

DWA_01.3 Knowledge Check_DWA1

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

Managing complexity in software

Helps improve code readability,

Well managed complexity ensures the code remains maintainable over time,

Makes fixing and identifying errors or issues easier.

Makes testing process more manageable and efficient,

Simplified code is easier to document accurately, ensuring that developers have up-to-date information about how the software works.

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

The growth of a project in size and scope increases its complexity and becomes hard to manage and understand

Frequent changes or additions to project requirements can introduce complexity.

Failure to abstract complex functionality into manageable, reusable components can lead to code that is difficult to understand and maintain.

Inconsistent coding styles and practices within a project can cause unnecessary complexity , making the code harder to read and understand.

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

Comments and documentation - adding comments and documentation to your code to explain its purpose , usage and behavior helps others understand your code

Organizing your code into different or separate files using modules{ import and export}

Breaking down your functions into smaller and maintainable functions promotes readability

Implementing proper error handling

Using async and defer correctly

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

Reduced quality

Decreased readability

Higher risk of bugs

Technical debt

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

Using const and let to declare variables

For constant variables which are not going to change use const

If you want to reassign a variable use let

Do not use var as it has function level scope and can lead to variable hoisting and unpredictable behavior in some situations

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

Definitely syntax error

It was just a comma missing i remember and i remember only realizing it after an hour
Reason being i thought there was something else i did wrong
