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 boost

Modifying the DOM directly allows the browser's rendering engine to update the display incrementally, which can result in faster rendering. Replacing HTML might cause the entire page to reflow, leading to a slower rendering process. Direct DOM mutations can create a smoother user experience. For example, if you're updating a live chat or a real-time dashboard, you want to minimize disruptions to the user interface. Direct DOM manipulation can achieve this with minimal flickering or reflows.

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

Imperative updating of the DOM, keeping track of what elements need to change

Event Handling. Frameworks often simplify event handling by providing mechanisms for declarative event binding and propagation. This abstraction makes it easier to manage user interactions and communication between components.
State Management: Frameworks typically offer state management solutions that abstract away the complexities of managing and synchronizing application state. This includes tools like Redux for React, which provide centralized state management.

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3. What essence do JavaScript frameworks elevate?

Abstraction of Complexity: Frameworks abstract away low-level concerns like DOM manipulation, allowing developers to focus on high-level functionality and user experience. This abstraction simplifies development, making it more accessible to a broader range of developers.
State Management: Frameworks offer solutions for centralized state management, abstracting away the complexities of managing application data. This ensures a single source of truth for data and elevates the control and predictability of an application's state.

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

Event Handling: Frameworks often offer mechanisms for declarative event handling. This abstraction simplifies the management of user interactions and communication between components.
State Management: Frameworks typically provide tools for managing application state. They abstract the complexities of data storage and synchronization, ensuring that the UI always reflects the current state of the application.

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

Framework Documentation: Familiarize yourself with the official documentation of the framework. The documentation is a valuable resource that provides information on core concepts, APIs, components, and best practices. It's the first place you should turn to when you encounter questions or problems.

Project Structure: Learn how projects are structured in the framework. Understand where to place components, templates, styles, and scripts. Knowing the project structure helps you organize your code effectively.