Workshop 5- Using Preattentive Attributes in Tableau

(Out of 100 marks; DUE DATE: 11:59 PM Nov 5 2023; Late assignments will be 5% less every day; Grade of 0 after THREE days)

**Instructions:**

In Tableau, you can use various visual attributes to represent or emphasize different aspects of your data. Let's discuss how to apply each of these attributes in the context of the Superstore dataset (\* questions are for your analysis only):

**1. Color(10 points):**

*Use Case: Emphasize profits.*

1. Drag Location> "Region" and “State" to the Rows shelf.
2. Drag "Profit" to the Columns shelf.
3. Drag "Profit" to the Color shelf in the Marks card.
4. Choose Highlight Table/SidebySide bar/Horizontal Bar
5. You can customize the color range to clearly differentiate between positive and negative values by choosing colors>edit colors>choose contrasting color schemes like red-green diverging

Optional:

1. Choose Maps (\*Do you think adding maps makes it more readable?)
2. Select Label>Show mark label

Rename this sheet as profit by color and save the workbook

**2. Size (10 points):**

*Use Case: Size bubbles based on Sales.*

1. Choose a new sheet
2. Drag "Category" to the Rows shelf.
3. Drag "Profit" to the Size shelf on the Marks card.
4. Choose packed bubbles on the show me option
   1. This will create circles/bubbles, with their size proportional to Profit for each category.
5. Now choose treemaps

(\*Which one is better?)

**3. Orientation:**

*Use Case: Create horizontal vs. vertical bar charts.*

1. Horizontal Bar Chart - Sales by State(10 points):

Steps:

1. Drag "State" to the Rows shelf.
2. Drag "Sales" to the Columns shelf.
3. Now add sales to color in marks section to emphasize color
   1. By default, Tableau will create a horizontal bar chart with states listed vertically and sales represented by the length of bars extending horizontally.

Usage: Horizontal bar charts are especially useful when you have long category names (like state names) as they can be easier to read than in a vertical orientation.

2. Vertical Bar Chart - Sales by Category (10 points):

Steps:

1. Drag "Category" to the Columns shelf.
2. Drag "Sales" to the Rows shelf.
   1. This creates a vertical bar chart with categories listed horizontally and sales represented by the height of the bars.

Usage: Vertical bar charts are often the default choice for many visualizations because they're familiar to most audiences. They can be effective when you have a limited number of categories.

**4. Length (10 points):**

*Use Case: Represent Sales with bar length.*

1. Drag "Sub-Category" to the Rows shelf.
2. Drag "Sales" to the Columns shelf.
3. Select "Bar" from the Marks card.
4. Sort in ascending order

**5. Width (10 points):**

*Use Case: Modify the thickness of bars.*

After creating a bar chart (like in the Length section), add Sales to size

**7. Shape (10 points):**

*Use Case: Profit by Product Category with Custom Shapes*

1. First you need to Load custom shapes into Tableau:
   1. Navigate to your "My Tableau Repository" directory and open the "Shapes" folder.
   2. Create a new folder named "CustomShapes" and add appropriate shape images (store png or jpeg files)
2. Open Tableau and the Superstore dataset.
3. Drag "Region" to the Rows shelf.
4. Drag "Sales" to the Columns shelf.
5. From the Marks card, select "Shape".
6. Click on the Shape shelf, and from the dropdown, select the "Thumbs palette. (Reload Shapes if you can’t see it)
7. Assign each region its custom shape and click OK.

**8. Create your dashboard (10 points):**

1. Click on the "New Dashboard" button, which looks like a grid. It's located near the tabs for your sheets at the bottom of the screen.
   1. Alternatively, you can go to Dashboard > New Dashboard from the top menu.
2. Set Dashboard Size:
   1. In the "Dashboard" pane on the left, you can choose a size for your dashboard. Select a fixed size or range based on standard screen sizes, or customize it based on your needs.
3. Add Sheets:
   1. Simply drag the desired sheets from the "Sheets" pane on the left onto the dashboard.
   2. Once a sheet is on the dashboard, you can move and resize it as needed.
4. Arrange & Format:
   1. Use floating or tiled arrangements to position your sheets.
   2. You can add other objects such as text, images, web pages, or blank spaces to better structure and annotate your dashboard.
5. Ensure to maintain a logical flow to guide the user's eyes through the dashboard.

**9. Publish your dashboard:**

Publish your dashboard! (20 points)

**How to Submit:**

Submit a screenshot, tableau workbook and the link to your final tableau dashboard.