**Dashboard Installation Steps**

1. Load the necessary data sources for analysis. In this step 3 different sources were included: Churn Data.csv, Forbes 2023 Annual Avg Wage\_Clean.xlsx, and Educationv.csv
2. Next, 6 individual attributes were highlighted in individual sheets for quick reference in the dashboard.
3. The number of states/territories included in the Churn Data was pulled and the number count of this information displayed.
4. A breakdown of the number of customers per gender selection was taken from the Churn Data and columns were built to show the totals for each.
5. The total number of customers was pulled and displayed for quick reference.
6. The number of customers that remain active was derived from the Churn data and displayed.
7. The number of customers that churned was derived from the Churn data and displayed.
8. A calculated average of all customers annual income was derived from the Churn data and displayed.
9. Next, a chart was constructed to include the customer totals along with the churn totals by state with an overlapping bar chart. First, the state dimension was brought into the column section and the count of individual customers along with the totals for those customers that churned were included in the rows. A calculated field was created to show the percentage of total customers that churned per state and included as a tool tip.
10. An interactive chart was then created focusing on customer marital status and further breaking out the categories for those that did and did not churn. The measure for this chart includes age, tenure, and monthly charge. The dimensions of Marital and Churn were brought into the rows section and the calculated measures were brought into the column section and set to calculate the median for each category. The display is a horizontal bar chart that can focus on the three measures included.
11. An additional interactive chart was created to display the percentage of customer income compared to the average individual by state. First, a calculated field was created which takes the customer income and divides it by the annual average wage from the State Income Data source and multiplies it by 100 to give the percentage. A tree map was created that includes the color shade associated with the calculation, the count of individual customers relates to the size of the portions, average monthly charge was included as a tool tip, and each section is labeled for each state/territory.
12. Next, a bubble chart was constructed that compares the estimated education level for the customer population per each state/territory. A calculated field was created that results in the total number of customers and was assigned to the size for each bubble as segmented by each state/territory. Another calculated field was made to that refers to the Educationv.csv data and calculates the number of people that have a bachelor's degree or higher as compared to the total population per state. An additional calculated field was built to include this ration to the customer population for each state. Finally, a calculated field was created to show a projected percentage of each states customer population that may have a bachelor's degree or higher.
13. Lastly, a dashboard was made that includes the snapshot information at the top for ease of reference. Each of the charts and their associated user controls were formatted to fit the screen and to allow for end user interaction.