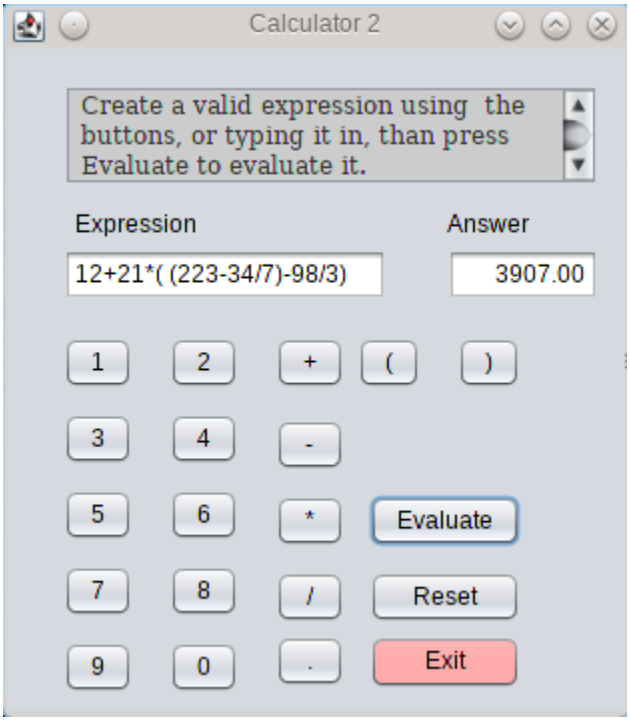
OOP - Exercises - April 09

In this exercise you are going to create a calculator application using Java Swing. You have to use the Calculator Model given below without modifying it. All the calculator logic (just simple arithmetic in this case) is implemented in this class. You may or may not use Netbeans IDE.

I have also provided a jar file of the application, which you can run by executing
java -jar calcView2.jar




```
import javax.script.ScriptEngineManager;
import javax.script.ScriptEngine;

public class myCalculator  {
   // Adds input1 and input2
   public double doAddition(double x, double y){
      return (x+y);
   }

   // Subtracts input2 from input1.
   public double doSubtraction(double x, double y){
     return x-y;
   }

   // Multiplies input1 with input2
   public double doMultiplication(double x, double y){
      return x*y;
   }
```

We use this to evaluate an arithmetic expression, given as a string, for example "5+7*(9-18/7)", using a Javascript engine avaliable from JDK 1.6 onwards

```
    // Divides input1 by input2
    public double doDivision(double x, double y){
      if (y==0.0){
         throw new ArithmeticException();
      }
      return x/y;
    }
    //Evaluate a valid arithmetic expression given as a string
    public double evaluateExpression(String expression) throws Exception{
            ScriptEngineManager mgr = new ScriptEngineManager();
            ScriptEngine engine = mgr.getEngineByName("JavaScript");
            return engine.eval(expression);
    }
}
```