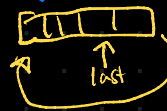# Least Recently Used (LRU) Cache
<u>2nd</u> <u>1st</u>

- explain problem in <5 min (diagrams)
  (7-10 min)
- Confirm w/ interviewer if that makes sense (Talk)
- Test driven development (time?)
  - tests that pass early
  - write the code to have functionality first
- Attack the problem w/ tests in mind
  ○ Dictionary + caching
    — test it early
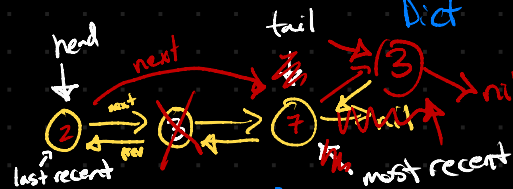 ○ Last used (enhancement)
    — test
    — linked list

TRICK: 1. Double Link List
                 Dictionary
       2. Array
          Dict

insert (write)

- item is last used
- remove old items
- append to tail

read (cache hit)

- item is last used
  ↳ adjust "pointers"
    move to tail
  — delete
  — reinsert (insert)
            append

Node
next
prev
value

read(3)

Dictionary

key : Node

Node

weak prev   prevent retain cycles
strong next
      value