

```
package arithmeticCalculator;
```

```
import java.util.*;
```

```
//Declared a input class to store all the inputs at once
```

```
class userInputs
```

```
{
```

```
    Scanner sc = new Scanner(System.in);
```

```
    //used public access specifier
```

```
    //taking inputs from user
```

```
    public double inB()
```

```
    {
```

```
        System.out.print("enter Second Number: ");
```

```
        double b = sc.nextDouble();
```

```
        return b;
```

```
    }
```

```
    public double inA()
```

```
    {
```

```
        System.out.print("enter First Number: ");
```

```
        double a = sc.nextDouble();
```

```
        return a;
```

```
    }
```

```
}
```

```
//Declared addition class to perform Addition
```

```
class addition
```

```
{
```

```
    public void add()
```

```
    {
```

```
        //calling userInput class for getting inputs from user
```

```
        userInputs objUi = new userInputs();
```

```
        double a = objUi.inA();
```

```
        double b = objUi.inB();
```

```
        double ans = a+b;
```

```

        //output to the user
        System.out.println("-----");
        System.out.println("Answer: "+ans);
        System.out.println("-----");
    }
}

```

```

//Declared subtraction class to perform Subtraction
class subtraction

```

```

{
    public void subtract()
    {
        //calling userInput method for getting inputs from user
        userInput objUi = new userInput();
        double a = objUi.inA();
        double b = objUi.inB();
        double ans = a-b;

        //output to the user
        System.out.println("-----");
        System.out.println("Answer: "+ans);
        System.out.println("-----");
    }
}

```

```

//Declared multiplication class to perform multiply
class multiplication

```

```

{
    public void multiply()
    {
        //calling userInput method for getting inputs from user
    }
}

```

```

        userInput objUi = new userInput();

        double a = objUi.inA();

        double b = objUi.inB();

        double ans = a*b;


        //output to the user
        System.out.println("-----");
        System.out.print("Answer: ");


        //used format to fix length after decimal value
        System.out.format("%.3f\n",ans);
        System.out.println("-----");
    }
}


//Declared division class to perform divide
class division
{
    public void divide()
    {
        //calling userInput method for getting inputs from user
        userInput objUi = new userInput();

        double a = objUi.inA();

        double b = objUi.inB();

        double ans = a/b;


        //output to the user
        System.out.println("-----");
        System.out.print("Answer: ");
        if(a%b == 0)
        {
            //Explicit type casting the output
            int value = (int)ans;

            System.out.println(value);
        }
    }
}

```

```

    }
    else
    {
        System.out.format("%.3f\n",ans);
    }
    System.out.println("-----");
}
}

```

```

public class arithmeticCalc {
    public static void main(String[] args)
    {
        //Displaying all the operations to user to perform
        System.out.println(" 1. Addition\n 2. Subtraction\n 3. Multiplication\n 4. Division\n ");
        System.out.print("Please select an Operation: ");

        // creates an object of Scanner class
        @SuppressWarnings("resource")
        Scanner sc = new Scanner(System.in);

        //taking input from the user
        int operation = sc.nextInt();

        //used switch case to navigate to desired Class
        switch(operation)
        {
            case 1:
                //created object of class addition
                addition objA = new addition();

                //calling the class
                objA.add();
                break;
            case 2:

```

```
//created object of class subtraction  
subtraction objS = new subtraction();
```

```
//calling the class  
objS.subtract();  
break;
```

case 3:

```
multiplication objM = new multiplication();  
objM.multiply();  
break;
```

case 4:

```
division objD = new division();  
objD.divide();  
break;
```

default:

```
System.out.println("Wrong input ");  
break;
```

```
}
```

```
System.out.print("\n");  
arithmeticCalc.main(null);
```

```
}
```

```
}
```