Selection Sort

Selection sort will not require no more than n-1 interchanges. Suppose x is an array of size n stored in memory. The selection sort algorithm first selects the smallest element in the array x and place it at array position 0; then it selects the next smallest element in the array x and place it at array position 1. It simply continues this procedure until it places the biggest element in the last position of the array.

Example

Let us take an example of the following elements

75 35 42 13 87 24 64 57

Here apply the selection sort algorithm to sort the elements.

Pass 1	**75**	35	42	13	87	24	64	57
Pass 2	13	**35**	42	75	87	**24**	64	57
Pass 3	13	24	**42**	75	87	**35**	64	57
Pass 4	13	24	35	**75**	87	**42**	64	57
Pass 5	13	24	35	42	**87**	75	64	57
Pass 6	13	24	35	42	57	**75**	**64**	87
Pass 7	13	24	35	42	57	64	**75**	87
Sorted elements	13	24	35	42	57	64	**75**	87

Example	Output

def selection_sort(list):
  for i in range(len(list)):
  min = i
  for j in range(i+1, len(list)):
  if list[min] > list[j]:
  min = j
 	
  temp = list[i]
  list[i] = list[min]
  list[min] = temp
 	
list=[75,35,42,13,87,24,64,57]
selection_sort(list)
print(list)
	13, 24, 35, 42, 57, 64, 75, 87