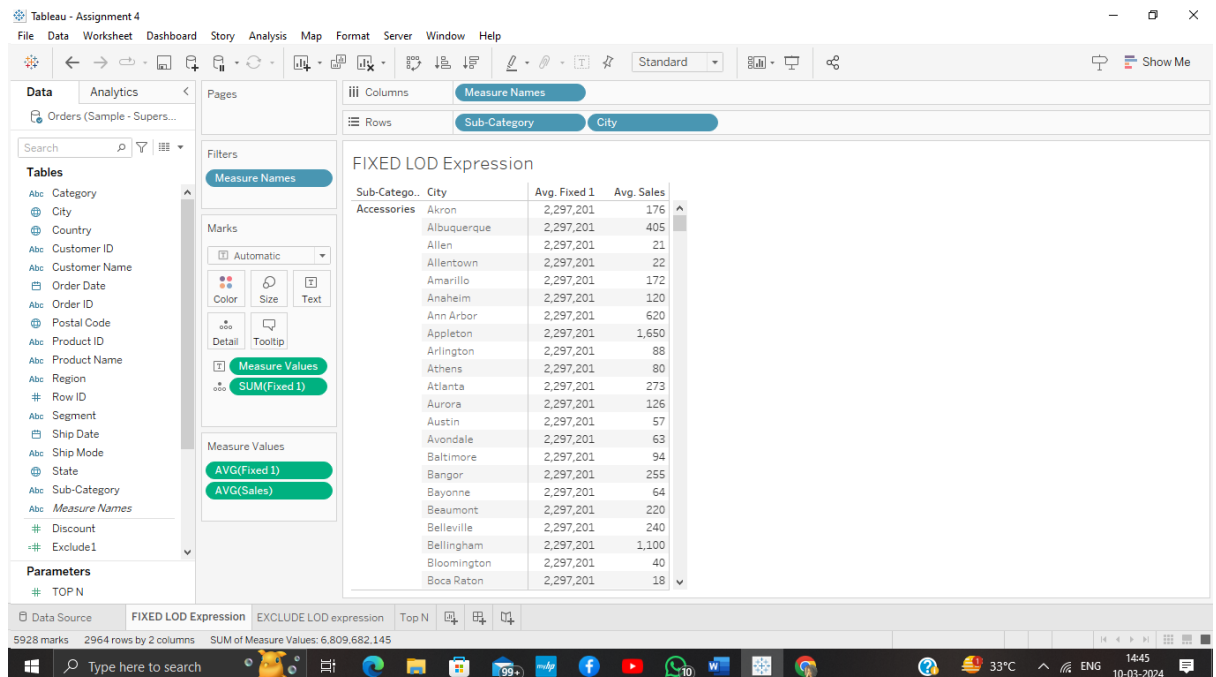


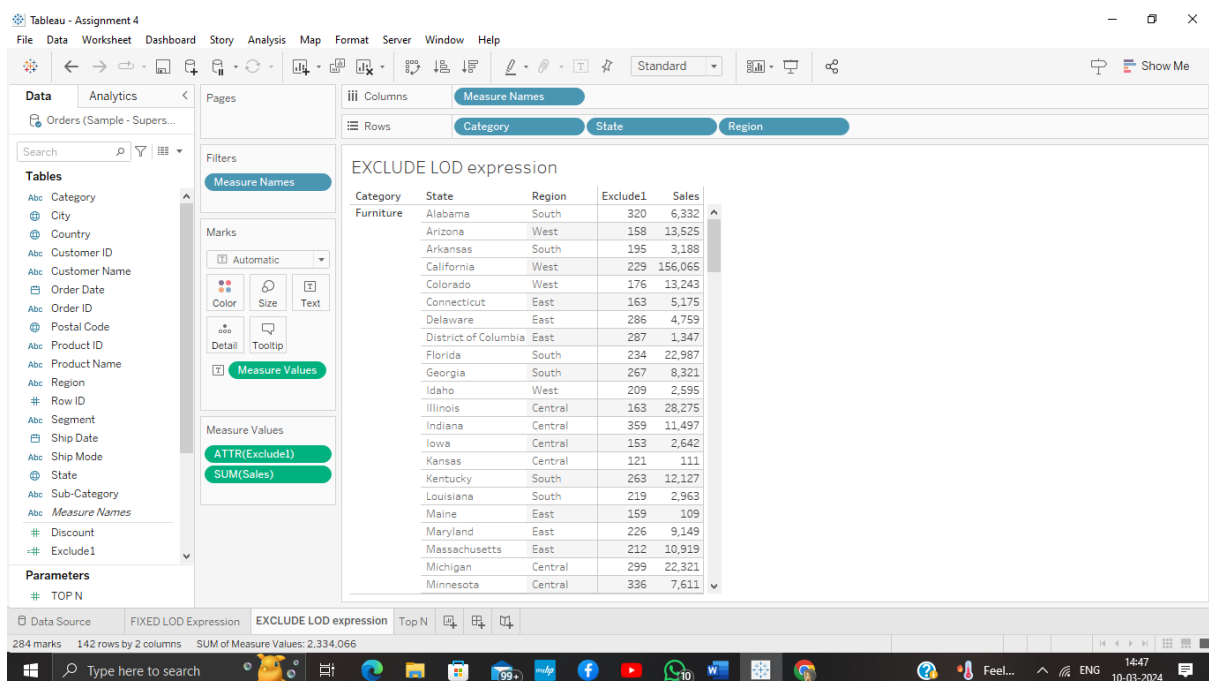
1.Create one fixed and one exclude LOD expression

- **Fixed LOD**

FIXED level of detail expressions compute a value using the specified dimensions, without reference to the dimensions in the view



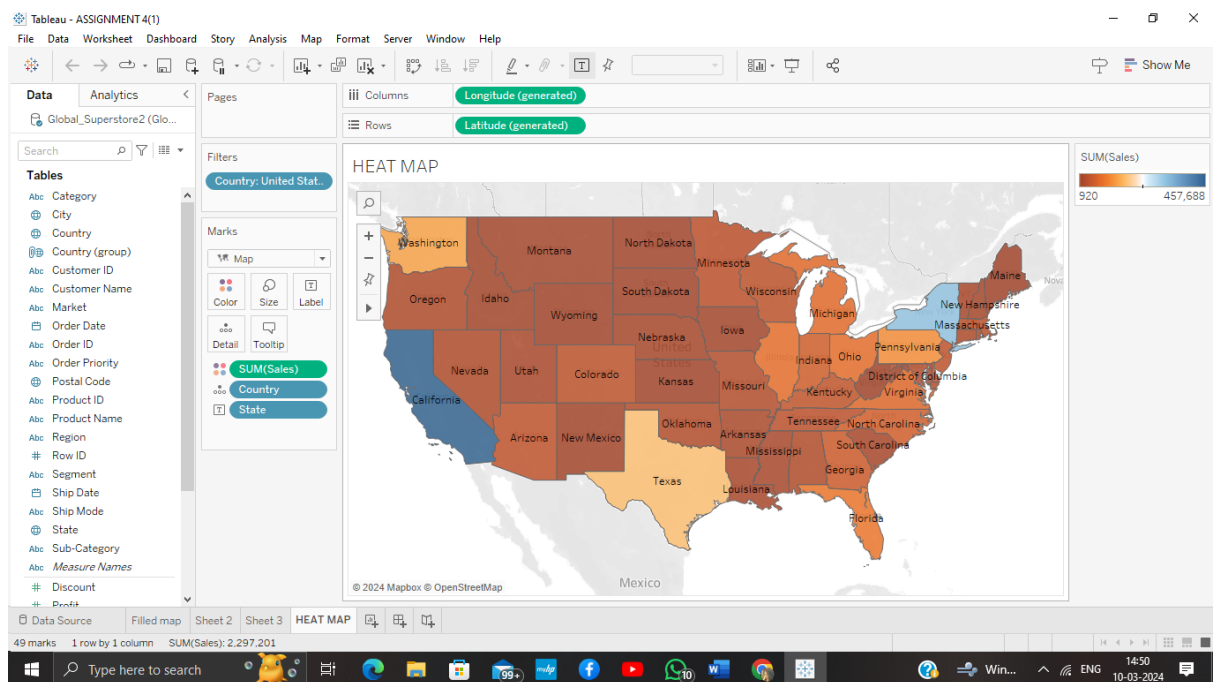
- **Exclude LOD**



2.Create any 2 map visualizations using geographical data.

• Heat map

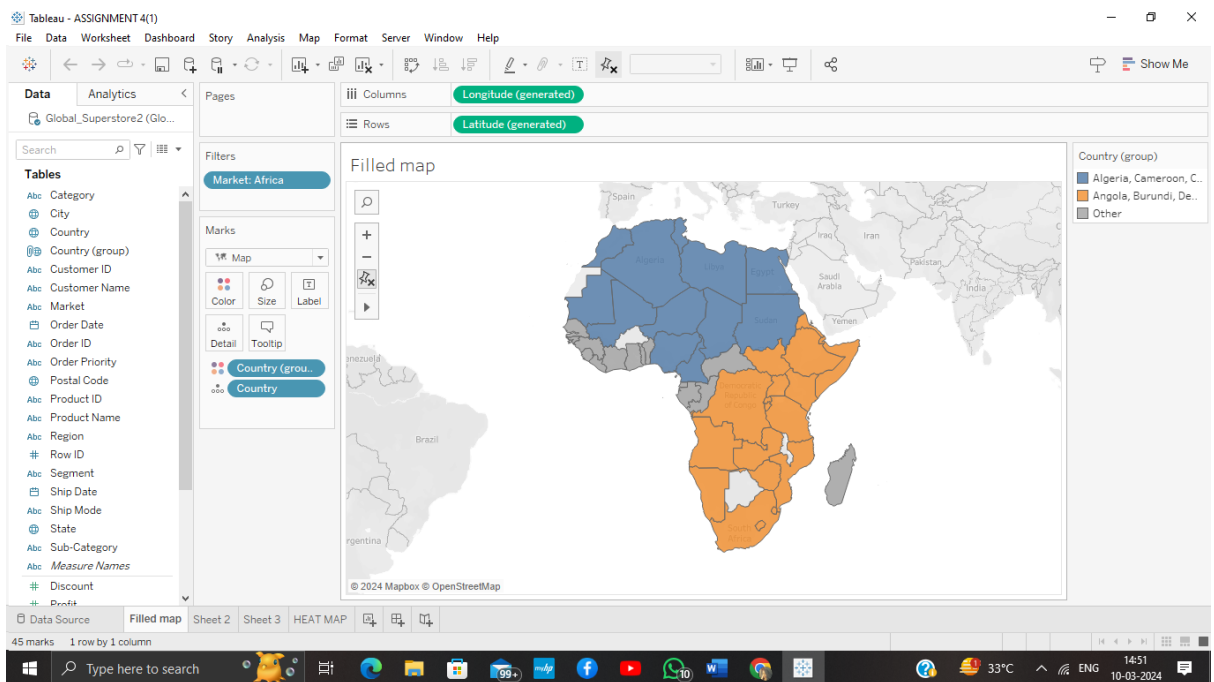
- Ensure your dataset has latitude and longitude information.
- Drag the Latitude field onto the Rows shelf and the Longitude field onto the Columns shelf.
- Drag the measure you want to visualize onto the Color shelf.
- Choose a color palette and adjust its intensity.
- Optionally, customize your heat map by adjusting the size of the marks and adding labels or tool tips.



• Filled map

- By default, Tableau generates a symbol map, placing a circle at the intersection of Longitude and Latitude for each state. In keeping with the “looking under the hood” theme of not relying on Show Me, take a look at the location of each dimension and measure.
- First, Longitude is on the Columns Shelf, which can also be thought of as the X-axis.
- Conversely, Latitude is on the Rows Shelf, or the Y-axis.

- On the Marks Shelf, we can see that State is the most granular level of detail in the view. Even without seeing the map in the view, we should be able to guess what Tableau will display just by seeing the geographic fields on the Columns Shelf and Rows Shelf, the level of detail on the Marks Shelf, and the mark type of 'Automatic' (which is 'Circle' by default).
- In order to change this from a symbol map to a filled map, change the mark type from 'Automatic' to 'Filled Map'. By selecting this special mark type in Tableau, you will see that the single circles on each state have been converted to nice, smooth polygons that trace the entire border of each state.



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

- **Top N:**

