Attendance:
tiny.cc/event-attendance

App Dev League

Day 4: Intro to JS

Content Review

- Advanced HTML Tags
  - Footers
  - Headers
  - Navs
- Styling Specific elements
- Multiple Pages
- Lists

Lesson Plan

1. Intro to JS
    a. Introduction and Setup
2. Variables and Data Types
3. Printing and Concatenation
4. Operators
5. If-else statements
6. JS Project

Intro to JS

1

What is JS?

- One of the most popular language to do web development in
- Instructs the computer to complete certain tasks
- Emphasizes simple code readability
- Non-typed
- Easy to learn!

What is JS used for?

- Web Development
- Game Development
- Servers
- Mobile App development

- Instagram
- Google
- Netflix
- Youtube
- Quora
- Dropbox
- Spotify
- And more!

Let’s set up JS!

We’ll use repl.it in this tutorial

Variables & Data Types

2

Data Types in JS

- In programming, your code can store different types of data
- Different data types can do different things!
- We will go over five data types:
  - Integers
  - Floating Point Values
  - Complex Numbers
  - Booleans
  - Strings

Integers

- Like their name suggests, they hold integer values (whole numbers)
- No decimal places in the number

Examples:

- 10, -9876, 5

Floating Point (Or Floats)

- Floating Point values are used to store decimals and fractional numbers

Examples:

- 8.65, -50.87, -0.476, 9.825

Booleans

- Hold **True** and **False** values
- Booleans can only hold one of those two values

We'll go into examples soon!

Strings

- Strings hold words and sequences of characters

Examples:

- “Hello world!”, “My name is bob”, “apple”

What are variables?

Variables are used to store these data types!

- Declared in JS using the keyword **var**
- Variables in JS are different than variables in math, but they share some similarities
    - The value stored in a variable can be changed

- A variable is created when you first assign a value to it

3 Concatenation

What is concatenation?

- Joining strings together end-to-end to create a new string
- We use the ‘+’ operator
  - Remember that it is NOT addition when we use it for strings!

Let’s combine two strings together in repl!

4 Operators

Arithmetic Operators

Addition: +	x + y
Subtraction: -	x - y
Multiplication: *	x * y
Division: /	x / y
Modulus: %	x % y
Exponentiation: **	x ** y

Assignment Operators

- x += 3 is the same as x = x+3
- x -=3 is the same as x = x - 3
- x *= 3 is the same as x = x * 3
- x /=3 is the same as x = x / 3
- x %= 3 is the same as x = x % 3
- x **=3 is the same as x = x ** 3

Comparison Operators

==	Equal	x == y
!=	Not equal	x != y
>	Greater than	x > y
<	Less than	x < y
>=	Greater than or equal to	x >= y
<=	Less than or equal to	x <= y

Logical Operators

- And — Returns True if both statements are true
- Or — Returns True if at least 1 statement is true
- Not — Returns opposite of the result (returns false if result is true)

5 If-else statements

If-else statements

If statements execute code if a specific condition is matched

Syntax:

```
if(condition){
    Do something
}
```

6 Functions

Functions

Functions are used to define a repeatable piece of code

Syntax:

```
function name(){
    // code
}
```

JS Project

2

Content Review

- Variables and Data Types
  - Integers, Floating Point, Complex Numbers, Booleans, Strings
- Printing elements and Concatenation
- Arithmetic, Assignment, Comparison, and Logical Operators
- If-else statements