CS 3330: Programming Language Project[1]

PLP 1: Language overview and setup

Before the end of the first day of class, you should have picked a language that you will learn this semester. Be sure to check with me so that I can approve your choice. Make sure you also put your name on the list (linked on Essentials). This assignment has 2 parts: History and Getting Started.

History

Answer the following questions about your programming language:

1. **What is the name of your language?**

The programming language I chose for this project was C++.

2. **When/where was it created, and by whom? Was it written to address a particular problem or need?**

C++ was created by Bjarne Stroustrup in 1979 while working on his Ph.D thesis at Bells Lab. The reasoning for creating C++ was so that programmers build complex systems with high level abstractions all while having low level acces to the hardware.

3. **What types of programming is your language primarily used for (ex: web sites, video games, mobile devices, parsing, etc.)? If your language is multi-purpose, provide some examples of different projects it's been used for.**

C++ is used fordeveloping browsers, operating systems/applications, as well as in-game programming, software engineering, data structures and other things

4. **Where will you get information about this language when it's time to start programming in it?**
   At the end of your assignment, provide a list of the names of books, website URLs, or any other resources that relate to your language in particular.

https://www.simplilearn.com/tutorials/cpp-tutorial/top-uses-of-c-plus-plus-programming#:~:text=C%2B%2B%20(or%20%E2%80%9CC%2Dplus,engineering%2C%20data%20structures%2C%20etc.

https://unstop.com/blog/history-of-cpp

https://www.w3schools.com/cpp/default.asp

https://www.programiz.com/cpp-programming/examples/print-sentence#google_vignette

Getting Started

Now that you've picked a language and learned about its history and uses, it's time to actually get it set up and use it. To do this you must:

1. Install your programming language and anything else that it needs to run (a programming environment or something similar)
2. Write a "hello world" program in that language (checking the Internet for one is fine but do (3))
3. Run the program
4. Be prepared to show me that you can run the program during lab

Your write-up should address the following questions. Try to answer them in such a way that someone else would be able to follow your instructions and run your program:

1. **What did you need to do to install the language?**

I tried doing it in terminal, then I just downloaded the C++ extension from microsoft on VS Code.

2. **Does this language come with a recommended programming environment? What is it? If not, how did you pick the one that you'll be using?**

It recommended terminal, just like how we code in 245, but I like the VS code platform. You just have to make sure to have specific commands like “#include <iostream>” for it to work.

3. **How do you run programs in that language?**

```
#include <iostream> //used to include a file in our program and we need it to use count
```

```
int main() { //start a function

   std::cout << "Hello World!"; //this prints out the contents of the program

   return 0; //this exits the program kind of like sc.close

}
```

4. **How do you write comments in your language?**

Same as Java “//”

The answers to the two sets of above questions will be used to start your PLP document on GitHub, using GitHub markup. The PLP document will serve as a tutorial or user’s guide to your language and the code that you write (e.g. “hello world” for this week) will be used as examples in that tutorial.
So, for this week, submit your GitHub link (that you create under your name, as described in PLP-0). Make sure that your answers are clear, accurate, and fully-formed: remember that these tutorials are public, and GitHub users don't have the context of the assignment that you do.Explain the reasoning behind the answers as much as possible. If there is no clear-cut answer to a question, explain why not. And cite your sources!

[1] Adapted with permission from Dr. Amber Stubbs