Part 1: Interactive Data Dashboard

A1 - Datasets:

- churn_clean.csv (uploaded)
- mobile_subscription_per100people (uploaded) and you can find this exact dataset on data.worldbank.org

A2 - There is no need to install anything or download anything; click on the following links:

- Executive Dashboard
- Potential for Global Telecommunications Growth

A3.1 - On the primary dashboard, there are various interactive controls:

- By selecting the blue circle in the category menu, you may examine elements of churned accounts. You can view how many accounts have been kept by selecting the orange square box. Both options are in the dashboard's top right corner.
- Select the gender symbols in the gender menu to see male/female/nonbinary elements. These settings are in the top right corner of the dashboard.
- To see the output in the KPIs table, combine any of the above categories in any combination.
- Holding down control and picking numerous options allows you to select various clickable features.
- A3.2 The circle *size* on the "**Churn by State**" map represents the total monthly revenue generated by each state. The larger the circle, the more money the state has generated. When the mouse hovers over each state, the state's name, churned customers, the total number of customers, the churn rate percent, and the total monthly revenue are all shown.
- A3.3 Select a state or any number of states from the state selection menu and click **Apply** to see state-specific elements in all other related charts.

A3.4 – The average monthly cost, the number of churned clients, and the number of loyal customers are the three metrics that a user can choose. A bar graph depicts the relationship between each metric and the age group in brackets. A line graph representing the churn rate % is on top of the bar graph. The line and bar graph will change depending on which metrics are selected.

A4.1 - There are several interactive buttons on the secondary dashboard, "POTENTIAL FOR GLOBAL TELECOMMUNICATIONS GROWTH."

Hover over or click on a country from the heatmap on the dashboard's left side to learn more about it (mainly the average mobile subscriptions per 100 people for that country)

Select a nation from the **Select countries** dropdown menu and click **Apply** to see country-specific components in the line graph.

Countries/Regions that are selected for analysis are China, Hong Kong, India, Latin America, Russian Federation, South Africa, and the United States.

A forecast analysis is also displayed on the line graph to estimate how the trend would appear in future years based on the data already provided.