

# DWA\_12 Knowledge Check

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

- Direct DOM mutations can perform better compared to replacing HTML because they only modify the necessary elements
  - When you only need to update a portion of the page, direct DOM mutations allow you to make those changes without reloading or refreshing the entire page.
  - Direct DOM mutations enhance the overall user experience by providing real-time updates and avoiding page flickering.
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## 2. What low-level noise do JavaScript frameworks abstract away?

- They handle the intricacies of interacting with the Document Object Model (DOM) by providing simplified APIs and abstractions. They also handle tasks like element creation, manipulation, event handling, and updates, allowing developers to focus on application logic rather than dealing with low-level DOM operations.
  - They provide abstractions to handle browser inconsistencies and ensure compatibility
  - They provide abstractions that handle the complexity of synchronizing state changes between components, making it easier to manage and update application data.
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## 3. What essence do JavaScript frameworks elevate?

- They boost developer productivity by providing abstractions, tools, and conventions that streamline the development process.

- They promote maintainable code by encouraging structured and organized development practices
  - They provide guidelines and conventions for organizing code, ensuring consistency and scalability.
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#### 4. Very broadly speaking, how do most JS frameworks achieve abstraction?

- They adopt a component-based approach, where the user interface is broken down into reusable and self-contained components. Frameworks often use declarative syntax, allowing developers to describe the desired state of the UI or application rather than specifying step-by-step instructions for achieving that state.
  - They utilize a virtual DOM (VDOM) abstraction to achieve efficient updates and rendering. The virtual DOM acts as an in-memory representation of the actual DOM
  - They abstract away the complexities of working with browser-specific event APIs by providing higher-level abstractions for event handling.
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#### 5. What is the most important part of learning a JS framework?

- Start by thoroughly reading the documentation and official resources.
- Understand the core concepts and architectural patterns of the framework.
- The best way to learn a JavaScript framework is through hands-on practice.