

History of JavaScript

History:- In 1995, A Netscape (browser) programmer named Brendan Eich developed a scripting language in just 10 days.

Originally name (first name):- Mocha

Second name:- LiveScript

At that time java is famous programming language. So, for marketing purpose LiveScript changed into javascript.

★ Java and JavaScript both are different programming language. nothing is common.

Mocha → LiveScript → JavaScript

In 1997, there is another famous browser that was Internet Explorer (Microsoft browser).

Then, Microsoft copied javascript features made own language named as Jscript.

In Browser was (Netscape vs internet explorer)

Netscape → JavaScript

Internet Explorer → Jscript

EcmaScript is born....

Ecma International :- Ecma international is an industry association founded in 1996, dedicated to the standardization of information and communication systems.

JavaScript + Ecma \rightarrow **EcmaScript**.
(Rules)

Problem solved :- We can ^{Same} implement scripting language for different browser.

First EcmaScript.

ES1 \rightarrow 1997

ES5 \rightarrow 2009 (lots of new features)

ES6 (ES2015) \rightarrow 2015 (Biggest update for Js)

ES6 is also known as Modern JavaScript

Ecma have a technical community known as TC39 had decided ~~that~~ after 2015 we release javascript with new featurss every year (**Annual release**).

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JavaScript Features.

Features:-

Case sensitive

Dynamically typed

Cross-platform

Interpreted

Object-oriented Scripting language

Backward compatible

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JavaScript variables

Variables:- Variables stores the data which can be changed or used when we need.

There are these ***keywords** to declare a variable.

Keywords are the predefined words in programming languages.

- **var** var name = 10;
- **let** let name = 10;
- **const** const pi = 3.14;

Datatype in JavaScript

There are two types of data

1. Primitive
2. Non-primitive.

Primitive datatypes are:-

- Number
- Null
- String
- Bool
- Undefined
- BigInt
- Symbol

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Non-Primitive datatypes are:-

- Array
- Object
- RegExp.

JavaScript Hacks

1. Convert string to numbers

Put the pulse (+) before the string

For Example:-

```
let str = '9';  
console.log(typeof(+str));
```

2. Convert number into string

Add a empty string with the numbers

For Example:-

```
let num = 10;  
console.log(typeof(num + ''));
```

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JavaScript String.

String:- String are used to store textual form of data like word, sentence. It follows zero based indexing.

```
let str = "pro";
```

```
let str = 'pro';
```

```
let str = `pro`;
```

JavaScript String Method

trim()

slice()

charAt()

toString()

concat()

substring()

indexOf()

toUpperCase()

lastIndexOf()

toLowerCase()

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Undefined in JavaScript

- Accessing an uninitialized variable returns undefined.

```
let str;
```

```
console.log(str); //undefined
```

- Accessing a non-existing property of an object returns undefined.
- Accessing a out-of-bounds array element returns undefined

Null in JavaScript

- null means 'no value' assign to variable.
- typeof null returns 'object'
- Null is treated as false value.

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JavaScript BigInt

BigInt:- BigInt is a primitive Datatype which is used for large numeric values it doesn't represent decimal values.

It is used to represent values greater than $2^{53}-1$.

Declaration of BigInt

- By appending n at the end of numeric values.

```
var num = 9876543219865252772n;
```

- By passing the values as an argument to the `BigInt()`.

```
var num = BigInt(987654321986525277);
```

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JS

Ternary Operator

Ternary operator:- It is also called **conditional operator**.

- It takes three operands.
- It makes the code more concise.

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Syntax:-

let variableName = condition ? True : False;

If the condition is true expression after ? will executes. If it is false, expression after : (colon) will executes.

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For Example:-

```
let age = 18;  
let warning;  
age >= 18 ? (warning = "You can play")  
           : (warning = "You cannot play");  
console.log(warning);
```

Output:- You can Play.