DWA_01.3 Knowledge Check_DWA1

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

Managing complexity helps to minimise the occurrence of “avoidable” bugs and to keep code maintainable in the long run.

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

- *The complexity of programming.*
- *Code evolves over time.*
- *Technical debt.*
- *Scaling.*

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

- *Code style & style guides.*
- *Documentation.*
- *Avoiding vague/ambiguous variable names.*
- *Grouping code into related chunks.*
- *Naming global constants using upper case.*
- *Naming variables using snake case.*
- *Group related data in object literals.*
- *Add checks to see if errors occurred.*
- *Use Abstraction.*

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

Yes, some bugs may make it through to completion undetected.

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

- *Use curly braces: Creating code blocks makes the code more readable.*
- *Maximum line length of 80 or 120 characters: Improves readability and allows a person looking at the code to see an entire line at a single glance.*
- *Horizontal indents of 2 - 4 spaces: Also improves readability by easily showing nesting which affects how the code will run. So at a glance, it is possible to see which parts of the code will be run after which parts.*
- *Using semicolons: This indicates a line break. Leaving the semicolon out could lead to errors where the line break is not interpreted.*

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

IWA6. The requirements were unclear and because I had little JavaScript knowledge I completely misunderstood what the requirements were really saying. As a result, I tried to solve the issue using a completely unrelated method that wasn't even functional.
