



Theory:

- Write short theory of sorting with its Advantages and disadvantages.
- Explain selection and bubble sort with example.

(Define the bubble sort) Define the selection sort

Algorithm:

def bubble sort (qlist):

for passnum in range (len(alist)-1, 0, -1):

 for i in range (passnum):

 if alist [i] > qlist [i+1]:

 temp = alist [i]

 qlist [i] = qlist [i+1]

 qlist [i+1] = temp

alist = [54, 26, 93, 17, 71, 31, 44, 55, 20]

bubble sort (alist)

def selection sort (qlist):

 for fillslot in range (len(alist)-1, 0, -1):

 position of Max = 0

 for location in range (1, fillslot + 1):

 if alist [location] > alist [position of Max]:

 position of Max = location



Advantages

example.

on sort 9

-1) :

$\text{temp} = \text{qlist}[\text{Fillslot}]$

$\text{qlist}[\text{Fillslot}] = \text{qlist}[\text{position of Max}]$

$\text{qlist}[\text{position of Max}] = \text{temp}$

$\text{alist} = [54, 26, 93, 17, 77, 31, 44, 55, 20]$

selection sort (alist)

print (alist)

flowchart:

Draw flowchart for above algorithm.

conclusion:

By this way, we can perform sorting of an array using selection and bubble sort:

① ④

