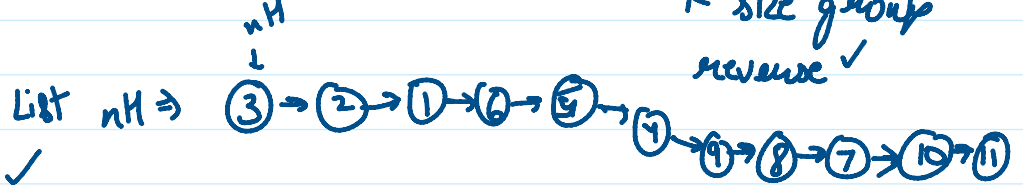
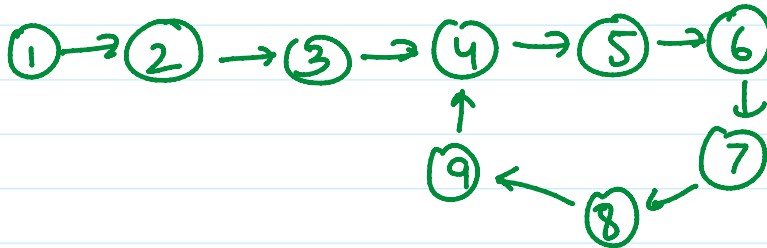
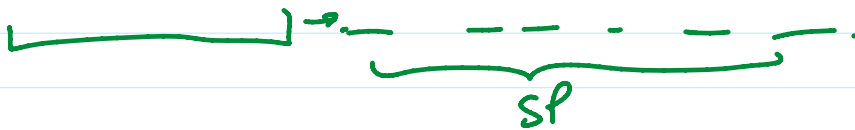


1)



Stack is used to reverse k sized groups

2)



Sum??

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$$l = 6$$

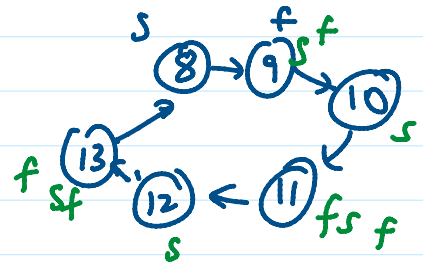
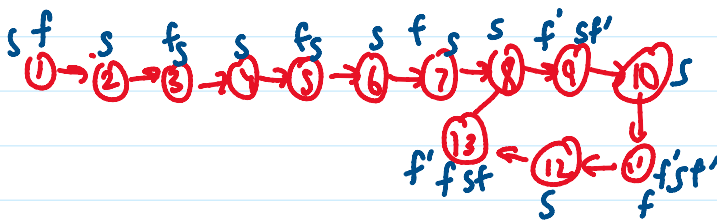
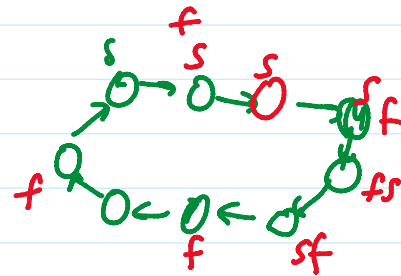
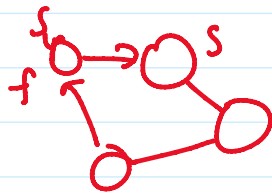
$$f = 2s$$

$$a + x = c \cdot l - x$$

$a \rightarrow$  linear  
 $x \rightarrow$  loop start  
 in pt  
 $l \rightarrow$  loop length

$$\frac{f \cdot l}{x} = \frac{2s \cdot l}{x}$$

$$a + (k \cdot l) + x = 2(a + x + \frac{x}{2} \cdot l)$$



$$a + (k \cdot l) + x = 2(a + x + \frac{x}{2} \cdot l)$$

$$a + k \cdot l + x = 2a + 2x + 2k \cdot l$$

$$a + x = k \cdot l - 2k \cdot l$$

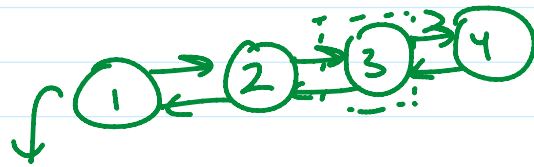
$$a + x = (c - 1) \cdot l$$

$$c = k - 2k'$$

$$a = (c - 1) \cdot l + (l - x)$$

head, tail

addLast  $\rightarrow O(1)$



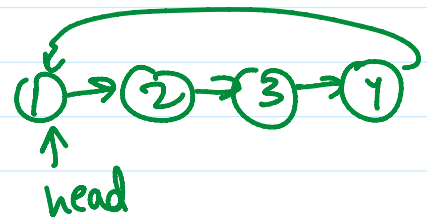
LRU Cache  
 $\hookrightarrow$  DLL  
 $\hookrightarrow$  Hashmap

Node {  
int d;  
Node Next;  
}



head

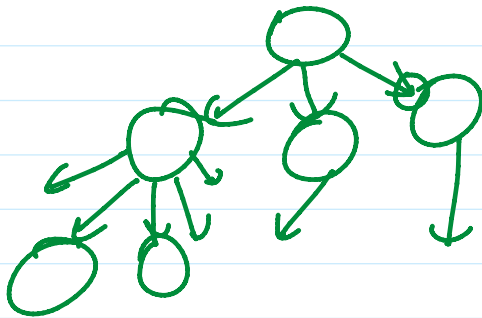
addLast  $\rightarrow O(n)$



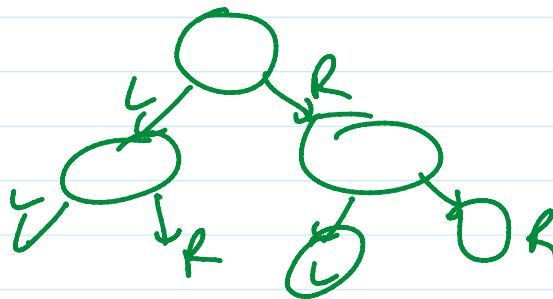
APP3  
☐

APP4 APP2  
☐ ☐

Linear



C:  
 $\hookrightarrow$  Windows  $\sqrt{E}$   
 $\hookrightarrow$  Program Files  $\sqrt{E}$   
 $\hookrightarrow$  Study Material (2006B)  $\sqrt{E}$   
 $\hookrightarrow$  Series  $\sqrt{E}$   
 $\hookrightarrow$  Games  $\sqrt{E}$



Node {  
int d;  
Node left;  
Node right;  
}