

# How to write, compile, and run your C++ programs for CSE2050

1. Write your C++ program using your favorite IDE (e.g., Eclipse) or text editor (e.g., Notepad, vim,...etc), and save it (preferably) with **.cpp** extension. A simple "hello world" program is shown below:

```
// a simple C++ hello world program
#include <iostream>

int main()
{
    std::cout << "Hello World!" << std::endl;
}
```

2. Upload the program (the .cpp file) to your **UDrive** folder. You can use the web interface to access your UDrive, or you can map it as a network drive on your computer. Please refer to [\*\*FIT website\*\*](#) for more details on how to do that.
3. ssh to **code01.fit.edu** using your TRACKS user name (using the **ssh** command on Linux/Mac, or you can use an *ssh client* like **Putty** on Windows).  
`ssh YourUserName@code01.fit.edu`
4. Enter your TRACKS password when prompted.
5. By default, our home directory is your Udrive root. Go to the directory where you saved your c++ program (e.g., programs/c++/hello) using the **cd** command.  
`cd programs/c++/hello`
6. Compile your program using **g++**. The following is the simplest way to do that. It will create an executable with the name **a.out**. More compiling options will be discussed later.  
`g++ HelloWorld.cpp`
7. Run your program (remember to check the comment about 'nice ./a.out').  
`./a.out`
8. You Can use your IDE (or text editor) on your local machine to modify and run/test your code. As a final step (before your submission), you can follow the previous steps to make sure your code compiles/runs on our server as well (this is the server we use for grading your submissions).

\* A more common way to compile c++ programs might look like the following:

```
g++ -Wall -g -std=c++11 -o hello HelloWorld.cpp
```

-std=c++11	use c++ 11 standards
-Wall	turns on most warnings
-g	turns on debugging (for more friendly output)
-o <name>	name of the output file