JavaScript: Types & Comparisons

The Complete Web Developer in 2018

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Zero to Mastery
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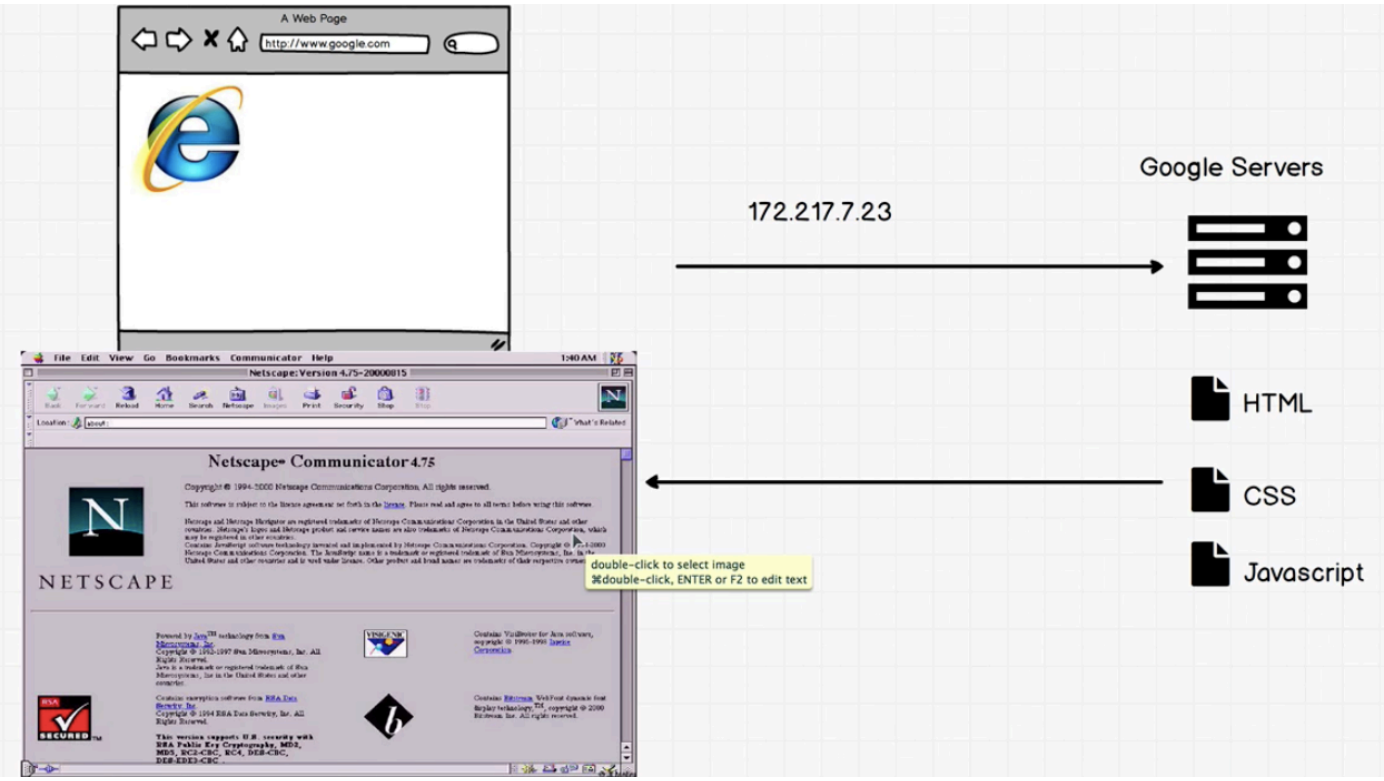
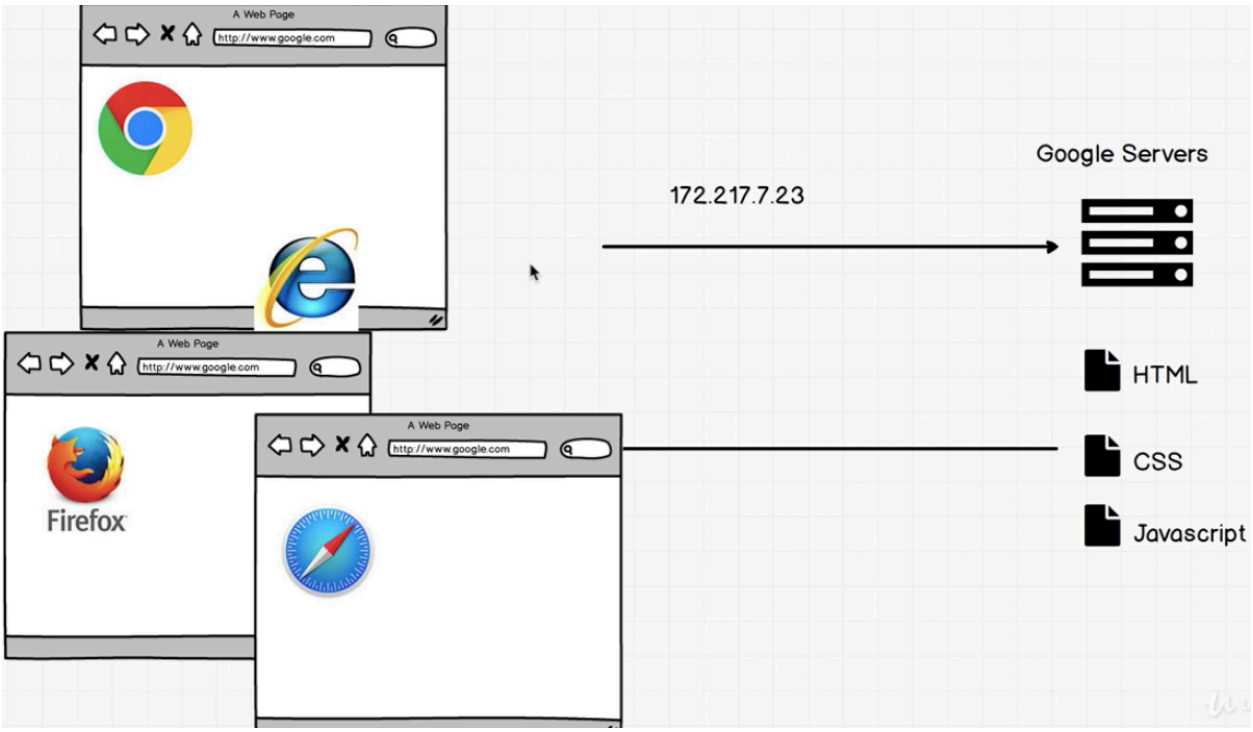
Javascript

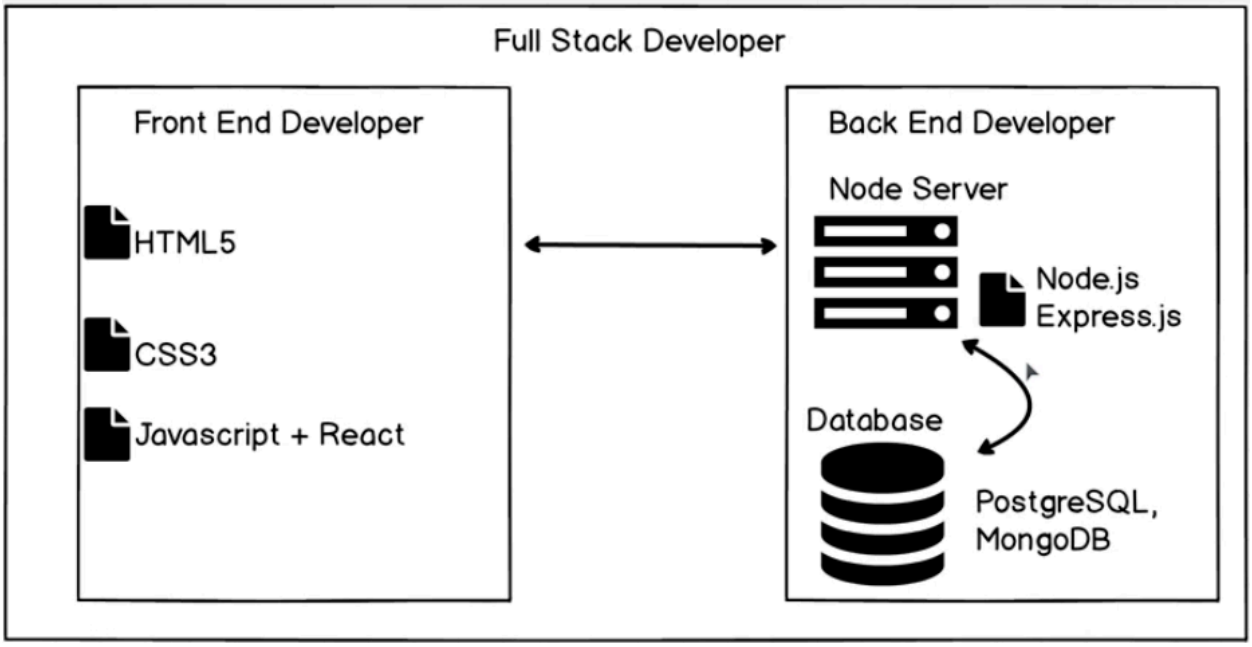
originally Netscape - Javascript performs ***actions***



Now- web, apps, VR, drones, robotics



Javascript used in Node.js, Express.js, react (backend)



Javascript is **file** to write instructions to computer

In web - performs actions

Javascript

Chrome Developer Tools > Console

To clear console: clear( ) or 

Javascript Types

1. Number
2. String
3. Boolean
4. Undefined
5. Null
6. Symbol (new in ECMAScript 6)
7. Object

Use \ in front of quote to prevent error

```
> 'This isn't nice'
Uncaught SyntaxError: Unexpected identifier      VM1467:1
```

```
> 'This isn\'t nice'
<- "This isn't nice"
```

```
> "She said "Hi"."
Uncaught SyntaxError: Unexpected identifier      VM1531:1
```

```
> "She said \"Hi\"."
<- "She said "Hi"."
```

add strings together to concatenate

```
> "steph" + "bot"
<- "stephbot"
```

string - string = NaN

```
> "hello" - "bye"
<- NaN
```

string + number = string

```
> 10 + "34"
<- "1034"
```

number - string = number

```
> 10 - "3"
<- 7
```

Javascript Comparisons (Boolean)

!== not equal to	<=
=== equal to	>
>=	<

```
> true
< true
```
boolean

```
> false
< false
```
boolean

```
> 3 > 2
< true
> 5 > 10
< false
> 5 >= 5
< true
> 5 <= 5
< true
> 3 = 3
```
<<<< = is for var assignment

```
Uncaught ReferenceError: Invalid left-hand side in assignment VM841:1
```

Use === to check if they are equal, = gives error

```
> 3 === 3
< true
```
checks if equal to

```
> 3 !== 3
< false
> 4 !== 5
< true
```

Module Operator % returns remainder (division)

```
> 12 % 6
< 0
> 12 % 5
< 2
```

5 % 10 // 5

— exercise1.txt —

// Guess what answers you would get if you ran this in the
// Javascript Console in Google Chrome. Once you have an answer to the questions then
// check them by copying them and running it in the console yourself line by line

//Evaluate the below:
5 + "34"
5 - "4"
10 % 5
5 % 10
"Java" + "Script"
" " + " "
" " + 0
true + true
true + false
false + true
false - true
3 - 4
"Bob" - "bill"

//Evaluate the below comparisons:
5 >= 1
0 === 1
4 <= 1
1 != 1
"A" > "B"
"B" < "C"
"a" > "A"
"b" < "A"
true === false
true != true

// Make the string: "Hi There! It's "sunny" out" by using the + sign:

e x p r e s s i o n - code that produces a value
**** needs to have a semicolon at the end ****

Exercise 1 solutions

```
> 5 + "34"
<- "534"
> 5 - "4"
<- 1
> 10 % 5
<- 0
> 5 % 10
<- 5
```

```
> "Java" + "Script"
<- "JavaScript"
> " " + " "
<- "  "
> " " + 0
<- " 0"
```

```
> true + true
<- 2
> true + false
<- 1
> false + true
<- 1
> false - true
<- -1
```

converts boolean to a number?

true = 1

false = 0

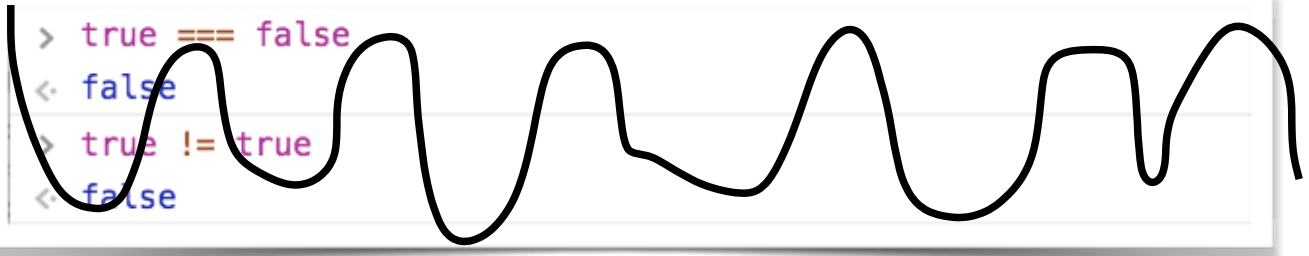
```
> 3 - 4
<- -1
> "Bob" - "bill"
<- NaN
```

```
> 5 >= 1
<- true
> 0 === 1
<- false
> 4 <= 1
<- false
> 1 != 1
<- false
```

```
> "A" > "B"
<- false
> "B" < "C"
<- true
> "a" > "A"
<- true
> "b" < "A"
<- false
```

```
> true === false
<- false
> true != true
<- false
```


```
> true === false
<- false
> true != true
<- false
```

So how does this work….?

```
> "A" > "B"
<- false
> "A" < "B"
<- true
> "B" < "C"
<- true
> "B" > "C"
<- false
> "a" > "A"
<- true
> "a" < "A"
<- false
> "b" > "B"
<- true
> "b" < "B"
<- false
> "b" < "A"
<- false
> "b" > "A"
<- true
```

“A” < “B” < “C”

“A” < “a”

“ “ < “A” < “B” < “C” < “D” < … < “Z” < “a” < “b” < …

ABCD….Zabcd….z

smallest^ ^largest