

//CODE: function template selection sort

```
#include<iostream>

using namespace std;

template <typename T>

void selectionsort(T arr[],int size){

    for (int i=0;i<size-1;i++) {

        int minindex=i;

        for (int j=i+1;j<size;j++){

            if(arr[j]<arr[minindex]){

                minindex=j;

            }

        }

        T temp=arr[minindex];

        arr[minindex]=arr[i];

        arr[i]=temp;

    }

}

template<typename T>

void printarray(T arr[],int size){

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

        cout<<arr[i]<<" ";

    }

    cout<<endl;

}

int main()

{

    int intarr[]={64,25,12,22,11};
```

```
int intsize=sizeof(intarr)/sizeof(intarr[0]);  
float floatarr[]={64.5,25.3,12.1,22.9,11.6};  
int floatsize=sizeof(floatarr)/sizeof(floatarr[0]);  
cout<<"Original Integer array:";  
printarray(intarr,intsize);  
selectionsort(intarr,intsize);  
cout<<"Sorted integer array:";  
printarray(intarr,intsize);  
cout<<endl;  
cout<<"Original float array";  
printarray(floatarr,floatsize);  
selectionsort(floatarr,floatsize);  
cout<<"Sorted float array:";  
printarray(floatarr,floatsize);  
cout<<endl;  
return 0;  
}
```

//OUTPUT:

```
Original integer array: 64 25 12 22 11  
Sorted integer array: 11 12 22 25 64  
  
Original float array: 64.5 25.3 12.1 22.9 11.6  
Sorted float array: 11.6 12.1 22.9 25.3 64.5
```