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Hi I am Paarth Bhatnagar and this is my MAD-1 project submission BlogLite.

Description

In this project, we have to make a multi user blogging app. The app should enable a user to create blogs and these blogs should be accessible to all the users across the platform. The author of a blog should be able to edit, delete, and publish blogs.

Technologies Used

- **SQL Lite** - SQL Lite is used as a main database to implement all the models for this project.
- **Flask** - Used for overall routing of the app and hosting the app on the local server.
- **Flask SQL Alchemy** - Used to make changes directly into the SQL Lite database by using python.
- **Flask RESTful** - Used for implementing the API.
- **HTML** - Used for manipulating the data sent by the backend and displaying it on the frontend.
- **CSS** - Used for styling HTML.
- **Jinja2** - Used for manipulating HTML.
- **Bootstrap** - Used as a framework for HTML objects.

Database Schema Design

- **User Table** - To keep the data about each user.

Column Name	Constraints
username	Text, Primary Key, Unique, Not Null
password	Text, Not Null
follower_count	Integer
post_count	Integer

- **Post Table** - To keep the data about each blog published.

Column Name	Constraints
id	Integer, Primary Key, Unique, Not Null
title	Text, Not Null, Unique
caption	Text, Not Null
username	Text, Not Null
image_url	Text

Column Name	Constraints
timestamp	Text, Not Null

- **Followers Table** - To keep the data about who is following who.

Column Name	Constraints
username	Primary Key, Text, Not Null
follows	Primary Key, Text, Not Null

API Design

- The **UserAPI** implementation can be used to get data about a user, post a request to create a new user to the model, and delete a user from the database upon authentication.
- The **PostAPI** implementation can be used to get data about blogs by a user, post a new blog from a user, update certain things about a blog, and delete a blog from a user upon authentication.

Architechture

- **API** - The API endpoints reside inside the `api` folder.
- **Controllers** - The controllers folder comprises of the business logic layer of the app are stored in the `controllers` folder these are as follows:
  - **Login Controllers** - To control login/signup and homepage rendering routings.
  - **Post Controllers** - To control Post management and a basic Post lifecycle from publishing, editing to deletion.
  - **Profile Controllers** - To control the routings involved in implementing a users profile page.
- **Templates** - The `templates` folder comprises of all the HTML templates used within the app
- **Models** - The `models` folder comprises of the Flask SQL Alchemy side of the database models and `metadata.csv` for storing extra details about a user.
- **Static Files** - All the static image files are stored within the `static` folder.

Features

- Basic **login/signup** for a user is implemented, the login and signup is **not** secure.
- All the pages contain a navigation bar at the left. The navigation bar helps a user to navigate to the **homepage**, navigate to the **publish new blog** section, navigate to the **list of blogs** written by the user.
- On the homepage, a user is able to view blogs by the users they follow. A new user by default has an empty homepage and is given **suggestions** to follow a few people to populate their feed.
- The homepage contains a **For you** section on the right side. This contains some specific blogs tailored especially for a user. For now this section selects **random** blogs.
- On the top right of the homepage is a **search bar** which can be used for searching for users.
- When a user visits another users profile, they are able to **follow** or **unfollow** that specific user.
- In the user profile section, a user is able to **change** their **profile picture** and **bio**. The count of followers and following is also displayed. Clicking on **followers/following** opens up a modal displaying list of users.

Project Video - https://drive.google.com/file/d/1QdX-6zYDf30W5FsQiCm9K3dIL3Pj0eZG/view?usp=sharing