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.

- Direct DOM mutations can be more performant in certain cases because they only modify the parts of the DOM that need to be changed, rather than replacing entire sections of HTML. This can result in faster rendering and reduced CPU and memory usage.
- When you replace HTML, you often lose the state associated with the elements being replaced. Direct DOM mutations allow you to preserve the state of elements, such as form input values or scroll positions, making for a smoother user experience.

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

Performance boost

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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

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3. What essence do JavaScript frameworks elevate?

Some frameworks, like React, use a virtual DOM to abstract the real DOM. The virtual DOM is an in-memory representation of the actual DOM, and changes are first made to the virtual DOM. The framework then efficiently calculates the minimal set of changes needed to update the real DOM, which reduces the number of direct DOM manipulations and improves performance.

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

The most important part of learning a JavaScript framework is to understand its core concepts and principles.

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