

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.

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

Performance boost

Efficiency: Direct DOM mutations allow you to target and modify specific elements on a web page without affecting the entire HTML structure. This can lead to more efficient updates, especially in large and complex web applications.

Reduced Bandwidth: Replacing HTML often involves sending more data over the network compared to sending instructions to modify the DOM. This can be beneficial for reducing bandwidth usage, especially on mobile devices with limited data plans.

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

Imperative updating of the DOM, keeping track of what elements need to change

Event Handling: Handling events and managing event listeners in raw JavaScript can be cumbersome. Frameworks provide abstractions and utilities for handling events more cleanly and consistently.

Testing and Debugging: Many frameworks offer built-in testing utilities and debugging tools to simplify the testing and debugging process.

3. What essence do JavaScript frameworks elevate?

Reusability: Frameworks encourage the creation of reusable components, which can be used across different parts of an application or even in multiple projects. This reusability leads to more efficient development and codebase consistency.

Maintainability: By structuring code in a standardized way, frameworks improve the maintainability of web applications. Developers can more easily understand and work with code that adheres to established patterns and conventions.

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

They hide away the imperative DOM mutations

Event Handling Abstraction: Frameworks provide abstractions for handling user interactions and events. Instead of manually attaching event listeners to DOM elements, developers can use framework-specific mechanisms to handle events more declaratively.

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

Testing: Understand how to write tests for your code using the framework's testing utilities and libraries. Testing is crucial for ensuring the reliability and maintainability of your applications.

Coding Patterns and Best Practices: Study and adopt coding patterns and best practices endorsed by the framework's community. This ensures consistency and maintainability in your codebase.