# ECU178 Computer Science: 210CT - Programming, Algorithms and Data Structures Portfolio

Due on Monday, December 15th, 2014  $Dr\ James\ Shuttleworth$ 

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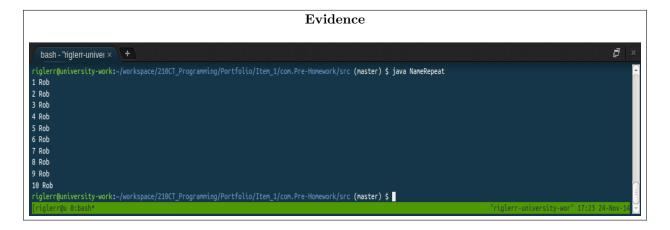
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#### Item 1: Week 3 - Linear Search and Duplicate Finder

#### Pre-Homework 1: Write a Program that displays your name 10 times

Listing 1: NameReapeat class JAVA code



# Pre-Homework 2: Write a function that draws a square of stars given as a parameter

Listing 2: StarSquare class JAVA code

```
* Created by Rob on 23/10/2014.
   public class StarSquare {
5
       public char ast = '*'; //Create variable to hold asterisk character.
       public static void main(String[] args){
           StarSquare sSquare = new StarSquare(); /*Create Object*/
           sSquare.writeSquare(10); /*Use object to call writeSquare() method*/
10
       }
       public void writeSquare(int size) {
15
           for(int i =0; i<size;i++){ /*OuterLoop 'size' times*/</pre>
               for (int j = 0; j < size; j++) { /*InnerLoop 'size' times*/</pre>
                    System.out.print(ast); /*Print line of asterisks*/
               System.out.println(); /* Start new line when inner loop finishes*/
       }
```

## Pre-Homework 3: Write a program to open a file and display it's contents in capitals

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Listing 3: RtoCaps class JAVA code

```
/**
    * Created by Rob on 23/10/2014.
   */
   import java.io.File;
  import java.io.FileNotFoundException;
   import java.util.Scanner;
   public class RtoCaps {
       public static void main(String[] args)throws FileNotFoundException {
           File inFile = new File("input.txt");
                   /*Create a file object */
           RtoCaps obj = new RtoCaps(); /*Create class object*/
           obj.rInput(inFile); /*Use Class object to call rInput() method*/
       }
15
       public void rInput(File inFile) throws FileNotFoundException{
        /*Create a new scanner to read from the file*/
           Scanner in = new Scanner(inFile);
        /*Loop WHile there is still lines left in the document*/
           while (in.hasNextLine())
             /* Place the next line in a strin varibale*/
               String line = in.nextLine();
              /* Print the line in uppercase*/
               System.out.println(line.toUpperCase());
```

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## Item 3: Week 6 - Harmonic Series or Pivot Selection

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Item 5: Week 8 - Linked List Delete function or Linked List Sortings

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