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(==)

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

```
true
false
true
false
```

NOT EQUAL(!=)

```
9    console.log(7 != 5)
10   console.log(7 != 7)
11   console.log("dog" != "dog")
12   console.log("dog" != "cat")
```

```
true
false
true
false
```

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')
```

```
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')
```

```
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')
56    if(number % 2 === 0){
57      console.log(number + 'is even')
58    }
59    else {
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