

BCSE-506L (Performance Analysis of Programming Languages Lab)

EXPERIMENT NO. 4

AIM: Create a class called Calculator which has different add() methods. Overload the methods with different parameter.

ALGORITHM: CALCULATOR

STEP 1: Start the program.

STEP 2: Create the class calculator with variables and functions.

STEP 3: In the main(), declare the variables.

STEP 4: Display the options in the main().

STEP 5: Using switch case , when the option is 1,display addition of two integers number.

STEP 6: When the option is 2, display addition of three integers number.

STEP 7: When the option is 3, display addition of two float number.

STEP 8: When the option is 4, display addition of three float number.

STEP 9: When the option is 4, display as wrong choice.

STEP 10: Exit

Code:

```
import java.util.Scanner;

public class calculator {

    public static void main(String args[]) {
        char operator;
        int number1, number2, number3;
        float float1, float2, float3;
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter your choice:");
        operator = sc.next().charAt(0);

        switch (operator) {
            case '1':
                System.out.println("Enter the two numbers for
addition(by using spacebar)");
                number1 = sc.nextInt();
                number2 = sc.nextInt();
                System.out.printf("%d + %d = %d", number1, number2,
(number1 + number2));
                break;
            case '2':
                System.out.println("Enter the three numbers for
addition(by using spacebar)");
                number1 = sc.nextInt();
                number2 = sc.nextInt();
                number3 = sc.nextInt();
                System.out.printf("%d + %d + %d = %d", number1,
number2, number3, (number1 + number2 + number3));
                break;
            case '3':
                System.out.println("Enter the two float number:");
                float1 = sc.nextFloat();
                float2 = sc.nextFloat();
                System.out.printf("%f + %f = %f", float1, float2,
(float1+ float2));
```

```

        break;
    case '4':
        System.out.println("Enter the three float number :");
        float1 = sc.nextFloat();
        float2 = sc.nextFloat();
        float3 = sc.nextFloat();
        System.out.printf("%f + %f + %f = %f", float1, float2,
float3, (float1 + float2 + float3));
        break;

    default:
        System.out.printf("%c is an WRONG choice", operator);
    }
    sc.close();
}
}

```

Output:

```

└─(codebajju@kali)-[~/Desktop/Java Course]
└─$ cd /home/codebajju/Desktop/Java\ Course ; /usr/bin/env
/usr/lib/jvm/java-11-openjdk-amd64/bin/java -cp
/home/codebajju/.config/Code/User/workspaceStorage/bfc573db08a602
8bc4af4ccbd69156e8/redhat.java/jdt_ws/Java\ Course_71b83b3f/bin
calculator
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on
-Dswing.aatext=true
Enter your choice:
1
Enter the two numbers for addition(by using spacebar)
3 4
3 + 4 = 7

```

IDE Code:

```
J calculator.java x
J calculator.java > calculator > main(String[])
1  import java.util.Scanner;
2
3  public class calculator {
4
5      Run|Debug
6      public static void main(String args[]) {
7          char operator;
8          int number1, number2, number3;
9          float float1, float2, float3;
10         Scanner sc = new Scanner(System.in);
11         System.out.println("Enter your choice:");
12         operator = sc.next().charAt(0);
13
14         switch (operator) {
15             case '1':
16                 System.out.println("Enter the two numbers for addition(by using spacebar)");
17                 number1 = sc.nextInt();
18                 number2 = sc.nextInt();
19                 System.out.printf("%d + %d = %d", number1, number2, (number1 + number2));
20                 break;
21             case '2':
22                 System.out.println("Enter the three numbers for addition(by using spacebar)");
23                 number1 = sc.nextInt();
24                 number2 = sc.nextInt();
25                 number3 = sc.nextInt();
26                 System.out.printf("%d + %d + %d = %d", number1, number2, number3, (number1 + number2 + number3));
27                 break;
28             case '3':
29                 System.out.println("Enter the two float number:");
30                 float1 = sc.nextFloat();
31                 float2 = sc.nextFloat();
32                 System.out.printf("%f + %f = %f", float1, float2, (float1 + float2));
33                 break;
34             case '4':
35                 System.out.println("Enter the three float number :");
36                 float1 = sc.nextFloat();
37                 float2 = sc.nextFloat();
38                 float3 = sc.nextFloat();
39                 System.out.printf("%f + %f + %f = %f", float1, float2, float3, (float1 + float2 + float3));
40                 break;
41             default:
42                 System.out.printf("%c is an WRONG choice", operator);
43         }
44         sc.close();
45     }
46 }
47
```

Screen Output:

```
PROBLEMS 6 OUTPUT DEBUG CONSOLE TERMINAL

[~](codebajju@kali)~/Desktop/Java Course]
$ cd /home/codebajju/Desktop/Java\ Course ; /usr/bin/env /usr/lib/jvm/java-11-openjdk-amd64/bin/java -cp
b3f/bin calculator
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
Enter your choice:
1
Enter the two numbers for addition(by using spacebar)
3 4
3 + 4 = 7

[~](codebajju@kali)~/Desktop/Java Course]
$ echo "More output"
More output

[~](codebajju@kali)~/Desktop/Java Course]
$ cd /home/codebajju/Desktop/Java\ Course ; /usr/bin/env /usr/lib/jvm/java-11-openjdk-amd64/bin/java -cp
b3f/bin calculator
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
Enter your choice:
3
Enter the two float number:
1.6 2.5
1.600000 + 2.500000 = 4.100000

[~](codebajju@kali)~/Desktop/Java Course]
$ cd /home/codebajju/Desktop/Java\ Course ; /usr/bin/env /usr/lib/jvm/java-11-openjdk-amd64/bin/java -cp
b3f/bin calculator
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
Enter your choice:
4
Enter the three float number :
2.6 2.5 1.63
2.600000 + 2.500000 + 1.630000 = 6.730000

[~](codebajju@kali)~/Desktop/Java Course]
$
```