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?

- ECMAScript 5 (ES5) was a major update to and introduced several new features and enhancements to JavaScript but it did have its challenges like Object manipulation is time-consuming in ES5 but it also depended on your view.

- ECMAScript 6/ECMAScript 2015 (ES6/ES2015) addresses some of the issues that made ES5 programming challenging. A better update to JavaScript and many new features and syntax enhancements were introduced such as let and const keywords, arrow functions just to name a few.

  ES5 introduced significant enhancements to JavaScript, while ES6 (or ES2015) brought even more new features and syntax improvements to JavaScript.

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

- JScript is a scripting language developed by Microsoft which is used in Microsoft's Internet Explorer browser and Windows-based scripting environments. JScript is popularly used to create dynamic and attractive web pages.
- ActionScript is a scripting language for the Adobe Flash Player and Adobe AIR runtime environments. It is used by developers to create animations and applications.
- ECMAScript is a programming language standard which specifies the core features that a scripting language should provide and how those features should be implemented.

  JScript, ActionScript, and ECMAScript are all scripting languages that are related to JavaScript in different ways but each has its own use depending on what you are doing and ECMAScript is a standard that JavaScript uses.

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

- The ECMA-262 specification contains the most detailed and formalized information about JavaScript. It defines the language.
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4. What are v8, SpiderMonkey, Chakra and Tamarin? Do they run JavaScript differently?

- V8 is the JavaScript engine that powers Google Chrome. It's the thing that takes our JavaScript and executes it while browsing with Chrome.
- SpiderMonkey is Mozilla's JavaScript engine written in C and C++. It is used in various Mozilla products, including Firefox. It was the first-ever JavaScript engine and is also open source.
- Chakra is a JavaScript engine developed by Microsoft for its Microsoft Edge web browser. Chakra included both an interpreter and a just-in-time (JIT) compiler for optimizing JavaScript execution.
- Tamarin is a discontinued JavaScript developed by Adobe Systems with just-in-time compilation (JIT) support intended to implement ECMAScript (ES4) language standard.

  All these JavaScript engines ultimately run JavaScript code, they may have different performance characteristics, optimizations, and implementation details. Developers choose specific engines based on strengths and compatibility.
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5. Show a practical example using caniuse.com and the MDN compatibility table.

- CSS Grid Layout allows you to divide available space into columns and rows using a set of predictable sizing behaviors.
- The CSS Grid Layout is compatible with the latest chrome version 113 when I was running a news article which had multiple columns.