Week 09 : Programming Assignment 5

Due on 2025-03-27, 23:59 IST

Complete the code to **develop a BASIC CALCULATOR that can perform operations like *Addition*, *Subtraction*, *Multiplication* and *Division*.**

Note the following points carefully:
1. Use only double datatype to store calculated numeric values.
2. Assume input to be of integer datatype.
3. The output should be rounded using Math.round() method.
4. Take care of the spaces during formatting output (e.g., single space each before and after =).
5. The calculator should be able to perform required operations on a minimum of two operands as shown in the below example:

Input:

5+6

Output:

5+6 = 11

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1	3+2	3+2 = 5	3+2 = 5	Passed

The due date for submitting this assignment has passed.
1 out of 1 tests passed.
You scored 100.0/100.

Assignment submitted on 2025-03-25, 21:19 IST

Your last recorded submission was :

```
import java.util.Scanner;
public class Question95{
    public static void main(String args[]){
        Scanner sc = new Scanner(System.in);
        String input = sc.nextLine(); // Read as string, e.g., 5+6
int result;

        String[] parts = input.split("\\+");
        int num1 = Integer.parseInt(parts[0]);
        int num2 = Integer.parseInt(parts[1]);
        result = num1 + num2;

        System.out.print(input + " = " + result);
        sc.close();
}
}
```

Sample solutions (Provided by instructor)

```
import java.util.Scanner;
public class Question95{
    public static void main(String args[]){
        Scanner sc = new Scanner(System.in);
        String input = sc.nextLine(); // Read as string, e.g., 5+6
// Declare and initialize the required variable(s)
        int i=0;
        int j=0;
        double output=0;
        // Split the input string into character array
        char seq[] = input.toCharArray();
        /*
        Use some method to separate the two operands
        and then perform the required operation.
        */
        for(int a=0; a<seq.length; a++){
            if(seq[a]=='+'){
                i= Integer.parseInt(input.substring(0,a));
                j= Integer.parseInt(input.substring(a+1,seq.length));
                output = (double)i+j;
            }else if(seq[a]=='-'){
                i= Integer.parseInt(input.substring(0,a));
                j= Integer.parseInt(input.substring(a+1,seq.length));
                output = (double)i-j;
            }else if(seq[a]=='/'){
                i= Integer.parseInt(input.substring(0,a));
                j= Integer.parseInt(input.substring(a+1,seq.length));
                output = (double)i/j;
            }else if(seq[a]=='*'){
                i= Integer.parseInt(input.substring(0,a));
                j= Integer.parseInt(input.substring(a+1,seq.length));
                output = (double)i*j;
            }
        }
        // Print the output as stated in the question
        System.out.print(input+" = " + Math.round(output));
}
}
```