

# DWA\_01.3 Knowledge Check\_DWA1

---

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

1. Maintenance and troubleshooting become simpler when the code is straightforward and well-structured, making it easier to pinpoint and resolve issues.
  2. Code that is easily readable and comprehensible minimizes the learning curve for newcomers to programming and promotes effective collaboration among team members.
  3. Software performance can suffer due to increased complexity, causing detrimental effects.
- 

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

1. The software becomes more intricate when there are frequent alterations to its requirements or design.
  2. Complex or problematic external software components or services can introduce complexity, particularly when the software heavily depends on them.
  3. Untidy and unclear code, lacking proper organization, increases the software's complexity, making it more challenging to work with.
- 

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

1. Employ function decomposition to divide extensive functions into smaller, specialized ones responsible for distinct tasks. This encourages code reusability and enhances code readability and maintainability.
  2. Enhance your code with informative comments and documentation to elucidate intricate logic, particularly when it isn't immediately apparent.
  3. Implement namespaces or objects to cluster related variables and functions, guarding against global scope clutter.
- 

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

Certainly, not managing complexity, even in small-scale software development, can have implications:

1. Diminished Readability: Code that lacks simplicity and structure can be difficult to comprehend. Even in a small project, this can pose challenges for both you and your team in grasping the code's intent and functionality.

2. Maintenance Difficulties: As your small project expands or undergoes changes, unaddressed complexity can result in maintenance difficulties. Routine updates or additions may become time-consuming and prone to errors.

---

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

1. Indentation and Whitespace Rule: This rule prescribes the formatting and utilization of whitespace and indentation in your code. It establishes uniformity and readability by specifying the number of spaces or tabs for indentation and how to manage whitespace surrounding operators, commas, and other elements.

2. Naming Conventions Rule: Naming conventions delineate the naming conventions for variables, functions, classes, and other identifiers. Maintaining consistent naming conventions enhances code readability and ease of maintenance. Common naming conventions encompass camelCase, PascalCase, and Snake\_case.

---

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

Capstone project. I am unclear as to why the whole thing refuse to work even when I removed something as small as a comma. I still would have to check what is happening and where I went wrong.

---