

# DSA

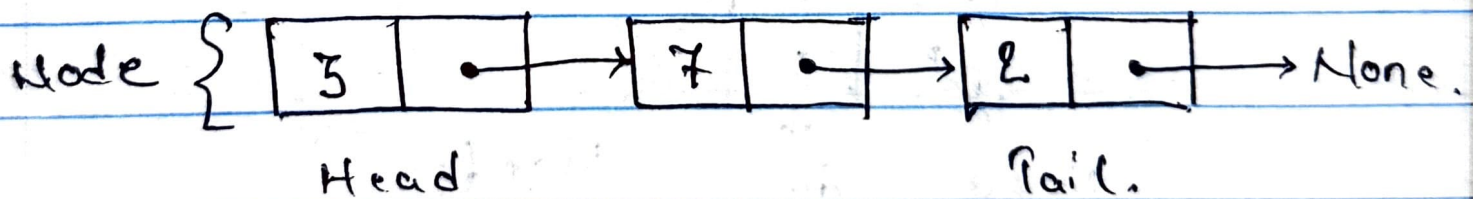
In array there are total 4 operations.

- Insert.
- Update/Access.
- Delete
- Search.

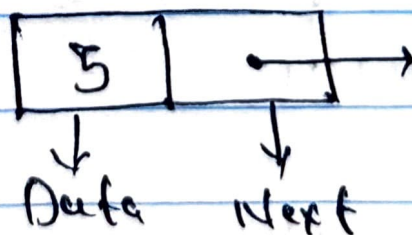
→ The ~~time~~ complexity of each operation

- Insert  $O(n)$
- Search  $O(n)$
- Delete  $O(n)$
- Access  $O(1)$

## → Linked List



→ Each list is connected with pointer

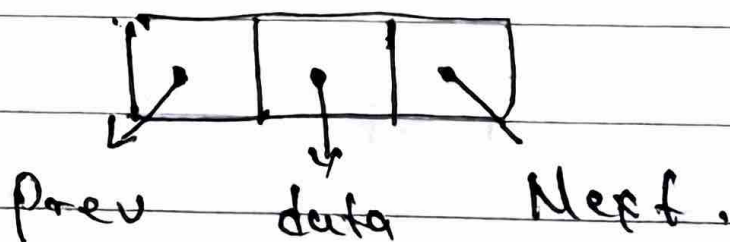
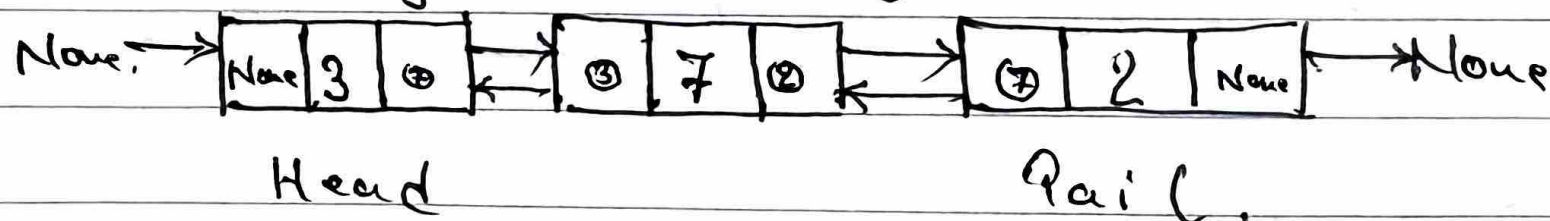


→ Each data is converted into Node.

- The last Node points to 'None'
- In memory block each data is store into 8 memory block. 4 is for data and 4 is for next.

head.value is going to be data and head.next is going to be the address of next value.

- Singly and doubly are two types.
- Doubly :-



\* Linked List operations.

i) Access  $O(n)$

ii) Search  $O(n)$

iii) Insert  $O(1)$

iv) Delete  $O(1)$