Linked List

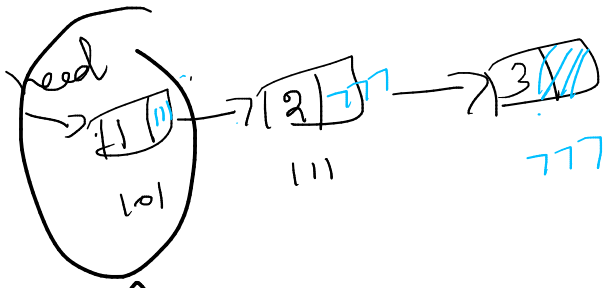
DS

Suitable container

int a=10;

double d=17.5;

char c='a';



node

(class node)

int value;

Node next

};

1) value

2) address of next element

"Inventor"

Array

Homogenous

Predefined

int [] = {10, 20}

char [] = {'w', 'o', 't'}

array

arr[3]

access → O(1)

[1, 2, 3, 5]

[1, 2, 7]

[1, 2, 7, 5]

Any main element X

insert at middle O(n)

deletion O(n)

Search → (Log n)

LL

1) Head → 3 times

→ O(1)

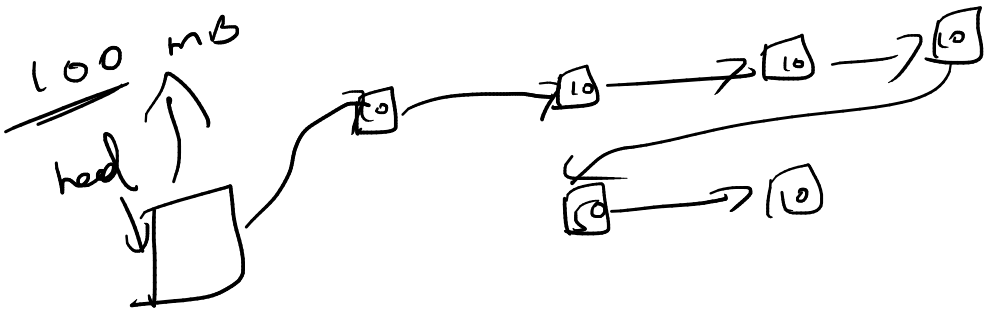
Dynamic elements

O(creation) O(1)

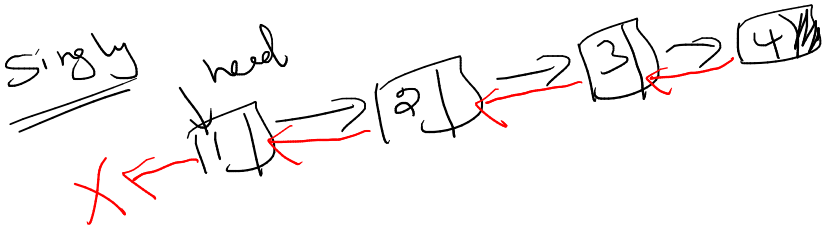
O(creation) O(n)

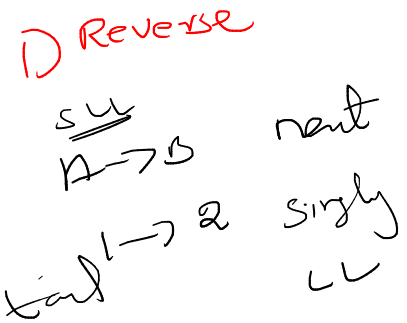
Tree DLL → explain TL

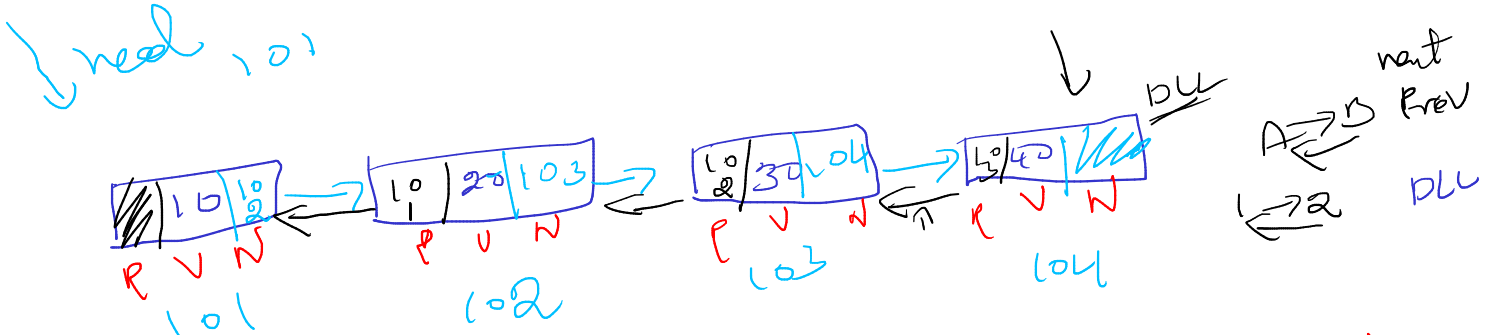
Memory Linked List

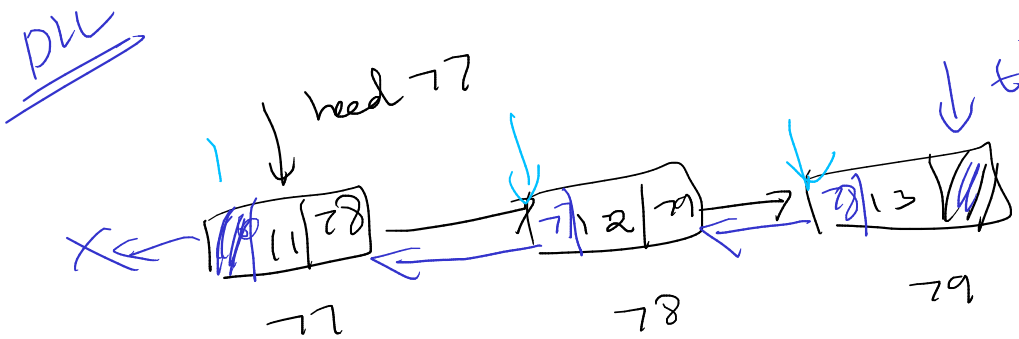


DLL









{ int val
Node* prev
Node* next
}

node next
Node pre