IIT MADRAS

Modern Application -1

2022- Project

REPORT

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Introduction:

The main purpose of this application is to track and manage the logs when user Inputs. The basic requirements are user login, Dashboard , treadeline, Tracker Tracker log events.

In user login page the user can enter the details such as username and password and login. if the user does not have an account he can sign up by giving a username and password.

In Dashboard the user can create a tracker. The user can give a name to tracker add the data type of the tracker, etc..

Treadline shows the graph of the logs in a pattern connected by dotted lines where you can edit the range from 1 day to 1 month or can give custom range

Tracker logs captures each log entries can add more or delete the logs .

Technologies used:

- Flask: Application Code
- Flask-Sqlalchemy: Flask extension for Sqlalchemy to create database models
- Flask-login: Flask package to add sign-up and login feature to the application
- Matplotlib: Python library to add graphs in the application
- Bootstrap: For CSS and HTML generation
- Datetime: For handling date and time datatypes

Architecture and Features:

- All html files are present in templates folder and all css and images are in static folder.
- models.py contains database models and project.sqlite3 contains all the tables.
- views.py contains all the routes and helpers.py contains other functions.

Each tracker has its own page to see the logs and the data in form of a graph. Log out option is also enabled. Every route is authenticated and no user without proper credentials can access those routes.

Four tables are created as shown in Schema diagram:

• User table stores user information like user id, name, password. name is unique for each user.
• Tracker table stores tracker information like id, name, description, type, and user id. name is unique for each tracker.
• Log table stores user-id, tracker id, timestamp, note, last logged date, and value according to the tracker
• Options table stores the options of multiple choice and boolean type trackers with their tracker id.

References:

https://www.w3schools.com/html/
https://www.tutorialspoint.com/html/
https://www.tutorialspoint.com/flask/