

CS180 - Linked Queues

Note Title

9/26/2012

# Queue

What is a queue?

How does it work?

# Functions

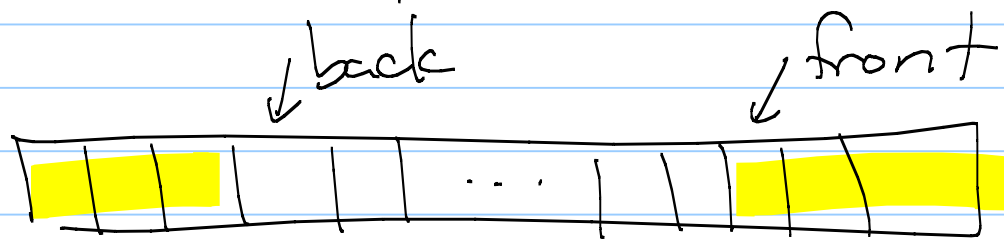
- push
- pop
- top
- size
- empty

House keeping!

How to implement?

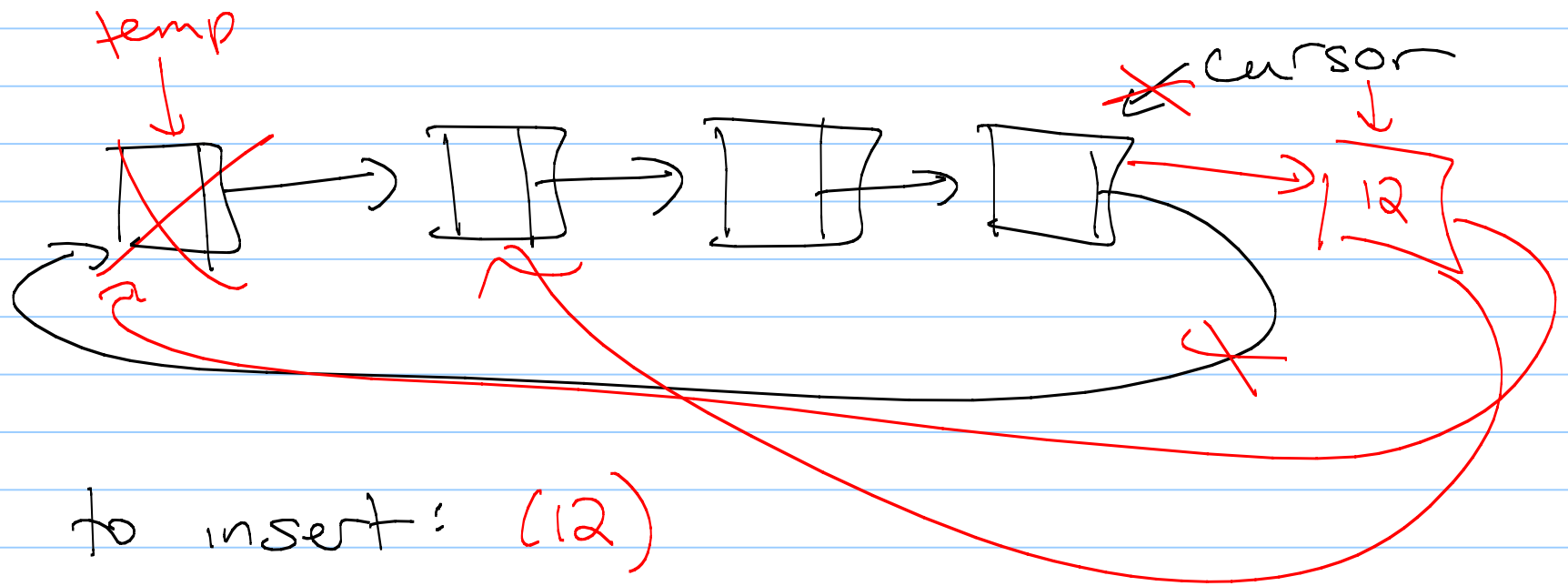
# Array Based

Key idea: use modular arithmetic  
to "wrap around"



Code from last time - posted today.

Linked Queues: Use circularly linked lists



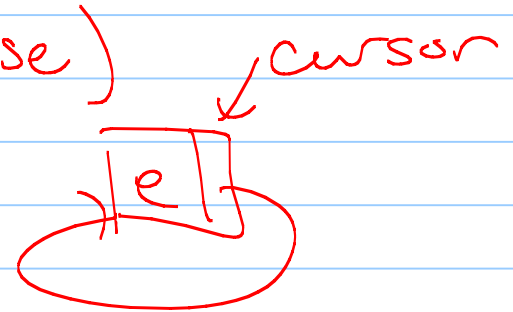
to insert: (12)

to remove: use cursor  $\rightarrow$  next

Last time:

- Coded struct for nodes
- Coded push

(left out boundary case)  
if empty()



Today:

- Finish functions
- Housekeeping!

A note on housekeeping:

On last homework (for SLinkedList),  
how did you write operator = ?

Copy + paste  
from: ① destructor  
② copy constructor

Never copy & paste!

Write a helper function.

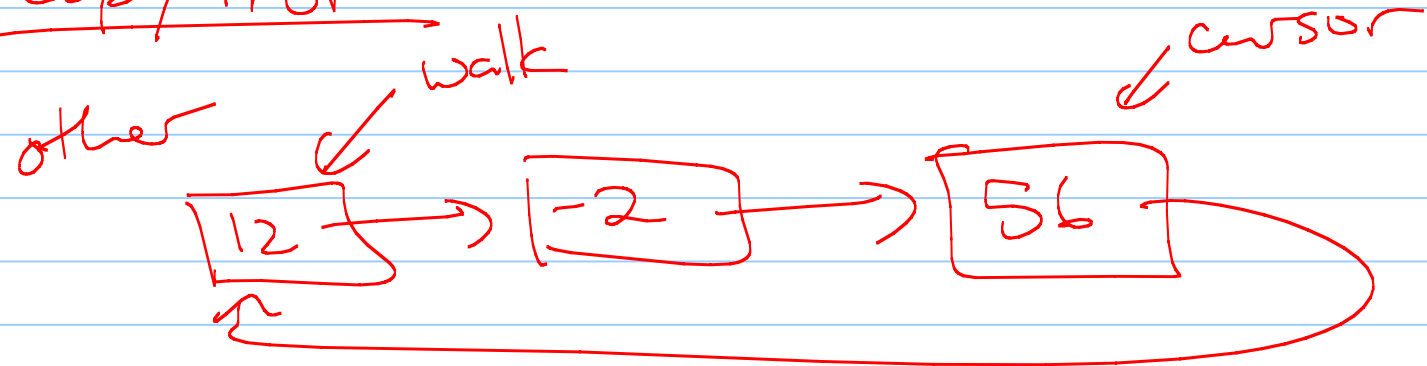
Here, we'll write two private functions to help make a deep copy & delete all current data.

What is a private function?

only be accessed by functions  
inside the class  
(not main)



copy from



push(12)  
push(-2)  
push(56)