Author

Harshit Katiyar
21f1006135
21f1006135@student.onlinedegree.iitm.ac.in
IInd Year CSE Undergraduate at University of Lucknow

Description

This project was expected to implement physical flashcards into a digital form. In contrast with last term's project, this project had to use VueJS framework as well as API approach to achieve the same functionality. In addition to this some backend jobs using celery were to be implemented.

Technologies used

- **Flask** for basic backend implementation
- **SQLITE** for implementing in memory database.
- **flask_restful** for implementing API, sending back the reponse (field and marshal).
- **flask_sqlalchemy** for implementing ORM for database.
- Some inbuilt python libraries like **json** for parsing data into json format, **datetime** for storing last seen time for decks, **requests** for sending some requests from backend, **timeago** for converting actual time to human format, **jwt** for encoding and decoding JW tokens, **functools.wraps** for making a wrapper function auth_required, **email** and **smtplib** for sending emails and finally **jinja2** for templating to send emails.
- **Celery** for implementing backend jobs and **Redis** as a message broker.

DB Schema Design

There are 5 decks in the DB.

- **User** table
  Stored details about users registered.
  username: Username of user.
  password: password of user.
  name: Name of user.
  email: Email of user.
  seen_today: Boolean, if the user has seen the decks today.
- **Decks** table
  Stores all the decks.
  id: Unique id of deck
  name: Name of the deck
  last_seen: Time when deck cards were last reviewd.

- **Cards** table
  Stores all the cards.
  id: Unique id of card.
  question: Front/Question part of the card.
  answer: Back/Answer part of the card.
- **Userdecks** table
  Stores the relationship of user with its decks.
  Username: Username of a user.
  deck_id: Deck id of deck associated with user whose username is in ‘username’ column.
- **deck_cards** table
  Stores the relationship of deck with its cards.
  deck_id: Unique id of a deck.
  card_id: Unique id of card associated with the deck which has id as given in ‘deck_id’ column.

Video

https://drive.google.com/file/d/1VFVvGySr99W2hxjDEydO2KVvX17ESYWl/view?usp=sharing