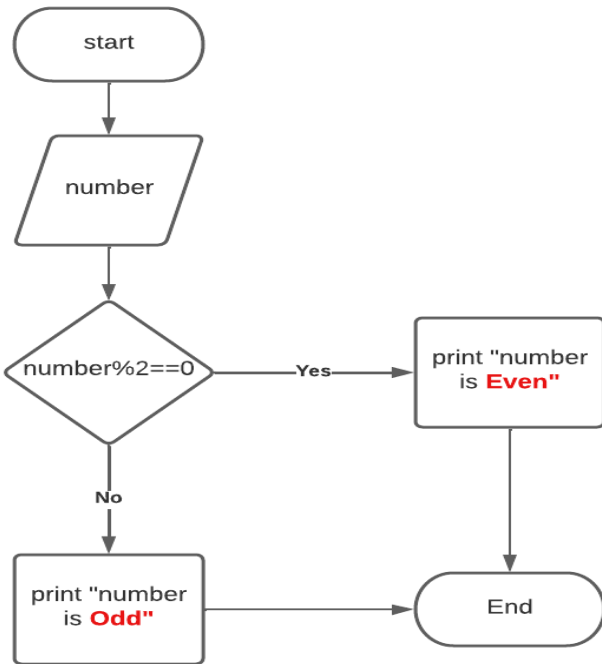1. Start
2. Get the number
3. Check the remainder, when the number is divided by 2 is zero or not…
   a. If Yes   print "number is <u>Even</u>"
   b. If No   print "number is <u>Odd</u>"
4. End

```java
public class A1_2
{
    public static void main(String args[])
    {
        int n,f;
        for(n=6,f=n;n>1;n--)//The number
        {
            f=f*(n-1);
        }
        System.out.println(f);
    }
}
//output
/*D:\DAC>javac A1_2.java
D:\DAC>java A1_2
720
D:\DAC>*/
```

```java
public class A1_3
{
    public static void main(String args[])
    {
        int n=5,f;//the number
        f=fact(n);
        System.out.println(f);
    }
    public static int fact(int num)//factorial function
```

```java
    {
        if(num<2)
                return 1;
        else
                num=num*fact(--num);//recurssion
        return num;
    }
}
//output
/*D:\DAC>java A1_3
120
*/
```

—--------------------------------------- **Assignment 1.4** --

```java
public class A1_4
{
    //int a=50,b=10;
    public static void main(String args[])
    {
        int a=5,b=10;
System.out.println("++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++");
        System.out.println("\t\t   a=" + a + "\t\t b=" + b+"              |");
        System.out.println("                    ----Swapping----");
        a=a+b;
        b=a-b;
        a=a-b;
        System.out.println("\t\t   a=" + a + "\t\t b=" + b+"              |");
        System.out.println("++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++");
    }
}

//output
/*D:\DAC>java A1_4
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        a=5              b=10                     |
                            ----Swapping----                     |
                        a=10             b=5                      |
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
D:\DAC>*/
```

—--------------------------------------- **Assignment 1.5** --

```java
public class A1_5
{
    public static void main(String args[])
    {
        int n=-10;//The number
```
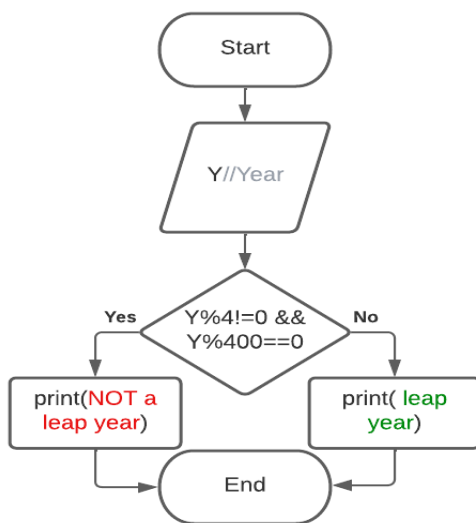
```
        if(n+1<n)//condition
                System.out.println("POSITIVE");
        else
                System.out.println("NEGATIVE");
    }
}
//output
/*
D:\DAC>javac A1_5.java
D:\DAC>java A1_5
NEGATIVE
*/
```

1. Start
2. Get input Y for year
3. Check, leap year condition=>divisible by 4 but not by 400
    a. If Yes, It's a Leap year .
    b. If No, It's NOT a leap year.
4. End

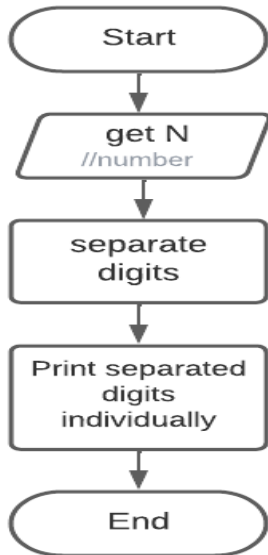```
public class A1_7
{
    public static void main(String args[])
    {
        int n=10;//the number
        PS(n,1);
    }
    public static void PS(int n,int p)
    {
        if(n>=p)
        {System.out.println(p);   PS(n,++p);}
    }
}
//Output
/* D:\DAC>javac A1_7.java
D:\DAC>java A1_7
1
2
```

3
4
5
6
7
8
9
10
D:\DAC>*/

1. Start
2. Scan the number
3. Separate the digits
4. Print the digits individually
5. End

```
   Start
     |
   get N
   //number
     |
  separate
   digits
     |
Print separated
   digits
 individually
     |
    End
```
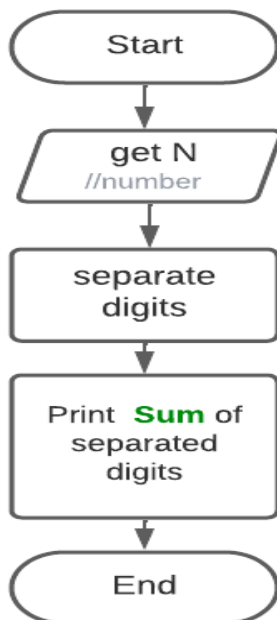
1. Start
2. Scan the number
3. Separate the digits
4. Print Sum of the digits
5. End

```
   Start
     |
   get N
   //number
     |
  separate
   digits
     |
Print  Sum of
  separated
   digits
     |
    End
```

```
          ┌─────────────┐
          │    Start    │
          └──────┬──────┘
                 │
                 ▼
          ╱─────────────╲
         │  get A,B,C    │
         │   //number    │
          ╲─────────────╱
                 │
                 ▼
              ╱─────╲
      No ────╱ A<=B  ╲──── Yes
       │     ╲───────╱      │
       ▼                    ▼
  ┌─────────┐         ┌─────────┐
  │ small=B │         │ small=A │
  └────┬────┘         └────┬────┘
       │                   │
       └──────┐   ┌────────┘
              ▼   ▼
            ╱───────╲
    No ────╱ small<=C ╲──── Yes
     │     ╲─────────╱       │
     ▼                       ▼
┌───────────┐         ┌───────────────┐
│ smallest=C│         │ smallest=small│
└─────┬─────┘         └───────┬───────┘
      │                       │
      └────┐   ┌──────────────┘
           ▼   ▼
     ┌──────────────┐
     │ Print smallest│
     └──────┬───────┘
            │
            ▼
     ┌─────────────┐
     │     End     │
     └─────────────┘
```

****