SickleSmart - MVP Specification.

"Your partner in Sickle Cell care: Empowering lives, one cell at a time."

ARCHITECTURE

The architecture diagram for the SickleSmart website illustrates a traditional three-tier architecture consisting of the following components:

1. Frontend Client:
   - This component represents the user interface of the website that users interact with. It includes web pages, user forms, and interactive elements.
   - Technologies used: HTML, CSS, JavaScript (potentially with frameworks like React or Vue.js)
2. Web Server:
   - The web server component handles HTTP requests from the frontend client and interacts with the backend services. It serves web pages and responds to API requests.
   - Technologies used: Python with Flask or Django (for backend server-side logic)
3. Database:
   - The database component stores and manages data required by the application. It includes user data, health status records, educational resources, and community forum posts.
   - Technologies used: SQL-based database management systems like PostgreSQL, MySQL, or SQLite

The flow of data through the system begins with user interactions on the frontend client, where users can log in (or not, as a "*logged out*" experience), track their health status, access educational resources, and participate in community forums. Frontend requests are sent to the web server, which processes the requests, interacts with the database to retrieve or update data, and returns responses to the frontend client.

APIs and METHODS

Web Client to Web Server APIs

i. /api/user/login

- **POST**: Allows users to log in to the platform without providing personal details.

ii. */api/health/status*

- **GET**: Retrieves user's health status.

- **POST**: Allows users to update their health status and receive reminders for hydration and medication.

iii. */api/resources*

- GET: Fetches educational resources on managing sickle cell anemia.

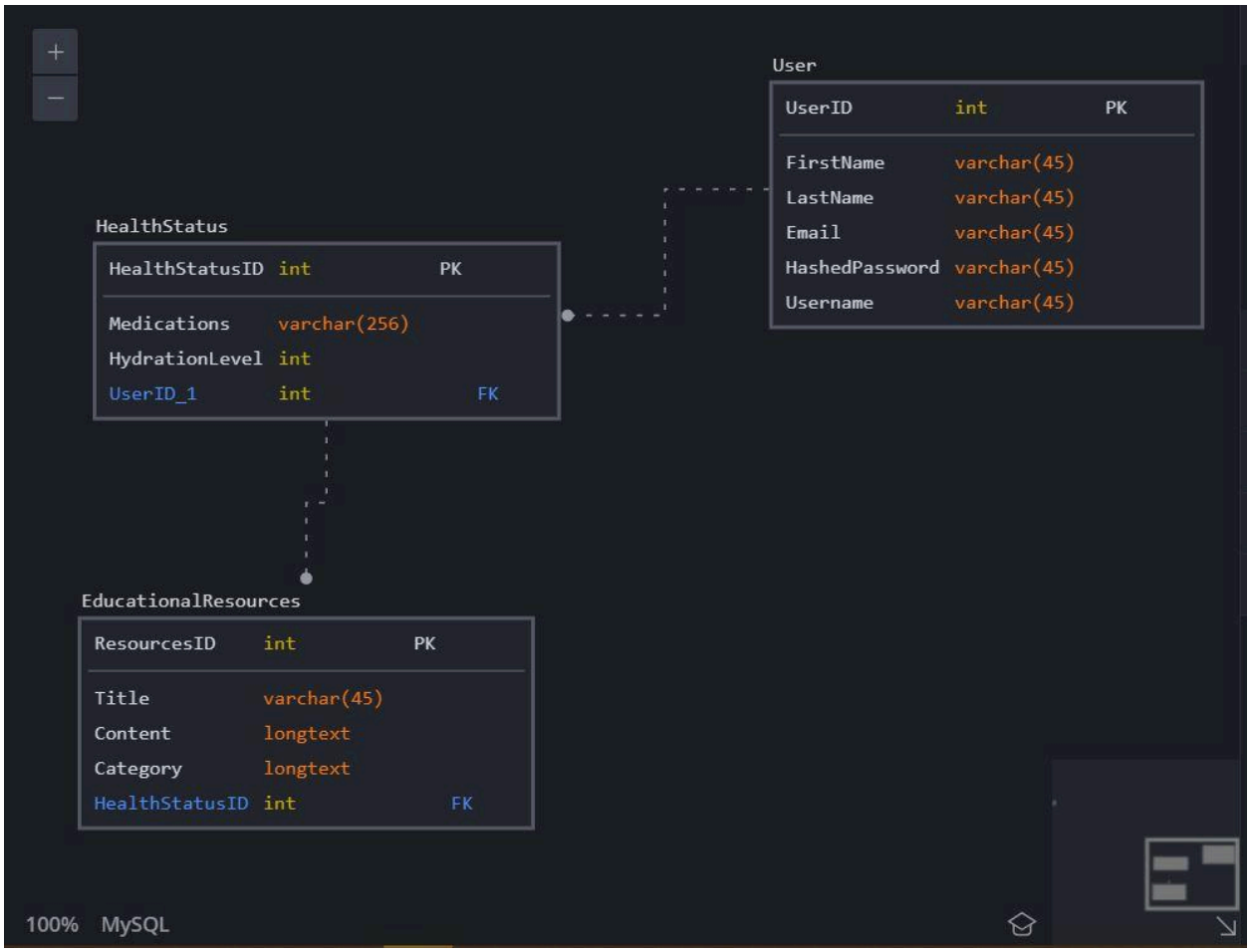
3rd Party APIs

OpenFDA API

- GET /drug/event.json: Retrieves adverse event reports, including those related to sickle cell anemia.
- Link to the OpenFDA API

DATA MODEL

Description of Data Model Diagram:



The data model diagram clarifies how data will be stored in the system, including entities such as users, health status, resources, etc., along with their attributes and relationships.

USER STORIES

- As a user, I want to be able to log in to the platform without providing personal details. Or just use the website as a "*logged out*" experience to know more about my condition.
- As a user, I want to track my health status and receive reminders for hydration and medication.
- As a user, I want access to educational resources on managing sickle cell anemia.
- As a user, I want to receive personalized recommendations for diet and lifestyle modifications.
- As a user, I want to connect with others affected by sickle cell anemia through community forums.