ETL Project Proposal

**Company Name: Advanced Telemedicine Inc**

Assigned Team Members: Jason, Kenny, Zainab

State-level Utilization of Telemedicine Prior to and During COVID-19

# **Background:**

COVID-19 has severely reduced the level of healthcare services utilization because of perceived risk of getting infected by the disease. Interactions between healthcare providers and patients may change substantially as states continue to ease restrictions on movement and other related measures (e.g., mask-wearing, social-distancing, etc.). Telemedicine provides an effective way for patients to communicate with providers safely and increase access to care at population level. However, little is known about the current status of telemedicine at state level as well as the changes of telemedicine before and after the breakout of COVID-19 in the United States.

Data Sources:

<https://trends.google.com/trends/explore?date=today%203-m&geo=US&q=telemedicine>

<https://github.com/CSSEGISandData/COVID-19>

The COVID-19 cases and deaths are readily available publicly from the Johns Hopkins University website, and google trend data (50 States including D.C.) can provide people’s real time search interests with keywords, i.e. “telemedicine”.

Proposed Transformation:

1. Combine data from the Johns Hopkins University website and google trend results at state-level into a single table;
2. Clearly define pre-COVID19 period and ongoing outbreak period;
3. Clean up the data as necessary;
4. Generate two maps: one map for pre-COVID-19 time period and one map for the ongoing period of COVID-19, both maps should include the state level incidence rate of COVID-19 infection.

Company Goal:

We would like to have TrueDataAnalysis (TDA) uncover a relationship with the data provided above, we are seeking to establish a Telemedicine company branch in a viable location in the U.S. The current data might not be reliable due to inflation because of the current pandemic, therefore we would like TDA to conduct an analysis on the U.S. data to reflect which states will be more likely to have increased utilization of telemedicine. As a result we will expand our presence in certain states to increase our market share.