The two languages I chose to compare are C++ and Java. I chose these two because of their popularity and because I have an interest in learning more about Java. C++ being the language I’m more familiar with and have had extensive experience in coding in. What I have come to learn is that despite the differences in syntax and code flow the two languages have several major similarities. The two big points being that both languages are OOP based and they are both compiled languages.

C++ and Java both share several benefits to each language. C++ operates close to the hardware level providing it some extra fast program execution. C++ is a strict language that in many programs won’t even execute unless written correctly and with proper syntax, which leaves less room for bugs to occur. C++ is also portable as a low-level language which gives it great versatility across many different systems. C++ on the negative side can be difficult for beginner programmers to learn and the syntax can be very messy to read, even for a professional C++ programmer. C++ also lacks many automated features that newer languages have today like the allocation and deallocation of memory, or the change of memory addresses on the hardware.

Java on the other hand has even better portability over C++ for one single reason, which is the Java Virtual Machine (JVM). Java programs run on the JVM which means so long as the JVM can be installed and run, then a Java program can run on any machine. C++ must be able to be compiled into the machine language the Operating System is working off which limits the language slightly. The JVM is slower than the C++ compiler, however. Java also is a much easier language to learn and read than C++; the syntax in Java is less cluttered than C++. Java also does not lack the automated features that C++ lacks.