CS3520 – Programming in C++
Fall 2015
Assignment 2

<u>Assignment</u>
For each Java source file, compile and run the program (if possible). (This can be done from the command line using `javac [filename].java; java [filename]`). Then translate the Java program into C++ in as syntactically-similar a way as possible, using the provided C++ file with the matching name. Compile the C++ program (without any additional optimization flags) and run it 3 times. Add a block comment at the top of the C++ file that describes and explains your observation of the differences between the Java and C++ programs and what you think is going on in the C++ program. Use at most 50 words for each.

A simple example of translation is given in `Example.java` and `Example.cpp`.

The recommended order is:

```
Assign.java
Arith.java
Countdown.java
Choose.java
Compute.java
Multiply.java
Ending.java
Odd.java
OddEven.java
Negative.java
```

<u>**Submission**</u>
Your submission should be a single zip file named `[LastnameFirstname]2.zip` uploaded to blackboard including the following files:

```
Makefile
Assign.cpp
Arith.cpp
Countdown.cpp
Choose.cpp
Compute.cpp
Multiply.cpp
Ending.cpp
Odd.cpp
OddEven.cpp
Negative.cpp
```

For purposes of grading, assignments will be built and run on the CCIS Linux environment using g++. Assignments should include a makefile that builds all the program executables by default, and a clean target that removes everything but the source files and makefile. Assignments that are missing a makefile or a have makefile that does not build the programs will lose Style points.

Grading
Each program is worth 10% of the grade, broken down as:
- 30% - Translations: Has the Java code been correctly translated into C++?
- 60% - Descriptions: Are the descriptions of the behavior of the C++ programs accurate?
- 10% - Style: Is there a working makefile?