

# 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 – Direct DOM mutations are more efficient, as it updates specific elements instead of rendering the entire DOM subtree.
- Better user experience: Incremental updates provide smoother and more responsive interactions.
- Intergration with frameworks: Direct DOM mutations can be intergrated with frameworks like Vue.js and React, which combines benefits.

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

- JavaScript frameworks abstract away low-level noise such as DOM manipulation, event handling, AJAX requests state management, virtual DOM diffing and routing/navigating. Allows developers to focus on application logic and user experience instead of dealing with lower level implementation details.

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### 3. What essence do JavaScript frameworks elevate?

JavaScript frameworks elevate the essence of building web applications by promoting modularity, declarative programming, data-driven UI. Abstracting complexity, ensuring cross-browser compatibility, providing robust tooling and ecosystem support. They simplify development, enhance productivity, and enable creation of modern, scalable and user-friendly applications.

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

JavaScript frameworks achieve abstraction through component-based architecture, declarative syntax, higher level APIs. State management abstractions, virtual DOM diffing and routing mechanisms. These techniques simplify development by encapsulating common tasks and providing higher level abstractions for building applications.

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

The vital part of learning a JavaScript framework is understanding its core concepts, including component-based architecture, state management, templating, routing, API and the best practices. Hands-on practice and remaining updated with documentation and communal resources are crucial for mastering the framework.