Part A - Introduction

Getting Started

Workshop 1 (out of 10 marks - 1% of your final grade)

In this workshop, you will code and execute a C-language program using a Visual Studio Integrated Development Environment (IDE).

LEARNING OUTCOMES

Upon successful completion of this workshop, you will have demonstrated the abilities:

- to use the Visual Studio to code, edit and execute a C-language program
- to login to a remote host using an SSH client
- to transfer source code between a local computer and a remote host using an SFTP client
- to describe to your instructor what you have learned in completing this workshop

SUBMISSION POLICY

Your workshops are divided in two sections; in_lab and at_home.

The "in_lab" section is to be completed **during your assigned lab section**. It is to be completed and submitted by the end of the workshop. If you do not attend the workshop, you can submit the "in_lab" section along with your "at_home" section (a 30% late deduction will be assessed). The "at_home" portion of the lab is **due the day before your next scheduled workshop**

All your work (all the files you create or modify) must contain your name, Seneca email and student number.

You are responsible for regularly backing up your work.

IN-LAB: (30%)

For the in-lab part you are to write a C program that displays

```
>** Welcome to C Programming **<
```

on a separate line.

Prepare a Visual Studio Solution on your local Computer

Create a Visual Studio project using the following instructions:

- Start Visual Studio
- Select New Project
- Select Visual C++ -> Win32 -> Console Application
- Enter Workshop 1 as the Project Name | Select OK
- Press Next
- Uncheck Precompiled header and Security Dev.
- Check Empty Project | Press Finish
- Select Project -> Add New Item
- Select Code | C++ file | Enter w1_lab.c as the File Name | Press OK
    - *Make sure the file extension is ALWAYS ".c". This forces Visual Studio to use the C compiler.*
- Enter your source code
- Select Build | Build Solution
- If unsuccessful, fix your errors and then Select Build | Build Solution (Or <Ctrl>+<Shift>+B)
- If successful, Start without Debugging (Or <Ctrl> + F5)

Test your Solution on the Remote Host (Matrix)

Test your source file on matrix using the following instructions

- Open an SSH client like putty
- Login to matrix.senecac.on.ca
- Enter your userid and password
- create a directory named w1 and change into that directory
    - **mkdir w1 <ENTER>**
    - **cd w1 <ENTER>**
- Open an SFTP client like WinSCP
- Login to matrix.senecac.on.ca
- Enter your userid and password
- Transfer your source file from your local computer to the directory named w1
    - *Make sure the files are transferred in text and not binary, change the transmission setting from automatic to text.*
- Compile and run your solution on matrix
    - **gcc w1_lab.c –o w1 <ENTER>**
    - **w1 <ENTER>**

Make sure the output is exactly as required: **** Welcome to C Programming ****

IN_LAB SUBMISSION:

If not on matrix already, upload your **w1_lab.c** file to your matrix account. Compile and run your code and make sure everything works properly.

Then run the following script from your account: (replace profname.proflastname with your professors Seneca userid)

```
~profname.proflastname/submit 100_w1_lab <ENTER>
```

and follow the instructions.

AT_HOME: TITLE (30%)

For the at home part of your submission, you are to upgrade your program to display:

```
>******************************<
>** Welcome to C Programming **<
>******************************<
```

Save your work under w1_home.c

AT-HOME REFLECTION (40%)

In 3 or 4 sentences describe in your own words what you have learned in completing this workshop in a text file named **reflect.txt.**

Note: when completing the workshop reflections it is a violation of academic policy to cut and paste content from the course notes or any other published source, or to copy the work of another student.

AT_HOME SUBMISSION:

If not on matrix already, upload your **w1_home.c, reflect.txt** to your matrix account. Compile and run your code and make sure everything works properly.

Then run the following script from your account: (replace profname.proflastname with your professors Seneca userid)

```
~profname.proflastname/submit 100_w1_home <ENTER>
```

and follow the instructions.