Design Patterns - Background

Design Patterns

What is so special about Design Patterns?

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<u>What Are They?</u>

Design patterns are well-tested, reusable solutions.

They are like a <u>solution template</u> for how to solve common Software Engineering problems.

They are flexible and adaptable.

They save time because they are optimal.

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Why Use Them?

You know that you are using something that has been utilized successfully in countless projects before.

They are like a common meta-language for developers. If you and I both know what a **Singleton Pattern** is then we already have a common understanding of everything about how it would be used or how it should be implemented.

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We are on the same page. And this is powerful.

Even if you code in different languages.

Design patterns in general, carry over to different programming languages.

If you understand a pattern in a general manner, then you know that regardless of the language implementation, it will effectively offer the same useful solution.

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Summary

Design Patterns are associated with good, well organized Software Design.

As developers, we are prone to mistakes and sometimes inexperienced decisions.

Think of design patterns as a bag of reusable experience from many generations of coders and Software Engineers, that we get to learn from.

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Student NOTES