

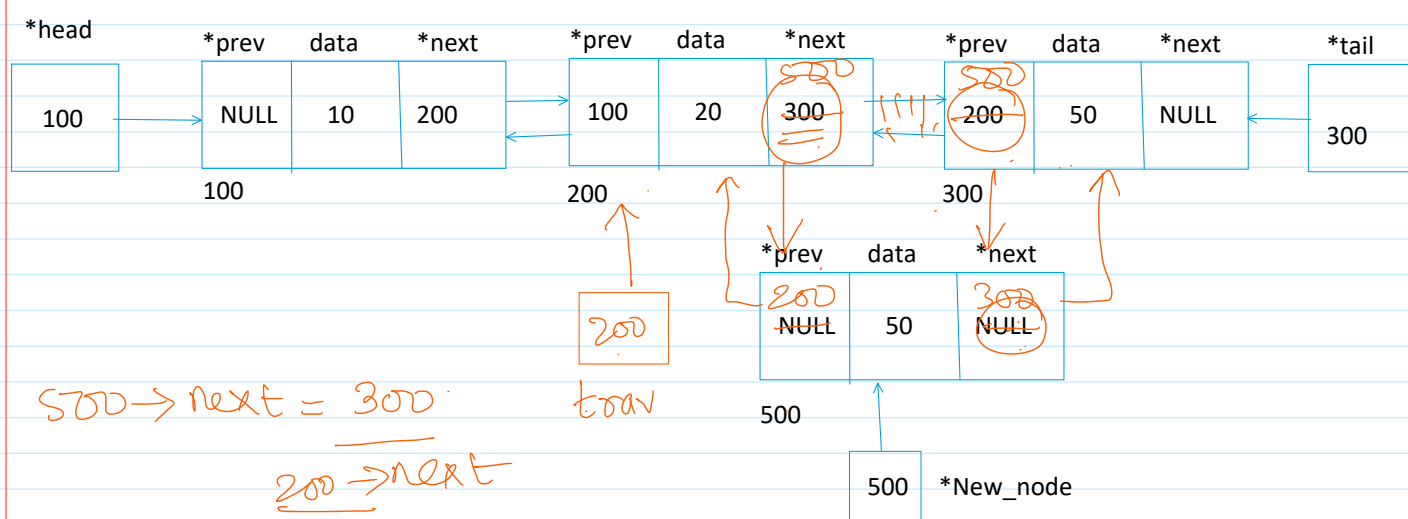
if (head == NULL) \rightarrow list is empty.

if (pos == 1) \rightarrow add-first()

if (pos == countnodes() + 1) \rightarrow add-last()

if (pos < 1 || pos > countnodes() + 1) \rightarrow invalid pos.

pos = 3.



① traverse till pos-1.

300 \rightarrow prev = 500

② Create a forward connection
betⁿ newnode and position node.
newnode \rightarrow next = trav \rightarrow next.

③ Create a backward connection
betⁿ newnode and pos-1
newnode \rightarrow prev = trav;

④ Create a backward connection
betⁿ position node and newnode.
trav \rightarrow next \rightarrow prev = newnode.

⑤ Create a forward connection

$trav \rightarrow next \rightarrow prev = newnode$

- ⑤ Create a forward connection
between pos-1 node and newnode.
 $trav \rightarrow next = newnode$.