UNIVERSITY *of* WASHINGTON

LEC 13

CSE 121

Arrays

Questions during Class?

Raise hand or send here

sli.do   #cse121

BEFORE WE START

Talk to your neighbors:

What is your favorite potato-based dish?
(e.g. fries, aloo gobhi, gnocchi)

Music: ❄ CSE 121 26wi Lecture Tunes ❄

Instructors: Miya Natsuhara

TAs:

Amogh	Hayden	Anum	Sam	Shayna
William	Aki	Abdul	Ethan	Jesse
Johnathan	Spencer	Janvi	Jessica	Minh
Anant	Savannah	Navya	Paul	Cayden
Reese	Tamsyn	Ruslana	Carson	

Announcements, Reminders

- P2 due next **Tuesday, February 24th**

- R4 released, due **Thursday, February 26th** (eligible: **C1**, P1, C2)

- Quiz 2 on **Thursday, March 5th**

  - Includes everything through next Wed's lecture

  - Can't make it?

    - Email mnats@cs.washington.edu *before* your quiz!

- Quiz 1 grades released before Quiz 2

Recall: Variables

type   **name**   **value**

`int` `myNum` `=` `2;`

CODE

myNum

`2`

int

THINK

Arrays

CODE

type name value

```
int[] arr = {2,0,6};
```

THINK

arr

2 0 6

int[]

PCM Review: Arrays
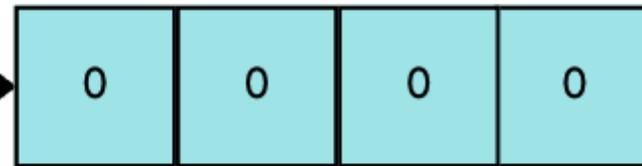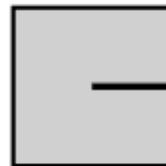
`int[]` type   `arr` name   `=`   `new int[4];` array creation code

New **data structure** that stores multiple items, in order

- Elements must <u>all</u> be the same type

- Zero-based indexing

- Must decide (and fix) size when created

- `arr.length` to get arr's length

- `Arrays.toString(arr)` to get a nice `String` version

```
int[] arr = new int[4];
```

name: arr (int[])

0	0	0	0
0	1	2	3

PCM Review: Array Traversal Pattern

```java
for (int i = 0; i < arr.length; i++) {
    // do something with arr[i]
}
```

Practice: Think

Which of these expressions gives us the last element of an array `arr`?

A. `arr[arr.length()]`

B. `arr[length()]`

C. `arr[arr.length]`

D. `arr[arr.length() - 1]`

E. `arr[arr.length - 1]`

Practice: Pair

Which of these expressions gives us the last element of an array `arr`?

A. `arr[arr.length()]`

B. `arr[length()]`

C. `arr[arr.length]`

D. `arr[arr.length() - 1]`

E. `arr[arr.length - 1]`