THE COMPLETE JAVASCRIPT COURSE

FROM ZERO TO EXPERT!

SECTION

JAVASCRIPT FUNDAMENTALS – PART 1

LECTURE

BOOLEAN LOGIC

BASIC BOOLEAN LOGIC: THE AND, OR & NOT OPERATORS

A AND B

"Sarah has a driver's license AND good vision"

B \ A	TRUE	FALSE
TRUE	TRUE	FALSE
FALSE	FALSE	FALSE

Possible values

Results of operation, depending on 2 variables

👇

`true` when **ALL** are `true`

No matter how many variables

A OR B

"Sarah has a driver's license OR good vision"

B \ A	TRUE	FALSE
TRUE	TRUE	TRUE
FALSE	TRUE	FALSE

👇

`true` when **ONE** is `true`

NOT A, NOT B

👇

Inverts `true`/`false` value

👉 EXAMPLE:

`A`: Sarah has a driver's license

`B`: Sarah has good vision

Boolean variables that can be either TRUE or FALSE

AN EXAMPLE

BOOLEAN VARIABLES

```
age = 16
```

👉 A: Age is greater or equal 20 → `false`

👉 B: Age is less than 30 → `true`

LET'S USE OPERATORS!

👉 !A → `true`

`false`

👉 A AND B → `false`

`false` `true`

👉 A OR B → `true`

`false` `true`

👉 !A AND B → `true`

`true` `true`

👉 A OR !B → `false`

`false` `false`

B \ A	AND	TRUE	FALSE
TRUE	TRUE	TRUE	FALSE
FALSE	FALSE	FALSE	FALSE

B \ A	OR	TRUE	FALSE
TRUE	TRUE	TRUE	TRUE
FALSE	TRUE	TRUE	FALSE

THE COMPLETE JAVASCRIPT COURSE

FROM ZERO TO EXPERT!

SECTION

JAVASCRIPT FUNDAMENTALS – PART 1

LECTURE

JAVASCRIPT RELEASES: ES5, ES6+ AND ESNEXT

A BRIEF HISTORY OF JAVASCRIPT

1995

👉 Brendan Eich creates the **very first version of JavaScript in just 10 days**. It was called Mocha, but already had many fundamental features of modern JavaScript!

1996

👉 Mocha changes to LiveScript and then to JavaScript, in order to attract Java developers. However, **JavaScript has almost nothing to do with Java** ☝️

👉 Microsoft launches IE, **copying JavaScript from Netscape** and calling it JScript;

1997

👉 With a need to standardize the language, ECMA releases ECMAScript 1 (ES1), the first **official standard for JavaScript** (ECMAScript is the standard, JavaScript the language in practice);

2009

👉 ES5 (ECMAScript 5) is released with lots of great new features;

2015

👉 ES6/ES2015 (ECMAScript 2015) was released: **the biggest update to the language ever!**

👉 ECMAScript changes to an **annual release cycle** in order to ship less features per update 🙏

2016 – ∞

👉 Release of ES2016 / ES2017 / ES2018 / ES2019 / ES2020 / ES2021 / …/ ES2089 😅

BACKWARDS COMPATIBILITY: DON'T BREAK THE WEB!

```
// ES1 Code
function add(n) {
  var x = 5 + add.arguments[0];
  return x;
}
```

1997

BACKWARDS COMPATIBLE

Modern JavaScript Engine

2020

DON'T BREAK THE WEB!

- 👉 Old features are **never** removed;
- 👉 Not really new versions, just **incremental updates** (releases)
- 👉 Websites keep working **forever**!

Modern JavaScript Engine

2020

NOT FORWARDS COMPATIBLE

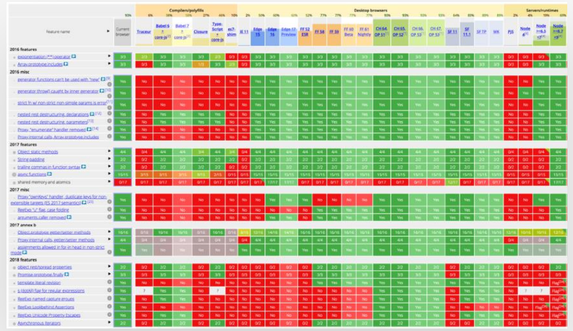
```
// ES2089 Code 😂
c int add n <=> int 5 + n
```

2089

HOW TO USE MODERN JAVASCRIPT TODAY

👩‍💻 **During development:** Simply use the latest Google Chrome!

🚀 **During production:** Use Babel to transpile and polyfill your code (converting back to ES5 to ensure browser compatibility for all users).



http://kangax.github.io/compat-table

ES5

- 👉 Fully supported in all browsers (down to IE 9 from 2011);
- 👉 Ready to be used today 👍

BABEL

ES6/ES2015
↓
ES2020

- 👉 **ES6+**: Well supported in all **modern** browsers;
- 👉 No support in **older** browsers;
- 👉 Can use **most** features in production with transpiling and polyfilling 😃

ES2021 – ∞

- 👉 **ESNext**: Future versions of the language (new feature proposals that reach Stage 4);
- 👉 Can already use **some** features in production with transpiling and polyfilling.

Will add new videos

(As of 2020)

MODERN JAVASCRIPT FROM THE BEGINNING

🔥 Learn modern JavaScript from the beginning!

☝️ But, also learn how some things used to be done **before** modern JavaScript (e.g. `const` & `let` vs `var` and function constructors vs ES6 `class`).

3 reasons why we should not forget the Good Ol' JavaScript:

👉 You will better understand how JavaScript actually works;

👉 Many tutorials and code you find online today are still in ES5;

👉 When working on old codebases, these will be written in ES5.

JAVASCRIPT FUNDAMENTALS – PART 2

THE COMPLETE JAVASCRIPT COURSE

FROM ZERO TO EXPERT!

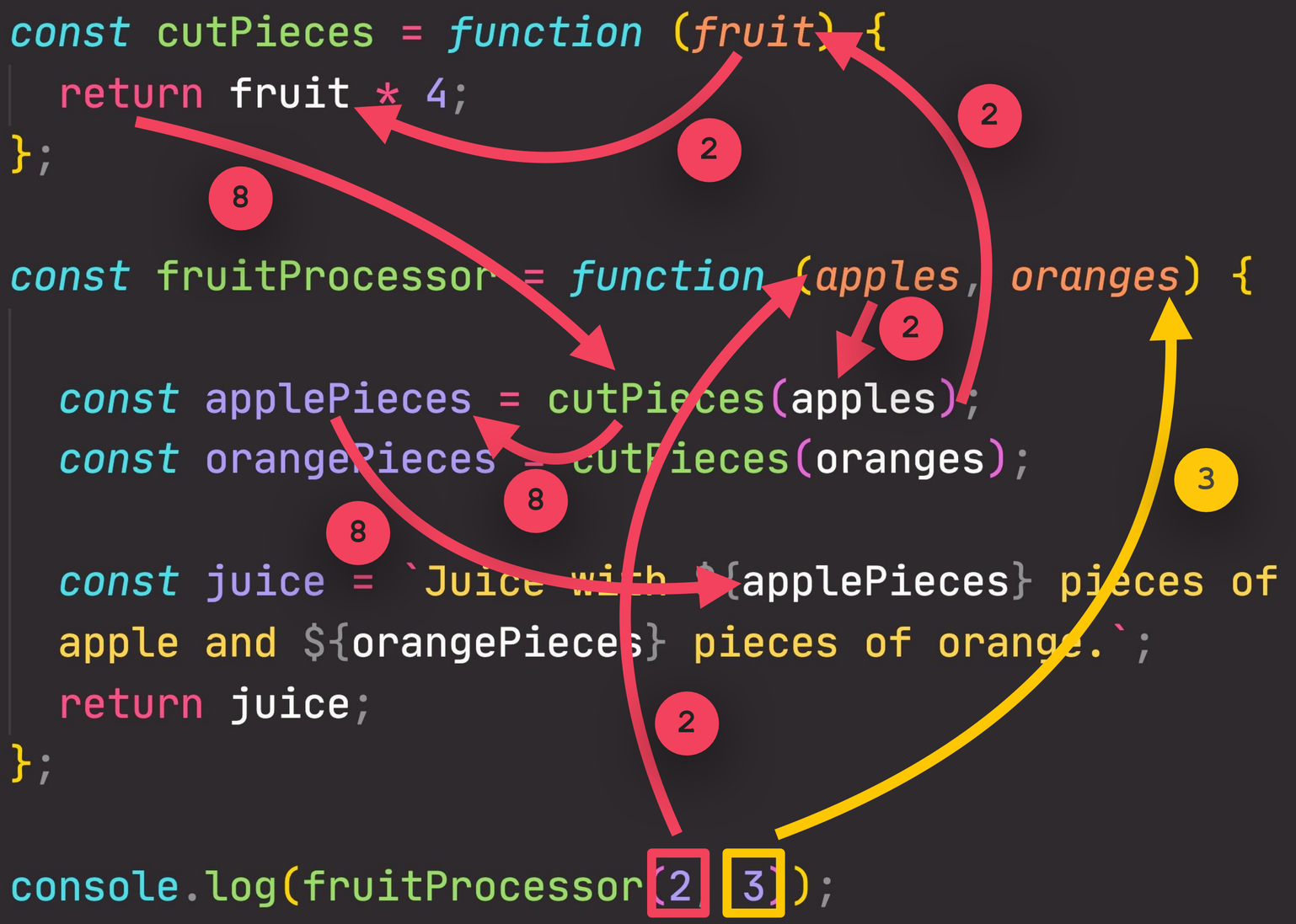
SECTION

JAVASCRIPT FUNDAMENTALS – PART 2

LECTURE

FUNCTIONS CALLING OTHER FUNCTIONS

CALLING A FUNCTION INSIDE A FUNCTION: DATA FLOW



THE COMPLETE JAVASCRIPT COURSE

FROM ZERO TO EXPERT!

SECTION

JAVASCRIPT FUNDAMENTALS – PART 2

LECTURE

REVIEWING FUNCTIONS

FUNCTIONS REVIEW; 3 DIFFERENT FUNCTION TYPES

👉 **Function declaration**

Function that can be used before it's declared

👉 **Function expression**

Essentially a function *value* stored in a variable

👉 **Arrow function**

Great for a quick one-line functions. Has no `this` keyword (more later...)

```
function calcAge(birthYear) {
  return 2037 - birthYear;
}

const calcAge = function (birthYear) {
  return 2037 - birthYear;
};

const calcAge = birthYear ⇒ 2037 - birthYear;
```

☝️ Three different ways of writing functions, but they all work in a similar way: receive **input** data, **transform** data, and then **output** data.

FUNCTIONS REVIEW: ANATOMY OF A FUNCTION