

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?

The benefits of direct DOM mutations over just replacing the HTML every time is that not only is the performance better it also allows you to target specific things from the DOM whilst you can't do that when you just replace the DOM. Another example is that when you replace the DOM you have to also remove the `addEventListener`s applied to an element and then reapply it to the element that replaces it which causes a reset every time you replace the DOM. (for example if you apply focus on an input everytime you replace the DOM you lose focus.)

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

JavaScript frameworks abstracts the actual Dom away and the basics of a web component like the `attachShadow`, `connectedCallback()` and ect. It also abstracts away the updating of the user interface and keeping the user interface in sync with the store

3. What essence do JavaScript frameworks elevate?

JavaScript frameworks elevate your components structure and if it is connected to the store then it will also show how the state relates to it.

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

They achieve abstraction by taking the current Html Dom and the Html Dom that is going to replace the current Html and figures out what has changed between the two Html Dom and then manually does the change out of view of the user then applies it to the Dom that it first did on the virtual dom (which is faster than the real Dom).

Another way you can think of it is that it takes the change in data that causes a transformation that leads to a new user interface.

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

The most important part of learning JS framework is what and how the framework abstracts because if you don't understand how and why it abstracts when a bug occurs you will be unable to solve the problem efficiently.