```java
import java.io.*;
public class calender
{
    static int date;
    static String m;
    static int mon;
    static int year;
    static char c;
    static String o;
    static boolean u=true;
    static boolean a,b,cc;
    static int addfac;
    static void input() throws IOException
    {
        BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
        while(true)
        {
        System.out.print("Enter the date   :   ");
        date=Integer.valueOf(br.readLine());
        System.out.print("Enter the month  :   ");
        m=br.readLine();
        m=m.trim();
        m=m.toLowerCase();
        System.out.print("Enter the year   :   ");
        year=Integer.valueOf(br.readLine());

        System.out.println("Is the given date from Julian calender or Gregorian Calender
        :   ");
        c=Character.toLowerCase((br.readLine()).charAt(0));
        if(c!='g' && c!='j')
        {
            System.out.println("Wrong Choice of Calender");
            System.out.println("Press Enter to re-enter the calender date    :  ");
            c=Character.toLowerCase((br.readLine()).charAt(0));
            continue;
        }
        else if(year<=1500 || year>2300)
        {
            System.out.println("Wrong Choice of year");
            System.out.println("Press Enter to re-enter the calender date    :  ");
            c=Character.toLowerCase((br.readLine()).charAt(0));
            continue;
        }

        else
        {
            break;
        }
        }

    }
    static boolean julianLeapYear(int ye)
    {
        if(ye%4==0)
        {
            return true;
        }
        else
        {
            return false;
        }
    }

    static boolean gregorianLeapYear(int ye)
    {
        if(ye%100==0)
```

```
    {
        if(ye%400==0)
        {return true;}
        else
        {return false;}

    }
    else
    {
        if(ye%4==0)
        {return true;}
        else
        {return false;}
    }
}

static void monnum() throws IOException
{
    BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
    o=m.substring(0,3);
    u=false;
    if(o.equals("jan"))
    {
        mon=1;
    }
    else if(o.equals("feb"))
    {
        mon=2;
    }
    else if(o.equals("mar"))
    {
        mon=3;
    }
    else if(o.equals("apr"))
    {
        mon=4;
    }
    else if(o.equals("may"))
    {
        mon=5;
    }
    else if(o.equals("jun"))
    {
        mon=6;
    }
    else if(o.equals("jul"))
    {
        mon=7;
    }
    else if(o.equals("aug"))
    {
        mon=8;
    }
    else if(o.equals("sep"))
    {
        mon=9;
    }
    else if(o.equals("oct"))
    {
        mon=10;
    }
    else if(o.equals("nov"))
    {
        mon=11;
    }
    else if(o.equals("dec"))
```

```
    {
        mon=12;
    }
    else
    {
        mon=0;
        System.out.println("You have entered the wrong month. Press Enter to re-enter
        the details");
        o=br.readLine();
        u=true;
    }
}
static int add(int yu)
{
    if(yu>=1800 && yu<=1899)
    {
        addfac=12;
    }
    else if(yu>=1900 && yu<=2099)
    {
        addfac=13;
    }
    else if(yu>=1501 && yu<=1699)
    {
        addfac=10;
    }
    else if(yu>=1700 && yu<=1799)
    {
        addfac=11;
    }
    else if(yu>=2100 && yu<=2300)
    {
        addfac=14;
    }

    return addfac;
}
static void congregtojul()
{
    date-=add(year);

       mon--;


    a=((mon==1)||(mon==3)||(mon==5)||(mon==7)||(mon==8)||(mon==10)||(mon==0));
    b=((mon==4)||(mon==6)||(mon==9)||(mon==12));
    cc=(mon==2);

    if(date<1)
    {
        if(a)
        {
            date+=31;
        }
        else if(b)
        {
            date+=30;
        }
        else if(cc)
        {
            if(julianLeapYear(year))
            {
                date+=29;
            }
            else
            {
```

```
                date+=28;
            }
        }
            if(mon==0)
            {
                mon=12;
                year--;
            }

    }
    else
    {
        mon++;
    }
}

static void calmon()
{
    switch(mon)
    {
        case 1:m="January";
        break;
        case 2:m="February";
        break;
        case 3:m="March";
        break;

        case 4:m="April";
        break;
        case 5:m="May";
        break;
        case 6:m="June";
        break;
        case 7:m="July";
        break;
        case 8:m="August";
        break;
        case 9:m="September";
        break;
        case 10:m="October";
        break;
        case 11:m="November";
        break;
        case 12:m="December";
        break;



    }
}
    static void conjultogreg()
    {
        date+=add(year);
        a=((mon==1)||(mon==3)||(mon==5)||(mon==7)||(mon==8)||(mon==10)||(mon==12));
        b=((mon==4)||(mon==6)||(mon==9)||(mon==12));
        cc=(mon==2);

        if(a)
        {
            if(date>=31)
            {
                date-=31;
                mon++;
            }
            if(mon==13)
            {
```

```
                mon=1;
                year++;
            }
        }
        else if(b)
        {
            if(date>=30)
            {
                date-=30;
                mon++;
            }
        }
        else if(cc)
        {
            if(gregorianLeapYear(year))
            {
                if(date>=29)
                {
                   date-=29;
                   mon++;
                }
            }
            else
            {
                if(date>=28)
                {
                   date-=28;
                   mon++;
                }
            }



        }
    }

    public static void main(String args[]) throws IOException
    {
        while(u)
        {
            calender.input();
            calender.monnum();
            if(u)
            {
                continue;
            }
            if(c=='g')
            {
                calender.congregtojul();
                calender.calmon();
                System.out.println("Julian Date        :    "+m+" "+date+", "+year);
                System.exit(0);
            }
            else if(c=='j')
            {
                calender.conjultogreg();
                calender.calmon();
                System.out.println("Gregorian Date     :    "+m+" "+date+", "+year);
                System.exit(0);
            }
        }
    }
```

```
}
```