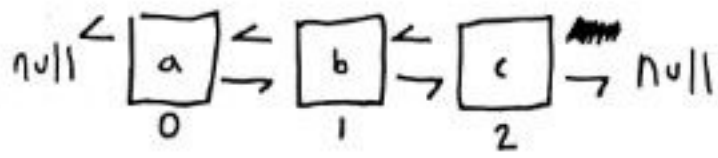
Stacks Qs - A2

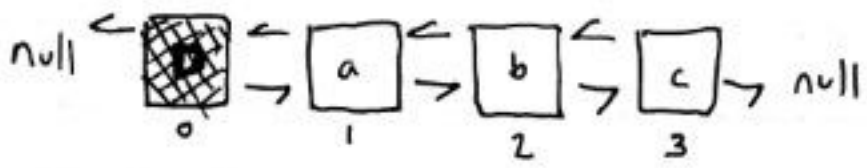
NAZARI

R 16.2

Before



After

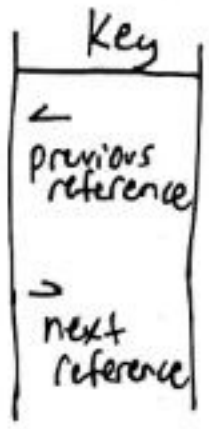


addFirst

node 'a's previouse

now points to new

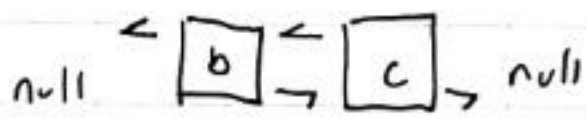
node 'D'



Before

same as above for addFirst

After



removeFirst

node 'b's previous

now points to

null

R 16.3 $O(n^2)$, $O(n^2)$

R 16.4 $O(n)$, $O(n)$

R 16.16 $O(n)$

R 16.16

a) much more efficient, very efficient actually. Worst complexity is $O(9)$ or something

b) need to store an array for every 10 nodes which must be made then updated and so forth

R 16.20 $O(1)$, $O(1)$,

R 16.21 $O(n)$ fore last methods, $O(1)$ for first methods; $O(1)$, $O(1)$; $O(1)$, $O(1)$

R 16.24 Pop elements from one stack then push onto the other: $O(n)$

R 16.25 Split the stack in half then put each through the ques: $O(n)$