

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

- managing complexity in software development is important because it helps you create a code that is easier to understand, maintain, and extend. It directly impacts the quality and longevity of the software, making it more reliable, scalable, and cost-effective.
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2. What are the factors that create complexity in Software?

- Changing requirements
 - Resource constraints
 - Technical challenges
 - Multiple system interfaces
 - Complex requirements
 - Features and functionality of the system
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3. What are ways in which complexity can be managed in JavaScript?

- Asynchronous Programming
- Optimize Code Performance
- Understand Algorithmic Complexity:
- Maintain Clear Boundaries:

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

Failing to manage complexity on a small scale can cause various problems that reduce productivity, raise maintenance efforts, and negatively impact the software's quality and scalability. Actively managing complexity, even in smaller projects, establishes a solid foundation for future growth and easier maintenance.

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

1. Use Consistent Naming Conventions

: Use camelCase for variable and function names, PascalCase for class names, and UPPER_SNAKE_CASE for constants.

2. Indentation and Spacing

Use 2 spaces per indentation level and avoid using tabs.

3. Use Semicolons

Always terminate statements with semicolons.

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

A). Bad variable naming , as a beginner I was a careless in such bugs/ errors I used to just write the code not even aware that they are caps sensibility so I spent days trying to fix this bug.
