**PART 1**

**The JavaScript language**

**Here we learn JavaScript, starting from scratch and go on to advanced concepts like OOP.**

**We concentrate on the language itself here, with the minimum of environment-specific notes.**

[**An introduction**](https://javascript.info/getting-started)

* [**An Introduction to JavaScript**](https://javascript.info/intro)
* [**Manuals and specifications**](https://javascript.info/manuals-specifications)
* [**Code editors**](https://javascript.info/code-editors)
* [**Developer console**](https://javascript.info/devtools)

[**JavaScript Fundamentals**](https://javascript.info/first-steps)

* [**Hello, world!**](https://javascript.info/hello-world)
* [**Code structure**](https://javascript.info/structure)
* [**The modern mode, "use strict"**](https://javascript.info/strict-mode)
* [**Variables**](https://javascript.info/variables)
* [**Data types**](https://javascript.info/types)
* [**Type Conversions**](https://javascript.info/type-conversions)
* [**Operators**](https://javascript.info/operators)
* [**Comparisons**](https://javascript.info/comparison)
* [**Interaction: alert, prompt, confirm**](https://javascript.info/alert-prompt-confirm)
* [**Conditional operators: if, '?'**](https://javascript.info/ifelse)
* [**Logical operators**](https://javascript.info/logical-operators)
* [**Loops: while and for**](https://javascript.info/while-for)
* [**The "switch" statement**](https://javascript.info/switch)
* [**Functions**](https://javascript.info/function-basics)
* [**Function expressions**](https://javascript.info/function-expressions)
* [**Arrow functions, the basics**](https://javascript.info/arrow-functions-basics)
* [**JavaScript specials**](https://javascript.info/javascript-specials)

[**Code quality**](https://javascript.info/code-quality)

* [**Debugging in Chrome**](https://javascript.info/debugging-chrome)
* [**Coding Style**](https://javascript.info/coding-style)
* [**Comments**](https://javascript.info/comments)
* [**Ninja code**](https://javascript.info/ninja-code)
* [**Automated testing with Mocha**](https://javascript.info/testing-mocha)
* [**Polyfills**](https://javascript.info/polyfills)

[**Objects: the basics**](https://javascript.info/object-basics)

* [**Objects**](https://javascript.info/object)
* [**Garbage collection**](https://javascript.info/garbage-collection)
* [**Symbol type**](https://javascript.info/symbol)
* [**Object methods, "this"**](https://javascript.info/object-methods)
* [**Object to primitive conversion**](https://javascript.info/object-toprimitive)
* [**Constructor, operator "new"**](https://javascript.info/constructor-new)

[**Data types**](https://javascript.info/data-types)

* [**Methods of primitives**](https://javascript.info/primitives-methods)
* [**Numbers**](https://javascript.info/number)
* [**Strings**](https://javascript.info/string)
* [**Arrays**](https://javascript.info/array)
* [**Array methods**](https://javascript.info/array-methods)
* [**Iterables**](https://javascript.info/iterable)
* [**Map and Set**](https://javascript.info/map-set)
* [**WeakMap and WeakSet**](https://javascript.info/weakmap-weakset)
* [**Object.keys, values, entries**](https://javascript.info/keys-values-entries)
* [**Destructuring assignment**](https://javascript.info/destructuring-assignment)
* [**Date and time**](https://javascript.info/date)
* [**JSON methods, toJSON**](https://javascript.info/json)

[**Advanced working with functions**](https://javascript.info/advanced-functions)

* [**Recursion and stack**](https://javascript.info/recursion)
* [**Rest parameters and spread syntax**](https://javascript.info/rest-parameters-spread)
* [**Variable scope**](https://javascript.info/closure)
* [**The old "var"**](https://javascript.info/var)
* [**Global object**](https://javascript.info/global-object)
* [**Function object, NFE**](https://javascript.info/function-object)
* [**The "new Function" syntax**](https://javascript.info/new-function)
* [**Scheduling: setTimeout and setInterval**](https://javascript.info/settimeout-setinterval)
* [**Decorators and forwarding, call/apply**](https://javascript.info/call-apply-decorators)
* [**Function binding**](https://javascript.info/bind)
* [**Arrow functions revisited**](https://javascript.info/arrow-functions)

[**Object properties configuration**](https://javascript.info/object-properties)

* [**Property flags and descriptors**](https://javascript.info/property-descriptors)
* [**Property getters and setters**](https://javascript.info/property-accessors)

[**Prototypes, inheritance**](https://javascript.info/prototypes)

* [**Prototypal inheritance**](https://javascript.info/prototype-inheritance)
* [**F.prototype**](https://javascript.info/function-prototype)
* [**Native prototypes**](https://javascript.info/native-prototypes)
* [**Prototype methods, objects without \_\_proto\_\_**](https://javascript.info/prototype-methods)

[**Classes**](https://javascript.info/classes)

* [**Class basic syntax**](https://javascript.info/class)
* [**Class inheritance**](https://javascript.info/class-inheritance)
* [**Static properties and methods**](https://javascript.info/static-properties-methods)
* [**Private and protected properties and methods**](https://javascript.info/private-protected-properties-methods)
* [**Extending built-in classes**](https://javascript.info/extend-natives)
* [**Class checking: "instanceof"**](https://javascript.info/instanceof)
* [**Mixins**](https://javascript.info/mixins)

[**Error handling**](https://javascript.info/error-handling)

* [**Error handling, "try..catch"**](https://javascript.info/try-catch)
* [**Custom errors, extending Error**](https://javascript.info/custom-errors)

[**Promises, async/await**](https://javascript.info/async)

* [**Introduction: callbacks**](https://javascript.info/callbacks)
* [**Promise**](https://javascript.info/promise-basics)
* [**Promises chaining**](https://javascript.info/promise-chaining)
* [**Error handling with promises**](https://javascript.info/promise-error-handling)
* [**Promise API**](https://javascript.info/promise-api)
* [**Promisification**](https://javascript.info/promisify)
* [**Microtasks**](https://javascript.info/microtask-queue)
* [**Async/await**](https://javascript.info/async-await)

[**Generators, advanced iteration**](https://javascript.info/generators-iterators)

* [**Generators**](https://javascript.info/generators)
* [**Async iterators and generators**](https://javascript.info/async-iterators-generators)

[**Modules**](https://javascript.info/modules)

* [**Modules, introduction**](https://javascript.info/modules-intro)
* [**Export and Import**](https://javascript.info/import-export)
* [**Dynamic imports**](https://javascript.info/modules-dynamic-imports)

[**Miscellaneous**](https://javascript.info/js-misc)

* [**Proxy and Reflect**](https://javascript.info/proxy)
* [**Eval: run a code string**](https://javascript.info/eval)
* [**Currying**](https://javascript.info/currying-partials)
* [**BigInt**](https://javascript.info/bigint)

**PART 2**

**Browser: Document, Events, Interfaces**

**Learning how to manage the browser page: add elements, manipulate their size and position, dynamically create interfaces and interact with the visitor.**

[**Document**](https://javascript.info/document)

* [**Browser environment, specs**](https://javascript.info/browser-environment)
* [**DOM tree**](https://javascript.info/dom-nodes)
* [**Walking the DOM**](https://javascript.info/dom-navigation)
* [**Searching: getElement\*, querySelector\***](https://javascript.info/searching-elements-dom)
* [**Node properties: type, tag and contents**](https://javascript.info/basic-dom-node-properties)
* [**Attributes and properties**](https://javascript.info/dom-attributes-and-properties)
* [**Modifying the document**](https://javascript.info/modifying-document)
* [**Styles and classes**](https://javascript.info/styles-and-classes)
* [**Element size and scrolling**](https://javascript.info/size-and-scroll)
* [**Window sizes and scrolling**](https://javascript.info/size-and-scroll-window)
* [**Coordinates**](https://javascript.info/coordinates)

[**Introduction to Events**](https://javascript.info/events)

* [**Introduction to browser events**](https://javascript.info/introduction-browser-events)
* [**Bubbling and capturing**](https://javascript.info/bubbling-and-capturing)
* [**Event delegation**](https://javascript.info/event-delegation)
* [**Browser default actions**](https://javascript.info/default-browser-action)
* [**Dispatching custom events**](https://javascript.info/dispatch-events)

[**UI Events**](https://javascript.info/event-details)

* [**Mouse events basics**](https://javascript.info/mouse-events-basics)
* [**Moving the mouse: mouseover/out, mouseenter/leave**](https://javascript.info/mousemove-mouseover-mouseout-mouseenter-mouseleave)
* [**Drag'n'Drop with mouse events**](https://javascript.info/mouse-drag-and-drop)
* [**Keyboard: keydown and keyup**](https://javascript.info/keyboard-events)
* [**Scrolling**](https://javascript.info/onscroll)

[**Forms, controls**](https://javascript.info/forms-controls)

* [**Form properties and methods**](https://javascript.info/form-elements)
* [**Focusing: focus/blur**](https://javascript.info/focus-blur)
* [**Events: change, input, cut, copy, paste**](https://javascript.info/events-change-input)
* [**Forms: event and method submit**](https://javascript.info/forms-submit)

[**Document and resource loading**](https://javascript.info/loading)

* [**Page: DOMContentLoaded, load, beforeunload, unload**](https://javascript.info/onload-ondomcontentloaded)
* [**Scripts: async, defer**](https://javascript.info/script-async-defer)
* [**Resource loading: onload and onerror**](https://javascript.info/onload-onerror)

[**Miscellaneous**](https://javascript.info/ui-misc)

* [**Mutation observer**](https://javascript.info/mutation-observer)
* [**Selection and Range**](https://javascript.info/selection-range)
* [**Event loop: microtasks and macrotasks**](https://javascript.info/event-loop)

**PART 3**

**Additional articles**

**List of extra topics that assume you've covered the first two parts of tutorial. There is no clear hierarchy here, you can read articles in the order you want.**

[**Frames and windows**](https://javascript.info/frames-and-windows)

* [**Popups and window methods**](https://javascript.info/popup-windows)
* [**Cross-window communication**](https://javascript.info/cross-window-communication)
* [**The clickjacking attack**](https://javascript.info/clickjacking)

[**Binary data, files**](https://javascript.info/binary)

* [**ArrayBuffer, binary arrays**](https://javascript.info/arraybuffer-binary-arrays)
* [**TextDecoder and TextEncoder**](https://javascript.info/text-decoder)
* [**Blob**](https://javascript.info/blob)
* [**File and FileReader**](https://javascript.info/file)

[**Network requests**](https://javascript.info/network)

* [**Fetch**](https://javascript.info/fetch)
* [**FormData**](https://javascript.info/formdata)
* [**Fetch: Download progress**](https://javascript.info/fetch-progress)
* [**Fetch: Abort**](https://javascript.info/fetch-abort)
* [**Fetch: Cross-Origin Requests**](https://javascript.info/fetch-crossorigin)
* [**Fetch API**](https://javascript.info/fetch-api)
* [**URL objects**](https://javascript.info/url)
* [**XMLHttpRequest**](https://javascript.info/xmlhttprequest)
* [**Resumable file upload**](https://javascript.info/resume-upload)
* [**Long polling**](https://javascript.info/long-polling)
* [**WebSocket**](https://javascript.info/websocket)
* [**Server Sent Events**](https://javascript.info/server-sent-events)

[**Storing data in the browser**](https://javascript.info/data-storage)

* [**Cookies, document.cookie**](https://javascript.info/cookie)
* [**LocalStorage, sessionStorage**](https://javascript.info/localstorage)
* [**IndexedDB**](https://javascript.info/indexeddb)

[**Animation**](https://javascript.info/animation)

* [**Bezier curve**](https://javascript.info/bezier-curve)
* [**CSS-animations**](https://javascript.info/css-animations)
* [**JavaScript animations**](https://javascript.info/js-animation)

[**Web components**](https://javascript.info/web-components)

* [**From the orbital height**](https://javascript.info/webcomponents-intro)
* [**Custom elements**](https://javascript.info/custom-elements)
* [**Shadow DOM**](https://javascript.info/shadow-dom)
* [**Template element**](https://javascript.info/template-element)
* [**Shadow DOM slots, composition**](https://javascript.info/slots-composition)
* [**Shadow DOM styling**](https://javascript.info/shadow-dom-style)
* [**Shadow DOM and events**](https://javascript.info/shadow-dom-events)

[**Regular expressions**](https://javascript.info/regular-expressions)

* [**Patterns and flags**](https://javascript.info/regexp-introduction)
* [**Character classes**](https://javascript.info/regexp-character-classes)
* [**Unicode: flag "u" and class \p{...}**](https://javascript.info/regexp-unicode)
* [**Anchors: string start ^ and end $**](https://javascript.info/regexp-anchors)
* [**Multiline mode of anchors ^ $, flag "m"**](https://javascript.info/regexp-multiline-mode)
* [**Word boundary: \b**](https://javascript.info/regexp-boundary)
* [**Escaping, special characters**](https://javascript.info/regexp-escaping)
* [**Sets and ranges [...]**](https://javascript.info/regexp-character-sets-and-ranges)
* [**Quantifiers +, \*, ? and {n}**](https://javascript.info/regexp-quantifiers)
* [**Greedy and lazy quantifiers**](https://javascript.info/regexp-greedy-and-lazy)
* [**Capturing groups**](https://javascript.info/regexp-groups)
* [**Backreferences in pattern: \N and \k<name>**](https://javascript.info/regexp-backreferences)
* [**Alternation (OR) |**](https://javascript.info/regexp-alternation)
* [**Lookahead and lookbehind**](https://javascript.info/regexp-lookahead-lookbehind)
* [**Catastrophic backtracking**](https://javascript.info/regexp-catastrophic-backtracking)
* [**Sticky flag "y", searching at position**](https://javascript.info/regexp-sticky)
* [**Methods of RegExp and String**](https://javascript.info/regexp-methods)