

Insert 4 into a data array:

Step 0:

Element to insert: 4

Array: [8,4,2,2,2,1,1]

Current element: 8 ^

Current element index: 0

Comment: 8 != 4 -> next element

Step 1:

Element to insert: 4

Array: [8,4,2,2,2,1,1]

Current element: 4 ^

Current element index: 1

Comment: 4 = 4 -> place found -> array[1]

Step 2:

Element to insert: 4

Array: [8,4,4,2,2,2,1,1]

Current element: 4 ^

Current element index: 1

Comment: 4 = 4 -> place found -> array[1] = Element to insert = 4

Finished array: [8,4,4,2,2,2,1,1]

Insert 4 into a list:

Step 0:

Head pointer element: [1]

List: [1]->[1]->[2]->[2]->[2]->[2]->[4]->[8]

Current element: ^

Comment: 1 != 4 -> next element

Step 1:

Head pointer element: [1]

List: [1]->[1]->[2]->[2]->[2]->[2]->[4]->[8]

Current element: ^

Comment: 1 != 4 -> next element

Step 2:

Head pointer element: [2]

List: [1]->[1]->[2]->[2]->[2]->[2]->[4]->[8]

Current element: ^

Comment: 2 != 4 -> next element

Step 3:

Head pointer element: [2]

List: [1]->[1]->[2]->[2]->[2]->[2]->[4]->[8]

Current element: ^

Comment: 2 != 4 -> next element

Step 4:

Head pointer element: [2]

List: [1]->[1]->[2]->[2]->[2]->[2]->[4]->[8]

Current element: ^

Comment: 2 != 4 -> next element

Step 5:

Head pointer element: [2]

List: [1]->[1]->[2]->[2]->[2]->[2]->[4]->[8]

Current element: ^

Comment: 2 != 4 -> next element

Step 6:

Head pointer element: [4]

List: [1]->[1]->[2]->[2]->[2]->[2]->[4]->[8]

Current element: ^

Comment: 4 = 4 -> place found

Step 7:

Head pointer element: [4]

List: [1]->[1]->[2]->[2]->[2]->[4]->[8]

Current element: [^]

Comment: 4 = 4 -> place found -> List[6]

Step 8:

Head pointer element: [4]

List: [1]->[1]->[2]->[2]->[2]->[4]->[4]->[8]

Current element: [^]

Comment: 4 = 4 -> place found -> List[6] -> Element to insert = [4]

Finished List: [1]->[1]->[2]->[2]->[2]->[4]->[4]->[8]