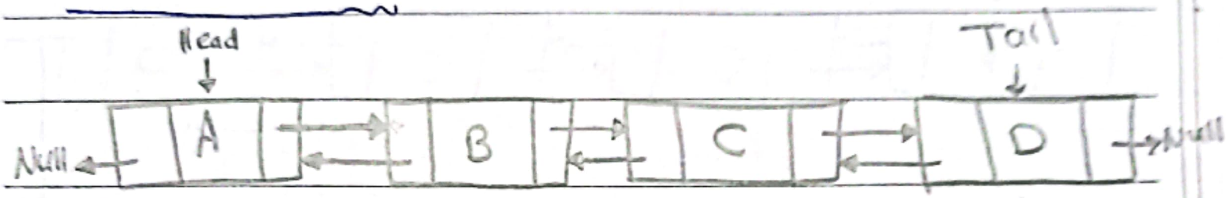
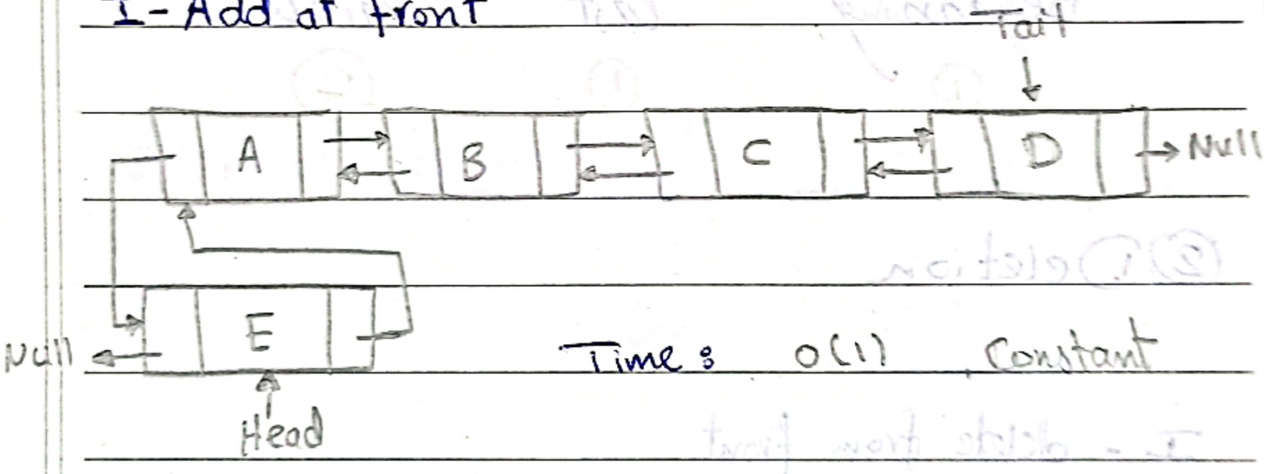
SEC: 2 , BN: 13 محمد السيد عيد

* Doubly linked list



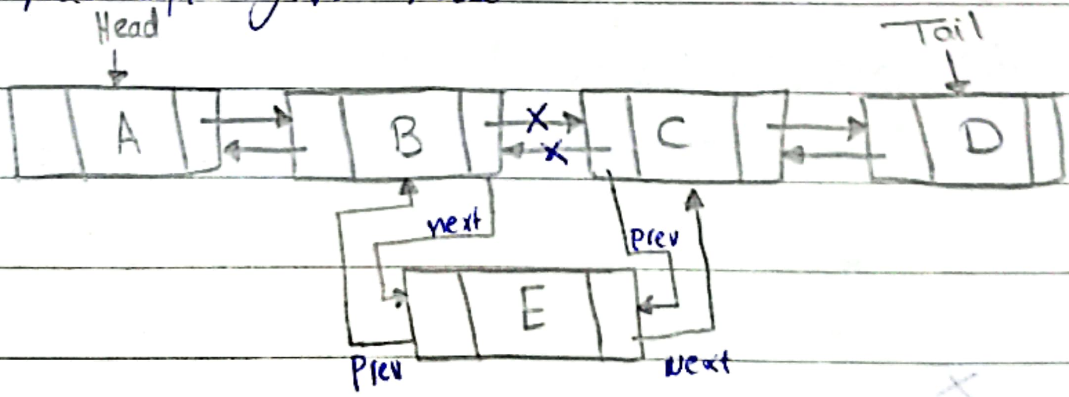
1] insertion :

I- Add at front



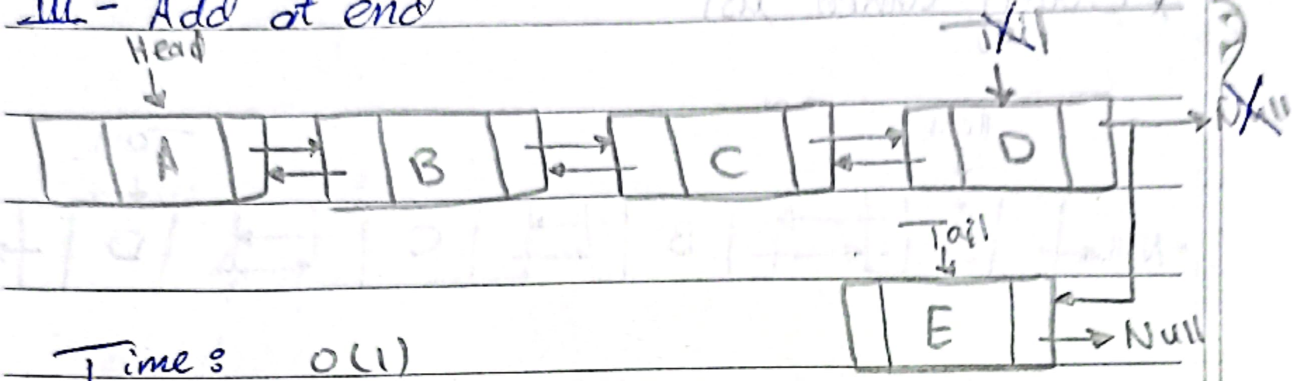
Time : O(1) Constant

II- Add after given node



Time : O(n)

III- Add at end



Time: O(1)

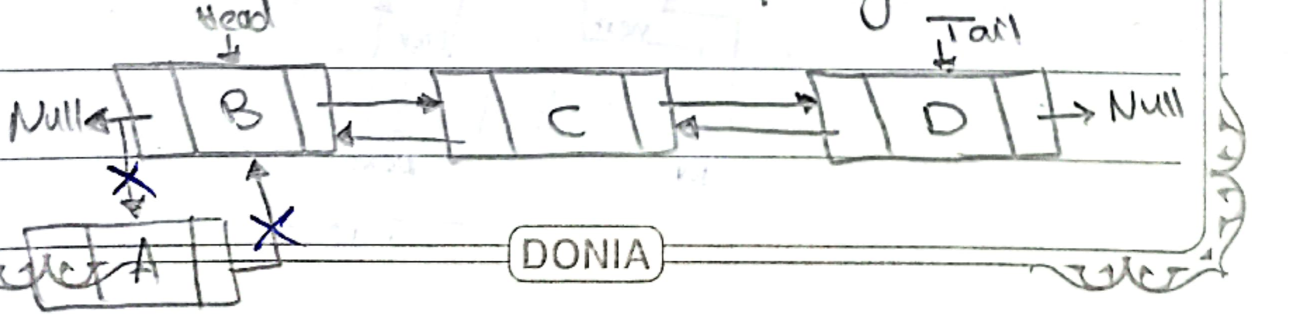
Easiest for insertion

beginning ① last ① middle ②

② Deletion

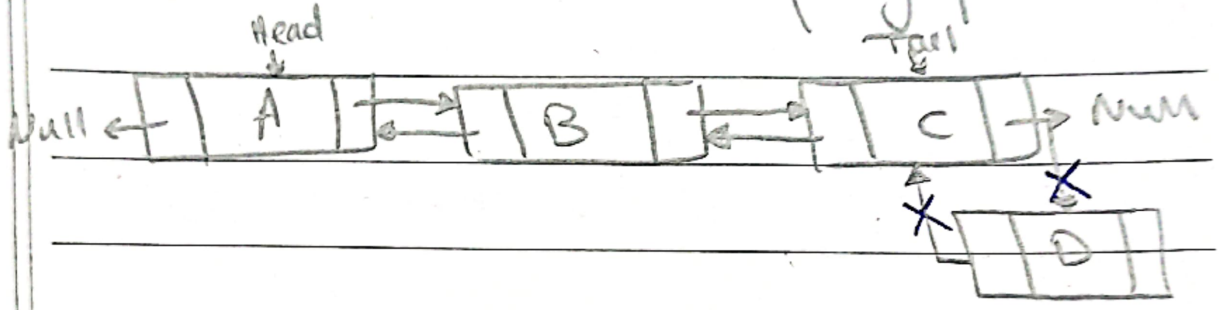
I - delete from front

① Create aux pointer points to Head
② Head will point to head.next
③ previous of Head will be Null
④ Delete first node "Temporary pointer"

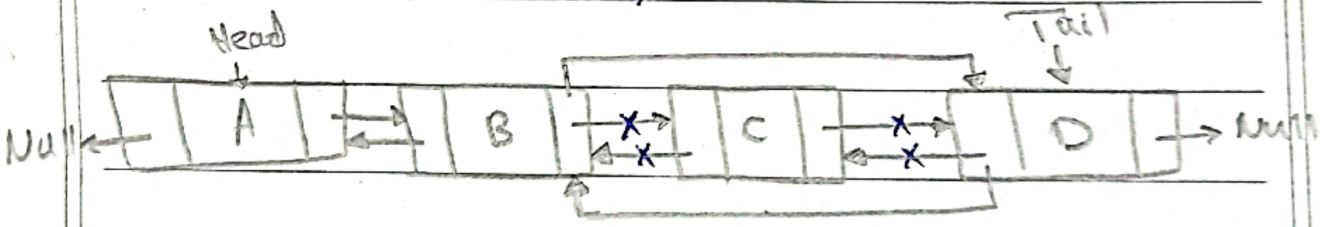


II - delete from last

① create aux pointer points to tail
② tail will point to tail.prev
③ next of tail will be Null
④ delete last Node "Temporary pointer"



III - delete at middle:



① Creat aux pointer points to deleted node
② prev of deleted node will be previous of node.next
③ next of deleted node will be next to node.prev
④ delete node

beginning ① middle ② last ①