Class 6

Monday, January 10, 2022 7:59 PM

Queue

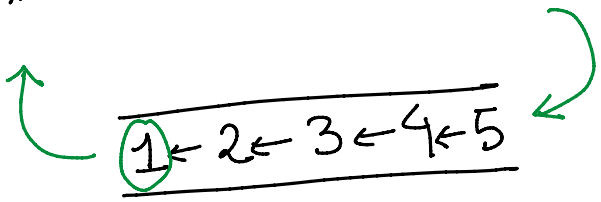
FIFO

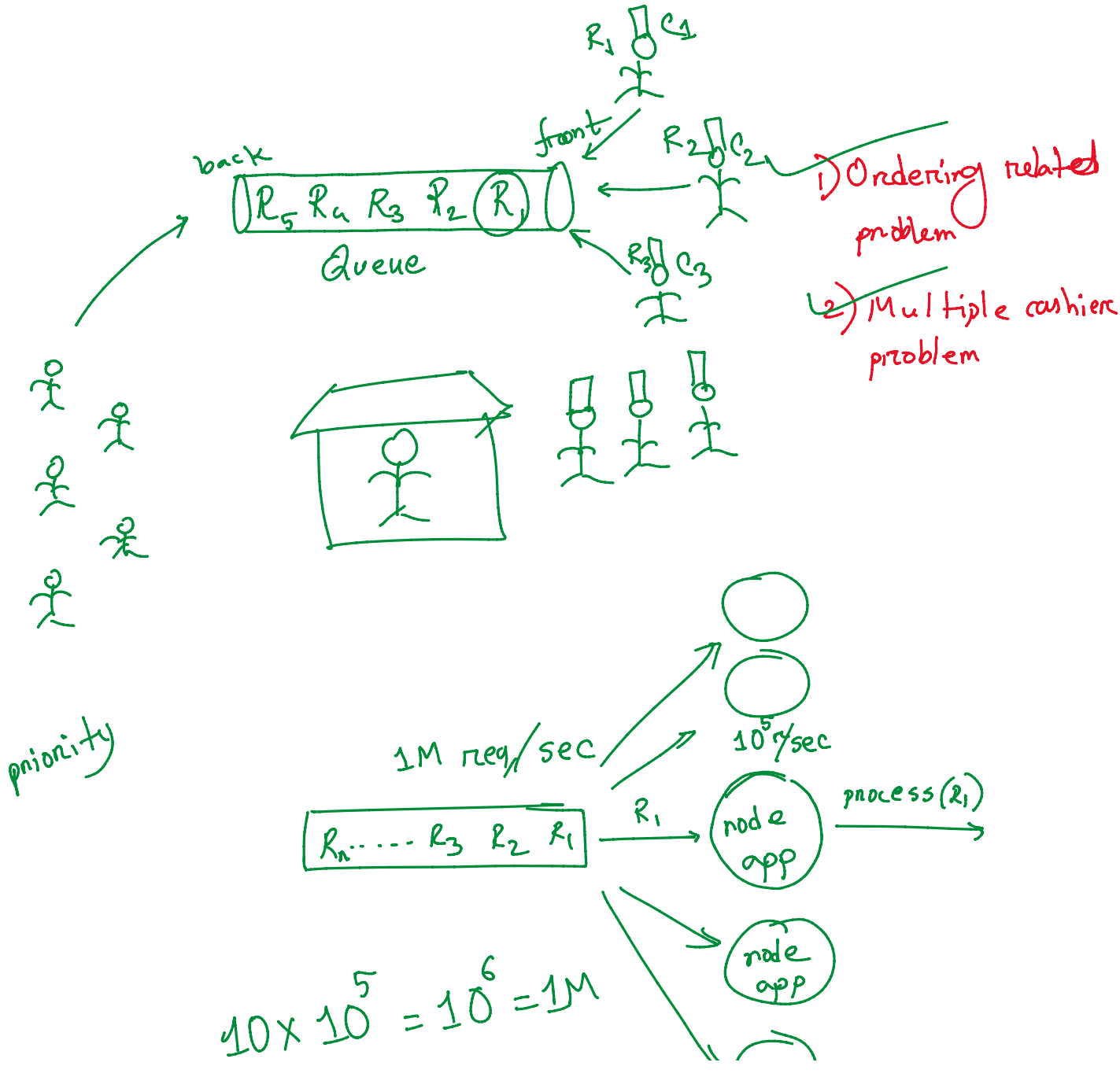
First In First Out

Stack

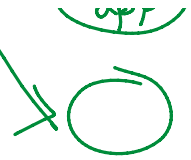
LIFO

Last In First Out



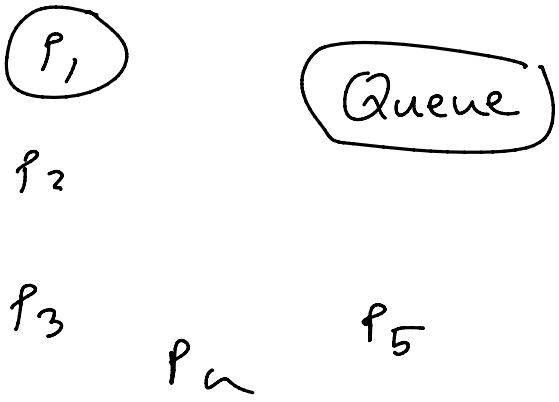


$10 \times 10^{5} = 10 = 1^{5}$



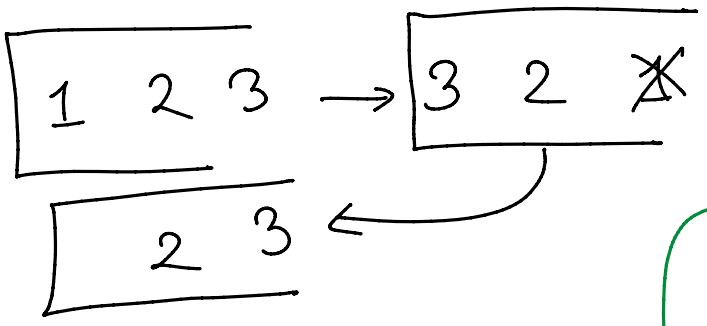
—o—

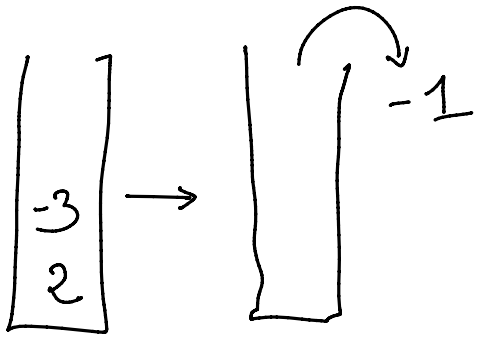
2) Task Scheduling



3) Implement Queue using Stack

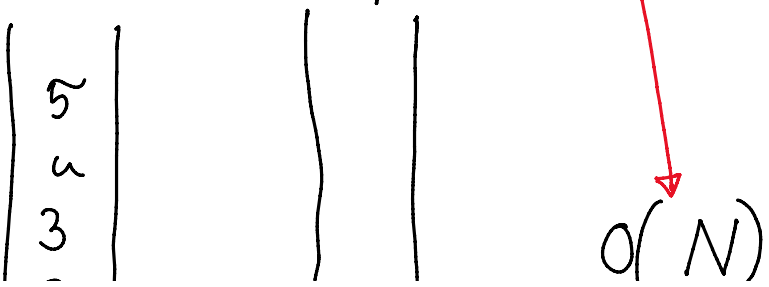
4) Implement Stack using Queue

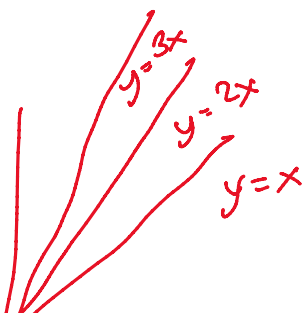


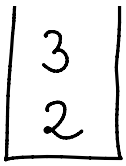


top()/front()
pop()
size()
push()
O(1)
constant

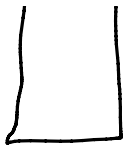
Q using S
push → O(1)
top()→front()





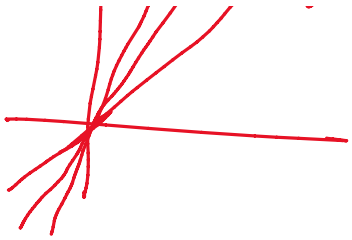


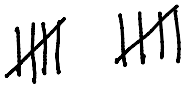
Q

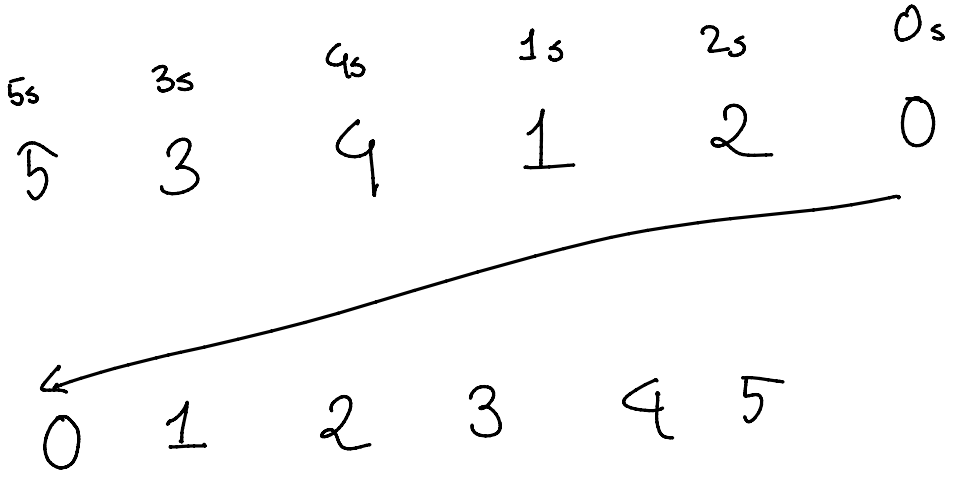


Q

O(N)







Sleep sort

1 2 3 4 : - - -

1 2 1 2 1 1 2 3 1 2 3