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CS 31 Project 1

At first in original.cpp, I tried to input integer data that produced sensical results. For my second attempt at inputting data for step 5, I tried to find input data that would produce nonsensical results. Seeing that there was no if-else check in the source code for an impossible amount of false positives and negatives, I inputted more false negatives/positives possible compared to how many actual positive/negative results there were actually given. For example, for both positive and negative I inputted 5 total positive and negative results each (total 10), and that false positives and false negatives would both be one more at 6 each which is impossible since it cannot be more than its respective positive/negative results. As a result, the program produced two nonsensical, negative percentages when telling actual positive/negative test were actually positive/negative, where even with these impossible values, the program still did not acknowledge to the user that the data inputted seems wrong or nonsensical.

When trying to produce a logic error that could commonly occur, on line 35 inside the “if condition”, I replaced the “!=” operator with the “==” operator since I believe one could easily forget that a proper check to see if total test are possible as reported by amount of positive and negative results requires the sum of both to “not be equal” instead of “equal”. As a result, this caused the program to unintentionally output and warn the user that the data values of total tests, positive, and negative are nonsensical together when in fact they are sensical and valid.

In attempting to produce a compilation error that could commonly occur, on the statement on line 10, I deleted the comma that separated the two int declarations “positive” and “falsePositives”. This produced a build message error as said by the compiler on line 10 that an “expected initializer before ‘falsePositives’”. This also produced a trickle-down message error on lines 16 and 18 as well of both variables not being “declared in this scope” since “positives” and “falsePositives” variables were never declared with the error on line 10 occurring. In trying to produce a second distinct compilation error, on line 40, after the “return 0” statement, I deleted the semicolon which produced an “expected ‘;’ before ‘}’ token” message error in the compiler since without the semicolon then the compiler has no way of knowing when the statement has ended going all the way in this case to the end of main function without reading the last return statement.