DWA_01.3 Knowledge Check_DWA1

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

- Our code needs to be easily readable, because others will work on it.
- Less complexity allows you to find and manage errors easier.
- Also allows the errors to be detected by the software.
- Code is often expanded upon months after being worked on,
  So it's important to make sure you can pick up where you left off.

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

- Confusing naming conventions.
- Not being mindful of plurals.
- Giving variables names that don't correspond to their function.
- Not properly sectioning your code.
- A lack of commentary to explain each part of the code.
- A lack of abstraction (Creating the need to know more about the
  Internal workings of a piece of code, creates complexity).

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

- Declare your variables properly (let and const), and
  make your variables more descriptive.
- Differentiate variable names.
- Keep related code together.
- Set up proper error states to check your functions.
- Abstraction helps someone work with code, because
  people only need to what the code does, not how it
  Works.
- Make sure that your key piece of code that can work in any
  circumstance.

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

- It makes it harder to sift through the code for errors.
- The code becomes harder to understand, for anyone working on it.
- Modifications might create new errors.
- If the code is too complex, quick fixes become harder to do for smaller issues.
- The code also becomes much harder to modify, as the project evolves and grows.

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

- Make sure your code is nested properly.
  Indent 'children', so we know which parent they're related to.
  It also lets us know the order in which the code will run.
- Only leave comments for important information.
  Too many comments make the code much harder to read.
  If the code is not self-explanatory, try to make it more readable,
  Rather than relying on comments.
- Take out any unnecessary comments or variables.
  Comments or variables that are no longer necessary, should be removed as they only clutter the overall code.
- Give variables names that make sense.
  It makes it easier for people to understand what the variables is used for.

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

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