

Compilers (COP 4620/6625)

Notes on the Use of Java in This Course

Experience programming in Java is *not* a prerequisite for this course. You can learn all the relevant features of Java by spending a few hours studying *The Java Tutorials* (<http://docs.oracle.com/javase/tutorial/>). The tutorial called *Learning the Java Language* (<http://docs.oracle.com/javase/tutorial/java/index.html>) is particularly helpful.

It will never be necessary for you to compile and execute Java programs in this course; however, you may find it useful to do so in order to experiment with and test DJ code.

You can compile and execute Java programs on the department's C4 machines. To access them remotely, SSH from your device (which must already be on the USF network) to any of the hosts matching the pattern `cselx##.cse.usf.edu` (where `##` is a two-digit number from 01 to approximately 37). Note that individual C4 machines sometimes experience technical problems, so you may have to try SSHing to multiple different C4 machines before finding one that works.

Once on a C4 machine, you could put the following program into a file called *Test.java*.

```
class Test extends Object {
    public static void main(String[] args) {
        System.out.println("Hi there.");
    }
}
```

You can compile and execute this program by running the following two commands:

```
javac Test.java
java Test
```

The first of these commands compiles the *Test.java* file into a file called *Test.class*. The second command executes the code in *Test.class*.

Here is an execution trace (the ">" characters are operating-system command prompts).

```
> javac Test.java
> java Test
Hi there.
>
```

To compile and execute a program consisting of multiple Java source files (in the same directory), run `javac *.java` to compile everything and then `java Main`, where `Main` is the name of the class whose main method you wish to execute.