DWA_01.3 Knowledge Check_DWA1

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

To avoid confusion and being overwhelmed if something goes wrong and be able to easily find and rectify code if need be. Makes it easier to understand and helps to keep your programsunder control. Can lead to catastrophes within code if not handled properly.

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

- Size - Size and scope of a project/program.
- Code Quality - Poorly written code can result in a lot of confusion, even for the original programmer.
- Functionality - The function of a program and what it needs to entail can vastly increase the complexity of said program.

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

- Code style/Style guide
- Comments
- Making code modular
- Abstraction

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

Lack of understandability can lead to unmanageability. As complexity increases, identifying the value and function of any individual element gets harder. This can lead to unpredictability, whereby spontaneous and unexpected behaviors can emerge from the system.

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

- No unused variables. - Leads to unnecessary confusion when going over code
- Add a space after keywords. - Makes code easier to read and helps avoid spelling errors
- Infix operators must be spaced. - Avoids mistakes in naming conventions and helps to sort out calculations and functions

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

A problem in a travel website where some elements wouldn't fit properly when resized. It took five days to fix, and it turns out that several of my classes needed to be adjusted for the new screen sizes.

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