

DWA_01.3 Knowledge Check_DWA1

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

It helps keep the code easier for humans to read, edit and debug if they need to. It makes it easier to find certain sections of the code if you need to edit them. Code is often read more than written so it needs to be highly readable to streamline the process of development, management and maintenance.

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

If your code is poorly written by having poor variable names, things not bundled together well or it is too long then it becomes complex.

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

Having good syntax, naming practices and grouping functions together in objects for example will make your code more readable and manageable. Naming your variables and functions based on what they do and are used for, commenting code and/or using JSDoc is key.

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

Your code will not be easy to read and when it needs to be reviewed or you need to change certain functions or add new features to your code it will take longer to find where in the code to change/ do this than actually improve it. If you write your code in small chunks and then import and export them together then it is much easier to manage for both yourself and other people who might be working on your project.

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

Using const as much as possible will help avoid bugs and reassignment of variables, as opposed to using var (especially) or let. Never name a parameter 'arguments' because this will take precedence over the arguments object that is already built into JavaScript. This can create unnecessary bugs.

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

In the IWA Capstone Project where we had to get a 'show more' button to show the remaining amount of books that were in a list of books each time this button was clicked was challenging. Maths is not my strong point and getting that calculation to work based on the number of books the page displayed really gave me trouble. There were a lot of factors that had to be used in the result of clicking the button and getting them to all work together definitely took patience, perseverance and self belief that it could be done.
