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 is the official name for the ECMAScript specification update published in 2009.
➔ For ES5 you have to write a function keyword and return, to be used to define the function, like normal general JavaScript language.

➔ During the process that led to ES2015, the name was changed from ES6 to ES2015, but it was published late so, people still reference to it as ES6

➔ It doesn't need to use the function keyword to define the function, also the return keyword can be avoided to fetch the computer value.

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

ECMAScript = ES:

- ECMAScript is a Standard for scripting languages.
- Languages like Javascript are based on the ECMAScript standard.
- ECMA Standard is based on several originating technologies, the most well known being JavaScript (Netscape) and JScript (Microsoft).
- ECMA means European Computer Manufacturer's Association

JavaScript = JS:

- JavaScript is the most popular implementation of the ECMAScript Standard.
- The core features of Javascript are based on the ECMAScript standard, but Javascript also has other additional features that are not in the ECMA specifications/standard.
- ActionScript and JScript are other languages that implement ECMAScript.
- JavaScript was submitted to ECMA for standardization but due to trademark issues with the name Javascript the standard became called ECMAScript.
- Every browser has a JavaScript interpreter.

ActionScript

- ActionScript is an object-oriented programming language originally developed by Macromedia Inc. (later acquired by Adobe).
- It is now an implementation of ECMAScript (meaning it is a superset of the syntax and semantics of the language more widely known as JavaScript), though it originally arose as a sibling, both being influenced by HyperTalk.
- ActionScript code is usually converted to byte-code format by the compiler.

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

- This standardized version of JavaScript, called ECMAScript
- The ECMAScript standard is documented in the ECMA-262 specification.
- The ECMA-262 standard is also approved by the ISO (International Organization for Standardization) as ISO-16262. You can also find the specification on the Ecma International website

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

- V8 is an open-source JavaScript engine developed by Google for use in the Google Chrome web browser and the Node.js runtime environment.
- SpiderMonkey is an open-source JavaScript engine developed by Mozilla for use in the Firefox web browser and other Mozilla applications.
- Chakra is a proprietary JScript engine developed by Microsoft.
- Tamarin is a discontinued free software virtual machine with just-in-time compilation (JIT) support intended to implement the 4th edition of the ECMAScript (ES4) language standard. Also it is used by Mozilla within the SpiderMonkey.
- Yes, tamarin and spidermonkey will run the same, V8 and Chakra will also use the same engine which is Chromium-based browser

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

https://caniuse.com/?search=javascript

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