

DSA through C++

Doubly linked list

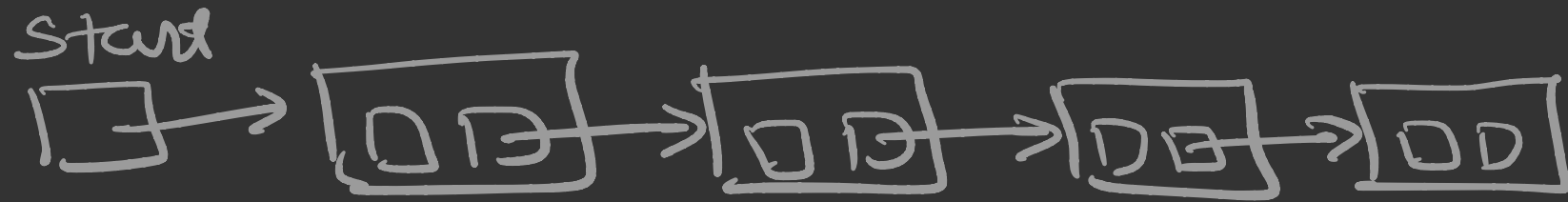


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Agenda

- ① Shortcomings of singly linked list
- ② Doubly linked list
- ③ node
- ④ insertion
- ⑤ deletion

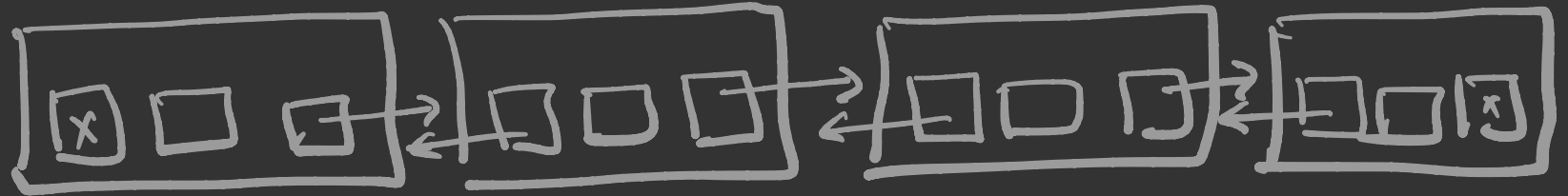
Shortcomings of Singly linked list



In SLL, you can move only in the forward direction

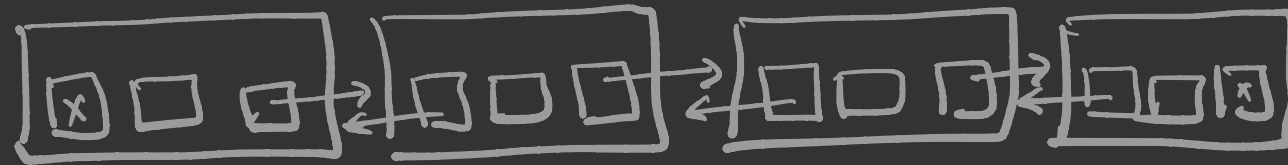
Doubly linked list

Start



node

Start

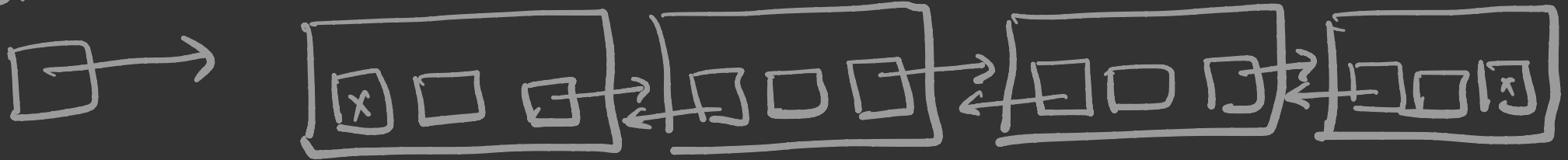


```
struct node
{
    node *prev;
    int item;
    node *next;
};
```



Insertion

Start

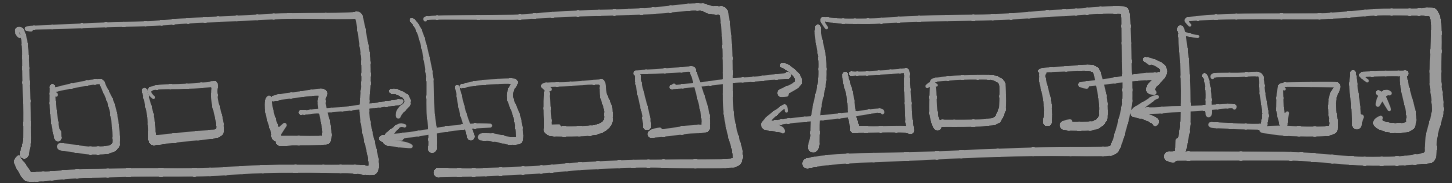


Insertion

- ① At First
- ② At Last
- ③ After a node

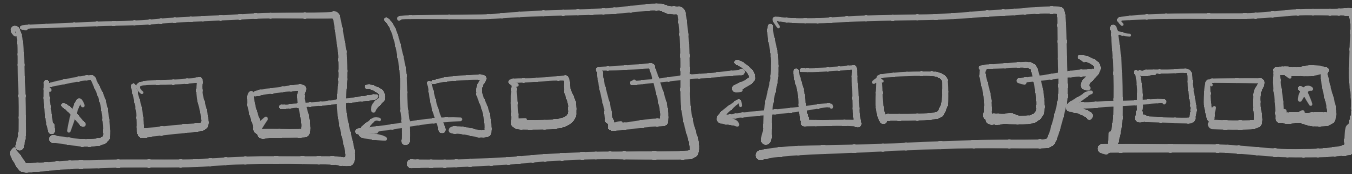
Insert as a first node

Start

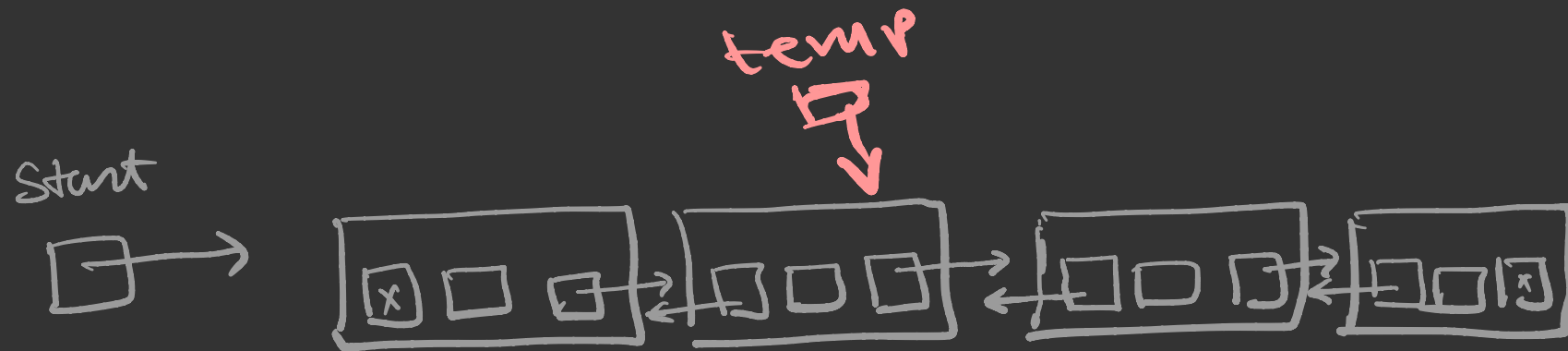


Insert at last

Start



Insert After a node



Deletion

- ① Delete first Node
- ② Delete Last Node
- ③ Delete specific node

