**Assignment No.6(Sorting using template).**

#include <iostream>

using namespace std;

template<class T,class V>

void sorts(T a[30],V pass){

T temp=0;

for(int i=0;i<pass;i++){

for(int j=0;j<pass-1;j++){

if(a[j]>a[j+1]){

temp=a[j];

a[j]=a[j+1];

a[j+1]=temp;}}

}

cout<<endl<<"sorted elements are:";

for(int s=0;s<pass;s++){

cout<<a[s]<<"\t"; }

}

int main() {

int ch;

do{

cout<<endl<<"1.Sort int array elements....\n2.Sort float array elements....\n3.Exit...";

cout<<endl<<"Enter your choice:";

cin>>ch;

switch(ch){

case 1:

int arr[30],n;

cout<<endl<<"Enter count of numbers:";

cin>>n;

cout<<endl<<"Enter elements do you want to sort:";

for(int i=0;i<n;i++){

cin>>arr[i];}

sorts<int,int>(arr,n);

break;

case 2:{

float a[30];

int n;

cout<<endl<<"Enter count of numbers:";

cin>>n;

cout<<endl<<"Enter elements do you want to sort:";

for(int i=0;i<n;i++){

cin>>a[i];}

sorts<float,int>(a,n);

break;}

case 3:

break;

default:

cout<<endl<<"Wrong choice entered!!!";

}

}while(ch!=4);

return 0;

}

**Output:**

1.Sort int array elements....

2.Sort float array elements....

3.Exit...

Enter your choice:1

Enter count of numbers:4

Enter elements do you want to sort:23 45 67 21

sorted elements are:21 23 45 67

1.Sort int array elements....

2.Sort float array elements....

3.Exit...

Enter your choice:2

Enter count of numbers:4

Enter elements do you want to sort:23.4 56.2 21.4 11.5

sorted elements are:11.5 21.4 23.4 56.2