DWA_01.3 Knowledge Check_DWA1

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1. Why is it important to manage complexity in Software?

Managing complexity ensures that the software remains maintainable over time. It becomes easier to understand, modify, and fix issues in the codebase. Without managing complexity, software can quickly become convoluted, making it difficult for developers to make changes or introduce new features.

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2. What are the factors that create complexity in Software?

> Requirements and Functionality: The complexity of software can increase based on the requirements and desired functionality. More complex software often involves intricate business logic, sophisticated algorithms, or intricate data processing. As the complexity of the desired functionality increases, the software system tends to become more complex.

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3. What are ways in which complexity can be managed in JavaScript?

We need to be much more clear when we create and name constants.Clear and Consistent Naming Conventions, Adopting clear and consistent naming conventions for variables, functions, classes, and other elements in JavaScript code enhances code readability and reduces cognitive load. Descriptive and meaningful names make it easier to understand the purpose and behavior of code components.

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4. Are there implications of not managing complexity on a small scale?

Yes, there are implications of not managing complexity.Like difficulty in Understanding and Maintaining Code: When complexity is not managed, code becomes harder to understand, especially for developers who are new to the project or have not been involved in the specific codebase. Lack of clarity and tangled dependencies can make it challenging to make changes, fix bugs, or add new features. This leads to decreased productivity and increased time spent on development and maintenance tasks.

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5. List a couple of codified style guide rules, and explain them in detail.

Use camelCase for variable and function names - Using camelCase improves readability and consistency in code. It distinguishes variables and functions from classes (which are typically named using PascalCase). It also aligns with the JavaScript language's built-in functions and objects, making the codebase more intuitive to read and understand.

Use single quotes for string literals unless escaping is necessary - Using single quotes by default helps maintain consistency within the codebase and improves readability. It reduces the need for escaping quotes when using strings that contain apostrophes or quotations. However, when a string contains a single quote that needs to be included as part of the string, it is necessary to escape it using a backslash ().

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6. To date, what bug has taken you the longest to fix - why did it take so long?

So far the bug that has taken me long to fix was the one from the previous course specifically from IWA 19 ,The search buttom of the Book connect took me long to solve.This was so because the buttom required a lot of functions to be able to work which took time.
