Dt : 29/7/2023(Solution)

Assignment:

Update above program by displaying result as follows:

pr=>

70 to 100 ===> Distiction

60 to <70 ===> FirstClass

50 to <60 ===> SecondClass

35 to <50 ===> ThirdClass

else ===> Fail

SubClass : SudentResult

String res(float per)

Program : StudentMainClass.java(Modified program)

```
import java.util.Scanner;
class StudentResult
{
        String res(float pr)
        {
                if(pr>=70 && pr<=100)
                {
                        return "Distinction";
```

```
            }
            else if(pr>=60 && pr<70)
            {
                return "FirstClass";
            }
            else if(pr>=50 && pr<60)
            {
                return "SecondClass";
            }
            else if(pr>=35 && pr<50)
            {
                return "ThirdClass";
            }
            else
            {
                return "Fail";
            }
        }
}
class Percentage
{
    float per(int totMarks)
```

```
        {
                float p = (float)totMarks/6;
                return p;
        }
}
class StuMainClass
{
        public static void main(String[] args)
        {
                Scanner s = new Scanner(System.in);
                int i=1,totMarks=0;
                while(i<=6)
      {
                  System.out.println("Enter marks of sub-"+i);
                  int sub = s.nextInt();
                  if(sub<0 || sub>100)
                        {
                          System.out.println("Invalid marks...");
                          continue;
                        }
                  totMarks=totMarks+sub;
        i++;
```

```
    }
            System.out.println("TotalMarks:"+totMarks);
            Percentage ob = new Percentage();
            float pr = ob.per(totMarks);
    System.out.println("Percentage:"+pr);
            StudentResult sr = new StudentResult();
            String result = sr.res(pr);
            System.out.println("Result:"+result);
      }
}
```

o/p:

```
Enter marks of sub-1
45
Enter marks of sub-2
46
Enter marks of sub-3
52
Enter marks of sub-4
43
Enter marks of sub-5
44
Enter marks of sub-6
```

45

TotalMarks:275

Percentage:45.833332

Result:ThirdClass

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Assignment:

Update above program by displaying result as "Fail",if any one Subject marks are

in b/w 0 to 34

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(b)do-while loop

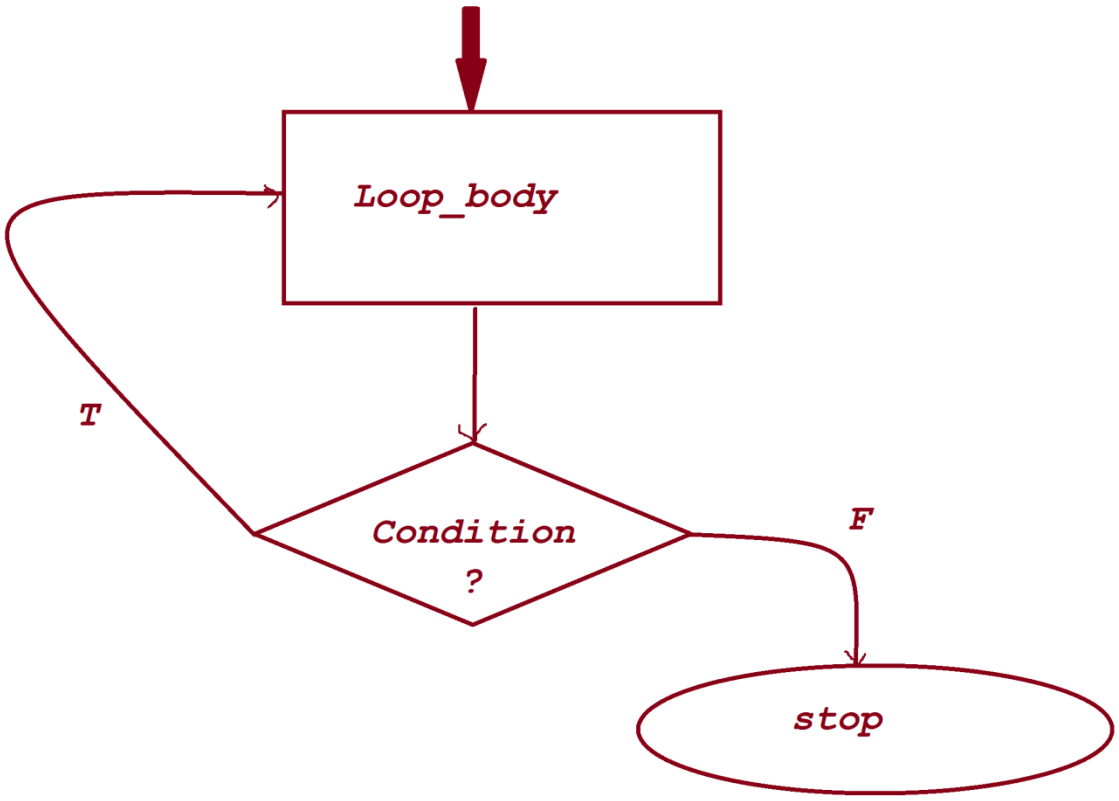
=>In do-while looping structure the loop-body is executed first and then condition

is checked,this process is repeated until the condition is false.

syntax:

```
do
{
 //loop_body
}
while(condition);
```

FlowChart:



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(c)for loop:

=>for-loop is more simple in representation when compared to while and do-while

loops,because Initialization,Condition and Incre/Decre are declared in the same line

separated by SemiColon.

syntax:

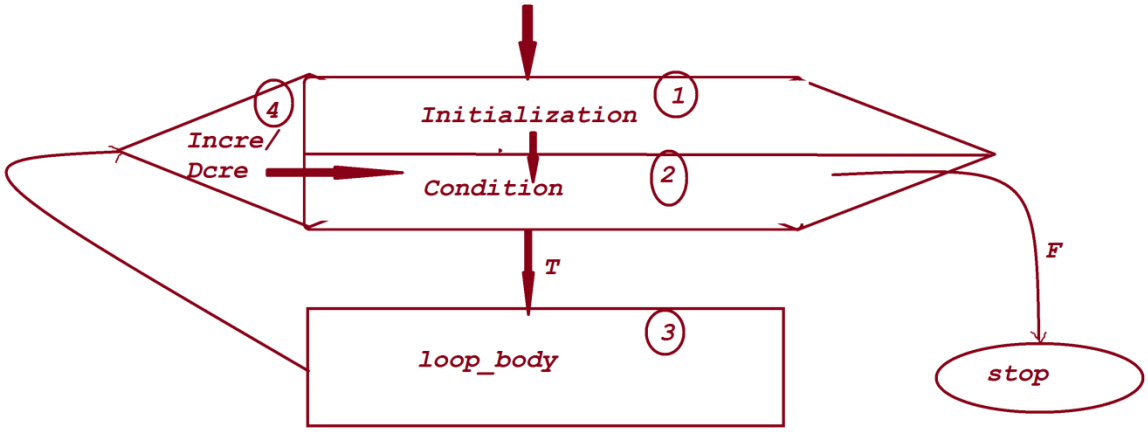
for(Initialization;Condition;Incre/Decre)

{

//Loop_body

}

Flowchart:



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Ex:

wap to read a number and display the factorial?

program : DemoFor.java

```
import java.util.Scanner;
class DemoFor
{
	public static void main(String[] args)
	{
		Scanner s = new Scanner(System.in);
		System.out.println("Enter the value n:");
		int n = s.nextInt();
		int fact=1;
		for(int i=n;i>=1;i--)
	{
			fact=fact*i;
	}
		System.out.println("Factorial="+fact);
	  }
}
```

o/p:

```
Enter the value n:
4
Factorial=24
```

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