

# 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?

**State Preservation:** When you replace HTML the existing state is lost and any user interactions or unsaved changes are reset. but by modifying the DOM in place, you can retain the current state and only update the necessary parts, providing a smoother user experience and avoiding data loss.

**Efficiency and Performance:** When you modify the DOM directly, you only update the specific elements or attributes that need to change, instead of regenerating and replacing the entire HTML structure.

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

**DOM Manipulation:** JavaScript frameworks abstract away the low-level of DOM manipulation by providing higher-level APIs and abstractions.

**Cross-browser Compatibility:** JavaScript frameworks abstract away these browser-specific differences and provide a unified interface that works consistently across multiple browsers. Browsers such as HTML rendering, CSS Styles which can lead to inconsistencies and bugs.

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

**Productivity:** JavaScript frameworks aim to enhance developer productivity by providing abstractions, utilities and tools that simplify the development process. They offer features like Component-Based Development where developers can break down their UI into reusable and modular components.

**Scalability:** Frameworks address the challenges of building scalable web applications by offering tools and features that support the management of complex codebases. They provide mechanisms for organizing and structuring code, managing state, and handling data flow.

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

**Declarative syntax:** Frameworks often leverage declarative syntax, allowing developers to describe the desired outcome rather than specifying the imperative steps to achieve it. Declarative syntax abstracts away the low-level details of how things are done and focuses on what needs to be done.

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

The most important part of learning a JS framework is understanding its core concepts and principles. This includes grasping the architecture, component model, and data management strategies employed by the framework. By gaining a solid understanding

of these fundamental aspects, developers can effectively leverage the framework's capabilities and build efficient and scalable applications. Additionally, hands-on practice and exploring the framework's documentation and community resources are essential to reinforce learning and stay up to date with the latest developments. However, it's crucial to maintain a mindset of adaptability and embrace change, as JS frameworks evolve rapidly, requiring developers to continuously update their knowledge and skills.