## Group 5 Final Project | Description of the analysis phase of the project

## Elections Analysis Step by Step:

- Step 1: Clean all datasets and put them in test folder.
- Step 2: Create 1st python script (FinalProject.py)
  - From the clean data, in CSV form, to analyzing that data through graphs. Each different test gives you a list of command options to perform to all the interesting findings. Using python is the far more automated, and faster overall processing time.
- Step 3: Create 2nd python script (AutoTest.py)
  - We went one step further and integrated all of our tests into a single script that runs through a properlyformatted folder full of validation data, analyzes all of them, and puts all pertinent results in a specific Results folder for the teammates to review.
- Step 4: Create 3rd python script (DataFrame\_to\_SQL.ipynb)
  - Upload all test results to AWS and link them from the website for dashboard visualization.
  - Transfer all datasets to SQL for database connects to the website and web app.
- Step 5: Create a website (http://group5.anvil.app)
  - Deploy machine learning model to the website for predicting the total votes and who will win the elections, also created the dashboard visualization for all the interesting findings. Refer to <u>Our Website</u> for details.
- Step 6: Create a web app (https://share.streamlit.io/hieppham8083/finalproject/main/main.py)
  - Furthermore, deploy deep learning NeuralNetwork model to analyze vote turn out from Elections Performance Index Dataset and directly plot all the graphs on the web app. Refer to <u>Our WebApp</u> for details.