**ITCS 1212L**

**Post-Lab 1**

**From Source Code to Executable and Algorithms**

1. **Answer these questions based on what you leant in lab lesson and lab practices:**
2. What is the name of the compiler we are using in the lab?
3. What is the name of the IDE (Integrated Development Environment) we are using in the lab?
4. What is the extension of source code file you type in the editor?
5. What is the extension of the file the compiler produces?
6. What are the 2 task of the C++ compiler?
7. What is the extension of the file that the liker program produces?
8. What is meant by the phrase “syntax error”?
9. What is meant by the phrase “logic error”?
10. Looking at the sample code you wrote in lab, what type of statement did you use to read input from the user?
11. What type of statement did you use to produce output on the screen?
12. When you submit your source code to Moodle to be graded, what is the extension of the file you will submit?
    1. Write an algorithm that gets 3 inputs A, B and C from user, calculates the following formula and prints the result on screen.
       1. D = (A + B)/(C - 2)
    2. The following program is supposed to calculate half of the number that user chooses as input. Inspect the code and identify the errors in addition also fix the error.

#include <iostream>

using namespace std;

int main()

{

int number;

int divider;

cout << endl << "Let's start off by typing a number of your choice" << endl;

number = number /divider;

cout << number , " is twice the number you typed" << endl;

return 0;

}

4. This program takes two values from the user and then swaps them. Before printing the values. The user will be prompted to enter both numbers.

a) Inspect the program. What is printed?

b) Identify the error in the program and correct it.

int main()

{

float firstNumber;

float secondNumber;

// Prompt user to enter the first number. cout << "Enter the first number" << endl;

cout << "Then hit enter" << endl;

cin >> firstNumber;

// Prompt user to enter the second number. cout << "Enter the second number" << endl;

cout << "Then hit enter" << endl;

cin >> secondNumber;

// Echo print the input.

cout << endl << "You input the numbers as " << firstNumber

<< " and " << secondNumber << endl;

// Now we will swap the values.

firstNumber = secondNumber;

secondNumber = firstNumber;

// Output the values.

cout << "After swapping, the values of the two numbers are "

<< firstNumber << " and " << secondNumber << endl;

return 0;

}

5.Write a program that will read in a number that represents the number of kilometers traveled. The output will convert this number to miles. 1 kilometer = 0.621 miles.

The following shows the algorithms to write the program:

1. Get the number of kilometers as input.
2. Multiply the kilometer numbers to 0.621.
3. Print the result on the screen