Zambia Centre for Accountancy Studies

NCC Diploma in Computing – Level 4

DDOOCP – Java

Lab Session

Today's lab session should demonstrate an understanding of the following:

1. **Repetition statements**
   a. While, do while and for

2. **Method writing and method overloading**

3. **Array and Exception handling**

We will use a very simple example to demonstrate the above mentioned concepts and later apply the same concepts to modify/solve problem set 1.0.

Problem

We are required to find the average of three and four numbers. We will later extend this and calculate the average of 10 numbers.

To begin with let us first conceptualize our class design. We should always begin off like this so that we have a clear understanding of the problem at hand.

FindAverageOfNumbers
-number1:double -number2:double -number3:double -number3:double
+getInputValues():void +calcSumOfNumbers(double, double, double) : double +calcSumOfNumbers(double, double, double, double) : double +displayAverages():void

The first compartment in our class icon above shows the class name, the second compartment represents our data items and finally the third portion shows the behavior or methods. A + or – in front of a variable or method indicates the visibility of the variable or method. A – (minus) means private whilst the + means public.

Clearly the method, **calcSumOfNumbers is *overloaded*** and returns a double. The method **displayAverages** does return nothing but just display the calculated averages. Since we do not want to create an instance or object of this class our methods will be static as in the following method signature.

public static double **calcSumOfNumbers**(double, double, double)

We now have all the necessary pieces of information to write out this problem.