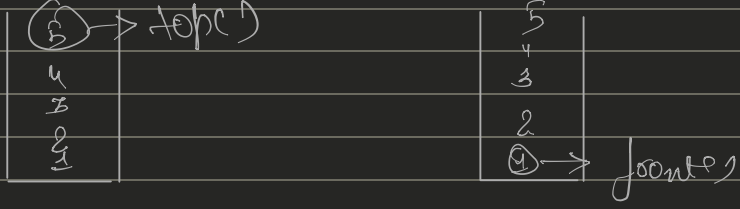
Stack Using Queue's

LIFO

FIFO



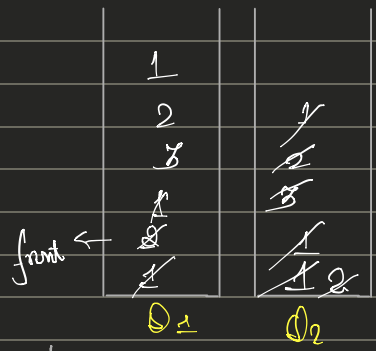
(M-1) -> Using 2 Queues

(i) Push (x)

(a) -> push x to Q_2

(b) -> $\Sigma Q_1 \rightarrow Q_2$

(c) -> $\Sigma Q_2 \rightarrow Q_1$



(ii) -> pop() -> Q_1 front()

-> will give you top of stack

(iii) -> top()

push(1) ✓

push(2) ✓

top() -> 2

push(3) ->

Push

TC -> O(n)

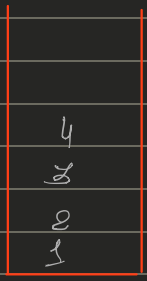
Pop & Top

TC -> O(1)

Space -> O(n)

(M-2) -> Using One Queue ->

push(1)
push(2)
push(3)
push(4)



=> push()

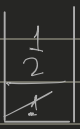
(i) -> Q -> push(x)

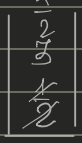
(ii) -> loop -> (size-1)

-> temp = Q.front()

-> Q.pop()

-> Q.push(temp)





=> Pop() / pop()

-> top = front()