**12. Write the above program using friend function.**

**Code:**

#include<iostream>

using namespace std;

class Time

{

private:

int hours,minutes,seconds;

public:

Time()

{

hours=minutes=seconds=0;

}

void input()

{

cout<<"Enter hours:";

cin>>hours;

cout<<"Enter minues: ";

cin>>minutes;

cout<<"Enter seconds: ";

cin>>seconds;

}

void display()

{

cout<<"\nHH:MM::SS="<<hours<<":"<<minutes<<":"<<seconds;

}

friend Time operator-(Time,Time);

};

Time operator-(Time s1,Time s2)

{

Time s;

if(s1.hours>=s2.hours)

{

if(s1.minutes>=s2.minutes)

{

if(s1.seconds>=s2.seconds)

{

s.hours=s1.hours-s2.hours;

s.minutes=s1.minutes-s2.minutes;

s.seconds=s1.seconds-s2.seconds;

return(s);

}

else

{

s.hours=s1.hours-s2.hours;

s.minutes=s1.minutes-1-s2.minutes;

s.seconds=s1.seconds+60-s2.seconds;

return(s);

}

}

else

{

if(s1.seconds>=s2.seconds)

{

s.hours=s1.hours-1-s2.hours;

s.minutes=s1.minutes+60-s2.minutes;

s.seconds=s1.seconds-s2.seconds;

return(s);

}

else

{

s.hours=s1.hours-1-s2.hours;

s.minutes=s1.minutes+60-1-s2.minutes;

s.seconds=s1.seconds+60-s2.seconds;

return(s);

}

}

}

else

{

if(s1.minutes>=s2.minutes)

{

if(s1.seconds>=s2.seconds)

{

s.hours=s2.hours-1-s1.hours;

s.minutes=s2.minutes+60-1-s1.minutes;

s.seconds=s2.seconds+60-s1.seconds;

return(s);

}

else

{

s.hours=s2.hours-1-s1.hours;

s.minutes=s2.minutes+60-s1.minutes;

s.seconds=s2.seconds-s1.seconds;

return(s);

}

}

else

{

if(s1.seconds>=s2.seconds)

{

s.hours=s2.hours-s1.hours;

s.minutes=s2.minutes-1-s1.minutes;

s.seconds=s2.seconds+60-s1.seconds;

return(s);

}

else

{

s.hours=s2.hours-s1.hours;

s.minutes=s2.minutes-s1.minutes;

s.seconds=s2.seconds-s1.seconds;

return(s);

}

}

}

}

int main()

{

Time t1,t2,t3;

cout<<"Enter Time for 1st object:\n";

t1.input();

cout<<"Enter Time for 2nd object:\n";

t2.input();

cout<<"\nTime of 1st object: ";

t1.display();

cout<<"\nTime of 2nd object: ";

t2.display();

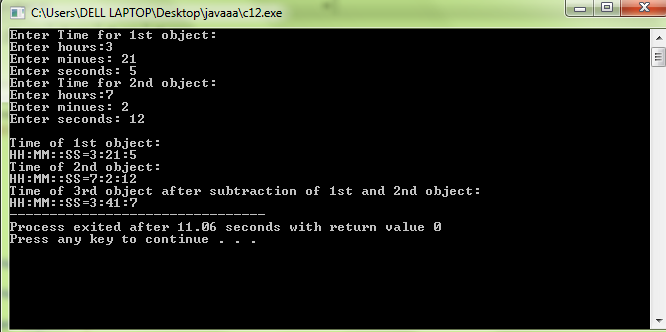
t3=t1-t2;

cout<<”\nTime of 3rd object after subtraction of 1st and 2nd object: ";

t3.display();

}

**Output:**

****