REPORT

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I'm an aspiring Engineering and Undergraduate student. I completed my Foundation Level of the BSc Degree in Diploma and Data science by IIT Madras. I'm currently pursuing my Diploma in the same.

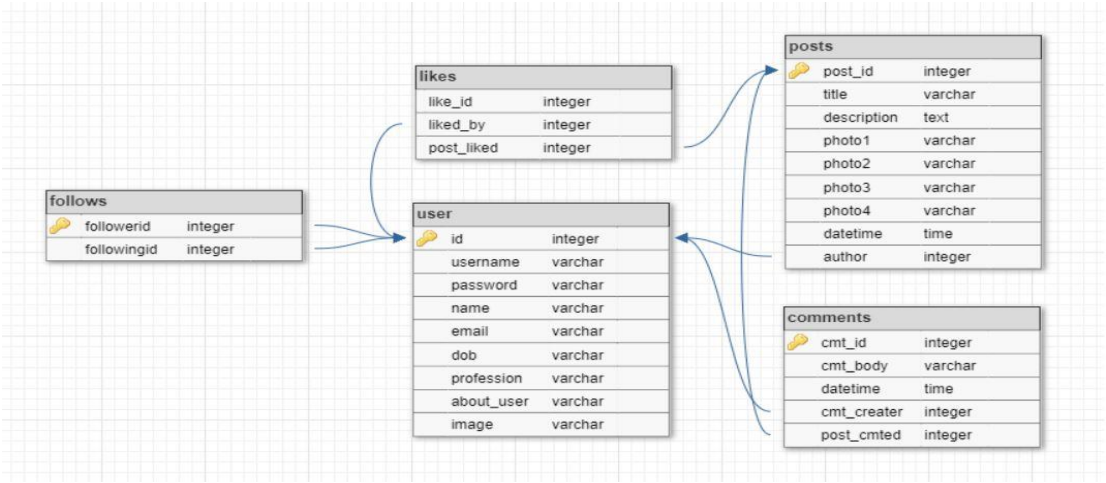
Description

This project is about implementing Blog lite as web application. Blog lite is basically a multi-user app which can be used to upload blogs/posts with images similar to other social platforms.

Technology Used

This application uses python as the main programming language of its ease of programming and owing to its inbuilt and external packages, Flask for implementing the web framework and SQLite3 for data storage because of its light-weight structure to store simple data.

DB Schema Design



- There are 5 relations used: user, posts, follows, likes, comments in which user, posts, follows are core requirements and likes and comments are extra features.
- The column 'author' in posts table is used as a foreign key to uniquely retrieve posts/blogs associated with the user. The column 'followersid' and 'followingid' are used as a foreign key in relation user and follows to uniquely retrieve all followers and all followed users associated with the user.

- The column 'cmt_creater' and 'post_cmted' are foreign keys used to uniquely retrieve users commenting to a specific post where cmt_creater is associated with user and post_cmted is associated with posts.
- The column 'liked_by' and 'post_liked' in table likes are foreign keys used to uniquely retrieve users liking a specific post where liked_by is associated with user and post_liked is associated with posts.
- There's one to many relationships between user and posts, posts and comments, user and comments.
- This is done because one user can have many posts, one post can have many comments and one user can have many comments.
- There's many to many relationship. The association table used here is follows and the one to many relationships is within user, i.e. self-referential relationship which was very challenging to implement.

Architecture and Features

The Blog Lite application is created using MVC – Model View Controller Architecture using the web framework Flask. SQLite3 owing to its simple structure and ease of access when the data is simple and primitive.
Model is organized in "models.py" and views and controllers are organized in a single "app.py".
The HTML templates are stored in folder called "templates" in the root directory. The necessary CSS and Images required for styling and view are placed inside "static folder" in root directory.

✓ Core Functionality/Features

- The User login and signup are implemented in primitive way using sessions. Basic details/stats are displayed in the user's profile.
- Ability to create, update and delete posts/blogs along with multiple image upload.
- The application also allows users to search username and ability to follow and unfollow them. User's feed shows the posts created by users followed along with your posts. And single click on username will lead to their profile which shows their posts/blogs and their basic details/stats.

✓ Additional Feature

- Ability to comment and delete your comment under different posts/blogs.
- Ability to like and unlike the blog/posts of users.

Video

Link:
https://drive.google.com/file/d/1SOn6HZx9fWXXFffbxNmGJza4ncDYO1t8/view?usp=sharing