

# 50 drops of JavaScript

50 useful, powerful,  
joyful JS functions

ROBERTO BUTTI



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# **Welcome to 50 drops of JavaScript**

## The reason why

This book collects 50 useful, unknown, underrated JavaScript functions or stuff discovered, used, and learned during JavaScript daily use.

Using JavaScript frameworks/libraries daily (like React, Vue, Angular), sometimes the perception of the power of the language and the basic functionalities provided by the JavaScript core could be lost. I see that usually, I used to look at the framework documentation or look for a package in Npm for the system, array, and string functions instead of using core functionalities provided by the language.

While I wrote this book, I also wrote some scripts to better understand the behavior of the functions. You can find these examples here:

<https://github.com/roberto-butti/50-drops-of-javascript> in the *examples* directory.

## Requirements

The code used in this book is tested with **Nodejs version 18 (LTS)**. Node.js is an open-source, cross-platform JavaScript runtime environment, and you can obtain Node.js on the official <https://nodejs.org/> website.

## Continuous release

I was thinking to print this book, but I think that is not so eco-friendly and a book about development could be improved daily in terms of spellchecking and the content and examples. So, I expect to adopt the same approach in the software with the CI/CD, with a continuous release of the book.

Releases:

- (WIP) release 1.0.0 (WIP not yet released): writing... ;

So, if you have any feedback, or you want to suggest some corrections, feel free to open an issue here: <https://github.com/roberto-butti/50-drops-of-javascript/issues>

## Where to find this book

This book is available for download for free here:

<https://github.com/roberto-butti/50-drops-of-javascript/>

## Thanks to...

Thanks to all the Open Source community.

## License

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# System

The chapter will cover functions about "system" functionalities (for example how to retrieve the operating system version).

## Info from CPU: `os.cpus()`

The `os` module allows you to retrieve some relevant information about the environment used for running your *Node.js* script or application.

```
const os = require('os')
const cpus = os.cpus()
```

The `os` module provides you with some methods. One of them is the `cpus()` that returns the list of CPUs available in your environment. For each element of the list (each element is one CPU), you have the `model` attribute that has the CPU model name (for example "Apple M1 Pro") and the `speed` attribute, an integer for showing the speed of the CPU. Then you have also `times` attribute for the times (in milliseconds) that the CPU has spent in these modes: `user`, `nice` (valid only for Posix systems, in Windows this value is always 0), `sys`, `idle`, `irq`. So, you can walk through the list of CPUs:

```
cpus.forEach(cpu => {
  console.info(cpu.model + ' speed: ' + cpu.speed)
  console.table(cpu.times)
})
```

## Info from Operating System: `os.version()`

The `os` module has the `version()` method to return the version of the Operating System in use.

```
const os = require('os')  
const version = os.version()
```

The `version()` method returns a string with the full name of the Operating System version, like this:

```
Darwin Kernel Version 21.6.0: Wed Aug 10 14:28:23 PDT 2022;  
root:xnu-8020.141.5~2/RELEASE_ARM64_T6000
```



## Info for the current user: `os.userInfo()`

The `os` module has the `userInfo()` method to return information on the current system user.

```
const os = require('os')
const user = os.userInfo()
```

The `userInfo()` method returns an object with attributes:

- `uid`: the user identifier (integer)
- `gid`: the group identifier (integer)
- `username`: the username (string)
- `homedir`: the user's home directory (string)
- `shell`: the user's shell (string)