CS31: Project 1 Report

Using the program as given, when inputting reasonable integers, nonsensical outputs would occur. For example, when prompted to put “How many votes did you receive?” I inputted 251. When the code prompted “How many votes did your opponent receive?” I inputted 252. I told the program that the votes required to win was 250, and it concluded that I won, which is a nonsensical result. This is because that the equation in the code does not account for majority, but rather that as long as the quotient of the votes that you received by the votes to win was greater than one, you won. But in this case, the opponent won by majority vote, thus the program gave an incorrect result.

In the logic\_error.cpp, I introduced a logic error to the code by changing the greater-than sign to a less-than sign in the if-else statement, if (pctYou>1.00). Nonetheless, the project would still build. For example, if the votes required to win was 250, and I received 260, and my opponent received 240, the program would read this as me getting a higher percentage of the vote, but my opponent winning, as the less-than sign interferes with the condition of the results.

In the compile\_error.cpp, I took out a semi-colon at the end of a statement, thus causing the code to fail to compile. An error message in Xcode reported an expected “;” after expression. This occurred because in C++, every statement must end in a semi-colon in order for the build to be successful.