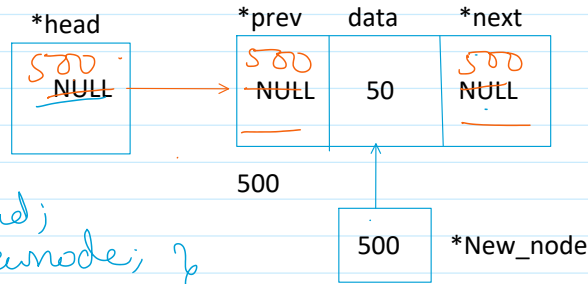


① Create node.

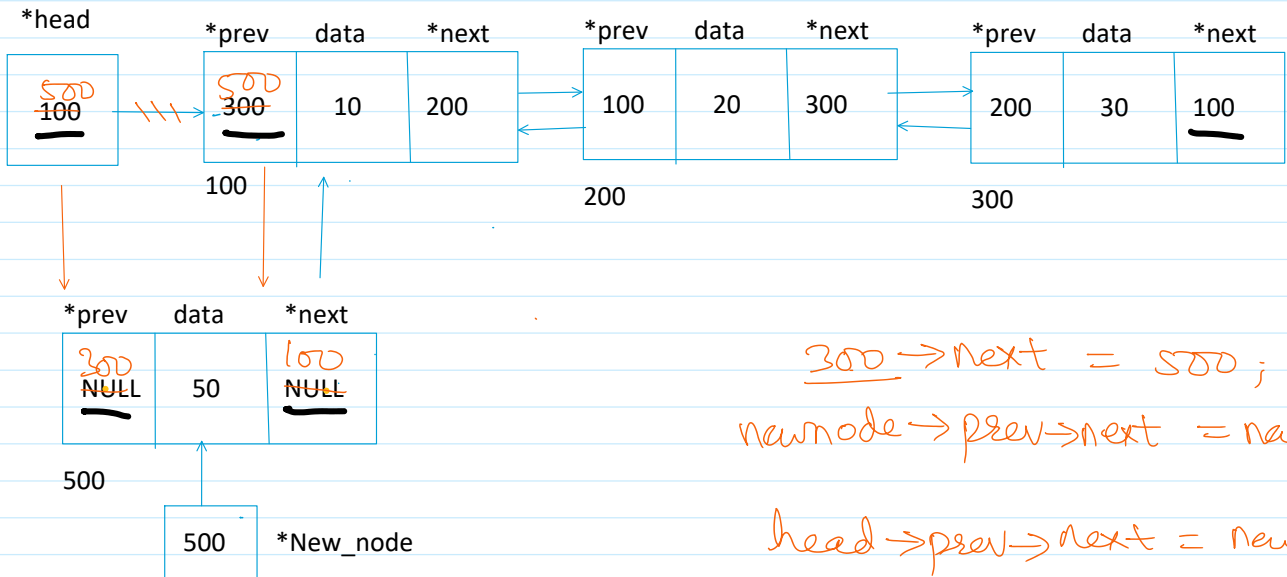
② Attach.

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

$\text{newnode} \rightarrow \text{next} = \text{head};$
 $\text{newnode} \rightarrow \text{prev} = \text{newnode}; \}$



b)



$300 \rightarrow \text{next} = 500;$
 $\text{newnode} \rightarrow \text{prev} \rightarrow \text{next} = \text{newnode};$

$\text{head} \rightarrow \text{prev} \rightarrow \text{next} = \text{newnode};$

① Attach newnode to 1st node

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

② Attach the newnode to last node.

$\text{newnode} \rightarrow \text{prev} = \text{head} \rightarrow \text{prev};$

③ Attach the 1st node to newnode.

$\text{head} \rightarrow \text{prev} = \text{newnode};$

④ Attach the last node to newnode.

$\text{newnode} \rightarrow \text{prev} \rightarrow \text{next} = \text{newnode};$

⑤ update the head pointer.

$\text{head} = \text{newnode};$