

Release Summary

Cognoso

2024-03-12

Key user stories and acceptance criteria:

- As a student, I want to automatically create flashcards from the textbook
 - Be able to upload a PDF on the deck manager
 - Create some flashcards based on the PDF questions
 - Answers should not include information not in the PDF
 - Should indicate that it does not know a question if the information isn't found
- As a user, I want students to be able to find and use study sets easily (3 hours)
 - Enter text into a search bar and show relevant results
 - Search by semantics, should not require exact keywords
 - Show other students and your own decks
- As a user, I want to be able to make an account and save my study sets
 - Create an account with username and password securely
 - Able to create and edit card decks
 - All information persists between sessions, and restarts of the backend process

Known Problems:

- Email field when making an account doesn't actually check that the email that is entered is valid
- You can delete someone else's account if you have their credentials
- AI chat can get spammed with too many requests, should limit the amount of requests (maybe per ip address)
- AI sometimes doesn't know how to respond and says "I don't know"
- AI mixes up languages, probably bad training data
- PDF uploader only gets questions from searching for "?", uses a lot of heuristics when parsing
- PDF extractor includes a lot of newlines and extra whitespace in the flashcards
- Deck can be rated multiple times by the same user
- The question and answer of a flashcard can be empty
- Text gets cut off in matching minigame
- Using the same flashcard for the question and the answer slots in the minigame
- Searching too quick after deck is deleted causes deck not found because database might not re-index in time
- The search engine database sometimes misses a reindex when the database is updated
- Search engine is not as efficient as it should be, currently the code reindexes the entire database rather than just the deck_ids that changed
- "Decks By Other Users" also shows your own decks
- Next in a deck with zero cards says Nan/0 for the indicator
- Edit deck button is visible even if deck isn't yours, and has an error when clicking on it
- Minigame cards are randomized after every click
- Minigame glitches when there are only 2 cards
- Deleting a deck then adding it back with the same name keeps its favorite status

- AI chat will produce incoherent text at the end of responses if generated responses are too long
- AI chat can produce incoherent text at the end of questions or answers in PDF to deck generation if text is too long

Product Backlog:

- Search by deck title
- Verify email
- Add TLS and HTTP2 support to the backend
- Add an option to chat with flashcards/PDFs with the AI
- Make AI chat asynchronous
- Make more minigame varieties
- Move position of cards in flashcard sets
- Create flashcards from prompt and response on ai chat page
- Have chat log/history appear in ai chat page