

DWA_01.3 Knowledge Check_DWA1

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

It is important to manage complexity in a software because complexity reduces the quality of the product as an amount of bugs is also increased. Managing complexity also allows developers to understand and modify the codebase more easily and it will be easy to maintain. Managing complexity also helps for readability purposes, for developers and other people who might be reading the code.

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

Evolving- the constant changing and evolving of softwares can contribute to complexity

Scaling -The size of the code can contribute to its complexity

software systems grow larger and extensive in time which makes it hard to manage their complexity

Technical debt - working on a codebase that many people have worked on that might have old issues that were never fixed(technical debt) can be challenging

The outdated technologies, poor documentation can contribute to complexity.

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

- Build software in ways that it's more resilient
 - Be clear when creating and naming constants
 - Be mindful of the code style
 - use documentation and comments
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4. Are there implications of not managing complexity on a small scale?

Yes, as it can lead to several negative outcomes such as:

- the system being less efficient
 - It Could open space for more errors and mistakes which can affect the quality of the outcome, with that being said ,it is important to manage the complexity even on small scale to ensure quality and efficiency and to also avoid more errors and mistakes
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5. List a couple of codified style guide rules, and explain them in detail.

-Always use strict equality operator for equality comparisons to avoid type coercion,unlike the equality operator, the strict equality operator always considers the operands of different types to be different.

-Use camelCase for variable names, camelCase improves the readability of the code by making variable names easier to understand.when multiple words are concatenated together without spaces in between, the capitalization helps distinguish between individual words.This can make the code more readable especially when the variable names are composed of multiple words

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

I had declared a variable using capital letters then when I used it again I wrote it as small letters, the code just didn't work, I spent so many hours trying understand what was wrong, at the time I was still clueless I did not know that a variable name has to be written exactly the same way it was written in the declaration.
