

LEC 15

CSE 122

Collections

## BEFORE WE START

*Slido vote & chat with your neighbors:**What are you doing for Thanksgiving break?*Music: [122 25au Lecture Tunes ?](#)**Instructor:** Elba Garza

<b>TAs:</b> Sreshta	Merav	Shivani	Yang
William	Nicole	Naomi	Cady
Arjun	Vrinda	Hanna	Diya
Dani	Shreya	David	Katharine
Rohan	Wesley	Sushma	
Andrew	Isis	Rio	
Saachi	Colin	Nicolae	
Ava	Medha	Ivory	


Questions during Class?

Raise hand or send here

sli.do #cse122



# Lecture Outline

- **Announcements** 
- Nullish Nuance
- Recap of Collections
- Dumb Data Structures
- Collections

# Announcements

- Resubmission Cycle 5 (R5) out; due Tuesday, Nov 18<sup>th</sup> by 11:59pm PT
  - Eligible Assignments: P1, P2
- Programming Assignment 3 (P3) out tonight!
  - Due Nov 20<sup>th</sup> by 11:59pm PT
- Thanksgiving Week Plans
  - Tuesday, Nov 25<sup>th</sup>: Begin Final Exam review in section
  - Wednesday, Nov 26<sup>th</sup>: **Lecture Cancelled!**
- Quiz 2 Thursday, November 20<sup>th</sup>
  - Practice Quiz 2 out late this weekend, solutions Tuesday
  - Quiz 1 grades out this weekend/early next week?
  - **Note:** TAs go to sleep at 9pm day before; Ed Board blackout on quiz-related topics during quiz from 8:30am to 4:30pm

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# Nullish Nuance

In Java, a reference type\* may or may not contain a value

- By definition, `null` refers to the complete absence of an object
  - Note this is not the same as empty (e.g. `""`) and not `0` !!
- In classes, `null` is the default value of a reference type field unless otherwise stated

\*Objects, Strings, Arrays

# Student / Course Example one more time...


Let's add two more methods to `Course.java`:

```
public void setCourseEvalLink(String url)
```

```
public String getCourseEvalLink()
```

The link to the evaluations for a course doesn't usually exist until the last few weeks of the quarter. What if a client calls `getCourseEvalLink` before one is set up?

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# Goal for Today

Review some of the data structures we've talked about this quarter

Understand how Java organizes them with interfaces



# Collections: What classes have we seen so far?

...

Array,

ArrayList,

LinkedList,

Stack,

HashSet & HashMap,

TreeSet & TreeMap

# Collections: What interfaces have we seen so far?

...


Set,

Queue,

List,

Comparable

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# Dumb Data Structures

We're going to create our own versions of these classes so we can dig into how they all relate to each other!

BUT they're going to be real dumb.

If you want to get a sense of how they're actually implemented, go take CSE 123!

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# IntCollection Relationships

