

DWA_01.3 Knowledge Check_DWA1

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

Managing complexity in code helps to make it to be more readable, maintainable and scalable in future use.

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

1. Added Functionality
 2. Optimizing for performance
 3. Poor design and software architecture
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3. What are ways in which complexity can be managed in JavaScript?

1. Clear naming of variables
 2. Organizing your code
 3. Use of proper documentation and commenting
 4. Using static analysis
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4. Are there implications of not managing complexity on a small scale?

Yes.

1. Difficulty in understanding the code
2. The code is relatively less scalable
3. Less reusability of code
4. Potentially more bugs could be introduced

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

1. When working with objects only quote properties that are invalid identifiers. Eg 'data-type' should be in quotes instead of a property named 'key'. This makes your code easier to read and understand.
2. Use shortcuts for booleans, but explicit comparisons for strings and numbers. Explicit comparison (e.g if (isValid === true) where isValid is a boolean) on booleans is not necessary and can be redundant at time but using explicit comparison with numbers and strings(e.g if (name !== ' ') or if (digit < 0) helps us is crucial to the functionality of your code and helps to avoid unnecessary bugs

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

I've experienced a bug caused by hoisting behavior. I had declared a variable using let at the beginning of my code; the variable was meant to be changed throughout the code , based on certain conditional statements being true. A function declaration in my code changed the variable to a certain number such that every time the variable starts at a designated number. This introduced a bug because if the value of the variable always starts at 8 for example, and I have a conditional statement that checks for a value less than 8 , then that portion of my code is rendered ineffective, thus ruining the functionality of the code.
