

```
//NEED OF THE FUNCTION TEMPLATE
```

```
#include<iostream.h>
```

```
#include<conio.h>
```

```
int min(int a,int b)
```

```
{
```

```
    return (a<b)?a:b;
```

```
}
```

```
float min(float a,float b)
```

```
{
```

```
    return (a<b)?a:b;
```

```
}
```

```
char min(char a,char b)
```

```
{
```

```
    return (a<b)?a:b;
```

```
}
```

```
int main()
```

```
{
```

```
    int x,y;
```

```
    float m,n;
```

```
    char c1,c2;
```

```
    cout<<"\nenter the two integer values";
```

```
    cin>>x>>y;
```

```
    cout<<"\nMinimum of two integer value is = "<<min(x,y);
```

```
    cout<<"\nenter the two float values";
```

```
    cin>>m>>n;
```

```

    cout<<"\nMinimum of two float value is = "<<min(m,n);

    cout<<"\nenter two character values";

    cin>>c1>>c2;

    cout<<"\nMinimum of two character value is = "<<min(c1,c2);

    getch();

    return 0;

}

```

//FUNCTION TEMPLATE

```

#include<conio.h>

#include<iostream.h>

template<class T>

T min(T a,T b)

{

    return (a<b)?a:b;

}

int main()

{

    int x,y;

    float m,n;

    char c1,c2;

    cout<<"\nenter the two integer values";

    cin>>x>>y;

    cout<<"\nMinimum of two integer value is = "<<min(x,y);

    cout<<"\nenter the two float values";

    cin>>m>>n;

```

```

    cout<<"\nMinimum of two float value is = "<<min(m,n);

    cout<<"\nenter two character values";

    cin>>c1>>c2;

    cout<<"\nMinimum of two character value is = "<<min(c1,c2);

    getch();

    return 0;

}

```

//SWAP TWO NUMBERS USING FUNCTION TEMPLATE

```

#include<iostream.h>

#include<conio.h>

template<class T>

void swap(T &m,T &n)

{

    T temp;

    temp=m;

    m=n;

    n=temp;

}

int main()

{

    int a,b;

    cout<<"enter two integer values";

    cin>>a>>b;

    swap(a,b); //call function template for int

    cout<<"a = "<<a<<" b= "<<b;

```

```

float x,y;

cout<<"\nenter two float values";

cin>>x>>y;

swap(x,y);//call function template for float

cout<<"x ="<<x<<" y= "<<y;

char c1,c2;

cout<<"\nenter two charactter values ";

cin>>c1>>c2;

swap(c1,c2); //call function template for character

cout<<"c1 = "<<c1<<" C2= "<<c2;

getch();

return 0;

}

```

 //PROGRAM TO DEMONSTRATE THE USE OF THE CLASS TEMPLATE

```

#include <iostream.h>

```

```

#include<conio.h>

```

```

template <class T>

```

```

class mypair

```

```

{

```

```

    T a, b;

```

```
public:
    mypair (T first, T second)
    {
        a=first;
        b=second;
    }
    T getmax ();
};
```

```
template <class T>
T mypair<T>::getmax ()
{
    T retval;
    retval = a>b? a : b;
    return retval;
}
```

```
int main ()
{
    mypair <int> myobject (100, 75);
    mypair <float> myobject1(100.25,100.75);

    cout << myobject.getmax();
    //mypair <float> myobject(100.56,100.34);
    cout<<myobject1.getmax();
```

```
    getch();  
    return 0;  
}
```

FIND MINIMUM OF TWO NUMBERS USING CLASS TEMPLATE

```
#include<iostream.h>
```

```
#include<conio.h>
```

```
template <class T>
```

```
class mix
```

```
{
```

```
    T a,b;
```

```
public:
```

```
    mix(T x, T y)
```

```
{
```

```
    a=x;
```

```
    b=y;
```

```
}
```

```
    T max()
```

```
{
```

```
    return (a>b?a:b);
```

```
}
```

```
};
```

```
    main()
```

```
{
```

```
    mix<int> obj(10,20);
```

```
cout<<"max value is"<<obj.max();
```

```
getch();
```

```
}
```