

JS basics documentation

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Introduction

JavaScript is object-oriented scripting language. Originally used mainly for front-end development (web sites), nowadays JavaScript is being used for various purposes (web sites, applications, mobile development, testing...).

JavaScript has also various libraries, frameworks and extensions to make it general-purpose language. Coding with pure JavaScript (without frameworks etc.) is called using "vanilla JavaScript". If we do not want our program to work in linear way, we can also implement so called asynchronous JavaScript.

The most commonly used are:

- React
- Angular
- Node.js
- Vue
- Mocha
- Express

Note that this is a very simple breakdown of basics.

This is just short exercise for freeCodeCamp course on responsive web design.

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Prerequisites

In order to start learning JavaScript, you should have general knowledge of these topics:

- Basic understanding of how Internet works.
- Good knowledge of HTML (Hyper Text Mark-up Language).
- Logical thinking.

Hello World

To see general syntax, we can try write Hello World! in JavaScript:

```
function greetUs() {const a = "Hello"; let b = "World";return a + " " + b;} console.log(greetUs());
```

Variables and Constants

Variables are basic building blocks of JavaScript code. The purpose of variable is to have a reference for a value stored in a code. Values stored in variables can be overwritten. If you need to store one unchanged piece of data, you should use constant.

```
let nameOfVariable = "value" const nameOfConstant = "value"
```

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Data Types

JavaScript has 7 data types (6 primitives and 1 complex):

- Numbers
- Strings
- Boolean
- null
- undefined
- Symbols
- Objects

Objects are complex data type.

Functions

The purpose of function is to essentially make JavaScript do something. We have 3 ways to create function in JavaScript:

- Function declaration: `function countingNumbers(){let a = 1; let b = a + a; return b;}`
- Function expression: `const countedNumber = function (a) {let b = a + a;return b;}`
- Arrow function syntax: `const countedNumber = (a) => {let b = a + a; return b;}`

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More Information

JavaScript has also multitude of other important elements to create a well functioning program: operators, statements, methods, classes etc.

For more information please visit [MDN docs](#). Other good resources are:

- David Flanagan - JavaScript: The Definitive Guide, O'Reilly, 7th ed., 2020
- W3schools [website](#)
- Codecademy [course](#)

Good luck with your study!