

Singly-Linked List

- collection of nodes that form a linear sequence
- each node stores a reference to an obj. that is part of the sequence, as well as a reference to next node of list
- list maintains member named 'head' at front of list
- some lists also maintain a 'tail' for last member
- a list is out of elements when the pointer to the next element returns None/null value

Inserting an Element at Head

- linked lists have no fixed size; uses space proportionally to curr. # of elements
- to insert @ head:
 - create a new node
 - set element to the new element
 - set 'next' link to the previous head
 - then set the list's 'head' to be our new node

PSEUDO
CODE

add-first(L, e):

```

newest = Node(e)    // create new node w/ value
newest.next = L.head // set new node reference to old head
L.head = newest      // set var head to ref. new node
L.size += 1         // increment node ct

```

Insert Element at Tail

- create new node
- assign 'next' pointer to be None
- set 'next' ref of old tail to new node
- update tail ref to new node

add-last(L, e):

```

newest = Node(e)
newest.next = None
L.tail.next = newest
L.tail = newest
L.size += 1

```