#### DWA\_02.8 Knowledge Check\_DWA2

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

 ES5, ES6, and ES2015 are all upgraded versions of ECMAScript, which is the standardized scripting language that JavaScript is based on.

#### **Differences:**

**ES5** was released in 2009 and came with features such as strict mode, and array methods like for Each and reduce. It also had JSON support.

**ES6** was released in 2015, It came with great changes or enhancements with the introduction of the arrow functions, classes, modules, and template literals.

ES2015 was released in 2015 and

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

• **JScript** was created by Microsoft with the purpose of being used in Internet Explorer and was similar to Javascript.

- ActionScript was created by Adobe Systems and used for creating interactive content and apps within Adobe Flash.
  ActionScript does have similarities to JavaScript.
- **ECMAScript** is the standard scripting language that JavaScript is based on, it defines the syntax, features and JavaScript behavior.

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

 The ECMAScript Language Specification is an example of JavaScript specification and can be found here: https://www.ecma-international.org/publications-and-standards/standards/ecma-262/

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

**V8:** is developed by Google. It is written in C++ and powers several well-known applications like the Chrome browser and Node.js. V8 is known for its performance and optimization capabilities.

**SpiderMonkey:** was the first JavaScript engine and is used in the Firefox browser and developed by Mozilla.

**Chakra**: Chakra is a JavaScript engine developed by Microsoft. It was used in Internet Explorer and is now utilized in Microsoft Edge (the legacy version). Chakra has undergone significant improvements in terms of performance and compliance with ECMAScript standards.

**Tamarin:** Tamarin is a JavaScript engine that was developed by Adobe Systems. It was primarily used in the Adobe Flash runtime to execute ActionScript, which is based on ECMAScript. Tamarin included just-in-time (JIT) compilation and other optimizations for performance.

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