Chapter 5

Conditionals and Debugging

Chapter Overview

- 5.1 Booleans
- 5.2 Equality
- 5.3 Logical Operators
- 5.4 Conditionals
- 5.5 Nested Conditionals

5.1 Booleans

- Two values
- true or false
- Case sensitive in Javascript



Comparison Operators

EQUAL(==)

```
console.log(7 == 7)
console.log(7 == 5)
console.log("dog" == "dog")
console.log("dog" == "cat")

true
false
false
```

NOT EQUAL(!=)

COMPARISON OPERATORS 2: THE SEARCH FOR MORE UNDERSTANDING

Greater than (>)

```
console.log(7 > 5)
console.log(5 > 7)
console.log('b' > 'a')
console.log('a' > 'b')
```

```
true
false
true
false
```

Less than (<)

```
console.log(7 < 5)
console.log(5 < 7)
console.log('b' < 'a')
console.log('a' < 'b')</pre>
```

```
false
true
false
true
```

Greater than or equal (>=)

```
console.log(7 >= 5)
console.log(7 >= 7)
console.log('b' >= 'a')
```

```
true
true
true
```

Less than or equal (<=)

```
console.log(7 <= 5)
console.log(7 <= 7)
console.log('b' <= 'a')</pre>
```

false true false

EQUALITY

LOOSE EQUALS

- ==
- Javascript will change data types if possible to allow for the comparison
- 7 == '7' is evaluated to true

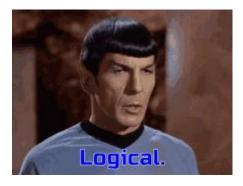
STRICT EQUALS

- ===
- Javascript does not change data type to allow comparison
- 7 === '7' is evaluated as false

LOGICAL OPERATORS

Logical AND (&&) - The operator takes two operands, and the resulting expression is true if both operands are true individually. If either operand is false, the overall expression is false.

Logical OR (||) -This operator takes two operands, and the resulting expression is true if either of the operands are true individually. If both operands are false, the overall expression is false.



Conditionals

IF STATEMENT

```
The condition we want to check

if (condition) {

// some code
}

The code we want to
execute if the condition is
true
```

IF/ELSE STATEMENT

```
if (condition) {
    // code block #1
} else {
    // code block #2
}

Code that will execute if
the condition is false
```

Nested Conditionals

```
51
     //nested conditionals
52
     let number = 15
53
54
     if(number > 0) {
55
       console.log(number + ' is positive')
       if(number % 2 === 0){
57
         console.log(number + 'is even')
       else {
59
60
         console.log(number + ' is odd')
61
62
```



QUESTIONS?????



STUDIO

Goal for teaching the class - To teach LC101 and complete Unit 1 with a completion rate of > 85%

Goals for my career - Within the next 2-4 years I want to become an SE 3 at my current company

Inspirational Statement

- "Even when the dark comes crashing through. When you need a friend to carry you. And when you are broken on the ground. You will be found Dear Evan Hansen
- "But in the end it's only a passing thing, this shadow; even darkness must pass Samwise Gamgee