

Ex:bubble sort

```
#include <iostream>
```

```
using namespace std;
```

```
void bubble(int arr[], int length)
```

```
{
```

```
for(int i=length-1; i>0;i--)
```

```
    for(int j=0;j<i;j++)
```

```
        if(arr[j]>arr[j+1])
```

```
{
```

```
    int temp=arr[j+1];
```

```
    arr[j+1]=arr[j];
```

```
    arr[j]=temp;
```

```
}
```

```
}
```

```
int main()
```

```
{
```

```
    int size_arr;
```

```
    cout<<"Please enter size of array"<<endl;
```

```
    cin>>size_arr;
```

```
    int arr[size_arr];
```

```
    cout<<"Please enter members of array " <<endl;
```

```
for(int i=0; i<size_arr; i++){
    cin>>arr[i];
}

bubble(arr,size_arr);
for(int b=0;b<size_arr;b++)
{
    cout<<arr[b]<<" ";
}

return 0;
}
```

---

Ex: Insertion sort

```
void insertionSort(int arr[], int length);
```

```
void printArray(int array[], int size);
```

```
int main()
```

```
{
```

```
    int array[7] = {5,1,6,2,4,2};
```

```
    insertionSort(array, 6);
```

```
    return 0;
```

```
}
```

```
void insertionSort(int arr[], int length)
```

```
{
```

```
int i, j, key;
for (i = 1; i < length; i++)
{
    j = i;
    while (j > 0 && arr[j - 1] > arr[j])
    {
        key = arr[j];
        arr[j] = arr[j - 1];
        arr[j - 1] = key;
        j--;
    }
}
cout << "Sorted Array: ";
// print the sorted array
printArray(arr, length);
}

void printArray(int array[], int size)
{
    int j;
    for (j = 0; j < size; j++)
    {
        cout << " " << array[j];
    }
    cout << endl;
}
}
```

---