Program 2

(Print Date of N day number)

Design a program to accept a **Day Number** (between 1 and 366), **Year** (in 4 digits) from the user to generate and display the corresponding date. Also, accept 'N' (1<=N<=100) from the user to compute and display the future date corresponding to 'N' days after the generated date. Display an error message if the value of the day number, year and N are not within the limit or not according to the condition specified.
Test your program with the sample data and some random data:

Example 1: INPUT : DAY NUMBER: 255
YEAR: 2018

OUTPUT: DATE: 12TH SEPTEMBER, 2018
DATE AFTER 22 DAYS: 4TH OCTOBER, 2018

EXAMPLE 2: INPUT: DAY NUMBER: 500
YEAR: 2018
DATE AFTER (N DAYS): 33

OUTPUT: DAY NUMBER OUT OF RANGE

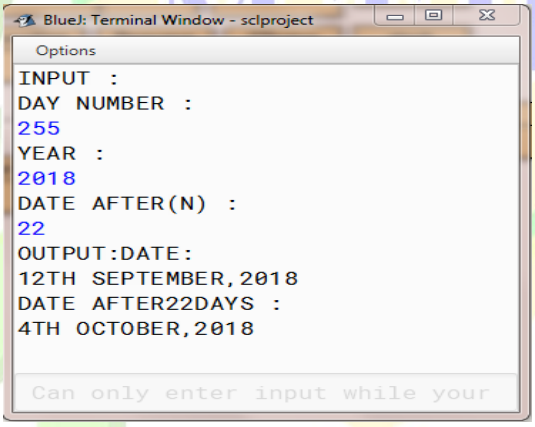
Solution:

```
import java.util.*;
class Date
{
   public static void main(String args[])
   {
      Scanner sc=new Scanner(System.in);
      int year,day,c=0,q=0,N,D,M,YEAR,current_day=0,mnth=0;
      String tag;
      int days[]={0,31,28,31,30,31,30,31,31,30,31,30,31};
      String
month[]={"","JANUARY","FEBRUARY","MARCH","APRIL","MAY","JUNE","JULY","AUGUST","SEPTEMBER","O
CTOBER","NOVENBER","DECEMBER"};
      System.out.println("INPUT :");
      System.out.println("DAY NUMBER :");
      day=sc.nextInt();
      System.out.println("YEAR :");
      year=sc.nextInt();
      System.out.println("DATE AFTER(N) :");
      N=sc.nextInt();
```

```
YEAR=year;
if(day<1||day>366)
System.out.println("OUTPUT:DAY NUMBER OUT OF RANGE");
else if(N<1||N>100)
System.out.println("OUTPUT:DATE AFTER(N DAYS) OUT OF RANGE");
else
{
   if(YEAR%4==0)
   days[2]=29;
   else
   days[2]=28;
   while(current_day<day)
   {
      if(mnth==12)
      {
         mnth=0;
         YEAR++;
         if(YEAR%4==0)
         days[2]=29;
         else
         days[2]=28;
      }
      current_day=current_day+days[++mnth];
   }
   q=current_day-days[mnth];
   current_day=day-q;
   System.out.println("OUTPUT:DATE: ");
   if(current_day==1||current_day==21||current_day==31)
   System.out.println(current_day+"ST "+month[mnth]+","+YEAR);
   else if(current_day==2||current_day==22)
   System.out.println(current_day+"ND "+month[mnth]+","+YEAR);
   else if(current_day==3||current_day==23)
   System.out.println(current_day+"RD "+month[mnth]+","+YEAR);
   else
   System.out.println(current_day+"TH "+month[mnth]+","+YEAR);
   M=mnth;
   D=current_day;
   YEAR=year;
   c=0;
   while(c<N)
   {
      c++;
      D++;
      if(D>days[M])
      {
         D=1;
         M++;
      }
      if(M>12)
      {
         M=1;
```

```
            YEAR++;
            if(YEAR%4==0)
            days[2]=29;
            else
            days[2]=28;
          }
        }
        q=D%10;
        if(q==1)
        tag="ST";
        else if(q==2)
        tag="ND";
        else if(q==3)
        tag="RD";
        else
        tag="TH";
        System.out.println("DATE AFTER"+N+"DAYS :");
        System.out.println(D+tag+" "+month[M]+","+YEAR);
      }
    }
}
```

Output:



Variable Description Table

Variable	Datatype	Purpose
year	int	Year to be inputed
day	int	Day number
c, q	int	Required variables
N, D, M	int	Number of days
YEAR	int	Year to be checked
current_day	int	Current date
mnth	int	Month
tag	String	Tag after date