

JavaScript Module Fundamentals

WHY MODULES MATTER IN JAVASCRIPT



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Module

A group of code and data related to a particular piece of functionality. It encapsulates implementation details, exposes a public API, and is combined with other modules to build a larger application.

The Goals of Modularity

Create higher-level abstractions

Encapsulation

Reusability

Simplify dependency management



A Brief History of JavaScript Modules

Once upon a time...in 1995.



A Brief History of JavaScript Modules

No support for modules.



A Brief History of JavaScript Modules

Popularity grows.

Popularity leads to bigger apps.

Bigger apps lead to greater complexity.



A Brief History of JavaScript Modules

We need modules!!!



A Brief History of JavaScript Modules

Lots of solutions were developed.



A Brief History of JavaScript Modules

Packaging and distribution is hard.



A Brief History of JavaScript Modules

Lots of solutions were developed.



A Brief History of JavaScript Modules

Meanwhile...



A Brief History of JavaScript Modules

JavaScript supports modules!



A Brief History of JavaScript Modules

There was much confusion...until now!



Course Modules

Module Patterns in ES5

Module Formats and Loaders

Modules in ES2015

Module Bundlers





Visual Studio Code

- <https://code.visualstudio.com>

Node.js

- <https://nodejs.org>

npm

Various npm packages