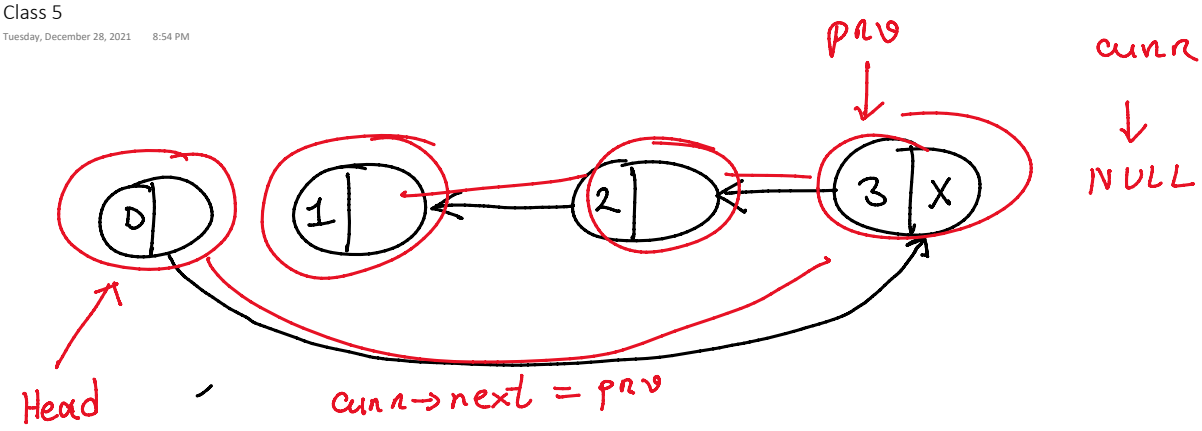
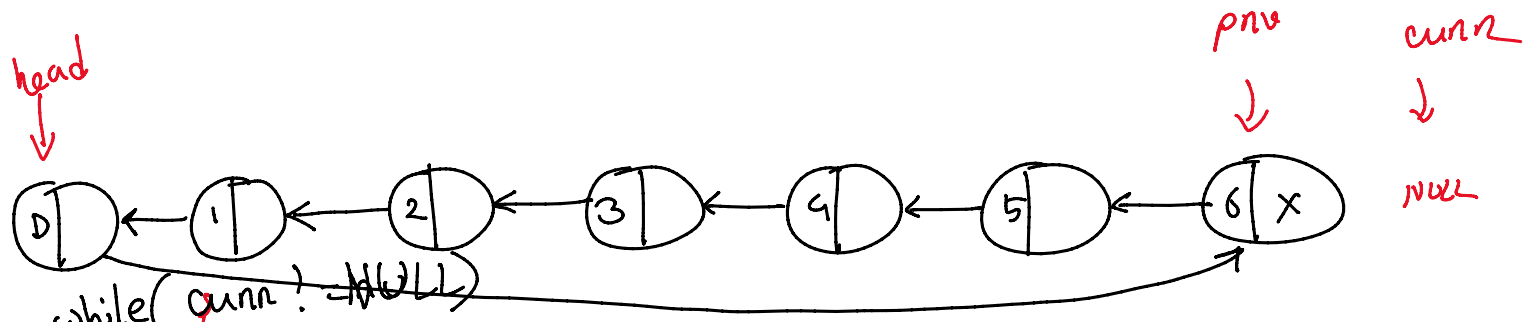
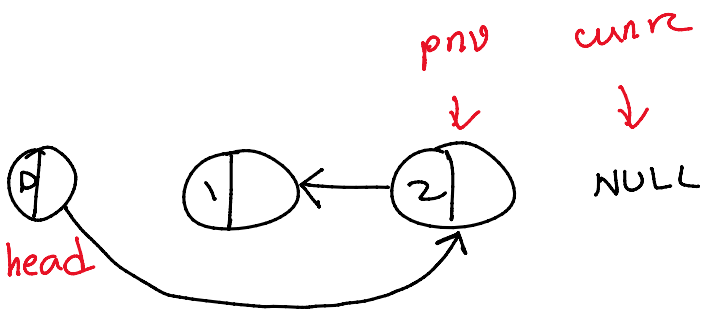
Class 5

Tuesday, December 28, 2021 8:54 PM







prv = NULL

curr = head->next

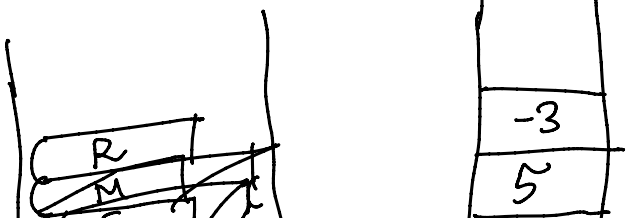
nxt = curr->next

4 + 20 + 6 = 30B

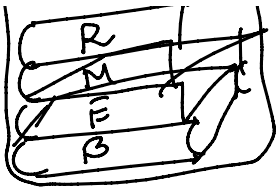
3 X 20 = 60B

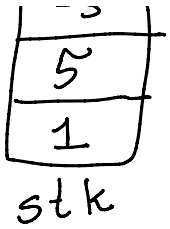
— o —

Stack / Queue → DS (Linear)



1) stack-এ push করা O(1)
2) stack এর top element check O(1)
3) stack থেকে pop করা O(1)
4) stack এর size O(1)

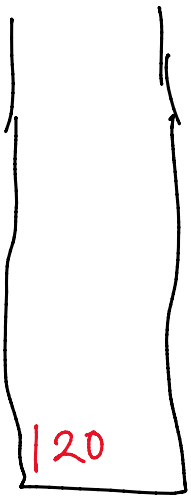




stk

3) stack থেকে pop করা O(1)

4) stack এর size O(1)



Recursion ⟶ Stack

$f(5) = 5 \times f(4) = 120$

$f(4) = 4 \times f(3)$

$f(3) = 3 \times f(2)$

$f(2) = 2 \times f(1)$

$f(1) = 1 \times f(0)$

((((()))) ⟶ balanced

(()()) ⟶ balanced

0 1 2 3 4 5

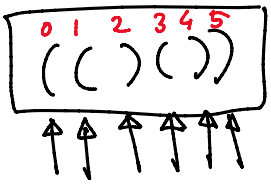
(() ⟶ imbalanced

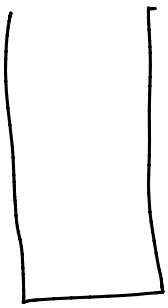
))((⟶ imbalanced

(()()(⟶ imbalanced

$O(N^2)$

$O(N)$





log

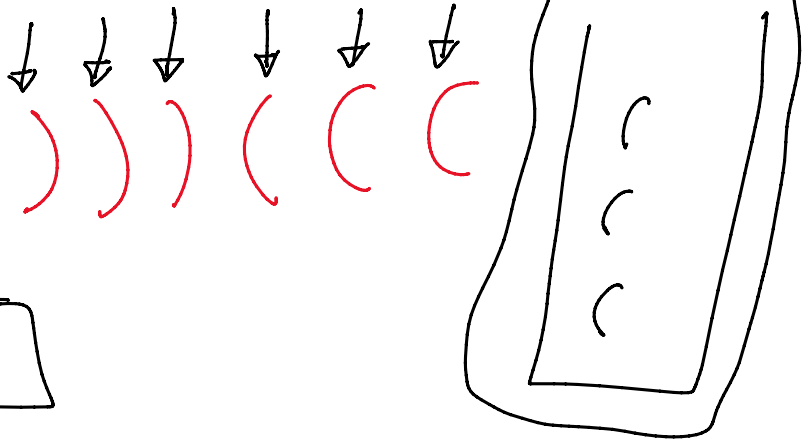
Sb←aj←kizx←←b

| b |

sakib

$O(N^2)$

$N \times N = N^2$



open = 3