Assignment 2 - Variables Operators and Objects

N.B Only upload the files for this assignment when all of the parts have been completed.

Use the program names requested for submission. Do not upload any other files.

The programs will be tested by compiling and running them from a Windows command line using the file names specified, so please ensure that the files that you submit will likewise compile and run from the CLI, and are readable in Notepad as Java source code.

There are six parts to this assignment.

Assignment 2.1 (Ignore this if you have already done this as part of Assignment 1)

Write a Java program called ShowArgs using eclipse or any IDE:
This java program should accept any number arguments to your program call
It should Output these arguments as follows:
1. The number of arguments passed to your program
2. The string values of each argument

Example Pass in arguments to program call
Sample Input
Parm1
Parm2

Sample Output
Number of Arguments: 2
Parm1
Parm2

Compile and run the program in the IDE.
View the ShowArgs.java file in Notepad and ensure that it is properly formatted.
Compile and run the .java program from a command line.
Upload the ShowArgs.java program that you used at the command line.

Assignment 2.2

Create a Java Program called UniString using eclipse or any IDE
Part1
Output €188 using the character primitive data type . Use a Unicode for the Euro Symbol €
Part2
Change the following char variables 'j''o''e' to upper case JOE and output the result.

Upload the UniString.java file

Assignment 2.3

Exercise: Calculator

- Create a Java Program called Calc using eclipse or any IDE
- Write a program that takes in 2 numbers as input from the keyboard
- And performs a calculation to add the two numbers and outputs the Result

Upload the Calc.java file

Hint: For input you can use the Java Scanner class Page **5** of **6**

Assignment 2.4

Exercise: Booleans

Create a Java Program called Bools using eclipse or any IDE

- Declare 2 Boolean variables b1 and b2, one value true and other false
- Output these values
- Declare a third Boolean variable b3 and set it to be the reverse of value of true Boolean variable
- Output reversed variable
- Use an expression to set value of Boolean b3 equal to b1 OR b2 (logical OR)
- Output b3
- Use the parseBoolean method to input a String value (either true or false)and translates it into a real Boolean b4.
- Output b3 AND b4 (logical AND)

Upload the Bools.java file

Assignment 2.5

Exercise on string handling

Create a Java Program called StringCat using eclipse or any IDE

Part 1

Use the String class and the concat method to append the word 'World' to the string 'Hello'

Part 2

Use the StringBuilder class and the append method to append the word 'World' to the string 'Hello'

Upload the Stringcat.java file

Assignment 2.6

Exercise on Strings

What will be the output from the following three code segments?
Explain fully the differences. Avoid overly simplistic statements, this is harder than it looks.

```
        public static void method1(){
        String mystring1 = "Hello World";
        String mystring2 = new String("Hello World");
        if (mystring1 == mystring2)
        {
        System.out.println("M1 The 2 strings are equal");
        }
        else
        {
        System.out.println("M1 The 2 strings are not equal");
        }

}

        public static void method2(){
        String mystring1 = "Hello World";
        String mystring2 = new String("Hello World");
        if (mystring1.equals(mystring2))
        {
        System.out.println("M2 The 2 strings are equal");
        }
        else
        {
        System.out.println("M2 The 2 strings are not equal");
        }

}


public static void method3(){
String mystring1 = "Hello World";
String mystring2 = "Hello World";
if (mystring1 == mystring2)
{
System.out.println("M3 The 2 strings are equal");
}
else
{
System.out.println("M3 The 2 strings are not equal");
}
}
```