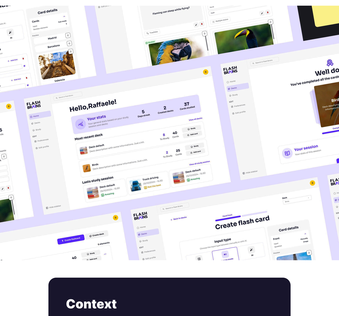
RAFFAELE
UI DESIGN

FLASH BRAINS

FlashBrains is a learning platform that makes creating and studying flashcards easier, using Spaced Repetition and AI to boost memorization.



Context

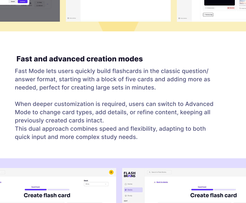
FlashBrains is a learning platform designed for those who use flashcards as a study tool. It simplifies deck creation and management while improving long-term retention with Spaced Repetition, a proven technique that resurfaces information at the optimal time.
Users can create flashcards manually, in a fast mode, or generate them instantly with AI from a simple prompt. Study sessions are logged with feedback on progress, helping users track their learning and study more efficiently.

The problem

After analyzing the needs of flashcard users and the gaps in existing tools, we identified four main pain points:

- ❌ **Time-consuming flashcard creation**
  Users spent too much time manually creating cards, slowing down their study process.
- ❌ **Lack of intelligent assistance**
  No easy way to generate content or adapt it to different study levels, leading to repetitive manual work.
- ❌ **Limited study tracking**
  Users couldn't easily monitor their progress or revisit cards at the right time to reinforce memory.
- ❌ **Fragmented study flow**
  Switching between creating, organizing, and studying cards felt disjointed, reducing overall motivation.

How can we make creating and studying flashcards faster, smarter, and more engaging?



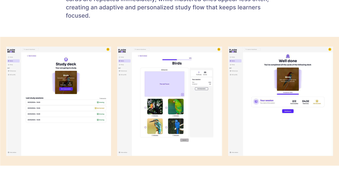
Preliminary mapping of user flows and requirements, outlining key interactions and logic for flashcard creation, study, and editing.

Solution

AI-powered flashcard generation

Instead of manually creating each card, users can simply enter a prompt, like a topic or a short text, and the system instantly generates a ready-to-use set of flashcards in multiple formats, such as true or false, multiple choice, and question-answer.

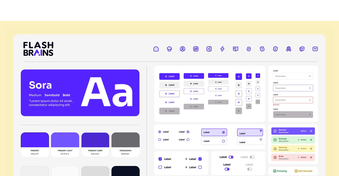
Each card is fully structured and designed to be studied right away. Users can preview the generated flashcards, keep the ones they find useful, discard the rest, and seamlessly add the selected cards to any deck.
This turns a tedious creation process into a fast and intelligent experience, so learners can focus on studying rather than building content.



Fast and advanced creation modes

Fast Mode lets users quickly build flashcards in the classic question/answer format, starting with a block of five cards and adding more as needed, perfect for creating large sets in minutes.

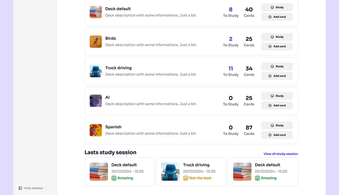
When deeper customization is required, users can switch to Advanced Mode to change card types, add details, or refine content, keeping all previously created cards intact.
This dual approach combines speed and flexibility, adapting to both quick input and more complex study needs.



Integrated study tracking with Spaced Repetition

FlashBrains combines Spaced Repetition with smart session tracking to make studying more effective. Cards resurface at the optimal time—just before they're likely to be forgotten—helping users retain information long-term with less effort.

Each session is logged with progress and performance stats. Incorrect cards are repeated immediately, while mastered ones appear less often, creating an adaptive and personalized study flow that keeps learners focused.



Results: a more effective experience

12,500+
flashcards generated with AI in the first month

63%
of users completed their first study session

15 min
average study session duration

What worked best?

- ✅ AI generation made creating new decks effortless
- ✅ Flexible creation modes encouraged users to build more flashcards
- ✅ Study tracking and Spaced Repetition kept learners motivated