DWA_01.3 Knowledge Check_DWA1

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1. Why is it important to manage complexity in Software?
    - it needs to be easily readable because other developers may work on the code with/after you
    - finding bugs is easier when code is well organised and less complex
    - to keep it maintainable over time and/or as the code system grows

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2. What are the factors that create complexity in Software?
    - the size of the code system
    - many developers working on the code
    - poor/lack of documentation or comments
    - inconsistent naming conventions, eg both snake-case and camelCase used

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3. What are ways in which complexity can be managed in JavaScript?
    - code comments and documentation
    - clear naming conventions and constant names
    - tests to clearly highlight where bugs/errors are

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4. Are there implications of not managing complexity on a small scale?
    - yes. even small code bases can become difficult to maintain if complexity not managed.
    - it will still take longer to identify and fix bugs and overly complex code

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5. List a couple of codified style guide rules, and explain them in detail.
    - use strict equality === instead of lose equality == to avoid unintended type coercion
    - use camelCase when naming variables and functions to keep code consistent and easy to read

- use const by default and only use let when reassignment is necessary. only use let when you expect the variable's value to change. reduces change of unintended reassignment.

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

In the IWA capstone project- in the list of books, when clicking on a book in the list it must show an overlay with more info on the book. When searching for specific criteria and a new list of books is shown fitting the criteria, i could not get the overlay to show when clicking on these books. It took me days to work out what was going on because i had the logic wrong. I also did not write down solutions that i had already tried, so i kept trying the same few methods again and again.

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