1. **Write a C++ Program to create a class called DATE. Accept two valid dates in the form of DD/MM/YYYY. Implement the following by overloading the operators − (minus) and + (Plus). Display the results by overloading the operator << after every operation.**

a) No_of _days = D1-D2

b) D1=D1 + No_of _days

where d1 and d2 are date objects, d1>d2 and No_of_days is an integer.

```cpp
#include<iostream.h>
#include<conio.h>
#include<process.h>
class date
{
int flag,dd,mm,yy;
public:
date(int d,int m,int y)
{
dd=d;mm=m;yy=y;
if((y%4)==0)
flag=1;
else
{
flag=0;
if(m==2 && d>28)
{
cout<<"Error since not a leap year";
getch();
exit(0);
}
}
}
int return_date(date d);
int operator -(date d2);
date operator +(int n);
friend ostream& operator <<(ostream& out,date d1);
```

```cpp
};
int   a[20]={0,31,28,31,30,31,30,31,31,30,31,30,31};
int   b[20]={0,31,29,31,30,31,30,31,31,30,31,30,31};
int date::operator -(date d2)
{
int a1,a2,x=0;
date d1(dd,mm,yy);
if(d1.dd==d2.dd&&d1.mm==d2.mm&&d1.yy==d2.yy)
return x;
if(d1.dd<d2.dd&&d1.mm==d2.mm&&d1.yy==d2.yy)
{
cout<<"Error since 2nd date is greater than 1st date";
getch();
exit(0);
}
if(d1.mm<d2.mm&&d1.yy==d2.yy)
{
cout<<"Error since 2nd date is greater than 1st date";
getch();
exit(0);
}
if(d1.yy<d2.yy)
{
cout<<"Error since 2nd date is greater than 1st date";
getch();
exit(0);
}
a1=return_date(d1);
a2=return_date(d2);
for(int i=d1.yy-1;i>d2.yy;i--)
{
if(i%yy==0)
x=x+366;
else
x=x+365;
```

```cpp
}
if(d1.yy==d2.yy)
x=x+a1-a2;
else
{
x=x+a1;
if(d2.yy%4==0)
x=x+(366-a2);
else
x=x+(365-a2);
}
return x;
}
int date::return_date(date d)
{
int int_val=d.dd;
if((d.flag==1)&&(d.mm>2))
{
for(int i=0;i<d.mm;i++)
int_val=int_val+a[i];
int_val++;
}
else
{
for(int i=0;i<d.mm;i++)
int_val=int_val+a[i];
}
return int_val;
}
date date::operator +(int n)
{
date d(dd,mm,yy);
for(int i=0;i<n;i++)
{
d.dd++;
```

```cpp
if(d.yy%4==0)
{
d.flag=1;
if(d.dd>b[d.mm])
{
d.dd=1;
d.mm++;
}
}
else
{
d.flag=0;
if(d.dd>a[d.mm])
{
d.dd=1;
d.mm++;
}
}
if(d.mm>12)
{
d.mm=1;
d.yy++;
}
}
return d;
}
ostream& operator <<(ostream& out,date d1)
{
out << d1.dd<<"-"<<d1.mm<<"-"<<d1.yy;
return out;
}
int main()
{
int d,m,y,no_of_days;
clrscr();
```

```
cout<<"Enter a valid date(dd mm yyyy):\n";
cin>>d>>m>>y;
if(d>b[m]||m>12)
{
cout<<"Err
or";
getch();
exit(0);
}
date d1(d,m,y);
cout<<"Enter a valid date which is lesser than the first
date\n";cin>>d>>m>>y;
if(d>b[m]||m>12)
{
cout<<"Err
or";
getch();
exit(0);
}
date
d2(d,m,y);
no_of_da
ys=d1-d2;
cout<<"Di erence b/w two dates in
days :"<<no_of_days<<endl;cout<<"Enter a no of days to
be added to first date:\n"; cin>>no_of_days;
d1=d1+no_of_days;
cout<<"The new date
is:"<<d1<<endl;getch();
return 0;
}
```

OUTPUT