SELECTION SORT ALGORITHM

I/ DEFINITION:

- **Selection sort** is a simple sorting algorithm. This sorting algorithm is an in-place comparison-based algorithm in which the list is divided into two parts, the sorted part at the left end and the unsorted part at the right end. Initially, the sorted part is empty and the unsorted part is the entire list.

- The smallest element is selected from the unsorted array and swapped with the leftmost element, and that element becomes a part of the sorted array. This process continues moving unsorted array boundary by one element to the right.

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II/ PSEUDOCODE IMPLEMENTATION:

1. Set MIN to location 0
2. Search the minimum element in the list
3. Swap with th value at location MIN
4. Increment MIN to point to next element
5. Repeat until list is sorted

```
procedure selection sort
   list  : array of items
   n     : size of list
   for i = 1 to n - 1
//set current element as minimum
      min = i
//check the element to be minimum
      for j = i+1 to n
         if list[j] < list[min] then
            min = j;
         end if
      end for
// swap the minimum element with the currentelement
      if indexMin != i  then
         swap list[min] and list[i]
      end if
   end for
end procedure
```