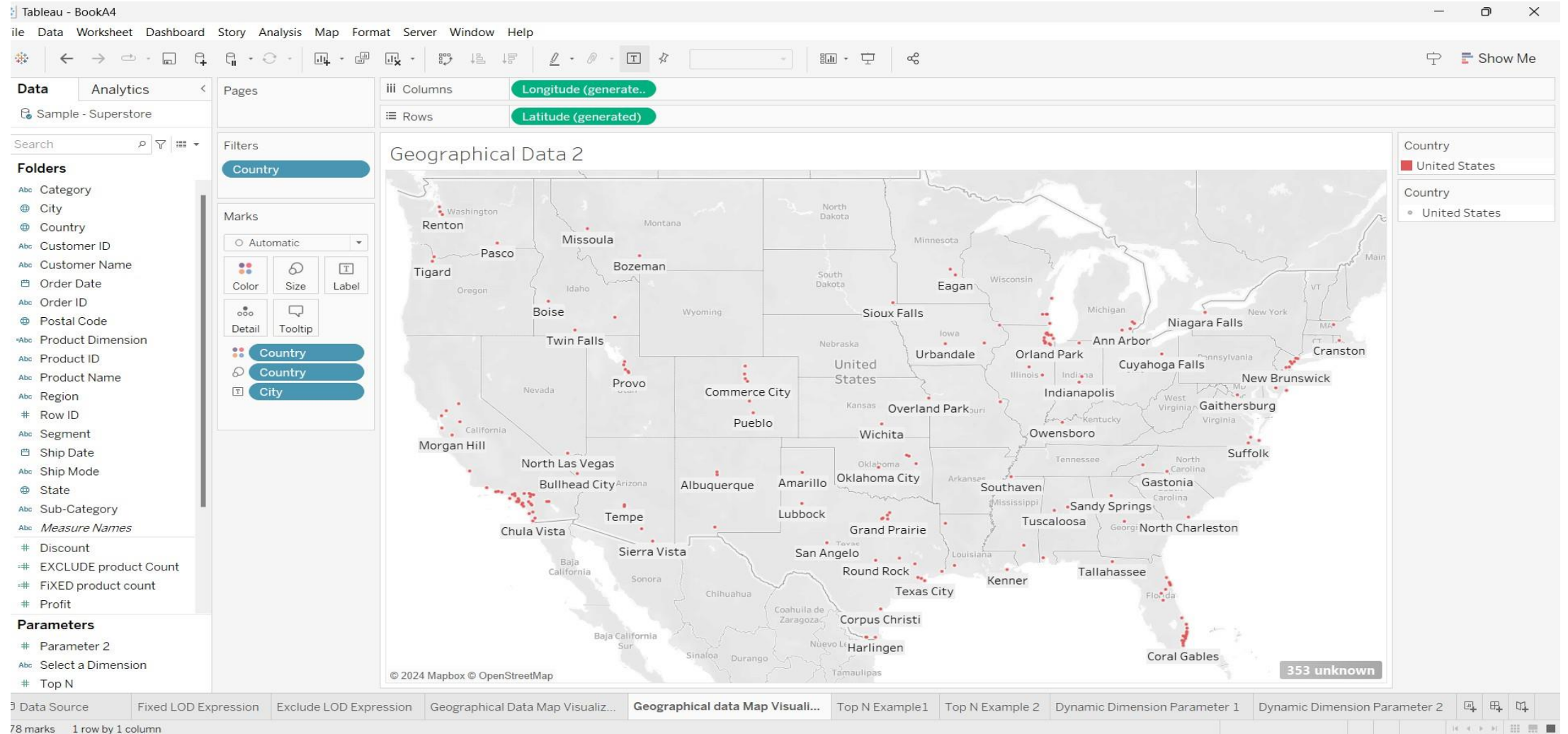
# Create any 2 map visualizations using geographical data

## Map visualization 1



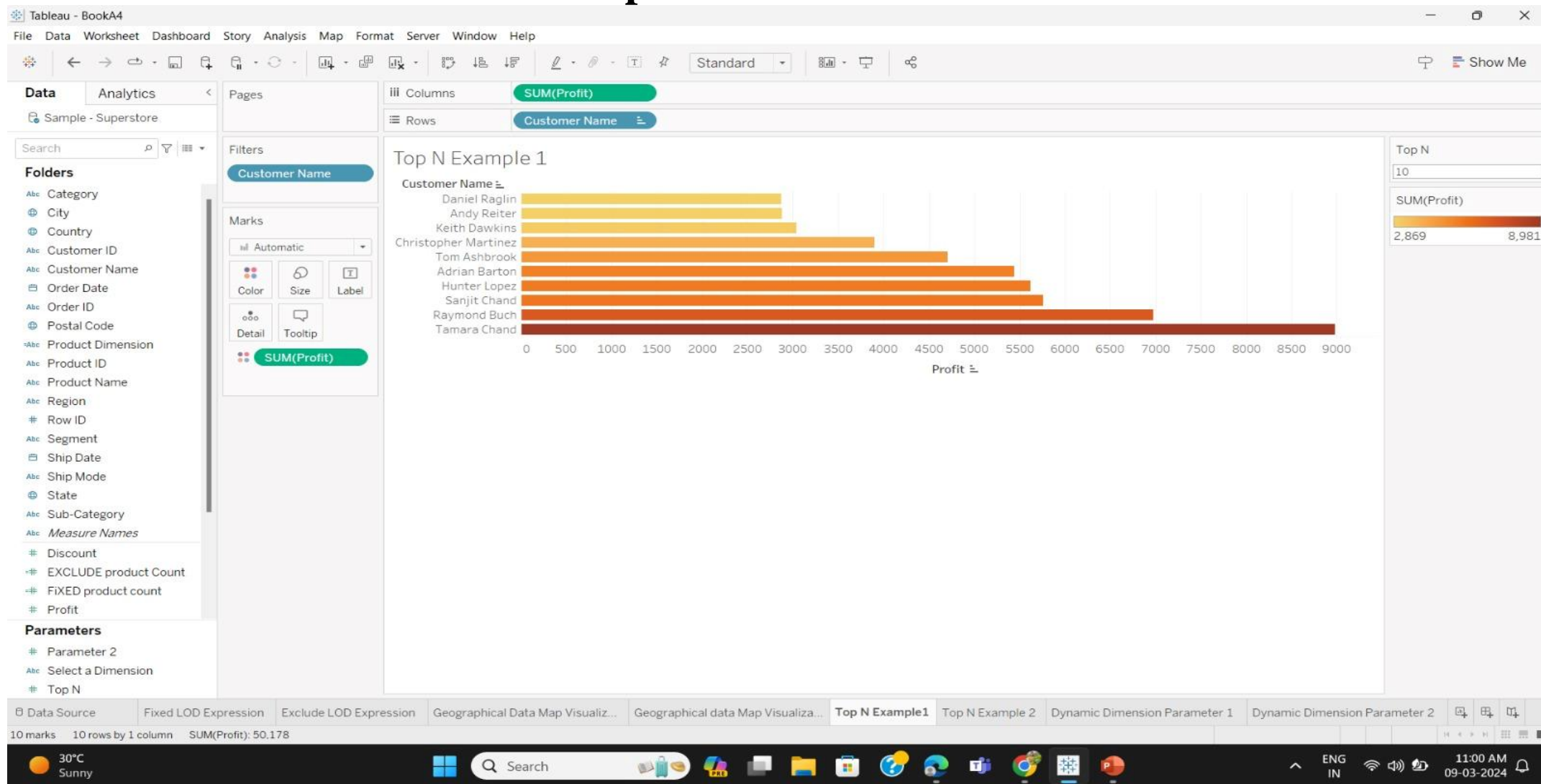


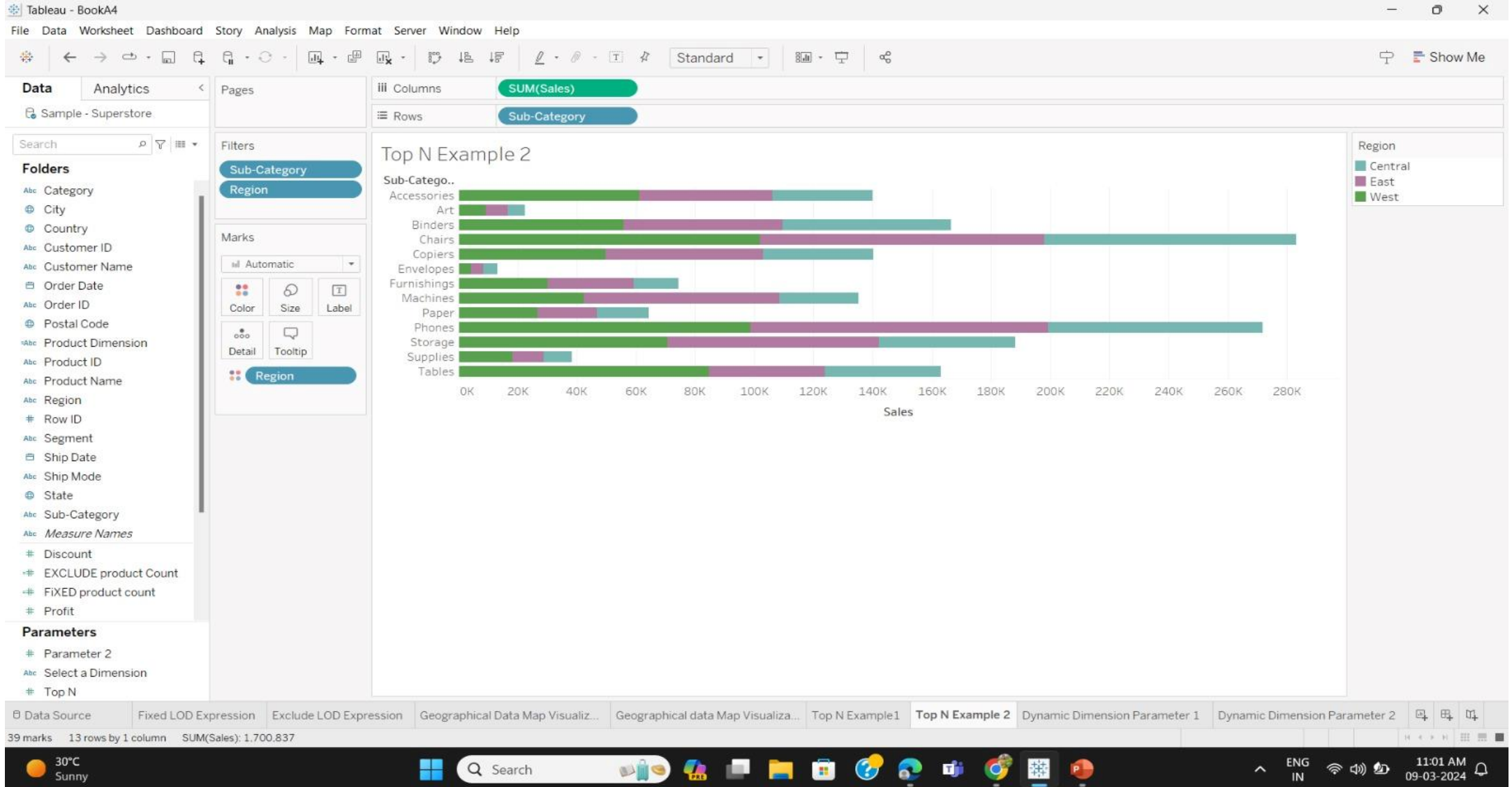
## Map visualization 2



# Create Top N and/or Dynamic dimension parameters and utilize those in your workbook

## Top N Parameters





# Dynamic Dimension Parameter 1

