DWA_01.3 Knowledge Check_DWA1

---

1. Why is it important to manage complexity in Software?
    - Prevent catastrophes.
    - Keep track of code.
    - Easier to understand/read for yourself & others.
    - Keep problems under control.

---

2. What are the factors that create complexity in Software?
    - Programming is complex.
    - Evolving.
    - Technical Debt.
    - Scaling.

---

3. What are ways in which complexity can be managed in JavaScript?
    - Improved code quality (follow guidelines, naming conventions)
    - Risk management / Bug tracking
    - Improved collaboration (necessary and informative comments)
    - Increased efficiency
    - Maintenance and support.
    - Coding for scalability.
    - Higher quality documentation.

---

4. Are there implications of not managing complexity on a small scale?
    - Many small, unfixed issues turn into catastrophes.
    - Confusing code readability.
    - Code that is difficult to maintain or update.

---

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

- Variable Naming
    - Use const to declare a variable (avoids populating the global namespace & ensures variable is not redeclared)
    - Add extra information (easier to read & maintain)
- Group related code together (easier debugging)
- Add checks to throw errors on critical items.
- Comments (clarifies the intent of the code and help developers understand it)
- Whitespace - Organize your code with consistent indentation (keep code well organized & readable)
- Modular Code - Abstract out logic to improve readability (makes code less repetitive)

---

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

- Show More function counter on IWA Capstone Project – was because of a spelling error & incorrect parenthesis placement.
