Necessary libraries

In order to build NDVoters for the first time, Qt must be installed with all of its necessary libraries and components, including qmake, however qmake should not be run again.

Build/Compile

First, we had to run ‘qmake NDVoters.pro’, which created a template that had most of what we needed to compile the software. In order to include other parts of our project like the script, we had to add a couple different custom lines to the Makefile. As a result, to build our program, simply run ‘make’, which will create all of the executables. When testing our build, **do not run qmake**, for it will rewrite our custom Makefile and the program will not run correctly. If compiling on OS X, Qt creates an NDVoters.app directory, so from the directory you ran ‘make’ in, enter ‘mv NDVoters.app/Contents/MacOS/NDVoters .’ so the necessary pictures and data will be in the same directory as the executable, which is how we designed the program. Additionally, the program compiles with several warnings, although they have no effect on the actual execution of the software.

User Manual

This project, titled NDVoters, uses QT Creator to generate an interactive GUI that allows the user to view graphs about the political atmosphere at Notre Dame. The user is able to view side-by-side graphs about Presidential Primary voting patterns for different demographics. To run the program after it has already been compiled, the user must first run the executable, NDVoters. Once this executable is run, the GUI will open, initially displaying two side-by-side graphs of the total votes for each candidate. There are drop down menus for each bar of the side-by-side graph. The user can select different drop downs to change the graphs. For example, the user could select "Female" from the gender drop down menu for the left bar, and then select "Male" from the gender drop-down menu for the right bar. After clicking the "Create Graph" button, the user would see a comparison of the voting patterns of each gender. The user can change as many dropdowns as desired to make the graphed voting populations more or less specific. To return to showing the total overall votes for all voters, the user must simply change each dropdown back to the default choice ("Age", "Gender", etc.). At any point, the user can press the "Quit" button to close the GUI and exit the program.

Minor Bug

The only minor bug that occurs within this program occurs on the student machines. While the program still runs and displays all of the correct information, there are issues with the background image. It displays on our GUI for a few seconds and then disappears to a black background image. All of the graph options remain functional and the graphs appear. We

believe that this is due to the inefficiency on the student machines in regard to image processing. Whenever we run it locally on our machines, the program runs smoothly and includes the background image.

Further Information

Since our program can dynamically pull more data from our Google Survey, you need to re-run the Makefile in order to receive updated results. Within our Makefile, we run a Python script that takes the data from the .csv file produced by the Google form and moves it into a results.dat file. From there, we read in all of the demographic information in the constructor of MainWindow using ifstream.