DWA_01.3 Knowledge Check_DWA1

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

 Managing complexity is software is important for creating maintainable, scalable, secure and efficient applications that can adapt to changing needs and provide a better experience

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

Maintainability
Scalability
Code Reusability
Debugging and Troubleshooting
Team Collaboration

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

Break the code into smaller, modular components. This helps in isolating functionality, making it easier to reason about and maintain.

Follow consistent naming and coding conventions across the entire codebase. This makes the code more predictable and easier for developers to understand

Conduct regular code reviews to catch potential issues early on and ensure adherence to best practices.

Implement proper error handling to handle unexpected situations gracefully and provide meaningful error messages for debugging

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

Code that lacks proper organization and structure can be difficult to understand, even for the original developer. This makes it harder to maintain, troubleshoot, and extend the software in the future.

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

Use Meaningful Variable and Function Names

The rule of using meaningful variable and function names is essential for writing clear and maintainable code. When choosing names for variables and functions, developers should opt for descriptive and self-explanatory names that convey the purpose and intent of the entity. This makes the code more readable and easier to understand for both the original developer and other team members who might work on the codebase in the future.

Indentation and Formatting

The rule of indentation and formatting is about enforcing a consistent and well-structured layout for the code. Proper indentation makes the code visually organized, and consistent formatting enhances readability. This style guide rule is especially important in languages like JavaScript, where whitespace and indentation do not affect the program's functionality but significantly impact code readability.

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

Creating an online store
I had to learn how to use loops and arrays for a specific value

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