Javascript - Review & Loops

Leon Noel

Last Of The Big Four

Agenda

- Questions?

- Review – Pseudo Code

- Review - Variables

- Review – Conditionals

- Review – Functions

- Learn - Loops

- Homework - Homework

Questions

About last class or life

The Golden Rule
SEPERATION OF CONCERNS

- HTML = Content / Structure
- CSS = Style
- JS = Behavior / Interaction

IDs & Classes

IDs

IDs are used for selecting distinct elements

Only one id with the same value per document

#idName

```html
<section>
  <p>Hello, Twitch!</p>
  <p id="zebra">Hello, Youtube!</p>
</section>
```

```css
#zebra {
    color: red;
}
```

Classes

Classes are for selecting multiple elements
Multiple with same value allowed per document
.className

```html
<section>
  <p class="robot">Hello, Twitch!</p>
  <p id="zebra" class="bob">Hello, Youtube!</p>
  <p class="bob">Goodbye, Mixer!</p>
</section>
```

```css
.bob {
   color: red;
}
```

Programming

A computer will do what you tell it to do.

What is a program?

A **program** is a set of instructions that you write to tell a computer what to do

What is a programming?

Programming is the task of writing those instructions in a language that the computer can understand.

True Story

JAVASCRIPT

Has a specific 'Syntax'

Syntax: "Spelling and grammar" rules of a programming language.

Variables

What are variables?

Variables

- We can tell our program to remember values for us to use later on

- The entity we use to store the value is called a variable

Variables

Declaration: let age

Assignment: age = 25

Both at the same time:
let age = 25

Variable Conventions

camelCase:

let numberOfApples = 9

Variables
& Data Types

What can you store in variables?

Strings

- Stores text
- String is surrounded by quotes

"How is the weather today?"

'Warm'

Strings

Double vs Single Quoted Strings:

'They "purchased" it'
"It's a beautiful day"

Numbers
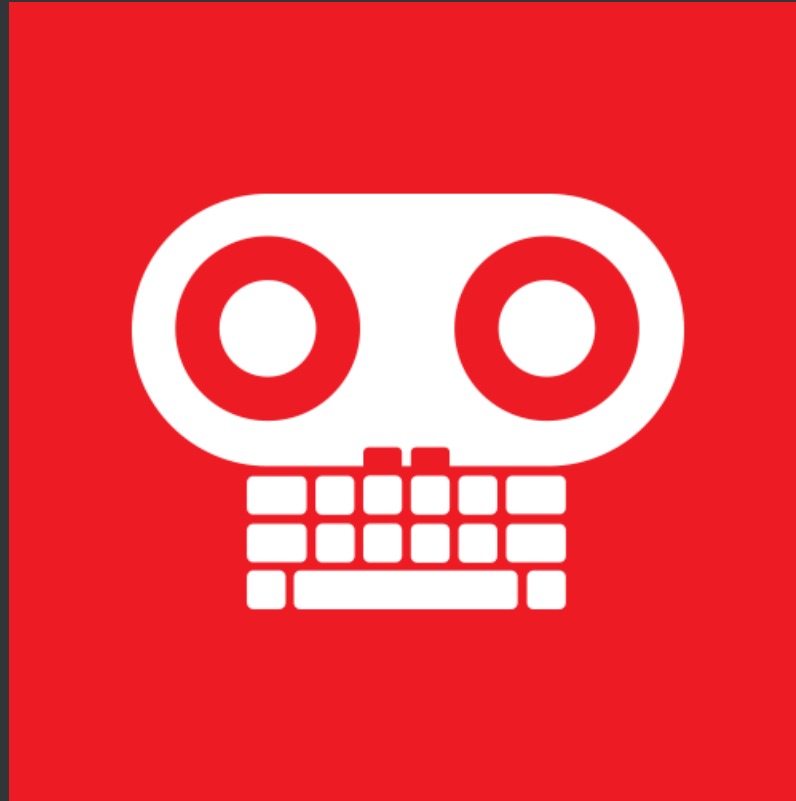## Represent Numerical Data
int: 29

float: 5.14876

Numbers

Signed

int: +4

float: -10.375

Arithmetic In Javascript

Operator	Meaning	Example
+	Addition	8 + 10
-	Subtraction	10 − 8
*	Multiplication	12 * 2
/	Division	10 / 5
%	Modulus	10 % 6

Let's Code

Variable Fun Time

Making Decisions

It's either TRUE or FALSE

If you are greater than 18 you are an adult

```javascript
if (age > 18){
  console.log("You are an adult")
}
```

Comparisons: Equality

Are two things equal?

```
9 === 9 //true
7 === 3 //false
"Hello" === "Hello" //true
```

Logical Operators

$$x = 3$$

Logical Operators			
Operator	**Description**	**Comparing**	**Returns**
==	equal to	x == 8	FALSE
===	exactly equal to(value and type)	x=== "3"	FALSE
		x===3	TRUE
!=	is not equal	x!=8	TRUE
!==	is not equal(neither value nor type)	x!== "3"	TRUE
		x!==3	FALSE
>	greater than	x>8	FALSE
<	less than	x<8	TRUE
>=	greater than or equal to	x>=8	FALSE
<=	less than or equal to	x<=8	TRUE

Conditional Syntax

```
if(condition is true) {
   //Do cool stuff
}
```

Conditional Syntax

```
if(condition is true) {
  //Do this cool stuff
}else if(condition is true){
  //Do this other cool stuff
}else{
  //Default cool stuff
}
```

Conditional Syntax

```javascript
const pizza = "Dominos"

if (pizza === "Papa Johns") {
  console.log("Scram!")
} else if(pizza === "Dominos") {
  console.log("All aboard the train to flavor town")
} else {
  console.log("What are you even doing with your life?")
}
```

🚨 **DANGER** 🚨
Assignment vs. Comparison

Multiple Conditions

```
if (name === "Leon" && status === "Ballin"){
 //Wink at camera
}
```

Multiple Conditions

```javascript
if (day === "Saturday" || day === "Sunday"){
  //It is the weekend
}
```

Let's Code

Age Checker

In Chat:
What is the best TV show of all time?

Answer:
The Bachelor

Functions

What are functions?

Functions

- Functions are simple sets of **instructions**!

- Functions are **reusable**

- Functions **perform one action** as a best practice

- They form the basic "**building blocks**" of a program

Functions

```
function name(parameters){
    //body
}


//call
name(arguments)
```

Functions

```
function yell(word){
  alert(word)
}


yell("HELLO")
```

Functions

```
function yell(word, otherWord){
  alert(word)
  alert(otherWord)
}


yell("HELLO","GOODBYE")
```

Let's Code

Simple Functions

Loops

What are loops?

Loops

- **Repeat an action** some number of times!

- Three main types of loops in Javascript

- **For, while, and do while loops**

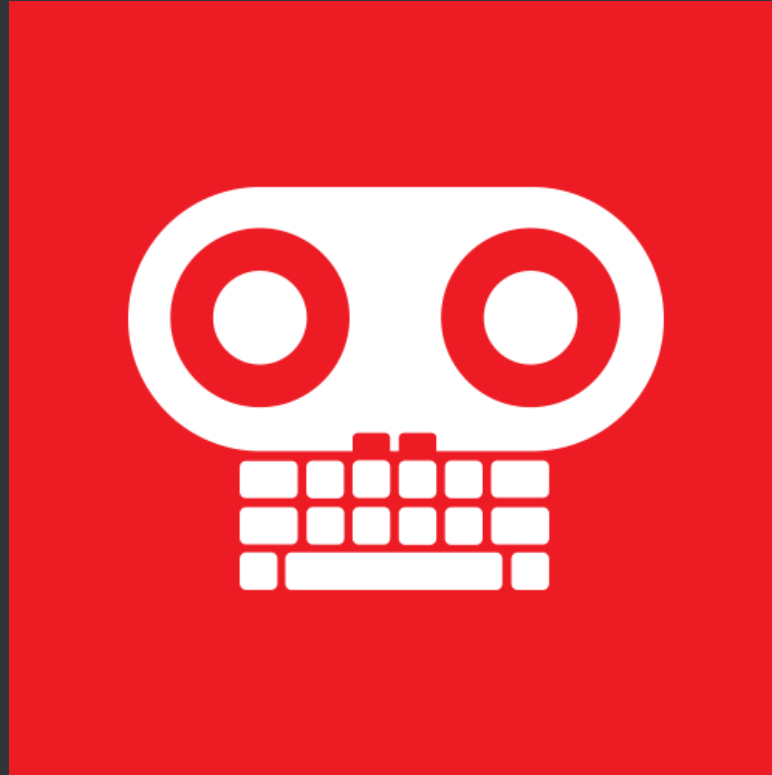- Each type offers a different way to **determine the start and end points** of a loop

Loops - For

```
for ([initialExpression]; [conditionExpression]; [incrementExpression]){

  //do stuff

}
```

Loops - For

```javascript
for (let i = 1; i < 5; i++) {
  console.log(i)
}
```

Let's Code

21 Savage Loop

Loops - While

```
let count = 0

while(count < 5){
  console.log(count)
  count++
}
```

Let's Code

Stop Night Snacking

Let's Code

Bring It On!

Let's Code

Bring It On Again!

Homework

Create a horoscope app where the user can enter their birthday and get their horoscope. There should be minimum 12 unique horoscopes.

Create a simple calculator that has two inputs and returns the result of +,-,/,* somewhere in the DOM