

Assignment-2

DEVELOP A CALCULATOR USING SWITCH CASE:

CODE:

```
1 package Assignment2;
2
3 import java.util.Scanner;
4
5 public class Calculator {
6
7     public static String calculate(int firstValue, int secondValue, int operator) { 1 usage
8         double result = 0;
9         String operation = "";
10
11         switch (operator) {
12             case 1:
13                 result = firstValue + secondValue;
14                 operation = "+";
15                 break;
16             case 2:
17                 result = firstValue - secondValue;
18                 operation = "-";
19                 break;
20             case 3:
21                 result = firstValue * secondValue;
22                 operation = "*";
23                 break;
24             case 4:
25                 if (secondValue != 0) {
26                     result = (double) firstValue / secondValue;
27                     operation = "/";
28                 } else {
29                     return "Cannot divide by zero";
30                 }
31             default:
32                 return "Invalid operator";
33         }
34
35         return firstValue + " " + operation + " " + secondValue + " = " + result;
36     }
37
38     public static String getValues(Scanner scanner) { 1 usage
39         System.out.print("Enter the first number: ");
40         int firstValue = scanner.nextInt();
41         System.out.print("Enter the second number: ");
42         int secondValue = scanner.nextInt();
43
44         System.out.println("Enter number beside the operation to perform: ");
45         System.out.println("1. Add");
46         System.out.println("2. Subtract");
47         System.out.println("3. Multiply");
48         System.out.println("4. Divide");
49
50         int operator = scanner.nextInt();
51
52         return calculate(firstValue, secondValue, operator);
53     }
54 }
```

```
31         break;
32     default:
33         return "Invalid operator";
34     }
35
36     return firstValue + " " + operation + " " + secondValue + " = " + result;
37 }
38
39 public static String getValues(Scanner scanner) { 1 usage
40     System.out.print("Enter the first number: ");
41     int firstValue = scanner.nextInt();
42     System.out.print("Enter the second number: ");
43     int secondValue = scanner.nextInt();
44
45     System.out.println("Enter number beside the operation to perform: ");
46     System.out.println("1. Add");
47     System.out.println("2. Subtract");
48     System.out.println("3. Multiply");
49     System.out.println("4. Divide");
50
51     int operator = scanner.nextInt();
52
53     return calculate(firstValue, secondValue, operator);
54 }
```

```

55
56 ▶ public static void main(String[] args) {
57     Scanner scanner = new Scanner(System.in);
58
59     while (true) {
60         System.out.println(getValues(scanner));
61         System.out.print("Do you want to try again(y/n): ");
62         String choice = scanner.next();
63         if (!choice.equalsIgnoreCase("y")) {
64             break;
65         }
66     }
67
68     scanner.close();
69 }
70
71
72
73
74

```

Output1:

```

"C:\Program Files\Java\jdk-20\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2024.1\lib\idea_rt.jar=61515:C:\Program Files\JetBrains\IntelliJ IDEA 2024.1\bs
Enter the first number: 65
Enter the second number: 34
Enter number beside the operation to perform:
1. Add
2. Subtract
3. Multiply
4. Divide
2
65 - 34 = 31.0
Do you want to try again(y/n): n

Process finished with exit code 0
|

```

Output2:

```

"C:\Program Files\Java\jdk-20\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2024.1\lib\idea_rt.jar=61527:C:\Program Files\JetBrains\IntelliJ IDEA 2024.1\bs
Enter the first number: 90
Enter the second number: 0
Enter number beside the operation to perform:
1. Add
2. Subtract
3. Multiply
4. Divide
4
Cannot divide by zero
Do you want to try again(y/n):

```

Output3:

```
"C:\Program Files\Java\jdk-20\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2024.1\lib\idea_rt.jar=61540:C:\Program Files\JetBrains\IntelliJ IDEA 2024.1\bin" -Dfile.encoding=UTF-8
Enter the first number: 45
Enter the second number: 22
Enter number beside the operation to perform:
1. Add
2. Subtract
3. Multiply
4. Divide
1
45 + 22 = 67.0
Do you want to try again(y/n): y
Enter the first number: 20
Enter the second number: 30
Enter number beside the operation to perform:
1. Add
2. Subtract
3. Multiply
4. Divide
3
20 * 30 = 600.0
Do you want to try again(y/n): n

Process finished with exit code 0
|
```