



- Codergirl – WebDev Unit
  - Class 1
  - March 3, 2021

# Agenda

## Agenda

- Intros
- Course Overview
- Review
- Live coding
- Studio



# Instructor Intros

## Chetna Aggarwal

MS Computer Engineering  
Missouri University of S&T - Rolla

Bayer  
.Developer  
.Technical Lead  
.Agile Coach

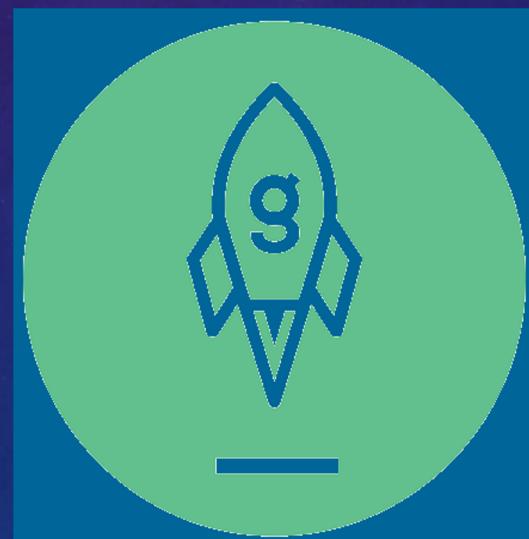
### Fun facts:

- .Lives in St. Charles
- .Husband's name is Jimmy
- .Two children- Arianna and Miraya
- .Strengths
- .Developing others
- .Valuing individuals
- .Treating people consistently



# Mentor Intros

- Lucas
- Katie
- Tyler
- Veleria
- Sunita
- Zach
- Sam
- Ted



- Brit
- Mary
- Emma
- Sidney
- Pallavi
- Olivia
- Carrie



# Course Overview

- Every Wednesday
  - 5:30-8:30pm
  - Last class day: July 7th.
  - Virtual
- 
- Pass/Don't pass
  - Must complete all graded assignments
  - Passing allows moving to Unit 2

# Course Tools

- .Canvas
- .Prep work, Assignments and grades
- .Prep work posted roughly 2 weeks out
- .Slack
- .Best communication method
- .Announcements
- .Don't be fooled by a green dot
- .repl.it
- .Online Integrated Development Environment (IDE)
- .Write your code here!



# Course Expectations

- .You
  - .Do the prep work *before* class
  - .Come to class (virtually)
  - .Ask questions and participate
  - .Do the studios and assignments
  - .Don't cheat
- 
- .Mentor Team
  - .Be available (within reason)
  - .Be patient and understanding
  - .Be prepared

# Survival Tips

- .Find or form a study group
  - #webdev\_studygroups
- .Create a study schedule and stick to it
- .Plan on 15-20 hours per week
- .Reach out when you're struggling
  - Classmates, mentors, LC staff
  - If something is unclear, ask
- .Stay focused on your goals
- .Why are you here? Let that fuel you



# Academic Honesty



# Sources for Help

- .Classmates
- .If you can help, don't be afraid to answer
- .Group Mentor
- .They are here to help YOU
- .Be mindful of their schedules
- .Instructors
- .More “I don't understand this”
- .Less “my code doesn't work”
- .Google!



# Class Overview

Questions?

# Review – Values and Data Types

- Programs are made of two things:
  - 1) Data
  - 2) Operations that manipulate data



# Review – Values and Data Types

- **Value:** Specific piece of data

- “Hello world”      **String**

- 23      **Number**

- animal\_cross.jpeg      **Object**

- true      **Boolean**

- **Data Type:** Category of data

# Review – Values and Data Types

- **Variable:** Way to store values for use in a program.
- **Declaration:** Creating a new variable

```
let programmingLanguage;
```

- **Initialization:** Giving the variable a value to store

```
let programmingLanguage;  
programmingLanguage = "JavaScript";
```

```
let programmingLanguage = "JavaScript";
```



# Review – Values and Data Types

- Variable keywords
  - **let** – used if the value will change
  - **const** – used if the value is constant
- Trying to change a **const** variable will lead to errors
- Only use keywords when **declaring** a variable, never for reassignment
- Do not use **var**

# Review – Values and Data Types

```
let day = "Thursday";  
console.log(day);
```

Declaration and  
Initialization

```
day = "Friday";  
console.log(day);
```

Reassignment

```
day = 21;  
console.log(day);
```

Reassignment



# Review – Values and Data Types

- Variable Naming
  - Use camelCase
  - `thisIsVeryCoolCamelCase`
  - `this_is_not_camel_case`
  - No special characters or whitespace
  - Cannot start with a number
  - Use meaningful names
    - `x = "Hello, World!"` (BAD)
    - `greeting = "Hello, World!"` (GOOD!)

# Review – Values and Data Types

- **Operator:** Character that represents a computation to be made
- You likely know: +, -, \*, /
- \*\* is exponent ( $5 ** 2 = 25$ )
- ++ is increment (if  $x = 2$ ,  $x++ = 3$ )
- % is modulus
  - Divide two numbers, return the remainder
  - $7 \% 2 = 1$

## Arithmetic operators

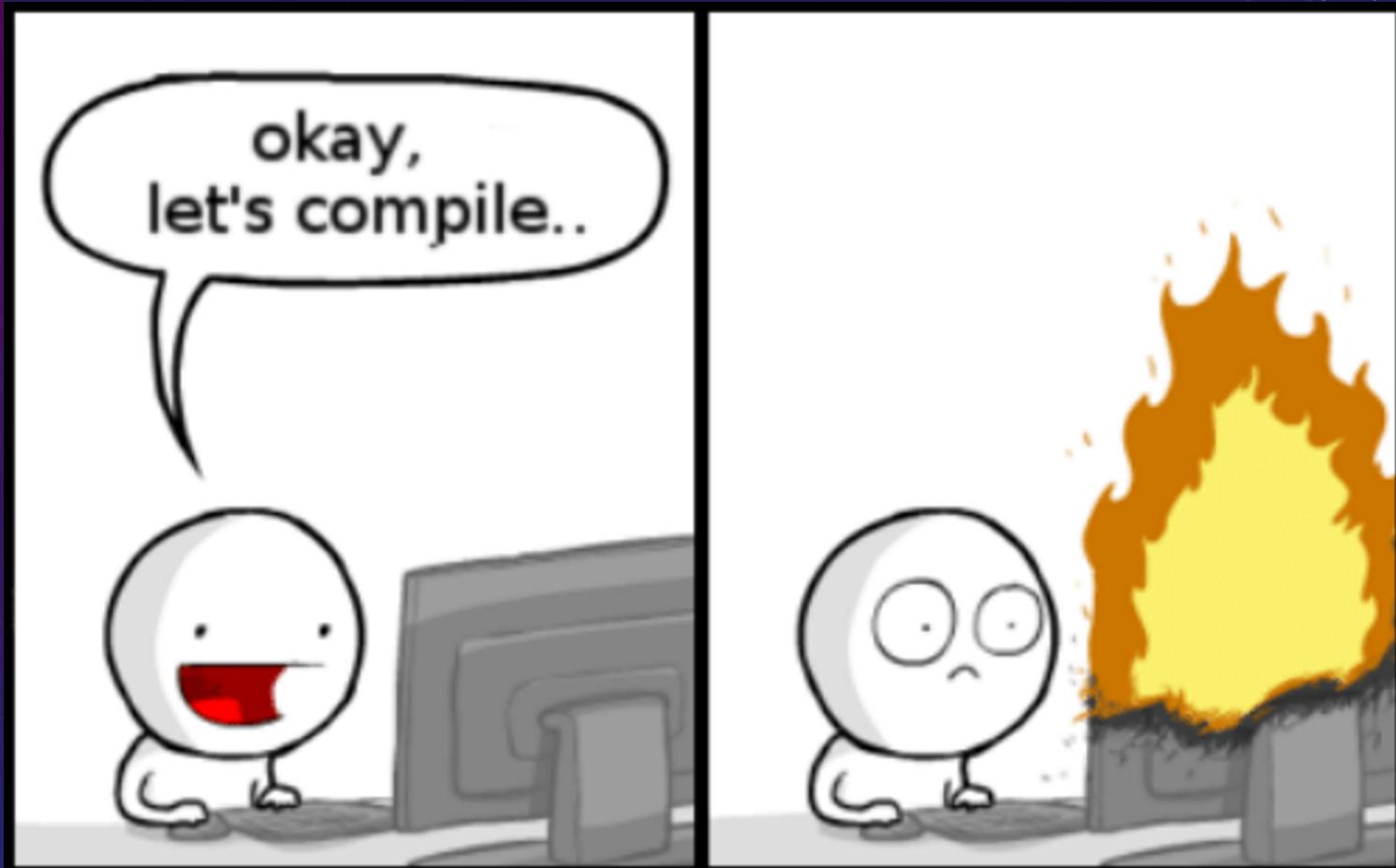
Operator	Description	Example
Addition (+)	Adds the two operands	<code>2 + 3</code> returns <b>5</b>
Subtraction (-)	Subtracts the two operands	<code>2 - 3</code> returns <b>-1</b>
Multiplication (*)	Multiplies the two operands	<code>2 * 3</code> returns <b>6</b>
Division (/)	Divides the first operand by the second	<code>6 / 2</code> returns <b>3</b>
Modulus (%)	Aka the remainder operator. Returns the integer remainder of dividing the two operands.	<code>7 % 5</code> returns <b>2</b>
Exponentiation (**)	Calculates the base (first operand) to the exponent (second operand) power, that is, $\text{base}^{\text{exponent}}$	<code>3 ** 2</code> returns <b>9</b> <code>5 ** -1</code> returns <b>0.2</b>
Increment (++)	Adds one to its operand. If used before the operand ( <code>++x</code> ), returns the value of its operand after adding one; if used after the operand ( <code>x++</code> ), returns the value of its operand before adding one.	If <code>x</code> is <b>2</b> , then <code>++x</code> sets <code>x</code> to <b>3</b> and returns <b>3</b> , whereas <code>x++</code> returns <b>2</b> and, only then, sets <code>x</code> to <b>3</b>
Decrement (--)	Subtracts one from its operand. The return value is analogous to that for the increment operator.	If <code>x</code> is <b>2</b> , then <code>--x</code> sets <code>x</code> to <b>1</b> and returns <b>1</b> , whereas <code>x--</code> returns <b>2</b> and, only then, sets <code>x</code> to <b>1</b>

# Review – Values and Data Types

Questions?



# Live Coding



learning a new programming language..

# Live Coding

- .`typeof`
- .`console.log`
- .`type conversion`
- .`Variables` - creating, reassigning
- .`let, const`
- .`naming`
- .`Expressions`
- .`Operations, compound assignments,`  
`reading input`

# Exercises



# Studio – Data and Variables

- Store data in variables
- Print data back to the user
- Format the output to look like the LC04 Form

> LC04 – LAUNCH CHECKLIST

Date: Monday 2019-03-18

Time: 10:05:34 AM

> ASTRONAUT INFO

\* count: 7

\* status: ready

> FUEL DATA

\* Fuel temp celsius: -225 C

\* Fuel level: 100%

> MASS DATA

\* Crew mass: 564.9 kg

\* Fuel mass: 760000 kg

\* Shuttle mass: 74842.31 kg

\* Total mass: 835407.21 kg

# Now

- Find your group Zoom
  - Intros
  - Studio
  - Prep for next week
- Studio Review
  - next week

