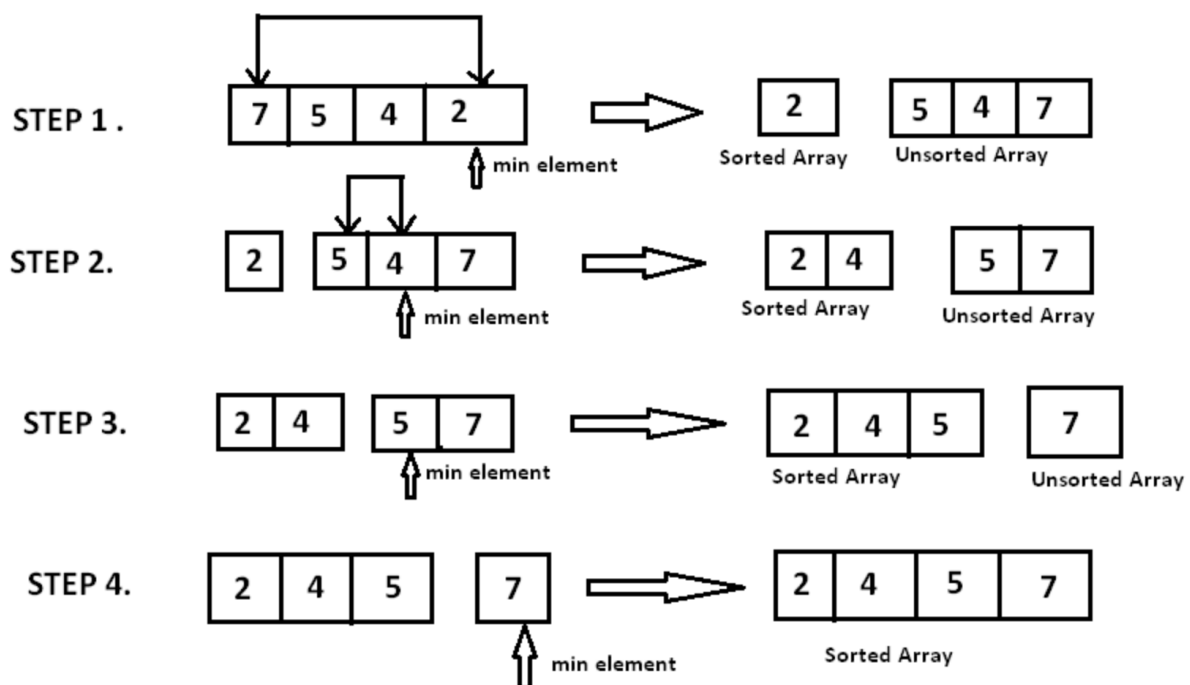# Selection Sort

The selection sort algorithm sorts an array by repeatedly finding the minimum element from the unsorted or the remaining part of the array, and putting it at the beginning. The algorithm maintains two sub arrays in a given array.

1. The sub array which is already sorted. From 0 to i

2. Remaining sub array which is unsorted. From i to n-1

In every iteration of selection sort, the minimum element from the unsorted sub array is picked and moved to the end of the sorted sub array.

Visualisation :



## Pseudo Code

```
procedure selection sort
   list  : array of numbers
   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 current element
      if indexMin != i  then
         swap list[min] and list[i]
      end if
   end for

end procedure
```