DWA_02.8 Knowledge Check_DWA2

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

ES (European Computer Manufacturers Association) stands for ECMAScript, which is a Javascript standard intended to ensure the interoperability of web pages across different web browsers.

ES5 - Stands for ECMAScript 5
ES6 - The 6th edition of the ECMAScript Standard
ES2015 - It is the same as ES6, just another synonym for it. The 2015 is the year of release.

ES6 is a more recent version and allows us to write programs for complex applications, whereas ES5 supports primitive data types. ES6 thus has a higher performance Some of the key differences to note is: e.g. ES5 uses the var keyword, whereas ES6 uses the const and let keywords. It is also simpler to declare objects on ES6 than on ES5. Object destructuring: Objects are manually removed one by one in ES5, but in ES6 it can be done using a single code. The arrow function isn't present in ES5.

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

JScript: It is a dialect of the ECMAScript standard that is used in Microsoft's Internet Explorer 11 and older. It is a programming language which is commonly used in web development. According to MDN, it is a scripting language that enables you to create dynamically updating content, control multimedia and animate images, to name a few.

ActionScript: It is an object-oriented programming language originally developed by Macromedia Inc, and first appeared in 1998. It is used by developers to create animations and video games

EMCAScript: an object-oriented programming language for performing computations and manipulating computational objects within a host environment. It basically provides the rules, details and guidelines that a scripting language must observe.

All of the above relate to Javascript in the sense that JScript IS Javascript, the name is used solely because of trademark purposes; ActionScript and Javascript are both programming languages and can both be used to animate images and have similarities in terms of syntax and concepts; ECMAScript is in essence the blueprint to creating a scripting language whereas Javascript is an implementation of that blueprint.

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

DOM (Document Object Model) specification
You can find it on https://tc39.es/ecma262/

Others include Web API's, JSON and CommonJs and AMD Specifications

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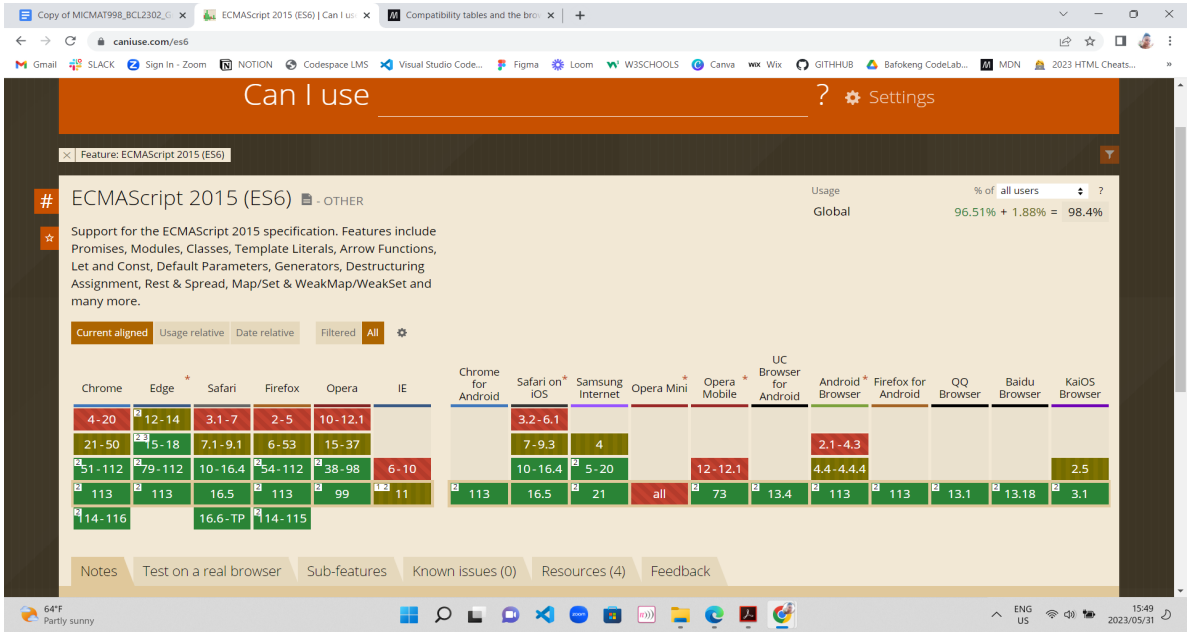
4. What are v8, SpiderMonkey, Chakra and Tamarin? Do they run JavaScript differently?

V8: An open-source Javascript engine developed by Google and designed to execute Javascript code quickly and efficiently across various platforms. It translates Javascript code into machine code for efficient execution.
SpiderMonkey: An open-source Javascript engine developed by Mozilla. It is one of the first Javascript engines ever created and has been actively developed since 1995. It emphasizes compatibility with web standards and supports various Javascript languages.
Chakra: A Javascript engine developed by Microsoft. It was designed to provide fast and efficient execution of Javascript code and focuses on good performance for web applications.
Tamarin: It is a project by Adobe and Mozilla which contributed to the development of JavaScript engines, specifically in relation to ActionScript and Javascript code. Its contributions benefited Javascript execution in SpiderMonkey.

In a nutshell, yes, they run Javascript differently, however all adhere to the ECMAScript specification.

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

Caniuse



MDN