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CS31

Project 1

Error Report

Following step 5, I input the set of values (20, 10, 10), which resulted in the program making an incorrect statement. Due to the if, else clause not considering the potential for equal odds, the program outputted the false statement “Cox is predicted to win the election.”. I also input the value: 9999999999999999999, when prompted for the number of people surveyed. This resulted in an integer overflow, causing the program to output -40.0% odds for Cox and Newsom when using the Visual C++ compiler, and 0.0% whilst using the g31 compiler. In addition, I input the set of values (0, 0, 0) which caused the program to output -nan(ind)% odds for both Cox and Newsom in Visual C++. Using the g31 compiler caused the program to output -nan% odds.

I introduced two errors into the logic\_error.cpp program. The first was changing the variable pctNewsom from type double to int on line 20. I also changed the “100.0 \*” to “100 /”. The second error I introduced was changing the operator in the if statement on line 30, from a greater than to a less than sign. These changes resulted in the program outputting incorrect results. The first error caused the program to output an incorrectly calculated percentage of people who voted for Newsom. The second caused the program to output the wrong favored candidate.

In the compile\_error.cpp program, I introduced two errors. On line 13, I removed the semicolon after the output string, causing a syntax error. The second error I added, two arrows pointed in the wrong direction for the cout function, was on line 28. The compiler recognized these compilation errors, reporting:

compile\_error.cpp:13:54: error: expected ';' before 'cin'

cout << "How many registered voters were surveyed? " //compile error: removed semicolon

and:

compile\_error.cpp:28:7: error: no match for 'operator>>' (operand types are 'std::ostream' {aka 'std::basic\_ostream<char>'} and 'double')

cout >> pctCox << "% say they will vote for Cox." << endl; //compile error: wrong direction of cout arrows