

DWA_01.3 Knowledge Check_DWA1

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

To avoid mistakes that can lead to catastrophic results.

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

The fact that Programming itself is hard and complex.

Programming keeps evolving and new things get introduced often and it becomes hard to keep up with the emerging technologies.

Technical dept. Sometimes developers need to write code quickly without the nuance of documentation and code style that makes code clear and readable.

Scaling, depending on the size of the project things such as coding concerns, pricing and how expensive features are going to cost.

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

Code Style - Code that is clear and readable.

Documentation - Explaining what a particular block of code does and what to expect from some variables(types and shapes)

Modular making the code more reusable.

Abstraction building small pieces of software and combining them together to form one big software. Keeping code hidden from the person using it about what is happening internally.

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

Small scale code is easy to manage because it requires a small codebase, not expensive to build.

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

Global constants, they should be at the start of the codebase written in uppercase.

Defining variables, keeping the 'let' and 'const' separate and on their own.

Objects, having properties in an object beyond a new line.

Having indents as code gets deeper nested.

Using brackets if an if statement is more than a single line.

Naming variables, naming of variables and functions using long clear names if necessary.

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

Objects/Dates it took me something like 3 days to finally understand that objects keys are used as references to access the values stored in the object. That when you assign a new value to an existing key, you are changing the value associated with that key in the objects, not the key itself. IWA10 where we had to assign a new date object to a new variable.
