

CSCI 121 Project 01

Introduction to MS Visual C++ (Or Mac Xcode)

Project Objectives

This project was designed to ensure that the students be able to install C++ IDE (integrated development environment) softwares and build a first C++ project.

In this project, the student will practice:

1. Building a C/C++ project.
2. Knowing how to put comments in a C++ program.
3. Knowing how to use `cout`, `\n`, `endl`, and `system("pause")`.
4. Having a basic concept about the case-sensitive of C++.

Description of the Problem

Write a C++ program that print out the following message:

```
Hello World!  
This is my first C++ program.
```

Project Details

Step 1 Install IDE and create new C++ project

Windows users

- You need to install free `Visual Studio Community edition`, download from visualstudio.com.
- Then follow [Hello World in C++ using Visual Studio 2017](#) this article to create a new project.
- Compile and run your project. See the output console window.

Mac users

- You need to install free `Xcode` from `App Store`, or you can download it from developer.apple.com.
- Then follow this YouTube video [How to create a C++ console application in XCode](#) to create a new project.
- Compile and run your project. See the output console window.

Step 2 Add a new source file

- For Visual Studio:
 - Remove/delete `HelloWorld.cpp` file or change `main()` function name. (Because you can only have 1 `main()` method in your project)
 - In `Solution Explorer`, right-click the Source Files folder, point to `Add`, and then click `New Item`.
 - In the Code node, click `C++ File (.cpp)`, type a name for the file as `YourNameProj1.cpp`, and then click `Add`.
- For Xcode:
 - Delete `main.cpp` file or change `main()` function name. (Because you can only have 1 `main()` method in your project)
 - Click `File` -> `New` -> `File...`.
 - Then select `C++ File`, and name your file as `YourNameProj1`. You don't need a header file.
 - Click `Next` and choose the file save location.

Step 3 Write your own code

- In `YourNameProj1.cpp` file, add following C++ code:

```
#include <iostream>
using namespace std;
int main(){
    cout << "Hello, World!" << endl;
    cout << "This is my first C++ program." << endl;
    system("pause");
}
```

- Save the file. Compile and run. Watch the output.

Step 4 Add comment

It is a good habit to have the comments in each program. In the beginning of each C++ file, you could add the comments to show who is the author, what this program does. For some statements, you can add comments to indicate what these statements do. Comments can follow behind `//` or be placed between `/*` and `*/` in multiple lines.

```
// Author: Your Name
// Date: MM-DD-YYYY
/* This is my first C++ program.
   CSCI 121 Computer Science I */
```

Add comments to your code. Recompile and run the program, do you see any difference of the output?

Step 5 Test case-sensitive

C++ is a case-sensitive languages. Change `cout` to `Cout` (with capital **C**).

Recompile and run the program. What do you see?

Write the answer as a comment in your code, and change your code back to working version.

Submit

Before you submit your file to Blackboard, please make sure:

- Your file name is correct, as `YourNameProj1.cpp`.
- You file can be successfully compiled and run without any errors.
- You have put comments, and have answered `Step 5` in you code.

Upload **only** `YourNameProj1.cpp` file to `Project01` link under `Projects` folder.