

Linked List Cheat Sheet

Inserting data to a Linked List

	SLL	CSLL	DLL	CDLL
LL is empty	head = node tail = node	head = node tail = node node.next = node	head = node tail = node	head = node tail = node node.prev = node node.next = node
Position = 1	node.next = head head = node	node.next = head head = node tail.next = node	head.prev = node node.next = head head = node	head.prev = node tail.next = node node.next = head node.prev = tail head = node
Position = -1	tail.next = node tail = node	tail.next = node tail = node node.next = head	tail.next = node node.prev = tail tail = node	tail.next = node head.prev = node node.prev = tail node.next = head tail = node
Position = n	prv_nd = head cur_nd = head.next for i in range(1, pos-1) prv_nd = prv_nd.next cur_nd = cur_nd.next node.next = cur_nd prv_nd.next = node		prv_nd = head cur_nd = head.next for i in range(1, pos-1) prv_nd = prv_nd.next cur_nd = cur_nd.next node.prev = prv_nd node.next = cur_nd prv_nd.next = node cur_nd.prev = node	
length += 1				

Deleting data from a Linked List

	SLL	CSLL	DLL	CDLL
Empty the LL	head = None tail = None	tail.next = None head = None tail = None	cur_nd = head while cur_nd: cur_nd.prev = None cur_nd = cur_nd.next head = None tail = None	tail.next = None cur_nd = head while cur_nd: cur_nd.prev = None cur_nd = cur_nd.next head = None tail = None
length = 0				
	SLL	CSLL	DLL	CDLL
Position = 1 or -1 head = tail	head = None tail = None	tail.next = None head = None tail = None	head = None tail = None	head.prev = None tail.next = None head = None tail = None
Position = 1	head = head.next	head = head.next tail.next = head	head = head.next head.prev = None	head = head.next head.prev = tail tail.next = head
Position = -1	pos_ub = length if pos == -1 else pos prv_nd = head cur_nd = head.next		tail = tail.prev tail.next = None	tail = tail.prev tail.next = head head.prev = tail
Position = n	for i in range(1, pos_ub-1) prv_nd = prv_nd.next cur_nd = cur_nd.next if cur_nd == tail: tail = prv_nd prv_nd.next = cur_nd.next		prv_nd = head cur_nd = head.next for i in range(1, pos-1) prv_nd = prv_nd.next cur_nd = cur_nd.next prv_nd.next = cur_nd.next if cur_nd == tail: tail = prv_nd else: cur_nd.next.prev = prv_nd	prv_nd = head cur_nd = head.next for i in range(1, pos-1) prv_nd = prv_nd.next cur_nd = cur_nd.next if cur_nd == tail: tail = prv_nd prv_nd.next = cur_nd.next cur_nd.next.prev = prv_nd
length -= 1				