

AI TOOLS USED

1. ChatGPT:

Link: <https://chatgpt.com/>

Prompts:

“Explain how to declare relationships (association, aggregation, composition) correctly in PlantUML.”

“Given these class names and relationships, suggest appropriate design patterns that could improve modularity or flexibility.”

“Based on these classes and relationships between them, which design patterns might fit best, and why?”

“Show how to refactor my class diagram to include the Strategy pattern.”

Advantages: ChatGPT was used to analyze class relationships, recommend suitable GoF design patterns, and help generate and verify UML diagrams. It also assisted with organizing team member tasks and improving documentation clarity.

Disadvantages: Provided conceptual explanations and easy pattern mapping.

2. DeepSeek:

Link: <https://chat.deepseek.com/>

Prompts:

“Review this PlantUML class diagram for logical consistency and suggest improvements.”

“Please fix my PlantUML diagram syntax mistakes.”

Advantages: Excellent syntax validation and diagram optimization. Fantastic for working with complex diagrams.

Disadvantages: Less contextual awareness about the intent of the design patterns.