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Description

The main requirement of the project is to create a web application which provides the user the functionality to login along with that the user can create new trackers of their choice. The user can then log in the trackers to track their daily activities.

Technologies used

- Python: To write the backend for the application.
- Flask: To handle the requests and display dynamic web pages.
- SQLAlchemy: To set up a connection between the database and the backend.
- Sqlite: To permanently store the data in the database.
- HTML5: To create web pages.
- Bootstrap Framework (CSS): To style and beautify the web pages.
- JavaScript: To do the frontend validation.

DB Schema Design

User table Schema

Column Name	Column Type	Constraints
Name	String	Not Null
Username	String	Primary Key, Not Null
Password	String	Not Null

Tracker table Schema

Column Name	Column Type	Constraints
Id	Integer	Primary Key, Auto Increment
Name	String	Not Null
Description	String	Not Null
Type	String	Not Null
Settings	String	Not Null
Last	String	Default("Never")
User	String	Foreign Key("User.Username"), Not Null

Log table Schema

Column Name	Column Type	Constraints
Id	Integer	Primary Key, Auto Increment
Timestamp	String	Not Null
Tracker	String	Foreign Key("Tracker.Name"), Not Null
Value	String	Not Null
Note	String	Not Null
User	String	Foreign Key("User.Username"), Not Null
Trackerid	Integer	Foreign Key("Tracker.Id"), Not Null

API Design

The API design involves options to get, post, put and delete the trackers and logs.

Architecture and Features

The complete project resides in the root directory **21f1001878** which contains a static folder which contains all the css and javascript files. The root directory also contains a templates folder which contains all the html files. The root folder contains a yaml file for the api definition and a python file which contains the code for the backend.

The first feature of the app is that it allows new users to create accounts and login into the app. The users can access all the trackers on the homepage where he/she can add new trackers, delete existing trackers, log in the trackers, edit the trackers and also view a detailed summary of a tracker. The summary allows the description of the tracker along with a chart of logged values (Numerical) which can be filtered for the current day, current week and current month. Below is a table of logs which can also be edited or deleted.

Video

https://drive.google.com/file/d/1OZyFQyYSCpHZZHXHud9C1k_LO2kZUTF5/view?usp=sharing