Dt : 29/8/2022

Assignment:(Solution)

wap to read six Submarks and calculate:

totMarks=

per =

result =

Program : DemoMethods5.java

```
import java.util.Scanner;
class TotalMarks //SubClass
{
        int add(int s1,int s2,int s3,int s4,int s5,int s6)
        {
                return s1+s2+s3+s4+s5+s6;
        }
}
class Percentage //SubClass
{
        float calculate(int totMarks)
        {
                return (float)totMarks/6;//TypeCasting
        }
}
class StudentResult //SubClass
{
```

```
    String generate(float per)
    {
        if(per>=70 && per<=100)
        {
            return "Distinction";
        }
        else if(per>=60 && per<70)
        {
            return "FirstClass";
        }
        else if(per>=50 && per<60)
        {
            return "SecondClass";
        }
        else if(per>=35 && per<50)
        {
            return "ThirdClass";
        }
        else
        {
            return "Fail";
        }
    }
}
```

```
class DemoMethods5 //MainClass
{
	public static void main(String[] args)
	{
		Scanner s = new Scanner(System.in);
		System.out.println("Enter the marks of Sub-1:");
		int sub1 = s.nextInt();
	System.out.println("Enter the marks of Sub-2:");
		int sub2 = s.nextInt();
	System.out.println("Enter the marks of Sub-3:");
		int sub3 = s.nextInt();
	System.out.println("Enter the marks of Sub-4:");
		int sub4 = s.nextInt();
	System.out.println("Enter the marks of Sub-5:");
		int sub5 = s.nextInt();
	System.out.println("Enter the marks of Sub-6:");
		int sub6 = s.nextInt();
	if((sub1>=0 && sub1<=100) && (sub2>=0 && sub2<=100) &&
			(sub3>=0 && sub3<=100) && (sub4>=0 && sub4<=100) &&
			(sub5>=0 && sub5<=100) && (sub6>=0 && sub6<=100))
		{
			TotalMarks tm = new TotalMarks();
			int tMarks = tm.add(sub1,sub2,sub3,sub4,sub5,sub6);
			Percentage pr = new Percentage();
```

```
                float per = pr.calculate(tMarks);
                StudentResult sr = new StudentResult();
                String result = sr.generate(per);
                System.out.println("====Details====");
                System.out.println("TotMarks:"+tMarks);
                System.out.println("Percentage:"+per);
                System.out.println("Result:"+result);
            }//end of if
            else
            {
                System.out.println("Invalid Marks...");
            }
        }
}
```

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Assignment:

Update above program by displaying the result as "Fail" when

any Subject marks entered in b/w 0 to 34.

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Ex-program:

wap to read two int values and perform arithmetic operation based

on user choice:

1.add

2.sub

3.mul

4.div

5.modDiv

Program : DemoMethods6.java

```
import java.util.Scanner;
class Addition //SubClass
{
        int add(int x,int y)
        {
                return x+y;
        }
}
class Subtraction //SubClass
{
        int sub(int x,int y)
        {
                return x-y;
        }
}
class Multiplication //SubClass
{
        int mul(int x,int y)
        {
```

```
                return x*y;
        }
}
class Division //SubClass
{
        float div(int x,int y)
        {
                return (float)x/y;
        }
}
class ModDivision //SubClass
{
        int modDiv(int x,int y)
        {
                return x%y;
        }
}
class DemoMethods6 //MainClass
{
        public static void main(String[] args)
        {
                Scanner s = new Scanner(System.in);
                System.out.println("Enter the value-1:");
                int v1 = s.nextInt();
```

```
System.out.println("Enter the value-2:");
        int v2 = s.nextInt();
System.out.println("=====Choice=====");
        System.out.println
            ("1.add\n2.sub\n3.mul\n4.div\n5.modDiv");
        System.out.println("Enter the Choice:");
        int choice = s.nextInt();
        switch(choice)
        {
            case 1:
                Addition ad = new Addition();
              int r1 = ad.add(v1,v2);
                System.out.println("Sum:"+r1);
                break;
            case 2:
                Subtraction sb = new Subtraction();
                int r2 = sb.sub(v1,v2);
                System.out.println("Sub:"+r2);
                break;
            case 3:
                Multiplication ml = new Multiplication();
              int r3 = ml.mul(v1,v2);
                System.out.println("Mul:"+r3);
                break;
```

```
                    case 4:
                            Division dv = new Division();
                      float r4 = dv.div(v1,v2);
                            System.out.println("Div:"+r4);
                            break;
                    case 5:
                            ModDivision md = new ModDivision();
                      int r5 = md.modDiv(v1,v2);
                            System.out.println("ModDiv:"+r5);
                            break;
                    default:
                            System.out.println("Invalid Choice...");
                }//end of switch
        }
}
```

o/p:

Enter the value-1:

7

Enter the value-2:

2

=====Choice=====

1.add

2.sub

3.mul

4.div

5.modDiv

Enter the Choice:

4

Div:3.5

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faq:

define switch-case statement?

=>switch-case statement is used to select one from multiple available cases or options.

syntax:

```
switch(value)
{
 case 1 : Statements;
 break;
 case 2 : Statements;
 break;
 .
 .
 case n : Statements;
 break;
 default : default_statements;
}
```

behaviour:

=>The switch-value is compared with available options(cases) and if the switch-value is matched with any option then the statements under the option are executed.

=>we use 'break' statement to stop the switch-case execution after executing the statements under the option(case).

=>If the switch-value is not matched with any available cases or options then 'default' is executed.

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