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?

- They are all different editions of the ECMAScript language specification, each bringing new improvement and advancement in the JS language.
- **ES5** is the 5th edition of the ECMAScript, and the “real” version of JS
- **ES6** is the 6th edition.
- **ES2015** is the same as ES6, its just that the naming convention changed from using version numbers (ES6) to using release years (ES2015), but it refers to the same set of features/improvement introduced in ES6.

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

- They are all languages similar to JavaScript.
- **JScript**: Because JavaScript was to be used exclusively by Netscape, Microsoft reverse engineered and create their own version of JavaScript, which they called Jscript. It’s based on the ECMAScript standard. It was primarily used for Internet Explorer, and has phased out since the decline of the browser.
- **ActionScript**: Developed by Macromedia (later Adobe), was used for building interactive application.
- **ECMAScript**: It was developed before the WaSP to create a specification that could be used as a standard for how scripting should work in all browsers that could be used by all the different JavaScript variants. E.g., Singe-line comments should always start with "//". JavaScript and Jscript were unified into a single standardised language titled ECMAScript.
- Jscript is Microsofts implementation of the ECMAScript standard, while ActionScript is Macromedia’s implementation of the ECMAScript standard.
- JavaScript is technically titled ECMAScript

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

- The Web Standards Project (WaSP), founded in 1998, aimed to promote standardisation of languages such as HTML, CSS, and JavaScript amongst browsers
- so that developers wouldn't have to maintain multiple versions of the same codebase to accommodate browser-specific differences
- so that code would work consistently across various browsers
- e.g., instead of writing Jscript for Internet Explorer, as well as JavaScript for Netscape Navigator, code would work consistently across various browsers

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

- They are JavaScript compilers. They take the code you write and translate it into instructions the computer understands.
- They all run JS differently in terms of execution speed, integration with specific web browsers, feature support etc.
    - V8: JS engine used in Google Chrome
    - SpiderMonkey: JS engine used in Mozilla Gecko apps (Firefox)
    - Chakra: JS engine used in Internet Explorer.
    - Tamarin: ActionScript and ECMAScript engine used in Adobe Flash

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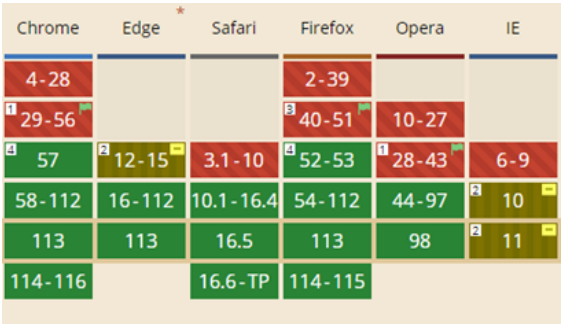
5. Show a practical example using **caniuse.com** and the MDN compatibility table.

- The caniuse project was developed to help developers check feature availability across browsers.
- MDM also displays this table on their website

Practical example:

Consider a web developer that wants to use the CSS ‘grid” property to create a grid layout for a website. But they aren’t sure about browser compatibility of the feature. They can look at these websites to check compatibility.

Searching “grid” on caniuse.com. You can see it supports the latest version of Chrome.



Similarly, if you search grid-template-columns on MDM in the search bar, you can find a table of supported browsers