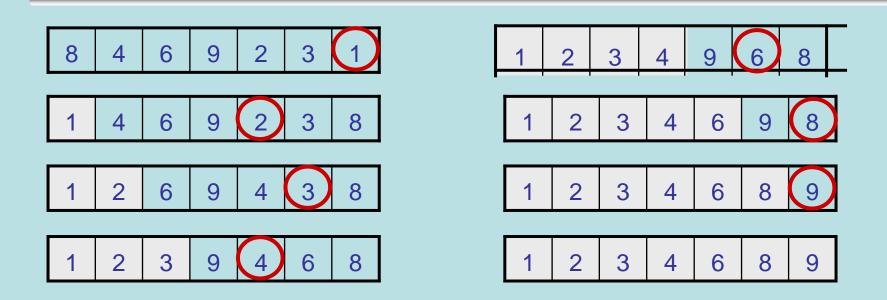# Selection Sort

Selection Sort

- Idea:
  - Find the smallest element in the array
  - Exchange it with the element in the first position
  - Find the second smallest element and exchange it with the element in the second position
  - Continue until the array is sorted

- Disadvantage:
  - Running time depends only on the number of records to be sorted

Example

8	4	6	9	2	3	(1)

1	4	6	9	(2)	3	8

1	2	6	9	4	(3)	8

1	2	3	9	(4)	6	8

1	2	3	4	9	(6)	8

1	2	3	4	6	9	(8)

1	2	3	4	6	8	(9)

1	2	3	4	6	8	9

Selection Sort

```
selectionSort(list,n){
  for (i=0 to n-2){
    min = i
    for (j = i+1 to n-1)
      if (list[min] > list[j])
        min = j
    t = list[min]
    list[min] = list[i]
    list[i] = t
  }
}
```