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 boost

- The DOM is the actual in-memory representation of the document at any given time. Therefore, changing the HTML means you need to reload the page, whereas changing the DOM updates the document in the browser in real time.

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

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

- DOM manipulation: Frameworks offer high-level APIs that abstract away the complexities of directly manipulating the DOM. This simplifies tasks such as adding, modifying, or removing elements from the webpage, allowing developers to focus on the desired changes without getting bogged down in low-level details.

- Event handling: Frameworks provide convenient APIs for managing event handling, making it easier to respond to user interactions like mouse clicks, keyboard presses, or touch events. They abstract away the intricacies of event registration, delegation, and propagation, allowing developers to create interactive and responsive web applications with less effort.

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3. What essence do JavaScript frameworks elevate?

- Increased productivity: Frameworks can help developers to be more productive by providing pre-written code and libraries that can be reused. This can save

developers a lot of time and effort, which can be used to focus on more creative and challenging aspects of the development process.

- Improved code quality: Frameworks can help to improve the quality of code by providing a consistent coding style and conventions. This can make code more maintainable and easier to debug.

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

They hide away the imperative DOM mutations

- Using interfaces and abstract classes: Frameworks can hide the implementation details of certain classes and components, and only expose the essential functionality of the user.

- Using modules: Frameworks can organize code into reusable units and abstract away the implementation details of certain features.

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

- When learning a JavaScript framework, the most important aspect is to understand the underlying concepts and principles on which the framework is built.
- Understand the framework's architecture and design patterns.