Part A - Introduction   
  
**Getting Started**

Workshop 1 (out of 10 marks - 3% 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: (50%)**

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](https://scs.senecac.on.ca/~oop244/pages/workshops/w2.html#sub)

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.*
* Compile and run your solution on matrix  
  **- gcc w1\_lab.c –o w1 <ENTER>  
  - w1 <ENTER>**
* Make sure the output is exactly as shown above.

**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 ipc\_w1\_lab <ENTER>**

and follow the instructions.

**AT\_HOME: TiTle (40%)**

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 (10%)**

Describe in your own words of what you have learned in completing this workshop in a text file named **reflect.txt.**

**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 ipc\_w1\_home <ENTER>**

and follow the instructions.