# DWA_12 Knowledge Check

To complete this Knowledge Check, ensure you have worked through all the lessons in **Module 12: Declarative Abstractions.**

To prepare for your session with your coach, please answer the following questions. Then download this document as a PDF and include it in the repository with your code.

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1. What are the benefits of direct DOM mutations over replacing HTML?

- Performance: It is more efficient to update only the necessary parts of the DOM rather than recreating the entire HTML structure.
- Precision: DOM mutations allow developers to make precise changes to the DOM which can optimise the responsivity of the user interface.
- Data preservation: Associated data or event listeners can be preserved, avoiding the need to reattach event handlers or reinitialise data.
- Flexible Integration: Direct DOM mutations can be integrated more easily into other frameworks.

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2. What low-level noise do JavaScript frameworks abstract away?

- Browser incompatibilities. It abstracts away the need to write browser-specific code by providing abstractions for features not supported in all browsers.
- Simplifying interaction with DOM elements and event handling.

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3. What essence do JavaScript frameworks elevate?

JavaScript frameworks aim to aid the development process by increasing efficiency of data management, simplifying complex tasks into more manageable ones (abstraction) and encouraging modularity so that code becomes organised for use as components or in libraries. This overall creates a sense of commonality amongst developers encouraging support and integration across different fields of development.

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4. Very broadly speaking, how do most JS frameworks achieve abstraction?

- Using component-based architecture to allow developers to encapsulate and organise their code into building blocks that can be reused and better managed.
- It abstracts away low level interactions rather than imperatively manipulating the DOM.
- Frameworks provide mechanisms for binding data to the UI allowing developers to get constant updates on what their work is actually affecting.
- It abstracts away cross-browser management and compatibility issues.

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5. What is the most important part of learning a JS framework?

The most important part of learning a JS framework is to understand the fundamental concepts of the framework, such as components or state management, and what patterns and organisational architecture the particular framework you're using recommends to you. It's then up to you to familiarise yourself with what the framework provides to make development easier and more intuitive and translating your understanding of JavaScript into the framework's own best practices.