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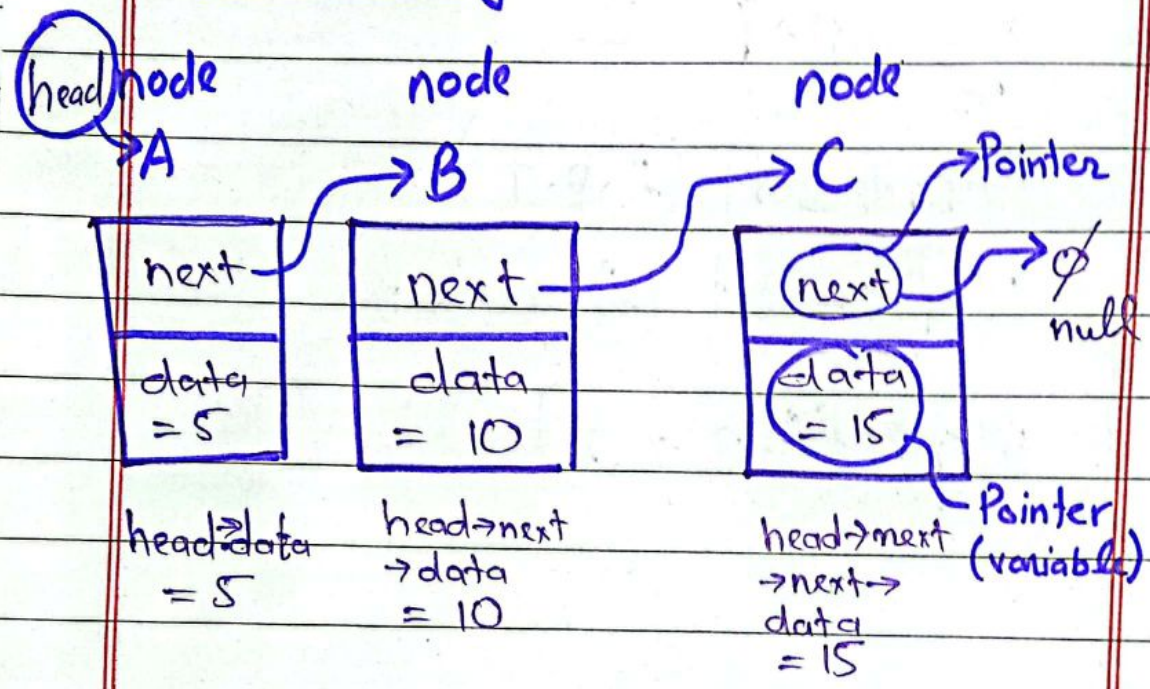
Linked List

Head Only:



- Head points to the first node, entry point for traversal or adding a node to the begining.
- Next pointers in each node ~~has~~ points to the next node if there is no next node then it points to null

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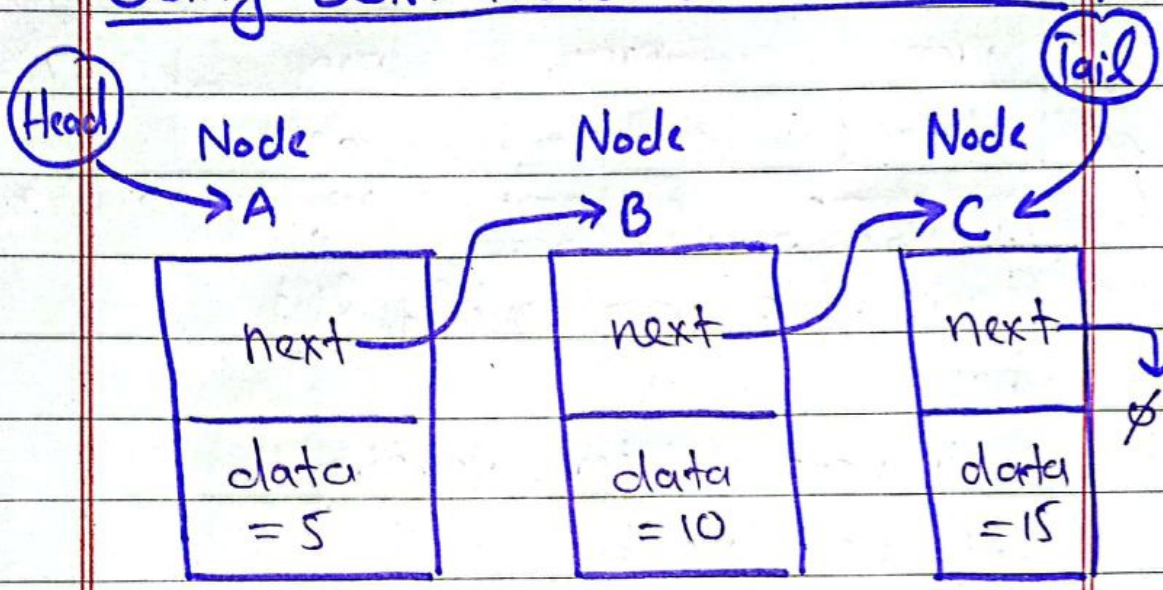
- If there is no node in the list then Head points to null.

Using Both Head & Tail Pointers:



- Having a tail pointer makes it easier to add to the node at end of the list
- But to add a node anywhere in the middle of the list you will still have to traverse through the list. and would have to keep track of the previous node.

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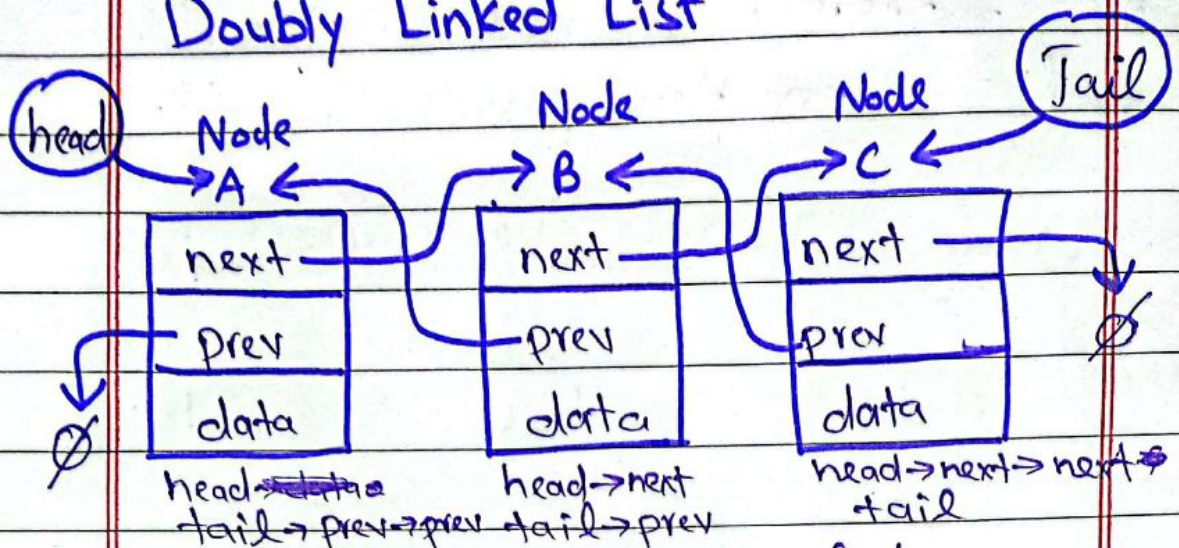
Doubly Linked List



- Each node in a doubly list has
  - → a next pointer, pointing to the next node
  - → a previous pointer, pointing to the previous nod
  - → and a data variable.

- The previous node makes it easier to insert a node anywhere in the middle of list as you would not have to keep track of the previous node.

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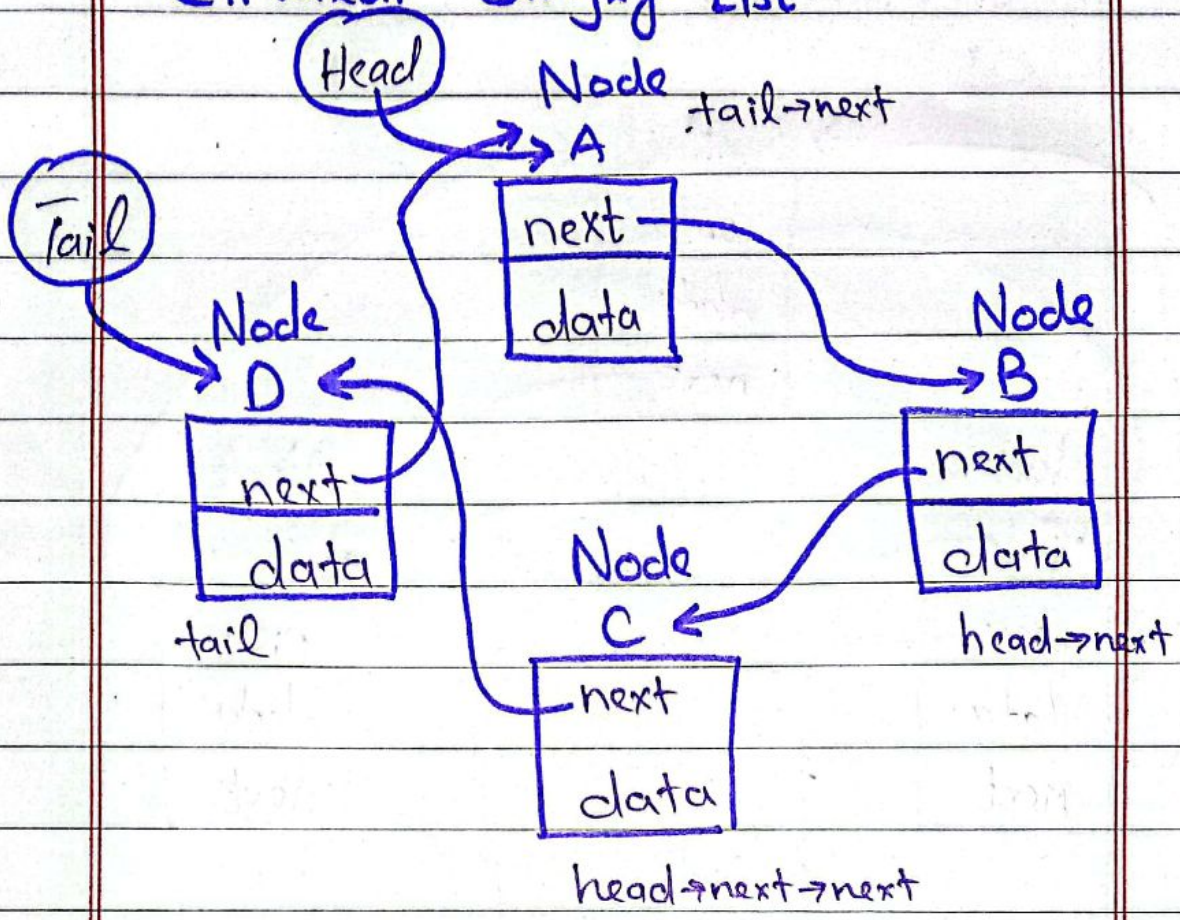
Circular Singly List



- Similar to singly list but the last node (tail) next pointer points to ~~null~~ head instead of null forming a Circular Relation.

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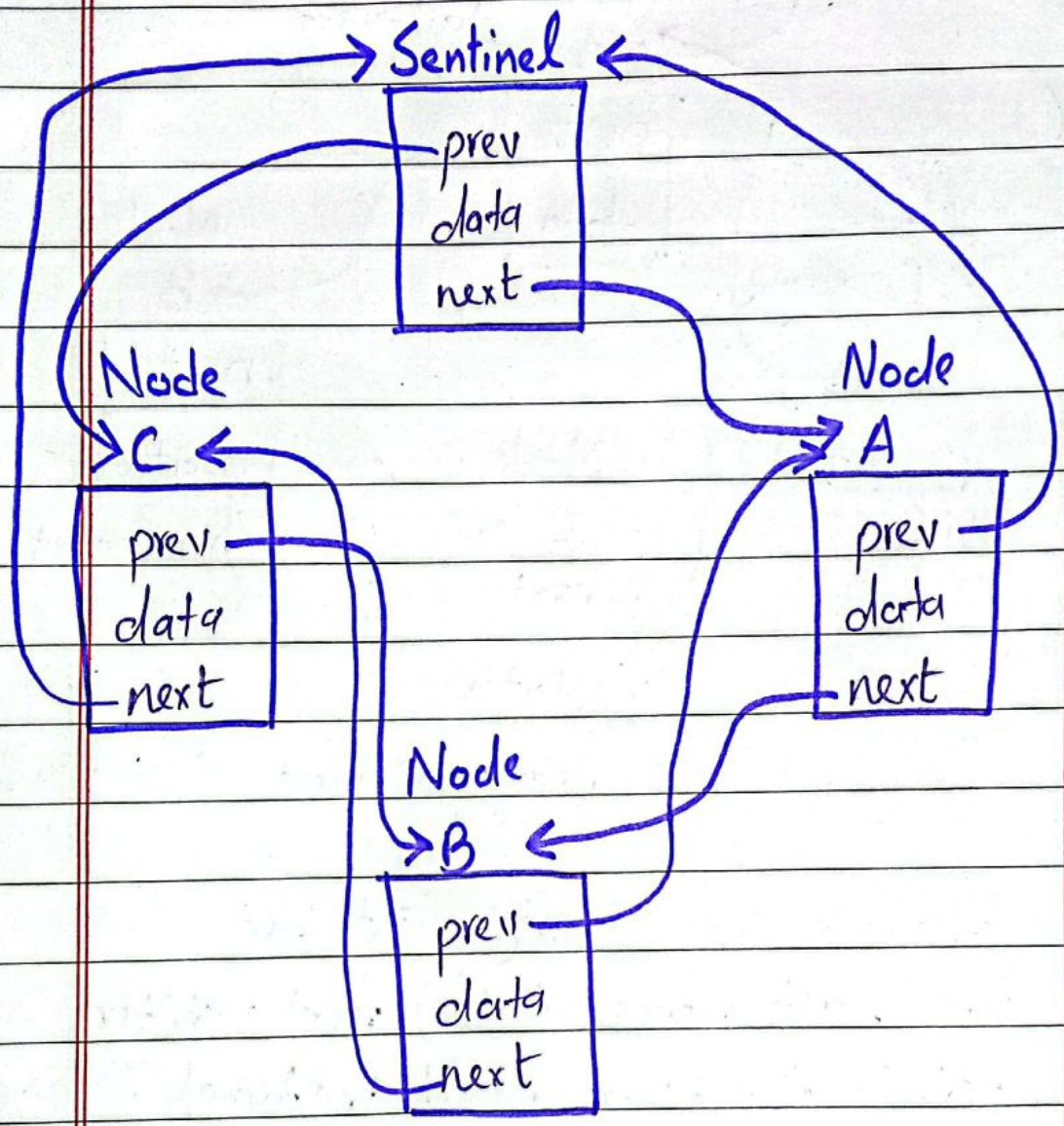
Circular Doubly List



- In this list we use sentinel also called a dummy node instead of head and tail pointers.

- The sentinel will always

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exist even when the list is empty.

- Sentinel→next points to the first node and sentinel→prev points to the last node.