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?

Granular Control: Direct DOM mutations provide granular control over individual elements. You can selectively update specific elements or attributes without affecting the entire HTML structure.
State Preservation: When you replace HTML, you essentially remove the existing DOM elements and replace them with new ones.

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

DOM Manipulation: Frameworks like React, Vue.js, and Angular abstract away the manual manipulation of the DOM, allowing developers to work with a virtual representation of the DOM instead.
Cross-Browser Compatibility: Dealing with browser-specific quirks and inconsistencies is time-consuming. Frameworks abstract away many of these compatibility issues by providing consistent APIs and handling browser-specific optimizations and polyfills internally.

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3. What essence do JavaScript frameworks elevate?

Efficiency: JavaScript frameworks aim to improve development efficiency by providing abstractions, tools, and utilities that simplify common tasks. They offer reusable components, pre-defined templates, and modular architectures that enable developers to build applications more quickly and with less code.

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

Declarative Syntax: Frameworks often introduce declarative syntax for defining the desired state or structure of the user interface, rather than imperatively specifying how to achieve that state.
Virtual DOM: Some frameworks leverage a virtual DOM to achieve efficient rendering and abstraction. The virtual DOM is an in-memory representation of the actual DOM structure.

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

Architecture and Design Patterns: Familiarize yourself with the architectural principles and design patterns used in the framework. Understand how the framework structures and organizes code, and how different components interact with each other.