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?

When you directly tweak the DOM, the specific spots you touch up on your webpage work faster, leading to a smoother experience, and you don't have to overhaul the entire HTML code. This approach isn't just quick, it's like having superpowers for your website, letting you customize the behavior and style of your site with your own personal flair. Plus, when your site's content is always on the move with new updates, direct DOM manipulation is your secret weapon— targeted changes with no collateral damage. And when it comes to adding those cool external libraries, it's a total cakewalk, because they're designed to fit right into the DOM like they were always meant to be there.

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

JavaScript frameworks optimize DOM updates, ensure code works across browsers, simplify handling of asynchronous tasks, and provide tools for efficient state management in complex applications. It is also great for setting up event listeners and managing them.

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3. What essence do JavaScript frameworks elevate?

JavaScript frameworks make web development easier and more uniform. They help update web pages smoothly, work the same across different browsers, manage background tasks without hassle, and keep track of app data cleanly. They're all about helping developers create complex websites faster and with less trouble.

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

JavaScript frameworks handle the tricky parts of updating what you see on the screen by themselves. Developers just tell the framework what they want the webpage to look like, and the framework does the heavy lifting of changing the page, without the developers needing to give step-by-step instructions. This means developers can focus on designing the webpage, while the framework takes care of the updates quietly in the background.

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

The most important part of learning a JavaScript framework is understanding its core concepts and how it manages the application's state and UI updates. This includes grasping the framework's unique way of handling data flow, component lifecycle, reactivity, and the way it abstracts direct DOM manipulation.