Computer Science Assignment 1

# Testing the original program with integer inputs:

* Test: Inputting only positive integers for number of people.

Result: The program runs normally, and outputs positive percentage values even if the percentages don’t add up to 100.

* Test: Inputting negative integers as number of people.

Result: The program continues to process the input values and provides numerically correct outputs, although they aren’t logically justifiable.

* Test: Entering a greater number of people voting for a single person than are present in the total.

Result: The program again processes the inputs normally and outputs numerically correct results, but the result is not logical (i.e. percentages above 100).

* Test: The total no. of people voting is inputted as zero.

Result: This input causes division by 0 to take place as the program runs. Hence, a nonsensical result is outputted, “1.$%” or “-1.$%, depending on whether the dividend is greater than zero or not.

# Logical Error

1. Error: in the IF condition, the ‘less than’ sign is entered instead of ‘greater than’ sign.

Result: The output states that the person with lower number of votes is predicted to win the election.

# Compilation Errors

1. Error: the semi colon is not entered at the end of the statement in which the variable ‘numberSurveyed’ is declared.

Result: the program fails to get compiled, and a window indicates that a semi colon is missing in one line of the program. (**Error C2144**: syntax error: 'int' should be preceded by ';')

1. Error: the statement ‘using namespace std’ is left out.

Result: the program cannot be compiled, and a window indicates that certain command words, such as ‘cout’, ‘cin’ and ‘endl’, are “undeclared identifiers”. As the namespace has not been declared, certain command words cannot be identified by the compiler. (**Error C2065**: 'cout': undeclared identifier)