

Assignment Class

Date: 29/06/2020 Name: D.Saravanan

1. Create a JAVA package containing basic operation to operate on two integers.

Program:

```
package arithmetic;

public class operator {

    public void operation(int N, String option, int num[]) {

        switch (option) {

            case "+":
                int sum = num[0]+num[1];
                System.out.println("\nSum of "+num[0] +" and "+ num[1] +" is "+ sum);
                break;

            case "-":
                int diff = num[0]-num[1];
                System.out.println("\nDifference of "+num[0] +" and "+ num[1] +" is "+ diff);
                break;

            case "*":
                int prod = num[0]*num[1];
                System.out.println("\nProduct of "+num[0] +" and "+ num[1] +" is "+ prod);
                break;

            case "/":
                float div = (float) num[0]/num[1];
                System.out.println("\nQuotient of "+num[0]+"/"+num[1] +" is "+ div);
                break;

            case "%":
                int mod = num[0]%num[1];
                System.out.println("\nReminder of "+num[0]+"/"+num[1] +" is "+ mod);
                break;

            case "++":
                System.out.println("\nIncrement of "+num[0] +" by 1 is "+ (num[0]+1));
                System.out.println("Increment of "+num[1] +" by 1 is "+ (num[1]+1));
                break;

            case "--":
                System.out.println("\nDecrement of "+num[0] +" by 1 is "+ (num[0]-1));
                System.out.println("Decrement of "+num[1] +" by 1 is "+ (num[1]-1));
                break;

            default:
                System.out.println("\nInvalid operation, try again.");

        }
    }
}
```

2. Write a JAVA program to import the package, get two numbers and operation from the user and perform the same.

Program:

```
import java.util.Scanner;
import arithmetic.operator;

public class program {

    static String selection() {

        Scanner select = new Scanner(System.in);

        System.out.println("\nSelect Mathematical Operation:");

        String operation[] = {"+ = Additon", "- = Subtraction", "* = Multiplication",
                               "/ = Division", "% = Modulus", "++ = Increment", "-- = Decrement"};

        for (String text: operation) {

            System.out.println(text);
        }

        System.out.println("\nEnter operation:");
        String option = select.nextLine();

        return option;
    }

    public static void main(String args[]) {

        Scanner noperand = new Scanner(System.in);
        Scanner value = new Scanner(System.in);

        String option = selection();

        int num[] = new int[2];

        for (int n = 1; n <= 2; n++) {

            System.out.println("\nEnter integer value "+ n + ":");
            num[n-1] = value.nextInt();
        }

        operator math = new operator();
        math.operation(2, option, num);
    }
}
```

Output:

Select Mathematical Operation:

+ = Additon
- = Subtraction
* = Multiplication
/ = Division
% = Modulus
++ = Increment
-- = Decrement

Enter operation:

/

Enter integer value 1:

64

Enter integer value 2:

73

Quotient of 64/73 is 0.8767123