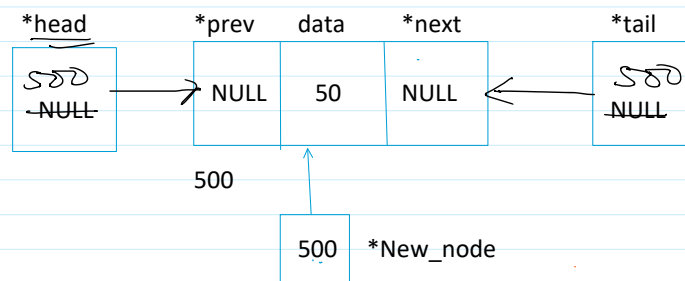
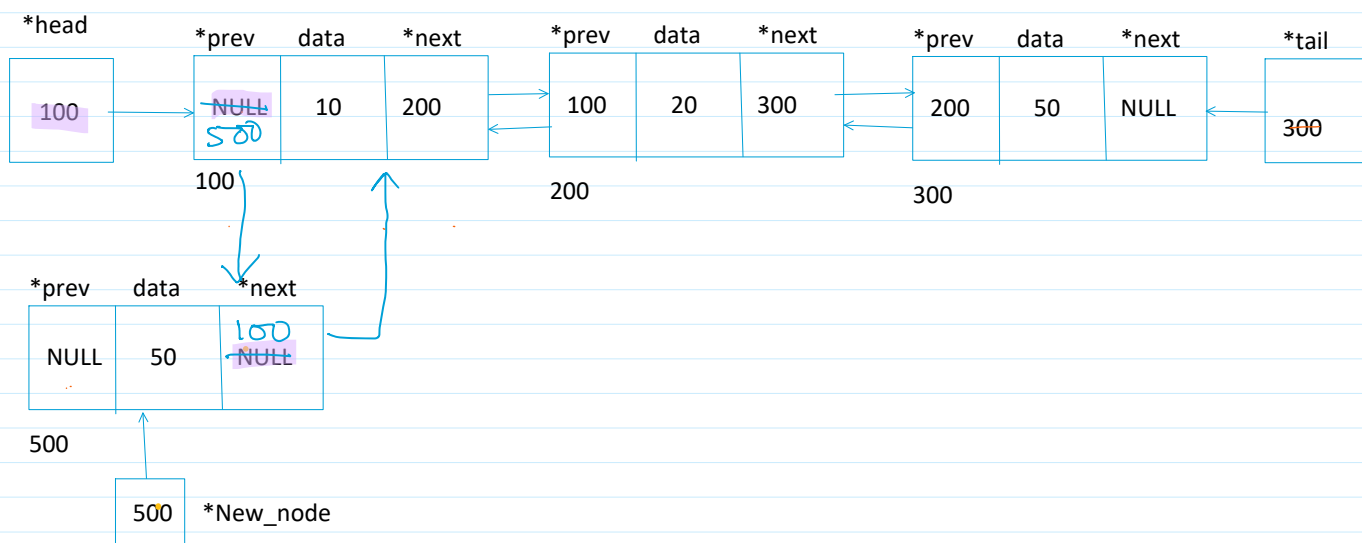


a) $\text{if}(\text{head} == \text{NULL})$
 $\{$
 $\text{head} = \text{newnode};$
 $\text{tail} = \text{newnode};$
 $\}$



- ① Create a node
- ② update the data field.
- ③ Attach.



1) Create a forward link between the new node and the first node.

$\text{New_node} \rightarrow \text{next} = \text{head};$

2) Create a backward link between the first node and the new node.

$\text{Head} \rightarrow \text{prev} = \text{new_node};$

3) Update the head pointer to point to the new node.

$\text{Head} = \text{new_node};$