

Topic: OOP 2 – Variables, Operators and Objects

1. UniString.java

Create a Java Program called UniString and implement the following:

- Output €188 using the character primitive data type. Use Unicode for the Euro Symbol €.
- Change the following char variables 'j' 'o' 'e' to upper case JOE and output the result.

2. Calc.java

Create a Java Program called Calc and implement the following:

- Take in two numbers as input from the keyboard.
- Perform a calculation to add the two numbers.
- Output the result.
- Hint: For input you can use the Java Scanner class

3. Bools.java

Create a Java Program called Bools and implement the following:

- Declare two boolean variables b1 with the value true and b2 with the value false
- Output these values.
- Declare a third boolean variable b3 and set it's value to be the reverse value of b1.
- Output reversed variable (i.e output b3).
- Use an expression to set the value of boolean b3 equal to the result of b1 OR b2 (use a logical OR for this).
- Output b3 again.
- Use the parseBoolean method to input a String value (either true or false), convert it into a boolean, and save it in the variable named b4.
- Output the result of b3 AND b4 (use the logical AND for this).

4. StringCat.java

Create a Java Program called StringCat and implement the following:

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

5. String Pool.txt

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");
    }
}
```