

# BASICS JAVASCRIPT

# OBJECTIVES

- **Basics JavaScript**
- **Basics Coding Examples**
- **Questions & Answers**

# MOTIVATION

<https://nutrix.tech/blog/category/jobs/>

## GitHub Language Rankings, 2018-2020

Language	2020 Ranking	2019 Ranking	2018 Ranking
JavaScript	1	1	1
Python	2	2	3
Java	3	3	2
TypeScript	4	7	4
C#	5	5	6
PHP	6	4	4
C++	7	6	5
C	8	9	8
Shell	9	8	9
Ruby	10	10	10

Source: [GitHub](#)

Dice

# BACKGROUND

2000: Do you know JavaScript?

2002: Do you know JavaScript for Internet Explorer and Firefox?

2006: Do you know JavaScript library JQuery?

2007: Do you know JavaScript Ajax?

2010: Do you know Single Page Application (SPA) Framework?

2011: Do you know JavaScript Framework for Backend Framework?

2013: Do you know JavaScript Stack (eg. MEAN)

2014: Do you know SPA / Node Framework version?

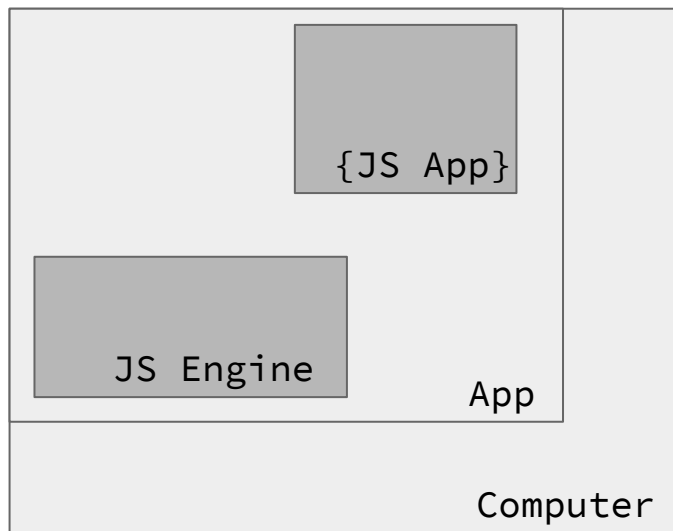
2015: Do you know Progressive Web Apps (PWA)?

2021: ?

# DEFINITION

- **ECMA** is a standards organization for information and communication systems
- **ECMAScript** specification is an **ECMA** standardized specification of a scripting language
- **ECMAScript engine** is a computer program that executes **ECMAScript** code
- **JavaScript engine** is an **ECMAScript engine** that executes **JavaScript** code
- **JavaScript** is a programming language that conforms to the **ECMAScript** specification

# DEFINITION



# EXAMPLES



SpiderMonkey  
JS Engine



WebKit  
JS Engine



V8  
JS Engine

{JS App}



mongoDB.



CouchDB  
relax



Apps



**BlackBerry**

**TIZEN**

Apps



MarkLogic™

node  
JS



Apps

# JAVASCRIPT FIRST RELEASE

- 1997: First release ECMAScript language specification by Netscape (version 1)
- 1998: Editorial changes aligned with ISO/IEC 16262 international standard (version 2)
- 1999: regular expr., better string handling, try/catch excp handling (version 3)
- 2003: abandoned due to differences concerning language complexity (version 4)
- 2009: Adds "strict mode," to provide more thorough error checking (version 5)
- 2015: import \*, for...of, let keyword for local declarations, promises (version 6)
- 2016: await, async keywords for asynchronous programming (version 7)
- 2017: functions for easy manipulation of Objects (version 8)
- 2018: Spread operator for easy copying of object properties let obj1 = {c: 3, ...obj2}
- 2019: Array.sort, Array.flat, Array.flatMap (version 10)
- 2020: BigInt primitive, const zipcode = person?.address?.zipcode (version 11)



# JAVASCRIPT FIRST RELEASE (1997)

## Scope

- **this**
- **var**
- **function**
- **with**

## Data Type

- String
- Number
- NaN
- Boolean
- Null
- Undefined
- **Object**, Array, Function Object
- Math, Number, Date Object

## Control Flow

- while
- break
- for
- continue
- if
- else
- return

## Operators

- = > < == <= >=
- != , ! ~ ? :
- . && || ++ -- +
- % << >> >>> += -=
- \*= /= &= |= ^= %=
- <<= >>= >>>=

## Misc

- comments
- new
- in
- delete
- void
- typeof

# JAVASCRIPT - OBJECT, FUNCTION, THIS

```
1 const test = {  
2   prop: 42,  
3   func: function() {  
4     return this.prop;  
5   },  
6 };|  
7  
8 console.log(test.func());  
9 // expected output: 42  
10
```

# JAVASCRIPT - OBJECT, FUNCTION, THIS

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```
1 const test = function() {  
2   prop = 5;  
3   return this.prop;  
4 }  
5 console.log(test()); // 5
```

QUESTIONS?

# REFERENCES

- [https://en.wikipedia.org/wiki/Ecma\\_International](https://en.wikipedia.org/wiki/Ecma_International)
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