

PROJECT REPORT

Author:

Name: Mohit Mayank Chakraborty

Roll No: 21f1003057

Email: 21f1003057@student.onlinedegree.iitm.ac.in

Bio: An enthusiastic learner hoping to make it in the software industry.

Description:

In this project, we are supposed to create a flashcard app to help the users in learning. The users should be able to create their own decks as well as keep track of how well they remember those decks.

Technologies Used:

SQLite: Database for storing user information.

Flask Extensions:

- **Flask-Bcrypt:** Provides hashing to secure user data.
- **Flask-Bootstrap:** Used for styling.
- **Flask-Login:** Setting up a user login system.
- **Flask-SQLAlchemy:** Used to interact with the database.
- **Flask-WTF:** Used for form validation.
- **WTForms:** Used for creating forms
- **Jinja2:** Used for HTML formatting.

Bootstrap: Frontend development

DB Schema Design:

User Schema:

Id - Integer, Primary key
Username - String, unique, not null
Email_address - String, unique, not null
Password_hash - String, not null
Decks - Relationship with Deck Table

Deck Schema:

- Id - Integer, Primary key
- Name - String, not null
- Timestamp - Datetime
- User_id - Integer, Foreign key
- Flashcards - Relationship with Flashcard Table

Flashcard Schema:

- Id - Integer, Primary key
- Question - String, not null
- Question_html - Text
- Answer - String, not null
- Answer_html - Text
- Deck_id - Integer, Foreign Key
- Right_answered - Boolean
- Wrong_answered - Boolean

Architecture and Features:

The project is organised as follows:

- Card_app -
 - Templates - Stores all the HTML templates.
 - Static - Stores the styling and javascript
 - Forms.py - Handles the forms
 - Models.py - Handles the database schema in the form of classes.
 - Routes.py - Handles all the controllers
 - __init__.py - Handles importing the different modules
- Main.py - Runs the application.

There is a proper login system with validation for the email and password.

Users would be able to create, delete and update their flashcards as well as keep track of how well they are performing on their respective decks.

Video:

https://drive.google.com/file/d/1BjYR_zFQjjM7-RMHPno3DuNuKFoYvOa7/view?usp=sharing