

## Software Design minute paper

★ You can choose language you use as you like. 記入は日本語でも英語でも良いです。

Date : 2024-06-12

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Today's topics : Design and Modeling

(Describe your summary in each blank below. You can adjust (increase or decrease) spaces as you like.  
以下のそれぞれの項目の下に要点を記載。スペースは自由に増減して良い。)

[What you learned (学んだこと)]

I learned about the principles and practices of software design. This includes understanding the concepts of module cohesion and coupling, which are crucial for creating maintainable and scalable software systems. Cohesion refers to how closely related and focused the responsibilities of a single module are, while coupling refers to how much a module relies on other modules.

The lesson also covered the importance of encapsulation and abstraction in design. Encapsulation involves hiding the internal details of modules and exposing only necessary parts, while abstraction involves defining the essential characteristics of an object, separating the idea from the implementation.

We also discussed design patterns and their role in solving common design problems in software development. Design patterns provide reusable solutions to recurring problems, making the design process more efficient and effective.

[What you need to learn more (更に学びが必要だと思うこと)]

I need to deepen my understanding of different design patterns and their applications in real-world scenarios. Practicing the implementation of these patterns in various projects will help solidify my knowledge. Additionally, learning more about advanced design principles and techniques, such as SOLID principles, will further enhance my design skills.

[Misc. Comments and/or questions (その他 所感・質問等)]

Understanding how to balance cohesion and coupling to create optimal module designs would be beneficial. Additionally, learning best practices for documenting design decisions and maintaining design consistency throughout the development process is important.