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Report for CS31 Project 1

Step 5) A value of 0 was entered when the prompt given was “How many Electoral College electors are there?” This leads to an output of “inf” when the inputs for “How many of these electors voted for the Republican/Democratic party candidate?” are greater than or equal to 1. Similarly, when a value of 0 is entered for the first prompt, but a value of 0 is also entered for the second or third prompt, a value of “nan” is outputted. I discovered these unusual results when I entered the inputs, “0, 1, 0.” Another nonsensical output occurs when the numbers entered in the second or third prompts exceeds that inputted for the first prompt. This leads to percentage values greater than 100% outputted at the end, for example, it can say 250% voted for the Republican party candidate. I discovered this when I entered the inputs, “10, 25, 25.” The program also allows for negative values to be inputted, and while the program runs smoothly, a negative percentage may be displayed, which doesn’t make sense. Lastly, there appears to be a logic error for determining who wins. When there are even numbers of votes, the program will not declare a victor. For example, if there are 2 electoral college votes, and there is one vote for each party, the program will not display whether the Democratic party won or the Republican party. I discovered this when I entered the inputs, “2, 1, 1.”

Step 6) A logic error was introduced by reversing the > and < in the logic statements in lines 31 and 35. This will cause the incorrect party to be declared the winner, even if that party had more votes.

Step 7) A compile error was introduced in line 29 by misspelling “cout” as “cccout.” In line 14, the operators following cin, >>, were replaced with <<, which is an incorrect operator. Another compile error was introduced through an undeclared variable, removing declaration for a variable in line 20. Lastly, another compile time error was caused by the removal of semicolon in line 42.