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Description :

This project is a platform for sharing posts where users can login/signup, create/manage posts, comment on other users' posts, follow and unfollow other users, and search for other users using their usernames.

Technologies used :

1. Flask for backend code
2. VueJS in frontend for making the app responsive.
3. SQLite as the Database.
4. Redis for caching and batch jobs.
5. MailHog as fake SMTP server to receive mails.
6. Celery for batch jobs.

DB schema design

The database has following tables : user, post, follower and comment.

1. user: This table stores basic information about the users of the application, including their unique id, username, email, and password.
2. post: This table stores information about the posts created by users, including the post id, author, title, caption, datetime and image.
3. Comment: This table stores information about the comments given by the users on the post, it includes the comment id, author, post, caption and datetime.
4. follower: This table stores the relationship between the followers and the followings, it includes the id, person, following and datetime.

Architecture :

The root directory contains 2 folders static and templates ,has 4 python files namely main.py, dao.py, models.py and tasks.py , requirement.txt and readme.md.

The **static** folder contains 3 sub-folders: img (containing the images used in the app), csvdatafiles(containing the csv files of the posts of users) and js (containing the Vue/JavaScript code)

The **templates** folder contains all the html files used in the app.

The **main.py** file has all the routers sending data to the client.

The **dao.py** interacts with the database by pulling out data from it and making changes to the database.

The **models.py** file creates the database and its tables and the flask app.

The **tasks.py** file handles the backend jobs like sending mails to user using celery.

Features:

The following features are implemented in this app:

1. User login and sign-up: This feature is implemented with cookie-based authentication.

2. Other User's profile:

    ☒Ability to view the posts created by user.

    ☒Ability to view the lists of followers/followings with a hyperlink to their user page.

3. Current User:

    ☒Ability to delete/edit any posts made by user.

    ☒Ability to change password, username or email.

    ☒Ability to export the posts data as a csv file.

    ☒Ability to delete the account entirely.

4. Comments: User can add/delete comments on posts by any user (including himself/herself)

5. Daily Reminder: If user has not made any new posts today they get a reminder via mail to create a post.

6. Monthly Report: Users get a monthly report in HTML format via mail that describes their activity (new posts, new comments and connection with new people) done in the month that is about to end.

7. Caching : The data displayed on the pages of the app are cached for 10 seconds.

Video link:

https://drive.google.com/file/d/1m5XoWNVX4kYnbqJ4KwN1LMCK_mw_7gcc/view?usp=sharing