WEEK 6(3)

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Create an Abstract class calculate which has three double members - say x, y and result. Include a method calc. Derive three classes from calculate which performs any three arithmetic operations on the two variables x and y and assign the result to variable result.
Make appropriate declarations and definitions

```
import java.util.Scanner;

abstract class Calculate{
    double x, y, result;
    abstract void calc();
}

class Additon extends Calculate{
    void calc(){
    System.out.println("Enter two numbers x and y for addition");
    Scanner S = new Scanner(System.in);
    x = SS.nextDouble();
    y = SS.nextDouble();
    result = x+y;
    S.out.println("Addition of "+x+" and "+y+" is :"+result);
```

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```
}
addition(){}
{

class subtraction extends calculate {
    void calc(){
        system.out.println("Enter two no x
            and y for sub:");
        Scanner SS= new Scanner(System.in);
            x = SS.nextDouble();
            y=SS.nextDouble();
        system.out.println("result=" +z);

System.out.println("Sub of "+x+" and
    "+y+" is :"+result);
}
subtraction(){}
{

class Multiplication extends calculate {
    void calc(){
        system.out.println("Enter two
        numbers x and y for multiplication:");
        Scanner SS = new Scanner(System.in);
            x= SS.nextDouble();
            y= S.nextDouble();
            result = x*y;
    S.O.P ("Multiplication of "+x+" and
        "+y+" is :"+result);
}
Multiplication(){}
{
```

```
class Division extends calculate
    {
    void calc()
        {
System.out.println("Enter two numbers");
        Scanner SS= new Scanner(System.in);
        x= SS.nextDouble();
        y=SS.nextDouble();
        result =x/y;
        System.out.println("Division of "+x+
            and "+y+" is: "+result);
        }
    Division D{}
    }

class Mine {
        public static void main (String XYZ[])
            {
            Addition A= new Addition();
            A.calc();

        Substraction S= new Substraction();
            S.calc();

        Multiplication M= new Multiplication();
            M.calc();
        Division D= new Division();
            D.calc();
            }
        }
```

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Enter two numbers x and y for addition:

1 2
Addition of 1.0 and 2.0 is 3.0

Enter two numbers x and y for subtraction:

1 2
Subtraction of 1.0 and 2.0 is -10

Enter two numbers x and y for multiplication:

1 2
Multiplication of 1.0 and 2.0 is 20

Enter two numbers x and y for division:

1 2
Division of 1.0 and 2.0 is: 0.5

```
Enter two numbers x and y for addition :
1 2
Addition of 1.0 and 2.0 is : 3.0
Enter two numbers x and y for subtraction :
1 2
Subtraction of 1.0 and 2.0 is : -1.0
Enter two numbers x and y for multiplication :
1 2
Multiplication of 1.0 and 2.0 is : 2.0
Enter two numbers x and y for dividion :
1 2
Division of 1.0 and 2.0 is : 0.5
```