LEC 11

CSE 121

User Input (Scanner)

Questions during Class?

Raise hand or send here

sli.do #cse121

BEFORE WE START

Talk to your neighbors:

What's your favorite costume you saw during Halloween? 🎃

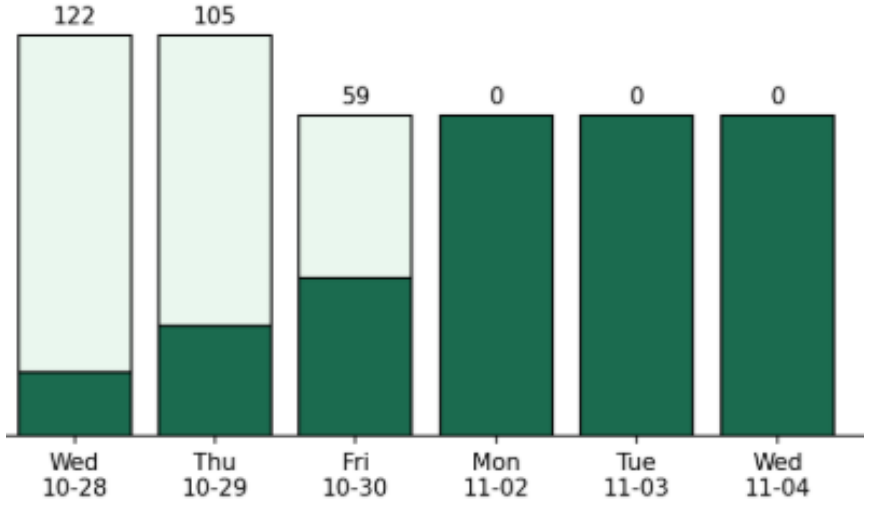
Music: 🍂 CSE 121 26au Lecture Tunes 🍂

Instructor: Miya Natsuhara and Anjali Pal

TAs:

Samrutha	Tamsyn	Owen	Jennie
William	Cedric	Jameson	Anisha
Samvedha	Anum	Paul	TJ
Syreeta	Navya	Gurbax	Ivory
Ryan	Gene	Tony	Sarah W
Anant	Margot	Lucas	Avery
Henry	Sarah K	Alex	
Reese	Ethan	Jesse	
Savannah	Evelyn	Matthew	

Announcements, Reminders



- Sign up for Computer Quiz slots early!
  - CQ 2 will be November 12-18
  - Slots will go up on Canvas tomorrow
    - Sign up **before** November 12!
- Project 2 will be released later today
- Paper Quiz 0 feedback released
  - If you see an error, submit a regrade request by Monday
- Gradebook
  - Canvas > Pages > Gradebook (xxxxxx)
    - Don’t share your link!

PCM Review: Scanner

An **object** that we can use to *read in input*
In the `java.util` "package"!

```
Scanner console = new Scanner(System.in);
```

type: Scanner
name: console
Scanner construction code: new Scanner(System.in);

Methods	Description
`nextInt()`	Reads the next token from the user as an `int` and returns it.
`nextDouble()`	Reads the next token from the user as a `double` and returns it.
`next()`	Reads the next token from the user as a `String` and returns it.
`nextLine()`	Reads an *entire line* from the user as a `String` and returns it.

PCM Review: Tokens

A unit of user input, as read by the `Scanner`

Tokens are separated by *whitespace* (spaces, tabs, new lines)





Practice: Think



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How many tokens would be parsed out of the following text?

```
Chicken says, "I'm a kitten!"

    Age: 11months
         Weight: 9.78lbs
```

A. 21
B. 11
C. 9
D. 10
E. 12
F. 3

PCM Review: `InputMismatchException`

Exceptions are errors that occur *while a program is running* that stops the program from running.

There are different types of exceptions that can occur, and the **name of the exception** can help you understand what caused the error!

An `InputMismatchException` occurs when the Scanner tries to read input in as a specific type, but the input cannot be interpreted as that type.

(e.g., trying to read in `"hello"` as an `int`)



Practice: Think

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When calling the following method, which of these user inputs would not cause an error? (choose multiple)

```
public static void cornbear() {
  Scanner console = new Scanner(System.in);
  int amt = console.nextInt();
  String firstName = console.next();
  String secondName = console.next();
  double price = console.nextDouble();
}
```

A. 6 Gumball's Treats $12.48

B. 3 Sesame Latte 16.47

C. 2 The Hunger Games 21.98

D. 4 Gumballs 900.24

E. 2 Grammy Awards 90095



Practice: Pair



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When calling the following method, which of these user inputs would not cause an error? (choose multiple)

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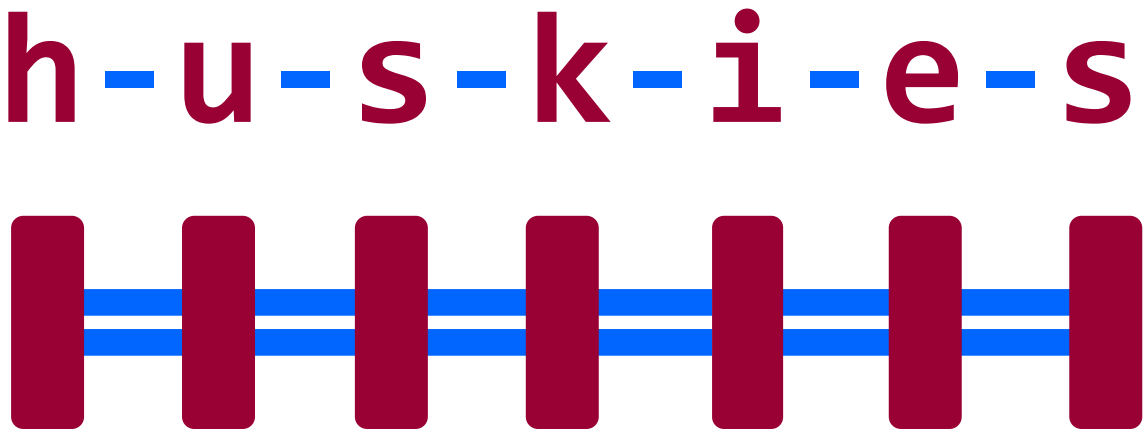
C. 2 The Hunger Games 21.98

D. 4 Gumballs 900.24

E. 2 Grammy Awards 90095

Reminder: Fencepost Pattern

Some task where one piece is repeated *n* times, and another piece is repeated *n-1* times and they alternate



Fencepost Pattern … for User Input?

Some task where one piece is repeated *n* times, and another piece is repeated *n-1* times and they alternate

