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?

- Performance: When you manipulate the DOM directly it is easy as you only modify the necessary elements, avoiding unnecessary re-rendering of the entire HTML structure compared to replacing the entire HTML. This can lead to faster and smoother updates, especially when dealing with large or complex DOM structures.

- Code Maintainability: Direct DOM mutation influences a cleaner code which is more maintainable rather than entirely replacing HTML. In the process of replacing HTML it is easy to end up with a lot of HTML templates embedded within the main script which will end up being complex to understand or read. With direct DOM mutation, you can keep your HTML and Javascript code separate, making it easier to re-use and debug

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

Templating: JavaScript frameworks often provide templating engines or libraries that abstract away the process of generating HTML dynamically. They allow developers to define templates with placeholders and data bindings, which are then used to render dynamic content. This abstraction simplifies the process of generating HTML markup and updating it based on changing data, without having to manually concatenate strings or perform DOM manipulation.

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3. What essence do JavaScript frameworks elevate?

Code reusability: JavaSCript allows code reusability by prompting modular development and the concept of components. Components are self-contained units that encapsulates the functionality of the code and can be reused across different parts of the application. Frameworks enables the ability to improve, write less code and maintain consistency throughout

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

Form Handling: Frameworks offer abstraction for form handling, making it easier to manage form state, validation and submission. They provide APIs or components that handle form interactions and data binding.

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

Code organization and maintainability: Frameworks promote a well structured and organized code through their recommended patterns. They provide guidelines on separating concerns, modularizing code and giving out best practices. Frameworks also help to manage the complexity of the code so that it is easily understandable.