

# DWA\_01.3 Knowledge Check\_DWA1

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

It is important to manage complexity because software either works or it doesn't and the longer you leave something like technical debt for example, the more catastrophic the damage will be and the longer debugging will take when there is a problem in the code. It is also important because you're not the only person who will work on a particular program in your career. Others will read your code and it just makes it easier for them if you're coding with complexity in mind.

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

Code style is one factor. The way that you name your variables for example. How much information is in the variable name. The way that you group your code, is all related code grouped together? Another one is documentation. How you document your code is important for other programmers. Is your code readable. I think comments play a big role in readability.

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

Use snake case for global constants, this makes it clear that their value should not change throughout the program.

Avoid ambiguous variable names and make sure you do not create variables with names that are similar for example car and cars. Change cars to carsList. Describe behaviour in detail with jsdoc. This helps other programmers (including your future self) understand what the code actually does and why it's written a certain way.

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

Yes when you do eventually encounter a bug it will take ages to fix because of all the technical debt you've been avoiding.

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

Spaces around operators

Always put spaces around operators ( = + - \* / ), and after commas:

Let x = y + z

Always end a simple statement with a semicolon

Const cars = ["volvo", "Fiat", "Saab"];

## Line Length < 80

For readability, avoid lines longer than 80 characters.

If a JavaScript statement does not fit on one line, the best place to break it, is after an operator or a comma.

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

Changing the theme on an app. I didn't fully understand what i had written as i was also still learning therefore not knowing where to begin in fixing it.

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