

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: When you replace the HTML, the browser has to parse the new HTML, update the DOM, and potentially re-render the entire page. This process can be resource-intensive, especially for complex web pages, resulting in slower performance and longer loading times.

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

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

Without a javascript framework, developers often have to manually manipulate the DOM imperatively using native Javascript methods like `getElementById`, and so on. This approach requires developers to explicitly define how and when to make changes to the DOM in response to user interactions or data updates.

3. What essence do JavaScript frameworks elevate?

Declarative Programming and component based architecture in web development.

Declarative Programming : JavaScript frameworks promote declarative programming paradigms, where developers specify that they want the user interface to look based on the current application state or data. Instead of directly manipulating the DOM imperatively, developers define the desired UI state and the framework takes care of updating the DOM accordingly.

The Component-based architecture enhances code organization and encourages a more modular and maintainable codebase. It allows developers to focus on building discrete, testable and isolated units of functionality, which can then be combined in various ways to create different user experiences.

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

They hide away the imperative DOM mutations

Declarative rendering

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

Fundamental Concepts: Every JavaScript framework has its own set of fundamental concepts that form the foundation of its design and functionality.