

```
package com.section6.calci;
```

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

```
class Calculator
```

```
{
```

```
    public double result;
```

```
    public Calculator(int choice, double num1, double num2)
```

```
    {
```

```
        double result;
```

```
        switch (choice)
```

```
        {
```

```
            case 1:
```

```
                this.result = num1 + num2;
```

```
                break;
```

```
            case 2:
```

```
                this.result = num1 - num2;
```

```
                break;
```

```
            case 3:
```

```
                this.result = num1 * num2;
```

```
                break;
```

```
            case 4:
```

```
                if (num2 != 0)
```

```
                {
```

```
                    this.result = num1 / num2;
```

```
}  
else  
{  
    System.out.println("Error: Division by zero");  
    break;  
}  
break;  
  
default:  
    System.out.println("Invalid choice. Please select a valid operation.");  
}  
  
}  
  
}
```

```
package com.section6.calci;
```

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

```
public class CalculatorApp {
```

```
    public static void main(String[] args)
```

```
    {
```

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

```
        System.out.println("Welcome to the Basic Calculator!");
```

```
        while (true) {
```

```
            System.out.println("1. Addition (+)");
```

```
            System.out.println("2. Subtraction (-)");
```

```
            System.out.println("3. Multiplication (*)");
```

```
            System.out.println("4. Division (/)");
```

```
            System.out.println("5. Exit");
```

```
            System.out.println("Choose any NUMBER for operation:");
```

```
            int choice = scanner.nextInt();
```

```
            if(choice<5)
```

```
            {
```

```
                System.out.print("Enter the first number: ");
```

```
                double num1 = scanner.nextDouble();
```

```
                System.out.print("Enter the second number: ");
```

```
                double num2 = scanner.nextDouble();
```

```
                Calculator calci=new Calculator(choice,num1,num2);
```

```

double finalresult=calci.result;

System.out.println("THE RESULT IS :"+finalresult);
}

else if(choice == 5) {

    System.out.println("Thank You Visit Again!");

    continue;

}

else

{

    System.out.println("Enter a valid Choice: ");

}

}

}

```

SOURCE CODE

class Calculator
(by using Constructor)

class CalculatorApp
(Main Method)

```

Calculator.java
4
5 class Calculator{
6
7
8     public double result;
9
10    public Calculator(int choice,double num1, double num2)
11    {
12
13        double result;
14
15        switch (choice)
16        {
17            case 1:
18                this.result = num1 + num2;
19                break;
20
21            case 2:
22                this.result = num1 - num2;
23                break;
24
25            case 3:
26                this.result = num1 * num2;
27                break;
28
29            case 4:
30                if (num2 != 0)
31                {
32                    this.result = num1 / num2;
33                }
34                else
35                {
36                    System.out.println("Error: Division by zero");
37                    break;
38                }
39                break;
40
41            default:
42                System.out.println("Invalid choice. Please select a valid operation.");
43        }
44    }
45 }
46 }
47
48

```

```

CalculatorApp.java
4
5 public class CalculatorApp{
6
7     public static void main(String[] args)
8     {
9         Scanner scanner = new Scanner(System.in);
10
11         System.out.println("Welcome to the Basic Calculator");
12         while (true){
13
14             System.out.println("1. Addition (+)");
15             System.out.println("2. Subtraction (-)");
16             System.out.println("3. Multiplication (*)");
17             System.out.println("4. Division (/)");
18             System.out.println("5. Exit");
19
20             System.out.println("Choose any NUMBER for operation");
21             int choice = scanner.nextInt();
22
23             if(choice!=5)
24             {
25
26                 System.out.print("Enter the first number ");
27                 double num1 = scanner.nextDouble();
28                 System.out.print("Enter the second number: ");
29                 double num2 = scanner.nextDouble();
30
31                 Calculator calci=new Calculator(choice,num1,num2);
32
33                 double finalresult=calci.result;
34                 System.out.println("THE RESULT IS :"+finalresult);
35
36             }
37
38             else if(choice == 5) {
39
40                 System.out.println("Thank You Visit Again!");
41                 continue;
42             }
43         }
44     }
45     {
46         System.out.println("Enter a valid Choice: ");
47     }
48 }

```