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I am a 3rd Year Student currently pursuing a B.Sc Degree in Computer Science from K.C College, Mumbai.

Description

The goal of the project is to create an application that can be used to track various activities of ours, like sleeping, running, calorie etc. The App allows us to create various trackers to track many of such activities, reminds us daily to login and sends user monthly progress reports.

Technologies used

Frontend: Vue.js CDN, HTML, CSS, JavaScript

Backend: flask

Database: flask_sqlalchemy, SQLAlchemy, SQLite

Token Based Authentication: PyJWT

Performance Optimization: Redis, flask_caching, Celery

Creating and sending monthly reports to users: schedule, fpdf2, smtplib, matplotlib, pandas

DB Schema Design

User:

- sno: Integer, Primary Key
- user_id: String
- password: String
- email: String

Trackers:

- sno: Integer, Primary Key
- user_sno: String
- user_id: String
- tracker: String

Tracker_Instance:

- sno: Integer, Primary Key
- user_id: String
- tracker: String
- timestamp: Datetime, String
- value: Float
- note: String

API Design

Tracker: API for all Create, Read and Delete operations on all trackers.

Tracker_Instance: API for all CRUD operation for all the entries in a tracker.

Report: API to view report in html format.

Download .csv: API to download tracker in .csv format.

Import Data: API to import data from a .csv file.

Architecture and Features

Frontend:

- All the html files are contained in the “templates” folder.
- main.js is contained in the “static” folder.
- Vue.js is implemented using cdn.

Backend;

- app.py is the main file which handles all the requests.
- send_mail.py is responsible for sending daily reminders and monthly reports.
- records.db is the database responsible for storing all the data.

Features:

- Add, Remove, and View Trackers.
- Perform CRUD operation on the values in each tracker.
- Import values from external .csv file.
- View report to see the progress a user had made in each tracker.
- Send daily reminders to users to login.
- Send monthly reports to users regarding their progress in each of the trackers they have added.

Video

<https://drive.google.com/file/d/1RrDpHT4kji7H9Sn8udIMyLxjomp5s3Mo/view?usp=sharing>