

①

Program - 1

i) Insert at beginning.

create new node:-

new-node  $\rightarrow$  value = data.

// insert data

if the first node is ~~to~~ be insertednew-node  $\rightarrow$  npx = XOR (head, NULL)  
 $\hookrightarrow$  null initially.

// if node already existed.

P = XOR the head  $\rightarrow$  npx with NULL.

and update npx. of head

head  $\rightarrow$  npx = XOR (new-node, P).

at the end update new-node as head.

ii) insert at the end.

Create new node and insert data

if its the first node that is ~~insert~~ inserted.new-node  $\rightarrow$  npx = XOR (head, NULL)  
and make it head.

Rutagant.



(2)

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else

run a traverse loop till ~~curr~~ prev  
 $\text{XOR}(\text{prev}, \text{curr} \rightarrow \text{next}) \neq \text{NULL}.$

where

$\text{next} = \text{XOR}(\text{prev}, \text{curr} \rightarrow \text{npx})$

$\text{prev} = \text{curr}$

$\text{curr} = \text{prev}$

update  
and

$\text{new\_node} \rightarrow \text{npx} = \text{curr}.$

$\text{curr} \rightarrow \text{npx} \rightarrow \text{XOR}(\text{prev}, \text{new\_node}).$

Rutzeit