Preethika Kiruveedula

204912895

Computer Science 31 Project 1

In order to receive a nonsensical or unusual output from the program, as asked for in step 5, I input various numbers outside of the implied range of numbers for the poll. For example, when the program would inquire, “How many people were surveyed?”, I would input the number “100”. However, once I was asked “How many of them approve of the way the president is handling his job?” and “How many of them disapprove of the way the president is handling his job?” I would enter the numbers: 75, 85. These numbers not add up to “100”; for example, in this case it said 75% of the population agreed with the president’s actions and 85% disagreed with the president’s actions, which is impossible a person cannot agree and disagree with the topic at the same time. I also entered a higher value for the number of people that agreed or disagreed than the actual number of people surveyed. For example, I input that “100” people were surveyed, but that 20 people agreed with the president’s actions while 200 did not agree. This resulted in the output that 20% of the population agreed and 200% of the population disagreed, which defeats the whole point of survey. In order to fulfill the task of number 6, to introduce a logical error into the source code, I changed the source code by altering the equation for finding the percentage of the number of people of approve and the number of people that disapprove. I changed the equation by replacing “numsurveyed” in “100.0 \* numApprove / numSurveyed” and “100.0 \* numDisapprove / numSurveyed “with a “0”. This results in a logical error because the computer compiles, but says the percentages of the groups is infinity percent which doesn’t make sense. In order to satisfy the requirements for step 7, I introduced two different compiler errors into the source code. For the first error, I deleted the variable type for the three variables “numSurveyed, numApprove, numDisapprove”, basically it no longer defines these variables as integers. Since the variables had not been defined as a certain variable type it led to a compile error. The second error I introduced was a deletion of parenthesis around the if and else condition. The program was expected to have an expression but due to the lack of the parenthesis there is no longer an expression causing the if or else condition to no longer compile. The lack of parenthesis also caused the computer to say there is a syntax error since there are no parenthesis around the expression “numApprove > numDisapprove”. Therefore, the program couldn’t output whether the number of people who agree with the president’s actions is greater than or less than the number of people who disagree with the president’s actions. That is how I approached steps:5, 6, and 7.