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/*
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Roll no: 2221018
Batch : A
Assignment 4 : Write a Java program which will demonstrate a concept of
Inheritance, Interfaces and packages: design and use customized interfaces and
packages for a calculator.
*/
-------------------------------------------------------------------------------------------------------
import java.util.Scanner;
 interface Calci_operation
{
    void add(int a,int b);
    void sub(int a,int b);
    void mul(int a,int b);
    void div(int a,int b);
    void mod(int a,int b);
}


class interfaces implements Calci_operation
{
    int a,b;
    public void add(int a,int b)
    {
        int c=a+b;
        System.out.println("Addition  is:  "+c);
    }
    public void sub(int a,int b)
    {
```

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    int c=a-b;
    System.out.println("Subtraction  is:  "+c);
}

public void mul(int a,int b)
    {
    int c=a*b;
    System.out.println("Multiplication  is:"  +c);
}
public void div(int a,int b)
{
    int c=a/b;
    System.out.println("Division is:" +c) ;
}
public void mod(int a,int b)
{
    int c=a%b;
    System.out.println("Modulus  is:"  +c);
}

public void input()
{
    Scanner sc = new Scanner(System.in);
    System.out.println("Enter value of 1st number ::");
    a = sc.nextInt();
    System.out.println("Enter value of 2nd number ::");
    b = sc.nextInt() ;
}

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

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        interfaces ob=new interfaces();


        while(true)
        {
            System.out.println("\n menu driven");

System.out.println("\n1.Addition\n2.Subtraction\n3.multiplication\n4.division\n5
.modulus\n6.Exit");
            Scanner Sc=new Scanner(System.in);
            System.out.println("\n Enter the option to be performed: ");


            int choice=Sc.nextInt();
            switch(choice)
            {
                case 1:
                    ob.input();
                    ob.add(ob.a,ob.b);
                    break;
                case 2:
                    ob.input();
                    ob.sub(ob.a,ob.b);
                    break;
                case 3:
                    ob.input();
                    ob.mul(ob.a,ob.b);
                    break;
                case 4:
                    ob.input();
                    ob.div(ob.a,ob.b);
                    break;
                case 5:
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```
                ob.input();
                ob.mod(ob.a,ob.b);
                break;
            case 6:
                System.exit(0);
                break;
            default:
                System.out.println("invalid choice");
                break;
      }
     }
   }
}
```

OUTPUT

```
 menu driven

1.Addition
2.Subtraction
3.multiplication
4.division
5.modulus
6.Exit

 Enter the option to be performed:
1
Enter value of 1st number ::
10
Enter value of 2nd number ::
20
Addition is: 30
```

```
 menu driven

1.Addition
2.Subtraction
3.multiplication
4.division
5.modulus
6.Exit

 Enter the option to be performed:
2
Enter value of 1st number ::
100
Enter value of 2nd number ::
20
Subtraction is: 80

 menu driven

1.Addition
2.Subtraction
3.multiplication
4.division
5.modulus
6.Exit

 Enter the option to be performed:
4
```

```
 Enter the option to be performed:
4
Enter value of 1st number ::
10
Enter value of 2nd number ::
2
Division is:5

 menu driven

1.Addition
2.Subtraction
3.multiplication
4.division
5.modulus
6.Exit

 Enter the option to be performed:
3
Enter value of 1st number ::
10
Enter value of 2nd number ::
3
Multiplication is:30

 menu driven
```

```
1.Addition
2.Subtraction
3.multiplication
4.division
5.modulus
6.Exit

 Enter the option to be performed:
5
Enter value of 1st number ::
27
Enter value of 2nd number ::
5
Modulus is:2

 menu driven

1.Addition
2.Subtraction
3.multiplication
4.division
5.modulus
6.Exit

 Enter the option to be performed:
6
PS C:\Users\Karan\Desktop\java program\sem2>
```