ESS 201 - Programming II
Term 1, 2018-19
Lab 1
Getting started

1. To get started, use the following simple “Hello World” program written in Java. Compile (using javac) and run this (with java), on the command line. What additional files are generated?

```
public class Hello {
        public static void main() {
                System.out.println(“Hello there”);
        }
}
```

Copy the .class files to a different OS (e.g. Linux to WIndows or vice versa) and try running it (without recompiling).

2. Write a Java program that concatenates an array of strings and prints out the concatenated string.
   Create a single class (as in question 1) with one method (main) which contains the code for this computation.
   You can use the following:

   - Java has a String class
   - You can create an array of String objects with a statement like:
     String[] sentence = {“This”, “is”, “a”, “short”, “sentence”};
   - Write a simple **for** loop (syntax similar to C) to iterate through the elements of this array, and concatenate the strings. You can concatenate String objects using the “**+**” operator.

3. Run the following piece of code:

```
public class Test1 {
        public static void main () {

                int N = 10;
                int M = 100000;
                for(int i =0; i< N; i++) {
                        int[] box = new int[M];
                }
```

```
        }
    }
```

Are there large values of N (within the range of “int”) for which this program does not work?

If you modify the program as follows:

```
public class Test1 {
    public static void main () {

        int N = 10;
        int M = 100000;
        int[][] boxes = new int[N][];
        for(int i =0; i< N; i++) {
            int[] box = new int[M];
            boxes[i] = box;
        }
    }
}
```

How large can you make N and still be able to run on your machine? Why is this different from the first version?