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 boostDirect DOM mutations can be more efficient in terms of performance compared to replacing HTML because they involve making minimal changes to the existing DOM structure. Instead of recreating large portions of the HTML, you only update the parts that have changed. This can result in faster rendering and smoother user interactions, especially for complex applications with a lot of dynamic content.

Flexibility: Direct DOM mutations give you the flexibility to implement custom rendering and update strategies tailored to the specific requirements of your application. This can be especially valuable for building highly interactive and responsive user interfaces where fine-grained control over DOM updates is essential.

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

Event Handling: Frameworks often provide convenient methods for event handling, abstracting away cross-browser differences and simplifying the process of attaching event listeners to elements.

DOM Manipulation: Frameworks handle the tedious task of directly interacting with the Document Object Model (DOM), providing abstractions that make it easier to update and manipulate elements without having to deal with the intricacies of DOM APIs.

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3. What essence do JavaScript frameworks elevate?

       Maintainability: Frameworks promote code organization and modular architecture, making it easier to manage and maintain large codebases over time. With features like component-based development, state management libraries, and routing systems, frameworks encourage best practices that enhance code readability, scalability, and maintainability
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       Consistency: Frameworks enforce consistent patterns and practices across projects, which helps maintain a cohesive codebase and facilitates collaboration among team members. By providing conventions for structuring code, naming conventions, and project organization, frameworks reduce cognitive overhead and make it easier for developers to understand and contribute to each other's code.

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4. Very broadly speaking, how do most JS frameworks achieve abstraction?
They hide away the imperative DOM mutations

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

Foundational Understanding: Before diving into the syntax or specific features of a framework, it's crucial to grasp the foundational concepts that underpin its design and functionality. This includes understanding concepts like components, state management, routing, and data binding, which are fundamental to most JavaScript frameworks.