DWA_01.3 Knowledge Check_DWA1

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

Managing complexity in software is critical for its long-term success, as it impacts maintenance, scalability, collaboration, security, costs, quality and user satisfaction.

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

-Evolving
Unclear, changing or poorly defined requirements can lead to complex software.
-Technical Debt
Long term consequences of making suboptimal or rushed decisions in software development.
- Scaling and Size
Large scale software projects with numerous features and components tend to be more complex.

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

- Group related code together. (Splitting code)
- Documentation, helps other developers understand your code.

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4.

Are there implications of not managing complexity on a small scale?
While the consequences of not managing complexity in small scale projects may not be as immediately noticeable or severe as in larger projects, they can still impact code quality, maintainability and collaboration

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

- Indentation and Spacing
Use consistent spaces for indentation. This makes the code visually organized and easier to read by developers.

- Naming Conventions
Follow naming conventions like camelCase for variables and functions and PascalCase for classes. This keeps your code clear, consistent and helps avoid conflicts with other names in your codebase.

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

In my recent project, I encountered a challenging bug that blocked me from working on other parts of my code until it was resolved. Specifically, the project involved improving an app's book filtering and sorting system. To address this task, I needed to first fix bugs primarily related to object literals, which included nested objects and function declarations. These issues were critical to address before proceeding with the filtering system enhancement.

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