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 and ES2015 or ES6 are the fifth and sixth versions of the ECMA Script respectively. ES5 stands for ECMAScript 5. It is also called ECMAScript 2009 whereas ES6 stands for ECMAScript 6. It is also called ECMAScript 2015.5 days ago

	ES5	ES6
1.	ECMA script is a trademarked scripting language specification defined by Ecma international. The fifth edition of the same is known as ES5	ECMA script is a trademarked scripting language specification defined by Ecma international. The sixth edition of the same is known as ES6
2.	It was introduced in 2009.	It was introduced in 2015.
3.	It supports primitive data types that are string, number, boolean, null, and undefined.	In ES6, there are some additions to JavaScript data types. It introduced a new primitive data type 'symbol' for supporting unique values.
4.	There are only one way to define the variables by using the var keyword.	There are two new ways to define variables that are let and const.
5.	It has a lower performance as compared to ES6.	It has a higher performance than ES5.
6.	Object manipulation is time-consuming in ES5.	Object manipulation is less time-consuming in ES6.

7.	In ES5, both function and return keywords are used to define a function.	An arrow function is a new feature introduced in ES6 by which we don't require the function keyword to define the function.
8.	It provides a larger range of community supports than that of ES6	It provides a less range of community supports than that of ES5

-ES2015 is the same as ES6 , and ES2016 is the same as ES7 . In the case of --lib , ES2015 also allows some granularity with separate definition packages, but it's really just a naming convention. Eventually it'll all be kept as ES20xx and we can pretend ESx never happened.

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

-JavaScript is a lightweight programming language that web developers commonly use to create more dynamic interactions when developing web pages, applications, servers, and or even games.

-ActionScript is an object-oriented language originally developed by micro-midea Inc. (later acquired by Adobe).

-ECMAScript is *the official client-side scripting language of VoiceXML*. ECMAScript is a limited programming model for simple data manipulation.

ECMAScript is a subset of JavaScript. JavaScript is basically ECMAScript at its core but builds upon it. Languages such as ActionScript, JavaScript, JScript all use ECMAScript as its core. As a comparison, AS/JS/JScript are 3 different cars, but they all use the same engine…

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

-The standards for JavaScript are the ECMAScript Language Specification (ECMA-262) and the ECMAScript Internationalization API specification (ECMA-402).

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

-The V8 engine has an interpreter named "Ignition" [5]. This interpreter is used for interpreting and executing low level bytecode. Bytecodes, although slower, are smaller than machine codes and requires lesser compilation time.
-*Chakra* is a proprietary JScript *engine* developed by Microsoft. It is used in the Internet Explorer web browser.
-SpiderMonkey is open-source JavaScript and WebAssembly engine by the Mozilla Foundation. It is the first JavaScript engine, written by Brendan Eich at Netscape Communications, and later released as open source and currently maintained by the Mozilla Foundation. It is used in the Firefox web browser.
-*Tamarin* is a free virtual machine with just-in-time compilation (JIT) support intended to implement the fourth edition of the ECMAScript standard.

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

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