

Integrating LLM-Generated Flashcards as an Adhoc Measure Into a Spaced Repetition Flow

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Problem

1. *Spaced Repetition* is highly effective, but a given flashcard can only be effectively memorized when it is understood [1].
2. When the learner hits a flashcard they don't "get", how do we rectify this without totally disrupting the practice flow?

Links

- [Repository](#)
- [Webapp](#)

Solution Concept

1. Integrate the Confused option as an answer option after flipping a given flashcard
 - This scores the flashcard as Again (using `ts-fsrs` [2])
 - It also opens a wizard flow which generates flashcards that add context or required knowledge
2. The newly generated flashcards must be learned *before* the original flashcard is shown again.

Screenshots

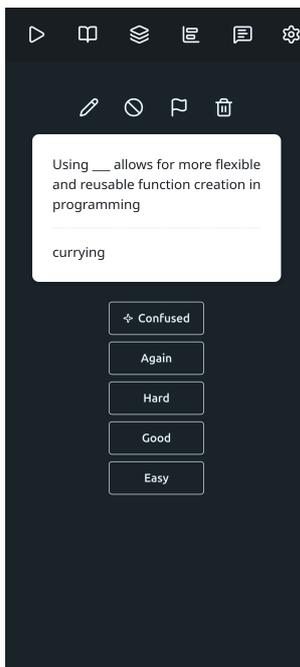


Figure 1: The Confused option alongside the standard Spaced Repetition buttons. Here, the learner may be confused what "currying" is and why it matters, and in which context. Clicking Confused triggers the generation modal.

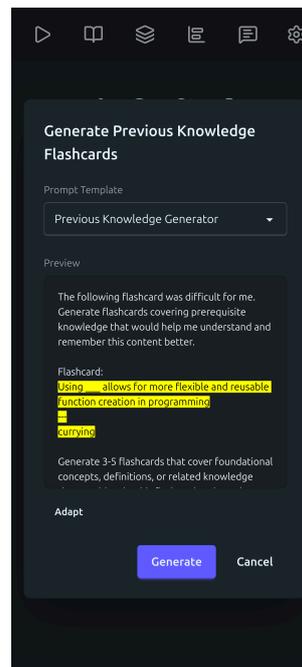


Figure 2: First step of the generation modal. Basic prompt management allows customizing what kind and how many flashcards will be generated.

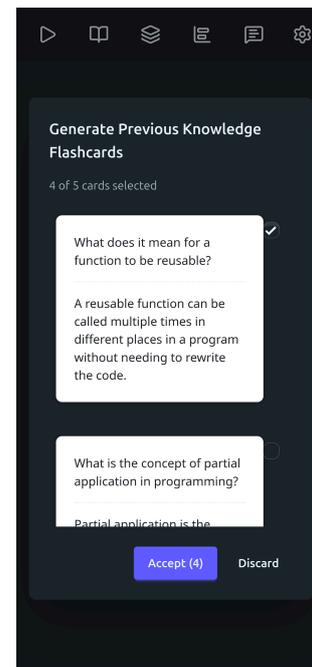


Figure 3: The generated flashcards. The user may accept or discard each and is then send back to the normal practice flow.

Bibliography

- [1] J. Jankowski, "Effective learning: Twenty rules of formulating knowledge - SuperMemo," *SuperMemo*, 2025, [Online]. Available: <https://www.supermemo.com/en/blog/twenty-rules-of-formulating-knowledge>
- [2] "ts-fsrs." [Online]. Available: <https://github.com/open-spaced-repetition/ts-fsrs>