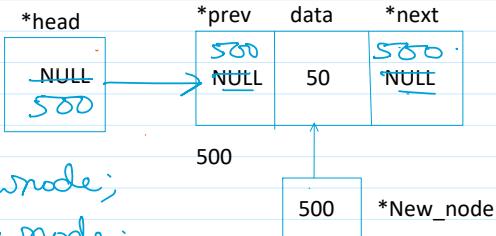


a) if $\text{head} = \text{NULL}$

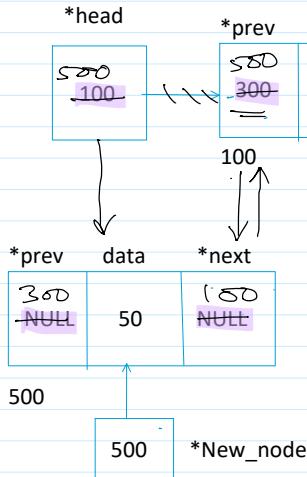
{
 $\text{head} = \text{newnode};$

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

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



- ① Create
- ② update the data
- ③ attach.



① $500 \rightarrow \text{next} = 100;$

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

② $500 \rightarrow \text{prev} = 300;$

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

③ $300 \rightarrow \text{next} = 500;$

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

④ $100 \rightarrow \text{prev} = 500;$

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

⑤ $\text{head} = 500;$

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