

# 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?

- It preserves the original HTML code.
- It reduces confusion when debugging
- Performance Optimization: By modifying the DOM directly, you can optimize the performance of your application. Replacing HTML often involves recreating and reattaching elements to the DOM, which can be computationally expensive. With direct DOM mutations, you can make targeted changes without triggering a full DOM reflow or repaint, leading to better overall performance.

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

**Data Binding:** Many JavaScript frameworks provide data binding capabilities, which abstract away the process of synchronizing data between the model (data) and the view (DOM). Frameworks facilitate two-way data binding, where changes in the model automatically reflect in the view and vice versa. This simplifies the code required for updating UI elements based on changes in data and reduces the manual effort involved in keeping the UI in sync.

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## 3. What essence do JavaScript frameworks elevate?

**Code Reusability:** Frameworks emphasize code reusability and component-based development. They enable developers to create reusable components or modules that encapsulate specific functionality or UI elements. These components can be easily

shared and used across different parts of an application or even across different projects. This reusability promotes code consistency, reduces duplication, and accelerates development by leveraging existing solutions.

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

Component-Based Architecture: Many frameworks adopt a component-based architecture, where the application is built using modular and reusable components. Components are self-contained entities that encapsulate their own behavior, data, and presentation logic.

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

Understanding the Core Concepts of how the framework handles data management, component composition, state management, routing, event handling, and any other fundamental aspects.