



Logical Operators

Introduction to logical operators

Duration: 30 minutes

Q&A: 5 minutes by the end of the lecture

What are Logical Operators?

We've already encountered **comparison operators**, which compare two values and provides a boolean result indicating whether that expression is true or false.

Logical operators are operators which evaluate the boolean value of expressions and produce a boolean result.

Logical NOT

The **Logical NOT** operator `!` will reverse the value of a single boolean expression.

The `!` character is sometimes called "bang."

```
!false // => true
```

```
!(3 > 2) // => false
```

```
!('hello'.length === 5) // => false
```

Logical OR

The **Logical OR** operator `||` will evaluate two expressions. If **either** of the two expressions evaluate to true, the entire statement will be considered true. If **neither** expressions evaluate to true, the entire statement is considered false.

```
true || true // => true
```

```
false || false // => false
```

```
true || false // => true
```

```
'cat' === 'dog' || 'cat' === 'cat' // => true
```

```
'cat' === 'pig' || 'cat' === 'frog' // => false
```

Logical AND

The **Logical AND** operator `&&` will evaluate two expressions. If **both** expressions evaluate to true, the entire statement will be considered true. In **any other case**, the whole statement will be considered false.

```
true && true // => true
```

```
true && false // => false
```

```
false && false // => false
```

```
'cat' === 'dog' && 'cat' === 'cat' // => false
```

```
'cat' === 'cat' && true // => true
```

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That's it