

SORTING PROGRAMS

BUBBLE SORT

```
def bubbleSort(arr):  
    n = len(arr)  
    for i in range(n-1):  
        for j in range(0, n-i-1):  
            if arr[j] > arr[j + 1] :  
                arr[j], arr[j + 1] = arr[j + 1], arr[j]  
  
arr = [64, 34, 25, 12, 22, 11, 90]  
bubbleSort(arr)  
print ("Sorted array is:")  
for i in range(len(arr)):  
    print ("% d" % arr[i],end=" ")
```

SELECTION SORT

```
import sys  
A = [64, 25, 12, 22, 11]  
for i in range(len(A)):  
    min_idx = i  
    for j in range(i+1, len(A)):  
        if A[min_idx] > A[j]:  
            min_idx = j  
    A[i], A[min_idx] = A[min_idx], A[i]  
print ("Sorted array")  
for i in range(len(A)):  
    print("%d" %A[i]),
```