DWA_07.4 Knowledge Check_DWA7

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1. Which were the three best abstractions, and why?

1) createPreview() Function
   - This function abstracts the preview button by taking the book preview object as input and which generates a HTML button element.
2) HtmlElements Object
   - Represents all the HTML elements used in the app using abstraction.
   - This helps improve the readability and maintainability of the code.
3) Event Listeners
   - These abstract the behavior of the application in response to user actions.
   - It provides separation between application logic and user interaction.

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2. Which were the three worst abstractions, and why?
1) Duplication of some code
   - The displaying book previews and the handling of the 'show more' option has duplicated code
2) Mixed Logic
   - Some parts of the code mix the logic of event handling, UI manipulation and data processing.
   - Eg. The event listener for html.list.items shows both a modal and retrieves data from the books array.
3) Fragmentation of Data
   - This code contains multiple sections that perform similar operations on different datasets, such as books, genres and authors.
   - This could lead to potential maintenance issues.

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3. How can The three worst abstractions be improved via SOLID principles.
1) Duplication of some Code
   - Extract common code into reusable functions to eliminate code duplication.
2) Mixed Logic
   - Introduce components or classes for rendering, event handling and data manipulation by using separation of concerns.

3) Fragmentation of Data
    - Create a data access layer or a data modal to manage the data. This will better organize the code and reduce data fragmentation.

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