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// CS 210: Programming Languages

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**Programming Languages Explanation**

Using languages like C++ and Python gives you both the strengths and the weaknesses of both languages. C++’s strengths are in its security of public versus private and python’s strength is its overwhelming ease of writing code. The downside is that you also inherit some of the security weakness of the language of Python (no public vs. private.) Both C++ and python can display color, and both have formatting features. Python is so easy to write it took me about 15 minutes to write the code whereas the C++ program took over an hour to write (granted the file is larger but my point still stands).

Python is good for the data analysis portion of the program. Python has other uses too and have many advantages of using that language to get the work you need done. Some pros of python are integration features, productivity, expanded support libraries, and speed. Some of the cons of Python are that is not easily adaptable to other languages, security is lacking, and run-time errors. Python is simple and easy, even with dealing with regular expressions and working through large amounts of data, Python helps you out by simplifying everything compared to C++, Java,

etc.

The idea of integrating language in a project is to maximize the overall efficiency of the project. For example, in this project Python was used to open and read from the file, whereas C++ was used to run the program. If a third program was used, perhaps Java (for security reasons) could be used for the checkout portion of the project. Java also brings to the table its superiority in its memory management, automatic garbage collection, and polymorphism.