DWA_01.3 Knowledge Check_DWA1

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

- Bug Prevention
- Code Readability
- Debugging & Testing
- Better Software Quality
- Reduction in Risk

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

- Software Growth
- Poor Code Readability
- Complex Code Requirements
- Poor Code Design
- Limited Resources
- Limited Time

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

- Clearly Defined Project Requirements
- Clean Design
- Easy To Read Code (Clearly defined naming conventions)
- Decomposition

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

Yes, the following are implications of not managing complexity on a small scale:
- There will be difficulties in maintaining the code or making future updates.
- There will be a higher risk of bugs in the code.
- Higher technical debt which could lead to system failures.
- Code may not be reusable for future projects.
- It will be difficult for team members to collaborate on the project.

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

- Naming Conventions: This includes descriptive and meaningful names for variables and other code elements. Consistent usage of camelCase and avoiding ambiguity will help in team members or future usage of the code.
- Formatting: This includes proper use of white space usage, line breaks, indentation, and alignment to ensure the code can be read and understood.
- Commenting: In line comments and block comments should be used to explain specific lines of code or to provide logic to complex code.

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

I struggled with a bug in my book connect capstone project. I had trouble with the filter section as my filter would not find any of the search recommendations. I tried changing the code several times and could not recognize the problem as the code looked correct to me. I eventually found that my code was correct, however my search filter were too strict and did not allow for lower case words etc.

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