

# ECMAScript and JavaScript

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## ECMA

- ECMA (European Computer Manufacturers Association) is an international standards organization responsible for standardizing ECMAScript, which serves as the foundation for JavaScript and other scripting languages. This note provides a comprehensive overview of ECMA, explains the difference between ECMAScript and JavaScript, and highlights the main purpose of ECMA standards for JavaScript.
- Founded in 1961, ECMA consists of member organizations representing various industry sectors, including technology companies, standards bodies, and government agencies.
- The organization focuses on developing and maintaining standards to promote interoperability and facilitate technological advancements.

## ECMAScript vs. JavaScript:

### ECMAScript:

- ECMAScript refers to the standardized scripting language specification governed by the ECMA organization.
- It defines the syntax, semantics, and behavior of scripting languages, including JavaScript.
- It provides a common foundation for multiple implementations, ensuring consistency and interoperability across platforms.

### JavaScript:

- JavaScript is a popular programming language that serves as an implementation of the ECMAScript specification.
- It encompasses the ECMAScript rules, features, and core functionality, while also incorporating additional capabilities such as DOM manipulation, AJAX, and APIs specific to web browsers.

## **Purpose of ECMA Standards for JavaScript:**

### **Interoperability**

- The primary objective of ECMA standards for JavaScript is to promote interoperability across different implementations.
- By establishing a common set of rules and specifications, developers can write code that works consistently across various JavaScript engines, browsers, and platforms.

### **Stability**

- ECMA standards provide a stable foundation for the JavaScript language. They ensure that core language features, syntax, and semantics remain consistent over time, reducing compatibility issues and enabling long-term code maintenance.

### **Language Evolution**

- ECMA standards facilitate the evolution of the JavaScript language. Through a standardized process, proposals for new language features, enhancements, and modifications can be reviewed, refined, and incorporated into future ECMAScript versions.
- This enables JavaScript to stay relevant and adapt to the changing needs of the web development community.

### **Collaboration and Consensus**

- The ECMA standards process encourages collaboration among developers, implementers, and other stakeholders.

- It provides a platform for the JavaScript community to actively participate in shaping the language, making decisions collectively, and ensuring that the standards reflect the needs and perspectives of a diverse range of developers.