

DWA_01.3 Knowledge Check_DWA1

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

To avoid hidden bugs. A little small error can be catastrophic which can cost large corporate to multi-millions of dollars.

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

Performance and scalability: Building software systems that perform well and can handle increasing loads or user demands adds complexity.

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

- By using control code measures in terms of using appropriate variable naming using more readable as plain english, parameter referencing by explaining variable values or object properties.
 - Group related data in object literals.
 - Use dot notation to indicate nested values
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4. Are there implications of not managing complexity on a small scale?

An implication can be very catastrophic, related example is about that Knight Capital Group which provided trading services using a software to execute trades. They went bankrupt within 45 minutes due to error on the code.

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

- Use an underscore for modifiers to other styles.

Similar to BEM, this naming convention makes it clear that the styles are intended to modify the element preceded by the underscore. Underscores do not need to be quoted, so they are preferred over other characters, such as dashes.

- Use a separate selector for sets of fallback styles.

Keeping fallback styles contained in a separate object clarifies their purpose, which improves readability.

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

```
const previewId = node?.dataset?.preview;
```

I deleted the value of the above variable because I was unfamiliar with it. It created a bug for almost 3 days. The reason is I did not console log the variable to check if it's executable.
