

COP 3330 3/25/26

(3/27)

1) REMINDER: NO IN PERSON CLASS FRIDAY
VIDEO POSTED BY THURSDAY NIGHT

2) ~~Array~~ ArrayDeque

- allows following functionality

- Stack (Last In, First out)
- Queue (First In, First out)
- Double Ended Queue (add/remove front/back)

push ~~R~~ ~~Q~~ → pop
pop ~~B~~ ~~C~~
push A
Stack

~~X~~ A B ~~X~~
~~B~~ ↑ ↑
front front back back

x = remove Front
y = remove Back

operation: push (top)
pop (top)
peek (look at top)
size ()

Hash Set

Generics

any class

HashSet <String> list = new HashSet <String> ();

$$\{ \underline{1}, \underline{3}, \underline{5} \} \cup \{ \underline{2}, \underline{3}, \underline{5}, \underline{6} \} = \{ 1, 2, 3, 5, 6 \}$$

union

- $O(1)$
expected
time
- add item
 - remove item
 - search item
 - size
- loop through items
 $O(n)$
where there's
n items
- UNORDERED

Backbone of most databases!