DWA_01.3 Knowledge Check_DWA1

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

Think of software like a big puzzle. When you have too many puzzle pieces or they're too complicated, it's hard to put the puzzle together. In software, if it's too complex, it becomes challenging to understand, fix, or change. Managing complexity is like making sure the puzzle pieces are simple and fit together nicely, so it's easier for developers to work on and for the software to run smoothly.

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

Complexity in software can be caused by many things, just like a messy room. Some factors include using lots of code, having unclear instructions, using tricky logic, and not organizing things well. It's like having a messy room with too much stuff everywhere – it's hard to find what you need.

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

Managing complexity in JavaScript is like organizing your toys. You can use functions to group similar tasks together, write clear and simple instructions (comments), and break big problems into smaller ones (modularization). Also, using good variable names is like labeling your toy bins so you know what's inside.

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

Not managing complexity in small-scale projects is like not cleaning your room regularly. Over time, it gets messier and harder to find things. In software, this can lead to bugs, slower performance, and frustration for developers.

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

Codified style guide rules are like having rules for how to organize your school notes. Two common rules are:
- Indentation: This is like making sure your notes have a consistent margin on the left. In code, it means using spaces or tabs to make your code look neat and readable. It helps others understand your code.
- Naming Conventions: Think of this like using the same naming style for all your subjects in your notes. In code, it means using clear and consistent names for variables and functions. For example, if you have a function to add numbers, you might name it `addNumbers()` to make it easy to understand what it does.

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

Syntax and Logic Errors.