

DWA_02.8 Knowledge Check_DWA2

1. What do ES5, ES6 and ES2015 mean - and what are the differences between them?

1. ES5, ES6, and ES2015 are all versions of the ECMAScript (ES) specification, which is the standard that JavaScript is based on. The differences between them are as follows:

- ES5: ECMAScript 5 was released in 2009 and introduced several important features to JavaScript, including strict mode, JSON support, and array methods like `forEach`, `map`, and `filter`. ES5 is widely supported by modern web browsers.
- ES6: ECMAScript 6, also known as ES2015, was released in 2015. It brought significant enhancements to JavaScript, introducing new syntax and features such as arrow functions, classes, modules, template literals, and destructuring assignments. ES6 introduced major improvements to the language and set the foundation for modern JavaScript development.
- ES2015: ES2015 is simply an alternative name for ECMAScript 6, reflecting the year it was released. It is often used interchangeably with ES6.

2. What are JScript, ActionScript and ECMAScript - and how do they relate to JavaScript?

- JavaScript: JavaScript is a scripting language primarily used for web development. It was initially developed by Brendan Eich at Netscape and is now widely supported in web browsers and server-side environments. JavaScript is based on the ECMAScript specification and follows its syntax and rules.
- ECMAScript: ECMAScript is the official name of the scripting language standardized by Ecma International. JavaScript is the most popular implementation of the ECMAScript standard, but other languages like JScript and ActionScript also implement ECMAScript. ECMAScript defines

the syntax, types, and behavior of the language, while JavaScript is the implementation of those specifications in web browsers.

- JScript: JScript is a scripting language developed by Microsoft, which implements the ECMAScript specification. It was originally created for use in Internet Explorer. JScript and JavaScript share many similarities, but there are some differences in their implementations and supported features.

- ActionScript: ActionScript is a scripting language used primarily in Adobe Flash. It is also based on the ECMAScript specification and shares similarities with JavaScript, but it includes additional features and functionality specific to the Flash platform.

3. What is an example of a JavaScript specification - and where can you find it?

3. An example of a JavaScript specification is the ECMAScript specification itself. The current version is ECMAScript 2021, but there are older versions as well. The ECMAScript specification defines the syntax, semantics, and behavior of the JavaScript language. You can find the ECMAScript specification at the official Ecma International website:
<https://www.ecma-international.org/publications-and-standards/standards/ecma-262/>

4. What are v8, SpiderMonkey, Chakra and Tamarin? Do they run JavaScript differently?

V8, SpiderMonkey, Chakra, and Tamarin are all JavaScript engines. They are responsible for interpreting and executing JavaScript code. Each engine is developed by different organizations

- V8: V8 is the JavaScript engine developed by Google and primarily used in the Google Chrome web browser. It is written in C++ and is known for its high-performance execution and just-in-time (JIT) compilation techniques.

- Chakra: Chakra is the JavaScript engine developed by Microsoft. It was initially used in the Internet Explorer browser and later in Microsoft Edge. Chakra has been replaced by the ChakraCore engine in Microsoft Edge versions based on the Chromium project.

While all of these engines run JavaScript, they may have different performance characteristics, optimization strategies, and additional features. They are developed by different organizations and have their own specific implementations and design choices.

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ECMAScript 5 - OTHER

Usage

% of all users

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☆

Full support for the ECMAScript 5 specification. Features include Function.prototype.bind, Array methods like indexOf, forEach, map & filter, Object methods like defineProperty, create & keys, the trim method on Strings and many more.

Current aligned

Usage relative

Date relative

Filtered

All

⚙

Chrome	Edge	Safari	Firefox	Opera	IE
					6-7
4-18			2-3.6	10-11.5	8
19-22		3.1-5.1	4-20	12.1	9
23-112	12-112	6-16.4	21-112	15-98	10
113	113	16.5	113	99	11
114-116		16.6-TP	114-115		

Chrome for Android	Safari on iOS	Samsung Internet	Opera Mini	Opera Mobile	UC Browser for Android	Android Browser	Firefox for Android	QQ Browser	Baidu Browser	KaiOS Browser
						2.1-3				
						4				
	3.2-5.1	4-20		12		4.1-4.3				
	6-16.4			12.1		4.4-4.4.4				2.5
113	16.5	21	all	73	13.4	113	113	13.1	13.18	3.1

Notes

Test on a real browser

Sub-features

Known issues (0)

Resources (5)

Feedback

a)AS you can see for chrome on version 4-22 is on Partial support and only started started to be supported from version 22 until 116

b)AS you can see for Safari on version 3.1-5.1 is on Partial support and only started to be supported from version 6 until 16.4
