DWA_02.8 Knowledge Check_DWA2

_____

1. What do ES5, ES6, and ES2015 mean - and what are the differences between them?

ES5: ECMAScript 5, which was introduced in 2009, significantly enhanced JavaScript. It added capabilities such as strict mode, JSON objects, Array methods (such, forEach, map, and filter), and enhanced property handling.

ECMAScript 6, usually referred to as ES2015, was published in 2015. It added numerous significant improvements to the language, including as the let and const keywords for variables with a block scope and arrow functions, classes, modules, and promises.

_____

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

The authoritative standard for scripting languages like JavaScript is called ECMAScript. The ECMAScript specification is implemented by JavaScript. The ECMAScript requirements are also followed by other programming languages including JScript and ActionScript, but JavaScript is the most well-known and commonly used implementation.

Microsoft's implementation of the ECMAScript specification is called JScript. Even though there are a few minor technical variations and extra capabilities exclusive to Internet Explorer, it is essentially the same as JavaScript.

ActionScript is a scripting language that was created by Adobe Systems and is mostly used to create sophisticated online applications using Adobe Flash. ECMAScript 4 served as the foundation for ActionScript's early development, although it later underwent autonomous development and added capabilities unique to the Flash platform.

_____

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

The JavaScript engines SpiderMonkey, Chakra, and Tamarin are in charge of running JavaScript code in web browsers or other environments.

_____

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

The JavaScript engine used in Google Chrome and many other programs is called V8, and it was created by Google. It is very performant since JavaScript is directly converted into native machine code.

The JavaScript engine utilized by Firefox and created by Mozilla is called SpiderMonkey. One of the first JavaScript engines ever made was this one.

Microsoft created the Chakra JavaScript engine specifically for the Edge browser. Microsoft, however, stopped supporting it in favor of utilizing the V8 engine in Chromium for their Edge browser.

Tamarin: The ActionScript 3 language's JavaScript engine was created by Adobe Systems for the Flash runtime.

_____

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

Let's consider the "async/await" feature introduced in ES2017 (ES8) and see how it's supported in different browsers using caniuse.com and the MDN compatibility table.

```
function resolveAfter2Seconds() {
  return new Promise(resolve => {
    setTimeout(() => {
      resolve('resolved');
    }, 2000);
  });
}

async function asyncCall() {
  console.log('calling');
```

```
  const result = await resolveAfter2Seconds();
  console.log(result);
  // Expected output: "resolved"
}

asyncCall();
```

_____