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?

ES5, ES6, and ES2015 are all versions of ECMAScript programming language.

- **ECMAScript 5 (ES5) - It introduced several new features to the language, including strict mode, which enforces stricter syntax rules, and the JSON object, which allows for easier parsing and serialization of data.**
- **ECMAScript 6 (ES6) - It introduced several new features, including block-scoped variables, arrow functions, classes, and modules, also introduced new syntax for working with objects and arrays, as well as Promises for handling asynchronous code.**
- **ES2015 (ES6) - it was renamed to reflect the year it was released and to make it easier to track future versions.**

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

JScript is Microsoft's implementation of the ECMAScript standard. It is essentially the same as JavaScript, with a few variations specific to Microsoft platforms.

ActionScript is a scripting language that is used primarily to develop interactive web applications and multimedia content for Adobe Flash Player. It is based on ECMAScript, but includes additional features and syntax that are specific to the Flash platform.

ECMAScript is a standardized programming language specification that defines the core features of JavaScript and other similar languages. JavaScript is the most widely used implementation of the ECMAScript standard and is the language most people refer to when they talk about "JavaScript."

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

The specification is divided into several parts, including the core language specification, the standard library specification, and annexes that provide additional information on specific topics. It is a comprehensive document that provides a detailed description of the JavaScript language, including its syntax, semantics, and behavior.

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

V8, SpiderMonkey, Chakra, and Tamarin are JavaScript engines - software programs that interpret and execute JavaScript code. While they all run JavaScript, they do so in different ways and are used in different applications.

V8 is a JavaScript engine developed by Google. It is used in the Chrome web browser, as well as in Node.js, a server-side JavaScript runtime. V8 is known for its speed and performance, and is able to compile JavaScript code into machine code for even faster execution.

SpiderMonkey is a JavaScript engine developed by Mozilla. It is used in the Firefox web browser, as well as in other Mozilla projects. SpiderMonkey was one of the first JavaScript engines, and is known for its extensibility and support for Firefox's XUL user interface language.

Chakra is a JavaScript engine developed by Microsoft. It is used in the Edge web browser, as well as in Windows 10 and the Universal Windows Platform. Chakra is designed to be fast and efficient, with support for a variety of modern web standards.

Tamarin is a JavaScript engine developed by Adobe. It is used in the Flash Player and AIR runtime environments, and is designed specifically for running ActionScript and

ECMAScript-based code. Tamarin is known for its support for dynamic language features, such as just-in-time compilation and garbage collection.

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

By using caniuse.com and the MDN compatibility table, we can make sure that the CSS grid feature is widely supported by the browsers that our users are using. This helps ensure that our web application is accessible and functional for as many users as possible.