```
top = 1
                                          5
                                     6
                         compare A[top] with A[top - 1]
                              top = 1
                     insert A[top] in correct position A[0]
                      with respect to the first 2 elements
                 After first iteration, first two elements are sorted
                                    top = 2
                                           5
                                      6
                    compare A[top] with A[top - 1], A[top - 2]
                                    top = 2
                   insert A[top] in correct position A[top - 1]
                       with respect to the first 3 elements
                After second iteration, first three elements are sorted
                                        top = 3
                     compare A[top] with A[below top till 0]
                                        top = 3
                  shift all elements that are > A[top] to right,
                  and insert A[top] in its correct position with
                          respect to the first 4 elements
                 After third iteration, first four elements are sorted
                                             top = 4
                                       6
                                           9
                      compare A[top] with A[below top till 0]
                                             top = 4
                  shift all elements that are > A[top] to right,
                  and insert A[top] in its correct position with
                          respect to the first 5 elements
                 After forth iteration, first four elements are sorted
                                                  top = 5
                                           6
                    compare A[top] with A[i] till A[top] > A[i]
                                                  top = 5
                  <u>shift</u> all elements that are > A[top] to right,
                  and insert A[top] in its correct position with
                          respect to the first 6 elements
                 After fifth iteration, first six elements are sorted
                            indexOfLargest = 2
                                                top = 5
                                    18
2
                   index0fLargest = 0
                                           top = 4
                                    2
                                         8
                            indexOfLargest = 3
                                         top = 3
                                5
                                    2
                                         8
                   indexOfLargest = 0
                                  top = 2
                               5
                                         8
                   indexOfLargest = 1
                               top = 1
                           5
                                  top = 3
                       compare
                                  top = 3
  Iteration 1
                            swap
                                  top = 3
 Sorted last
    element
                                  swap
                                  top = 3
                             top = 2
  Iteration 2
                       compare
                             top = 2
 Sorted 2nd
last element
                             swap
                             top = 2
                        top = 1
  Iteration 3
                       compare
  Sorted 3rd
                        top = 1
last element
                      1 2 3 5
```

5

6