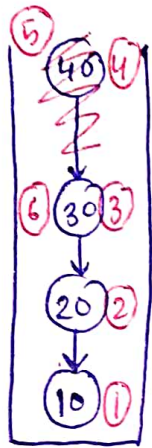


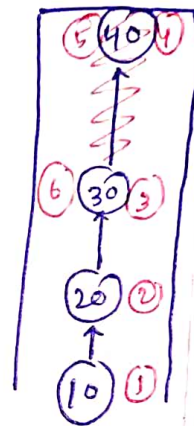
## ① Linked list to Stack Adapter

Issme hume linked list ko adapt krengy aur Stack jaisa bana dengy!

Stack  $\left\{ \begin{array}{l} \text{push} \\ \text{pop} \\ \text{Top} \\ \text{Size} \end{array} \right\}$  These functions have to adapted in linked list



① push 10  
addfirst  $\rightarrow$  ② push 20  $\rightarrow$  addlast  
addfirst  $\rightarrow$  ③ push 30  $\rightarrow$  addlast  
addfirst  $\rightarrow$  ④ push 40  $\rightarrow$  addlast  
removefirst  $\rightarrow$  ⑤ pop  $\rightarrow$  remove last  
get first  $\rightarrow$  ⑥ top  $\rightarrow$  get last



Mumne addlast, remove last, get last wala use nahi kiya kuki humne jis style me krey hai usme remove last  $O(n)$  nahi hai! Par Java ke style me remove last  $O(n)$  hota hai!

∴ Stack me ek hi end me insertion aur deletion hoti hai!

```
public static class LLToStackAdapter {
    LinkedList<Integer> list;
```

```
    public LLToStackAdapter() {
        list = new LinkedList<>();
```

```
    }
```

```
    int size() {
        return list.size();
```

```
    }
```

```
    int pop() {
        if (size() == 0) {
            Syso("Stack Underflow");
            return -1;
        }
        else {
            return list.removeFirst();
```

```
        }
```

```
    void push(int val) {
        list.addFirst(val);
```

```
    }
```

```
    int top() {
        if (size() == 0) {
            Syso("Stack Underflow");
            return -1;
        }
        else {
            return list.getFirst();
```

```
        }
```

```
    }
```