

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?

Directly manipulating the DOM can be more efficient in terms of performance compared to replacing HTML. When you modify specific elements or properties of the DOM, the browser only needs to update those specific parts instead of re-rendering the entire HTML structure.

Direct DOM mutations allow you to preserve the state because you're modifying the existing DOM without destroying and recreating elements. This is particularly important when working with interactive components like forms, where you don't want to lose user-entered data.

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

The complexity of directly manipulating the DOM by providing APIs and utilities to interact with the DOM in a more convenient and efficient manner.

Cross-browser compatibility: JavaScript frameworks help abstract away the inconsistencies and differences across various web browsers. They provide abstractions and utilities that handle browser-specific quirks, ensuring that your code works consistently across different browsers without the need for manual workarounds.

Frameworks often provide mechanisms for managing application state, abstracting away the complexity of manually tracking and updating state variables. They may offer features like data-binding, reactive programming, or centralized state management to simplify the management of application data.

3. What essence do JavaScript frameworks elevate?

They offer abstractions for common tasks, reducing the amount of boilerplate code

State Management: Frameworks often provide solutions for managing application state, such as centralized stores or reactive programming paradigms.

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

APIs and Abstraction Layers: Frameworks expose higher-level APIs that abstract away low-level details and provide simplified interfaces for common operations. These APIs often encapsulate complex functionality, such as DOM manipulation, event handling, data fetching, or state management

Many frameworks promote a component-based architecture where UI elements or functional modules are encapsulated as reusable components.

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

Architecture and Design Patterns

Learning how to create, compose, and reuse components effectively. Understand how components encapsulate functionality, manage their own state, and communicate with other components