

DWA_02.8 Knowledge Check_DWA2

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

ES5 - stands for ECMAScript5. It was the fifth edition of the ECMAScript standard. ES5 introduced new features and improvements to the language, such as strict mode, array methods like ``ForEach``, ``map``, ``filter``, and ``reduce``, as well as various syntax enhancements.

ES6 - stands for ECMAScript6. It was a major update to the ECMAScript standard. It introduced new features like block scoped variables (``let`` and ``const``), arrow functions, classes, modules, template literals, enhanced object literals. It marked a significant milestone in the evolution of Javascript.

ES2015 is known as ES6, The 2015 in the ES2015 it's simply the release date for ES6.

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

JScript - is a scripting language developed by Microsoft. It was initially created as a dialect of ECMAScript and was used primarily for client-side scripting in web browsers. JScript shares many similarities with Javascript. Earlier versions of internet Explorer supported JScript; today it only accepts Javascript as their scripting language.

ActionScript - Was developed by Macromedia and later it was acquired by Adobe. It was to provide interactivity and animation capabilities on the web. ActionScript was also based on ECMAScript, specifically ECMAScript 4. ActionScript supports timelines and vector graphics on flash.

ECMAScript - is the standardized specification for Javascript. It defines the syntax, semantics, and behavior of the Javascript programming language. ECMAScript provides guidelines and rules for implementing Javascript across different platforms and environments. JavaScript is the most popular implementation of ECMAScript.

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

JavaScript specification is the ECMAScript specification. The ECMAScript specification provides the standardization for the JavaScript programming language.

You can find the ECMAScript specification on the official website of Ecma international, the organization responsible for standardizing ECMAScript.

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

V8 - is an open-source JavaScript engine developed by Google. Is known for its high-performance. It uses an optimizing compiler that translates Javascript into highly efficient machine code, resulting in fast execution speeds.

SpiderMonkey - is the original Javascript engine developed for Netscape Navigator. SpiderMonkey is an open-source Javascript engine used in the Mozilla firefox browser and other applications. SpiderMonkey also utilizes JIT compilation techniques to optimize Javascript execution, and it has a focus on supporting modern JavaScript features and standards.

Chakra - Is a JavaScript engine developed by Microsoft. It was used in internet Explorer and Microsoft Edge browsers. Chakra was designed to provide fast and efficient JavaScript execution. Microsoft later transitioned to using the Blink rendering engine (which includes V8) in its Edge browser, making ChakraCore an open-source project. ChakraCore can still be used for embedding JavaScript in other applications and environments.

Tamarin: Tamarin is a JavaScript engine developed by Adobe Systems. It was primarily designed to run JavaScript and ActionScript (the scripting language used in Adobe Flash) code. Tamarin utilizes just-in-time compilation and other optimization techniques to execute JavaScript and ActionScript efficiently. However, Adobe announced the discontinuation of the Tamarin project in 2011, and it is no longer actively developed or maintained.

5. Show a practical example using caniuse.com and the MDN compatibility table.

