CSE 121

Elba Garza

Winter 2023

Join at
slido.com
#2565 756

Music: My Girls - Animal Collective

Announcements, Reminders

- [Creative Project 0](#) due tomorrow (Jan 12th) @ 11:59 PM
- Programming Assignment 0 released tomorrow; Due Jan 17th!
- IPL is open! - [Schedule and instructions](#) can be found on course website.
- **Just joined CSE 121?** Resubmission policy is your friend! See more in [syllabus](#).

- Reminder: Pre-Class Work and Section work are not graded! (but you should do them anyway 😉)

PAUL G. ALLEN SCHOOL
OF COMPUTER SCIENCE & ENGINEERING

PCM Recap: Data Types & Expressions

- Types: `int`, `double`, `String`, `boolean`

- Expressions: Operators

- Beware of precedence! (order of operations)

Data Types in Java

In programming, you're dealing with data…

- `ints` (whole numbers)
- `doubles` (real numbers)
- `Strings`
- `booleans` (true or false)

Operators (for numerical & `String` values)

- \+ Addition
- \- Subtraction
- * Multiplication
- / Division
- % Modulo or "Mod"

- \+ Concatenation

Precedence

Parentheses

Multiplication, **M**odulo, **D**ivision

Addition (and Concatenation), **S**ubtraction

If multiple operators at the same level?

Evaluate subexpressions from <u>left to right</u>!

PAUL G. ALLEN SCHOOL
OF COMPUTER SCIENCE & ENGINEERING

Work on Expressions/Types Practice Problems
Part 1

- Ed lesson linked from the course calendar

- Work with the folks around you!

- TAs and I will be walking around to help

Mixing Types

- •When mixing types in an expression, Java will convert one type to the other and then perform the operation "normally"

- `ints` can be converted to `doubles`

- Both `ints` and `doubles` can be converted to `Strings`

String

double

int

PAUL G. ALLEN SCHOOL
OF COMPUTER SCIENCE & ENGINEERING

Work on Expressions/Types Practice Problems
Part 2

- Ed lesson linked from the course calendar

- Work with the folks around you!

- TAs and I will be walking around to help

Boolean Operators

- **!** Logical Not

- **< > <= >=** Relational Operators

- **== !=** Relational Operators (equality)

- **&&** Logical And

- **||** Logical Or

PAUL G. ALLEN SCHOOL
OF COMPUTER SCIENCE & ENGINEERING

Work on Expressions/Types Practice Problems
Part 3

- Ed lesson linked from the course calendar

- Work with the folks around you!

- TAs and I will be walking around to help