

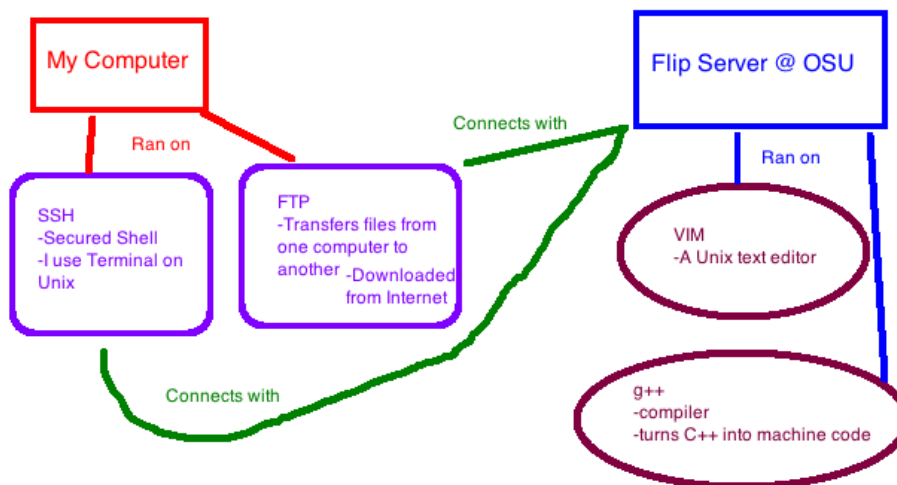
Regina Imhoff  
CS 161 Summer 2014  
Assignment #1

Weekly Report:

This week was introducing and making ourselves familiar with a variety of tools that programmers use as well as the various materials for our course.

I was familiar with using Terminal (on my Mac) and with using a file transfer client as I use those tools for work and hobby projects. I was not familiar with compiling in the Terminal since I usually use an IDE and can run programs from there. I have heard using Vim well is a good skill to have as a programmer, so I'm biting the bullet, so to speak.

The following is a visual representation of the tools we've used thus far.



I needed to learn the specific language aspects of C++. Coming from Python, C++ has a lot more syntax. I've always been intimidated by C++ and it has not been quite such a bad beast so far.

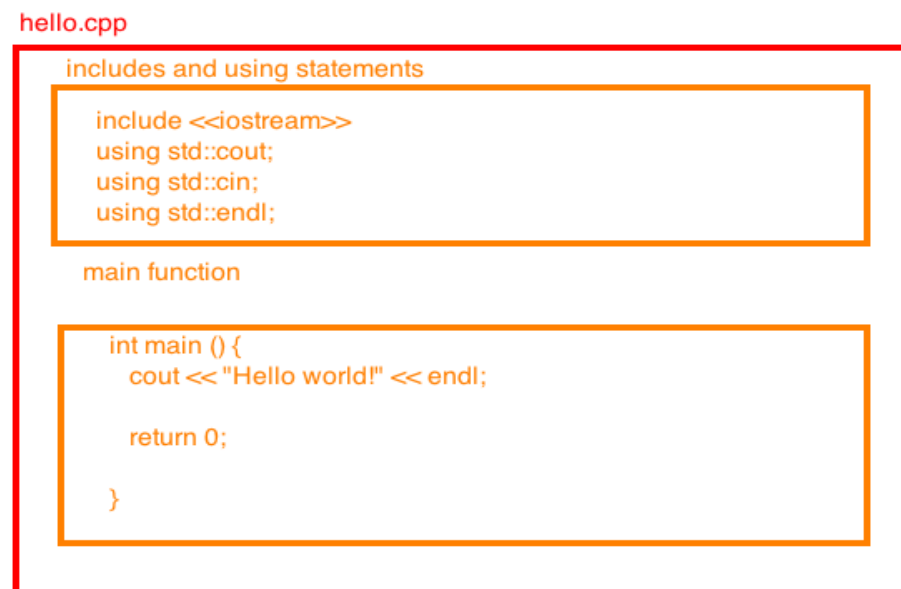
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Design for hello.cpp:

First the design for hello.cpp, a program that prints out “Hello world!”



This is the basic idea, which looks like this:



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Testing:

There was not much testing of this file, as it simply prints out a string when executed. If the file did not work, I would suspect a typo. The majority of my errors so far have been typos, extra spaces, or not putting a space where there needed to be one.

Reflection:

This was my first C++ program. I felt good after running it and it actually worked. It took a while to get into the swing of things with vim (such as no backspace/delete button...the horror!) but it worked fairly smoothly. I understood why we were writing all of the code, even if I know that I don't understand all the implications of what we're doing.

Design for echo.cpp

Here is the basic idea for our echo.cpp, a program that asks for a user to input a number and then the program repeats, or echos, that number back to them.

echo.cpp

includes and using statements

```
include <<iostream>>
using std::cout;
using std::cin;
using std::endl;
```

main function

```
initial set up program
creates variable for user input
makes a prompt for user input
user input put in variable--int

prints "you entered: " then number picked by user
quit
```

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This program was fairly straightforward as we had done exercises similar to this program previously.

### Testing echo.cpp

This program did require more testing. First, I had trouble running the program in the flip server, as I didn't know that `g++ echo.cpp -o echo` followed by `echo` would not work. It turns out “echo” is a command in flip and that command took precedence over my purposes. So, after using `a.out` instead, the program worked fine. First I tried using an integer, as I had coded for. This worked well. I then tried typing in a word. The program is not able to deal with this, so it gave back an answer “0”. This is expected behavior in C++.

### Reflection:

This program was very similar to `hello.cpp` in its basic set up, but I did feel challenged by a few things. The prompts were similar to a practice question from the book, so I played around a bit more with having `endl` instead of line breaks that the book seems fond of. There is a lot more I could see this program doing (such as giving an error to the user when a non-integer is entered) but as that was not the assignment, I held myself back a bit. I learned more about testing, got frustrated with vim some more (such a high learning curve!!) but I feel confident and ready for the next program.