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 each different versions of the ECMAScript standard, which is the foundation that defines the specifications for JavaScript. ES5 was released in 2009 and introduced significant improvements to JavaScript. ES6 is a variant of ES2015 released in 2015 and are used interchangeably(with ES6 being more popular though ES2015 was introduced by ECMAScript standard as the first yearly release cycle the same year ES6 was released) and introduced more important changes and modern features to JavaScript.

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

JScript and ActionScript are scripting languages similar to JavaScript created by Microsoft and Adobe respectively and share a common foundation in the ECMAScript standard with JavaScript, which is an implementation of the ECMAScript standard.

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

All JavaScript programmers follow the same general rule around single-line comments: They should always be introduced with '//' and can include any character but line terminators, they should end before the line break and should not be executed as code by the compiler.

An example would be as follows:

```
1    // console.log("this is not about to show up on executed code, boo!")

2    console.log("this code is definitely getting executed!")

3    // The above was an example of how single-line comments should work in comparison with executed code.
```

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

All the above are JavaScript engines with a common function of executing JavaScript code albeit differently due to varying optimization and performance traits.
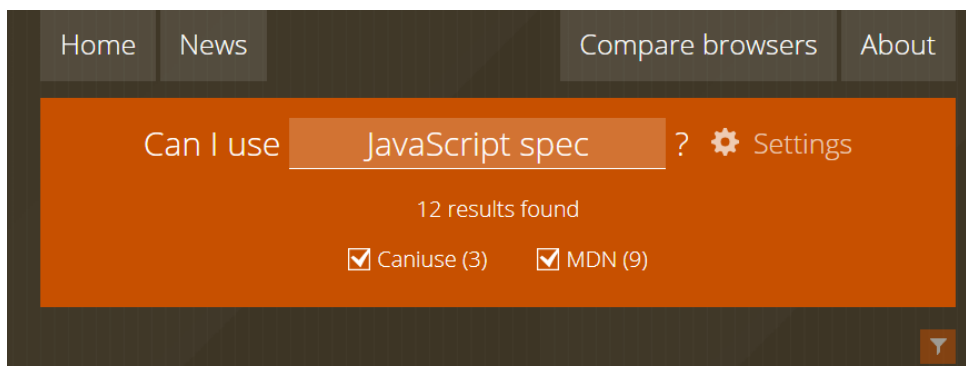
V8 is a JavaScript engine created by Google. It's used in Google Chrome and Node.js. V8 makes JavaScript code run faster by converting it into machine code and using techniques like just-in-time(JIT) compilation. It's known for its speed and memory management.

SpiderMonkey is the first JavaScript engine that was initially created by Brendan Eich for Netscape Navigator. Today it's maintained by Mozilla Foundation and used in Mozilla Firefox. SpiderMonkey, like V8, uses JIT compilation to make JavaScript code run faster.

Chakra is a JavaScript engine created by Microsoft initially used in Internet Explorer and later in Microsoft Edge. It has since improved over time and in 2015 an open-source version of Chakra called ChakraCore was introduced. ChakraCore can be used in different applications like Node.js and the Universal Windows Platform (UWP).

Tamarin is a JavaScript engine created by Adobe Systems. It is used in the Adobe Flash Player and Adobe Acrobat Reader applications to run JavaScript code within them. It was designed to make JavaScript code run efficiently specifically for Adobe's products.

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

JavaScript built-in: Symbol: species

Usage % of all users ?

Global 95.57%

Current aligned Usage relative Date relative Filtered All

Chrome	Edge *	Safari	Firefox	Opera	IE ⚠ *	Chrome for Android	Safari on iOS
4-50	12	3.1-9.1	2-40	10-37			3.2-9.3
51-112	13-112	10-16.4	41-112	38-98	6-10		10-16.4
113	113	16.5	113	99	11	113	16.5
114-116		16.6-TP	114-115				

Notes Test on a real browser Feedback

See full reference on MDN Web Docs.

Support data for this feature provided by:

◆ MDN browser-compat-data