

Assignment - II

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```
import java.util.Scanner;
```

```
class calculator {
```

```
    public int add (int a, int b) {  
        return a+b;  
    }
```

```
    public double add (double a, double b) {  
        return a+b  
    }
```

```
    public int add (int a, int b, int c) {  
        return a+b+c;  
    }
```

```
    public int Subtract (int a, int b) {  
        return a-b;  
    }
```

```
    public double multiply (double a, double b) {  
        return a*b;  
    }
```

```

public double divide (int a, int b) {
    if (b == 0) {
        System.out.println("Error: Division by zero is not allowed");
    }
    return (double) a/b;
}
}

```

class Interface {

```

Scanner sc = new Scanner(System.in);
Calculator calc = new calculator();

```

```

public void performAddition() {
    System.out.println("Choose Addition type");
    System.out.println("1. Add two integers");
    System.out.println("2. Add two double");
    System.out.println("3. Add three integers");
    System.out.println("Enter your choice");
    int choice = sc.nextInt();
}

```

Switch (choice) {

case 1:

```

    System.out.print("Enter the First integer");
    int a1 = sc.nextInt();
    System.out.print("Enter the second integer");
    int b1 = sc.nextInt();
    System.out.print("Result" + calc.add(int a1, int b1));
    break;
}

```

Case 2:

```

System.out.print("Enter the first double");
int a2 = sc.nextInt();
System.out.print("Enter the second double");
int b2 = sc.nextInt();
System.out.print("Result" + calc.add(a2, b2));
break;

```

Case 3:

```

System.out.print("Enter the first integer");
int a3 = sc.nextInt();
System.out.print("Enter the second integer");
int b3 = sc.nextInt();
System.out.print("Enter the third integer");
int c3 = sc.nextInt();
System.out.print("Result" + calc.add(int a3, int b3, int c3));
break;

```

default:

```

System.out.println("Invalid choice!");

```

```

}
}

```

```

public void performSubtraction() {

```

```

    System.out.print("Enter the first digit");
    int a = sc.nextInt();

```

```

    System.out.print("Enter the second digit");
    int b = sc.nextInt();

```

```

    System.out.println("Result" + calc.subtract(a, b));

```

```

}

```



```

public void
perform performMultiplication() {
    System.out.print("Enter the first integer");
    int a = sc.nextInt();
    System.out.print("Enter the second integer");
    int b = sc.nextInt();
    System.out.println("Result" + calc.multiply(a, b));
}

```

```

public void performDivision() {
    System.out.print("Enter the first integer");
    int a = sc.nextInt();
    System.out.print("Enter the second integer");
    int b = sc.nextInt();
    System.out.println("Result" + calc.divide(a, b));
}

```

```

public void mainMenu() {
    do while choice;
    do {
        System.out.println("1. Add number");
        System.out.println("2. Subtract number");
        System.out.println("3. Multiply number");
        System.out.println("4. Divide number");
        System.out.println("5. Exit");
        System.out.print("Enter your choice");
        int choice = sc.nextInt();

```

```

        switch (choice) {
            case 1: {
                performAddition();
                break;

```

case 2:

```
performSubtraction();  
break;
```

case 3:

```
performMultiplication();  
break;
```

case 4:

```
performDivision();  
break;
```

case 5:

```
System.out.println("Exiting calculator");  
break;
```

default:

```
System.out.println("Invalid choice:");
```

```
}
```

```
}
```

```
while (choice != 5);
```

```
}
```

```
public static void main(String[] a) {  
    Interface call = new Interface();  
    call.mainMenu();
```

```
}
```

```
}
```