PROJECT DOCUMENTATION

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Description

An app used for logging and tracking progress or events for a person giving them the ability to create, modify and visualise trackers of various types.

Technologies used

Flask, Sqlalchemy - For the flask framework; datetime module; matplotlib module for graphs; sqlite3 for the database; jinja2 for efficient html; bootstrap for styling; sha1 encoding for password hashing

DB Schema Design

Login - Users' usernames along with hashed passwords
Trackers - Id, with their readable name, the username (owner of the tracker), the type of the tracker (numerical, categorical, boolean) and a description of the tracker
Tracker_logs - Id, tracker id with which they are logged, a timestamp (datetime object), a message

API Design

NA

Architecture and Features

database.py - initialises the database
main.py - runs the app importing the database and the controllers
controllers.py - all the controllers are defined here
models.py - all models along with the function for making datetime human readable is here
Static directory - home to the external css file and the graph made by matplotlib
Templates directory - contains 8 html jinja2 files for all the webpages

The user can login / create an account at the login page. The passwords are stored in the database using sha1 hashing (which makes it more secure in the event of a data breach). The user can create trackers of types numerical, boolean and categorical. The user can further create logs for the trackers with appropriate values. These logs are then displayed both in a table and graphically. The user has the ability to edit any of the logs and trackers (to a limited extent)

Video

https://drive.google.com/file/d/1yBZHNT_ppa3-lDAwW9tJdRePWlZjlMO5/view?usp=sharing