

Author

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About me:

I am a B.tech. 2nd year student at Gayatri Vidya Parishad College of Engineering for Women.

I aspire to become a leading data scientist; this course has not only helped me in getting closer to my dream but also helped me in my regular academics as an undergraduate Compute Science student

Description

In the project “My QuantifiedSelf”, I created a web application that tracks a user’s activities. A user logs into the application and can view their different trackers, on which they can perform CRUD operations. Each tracker has its own logs which also supports CRUD operations

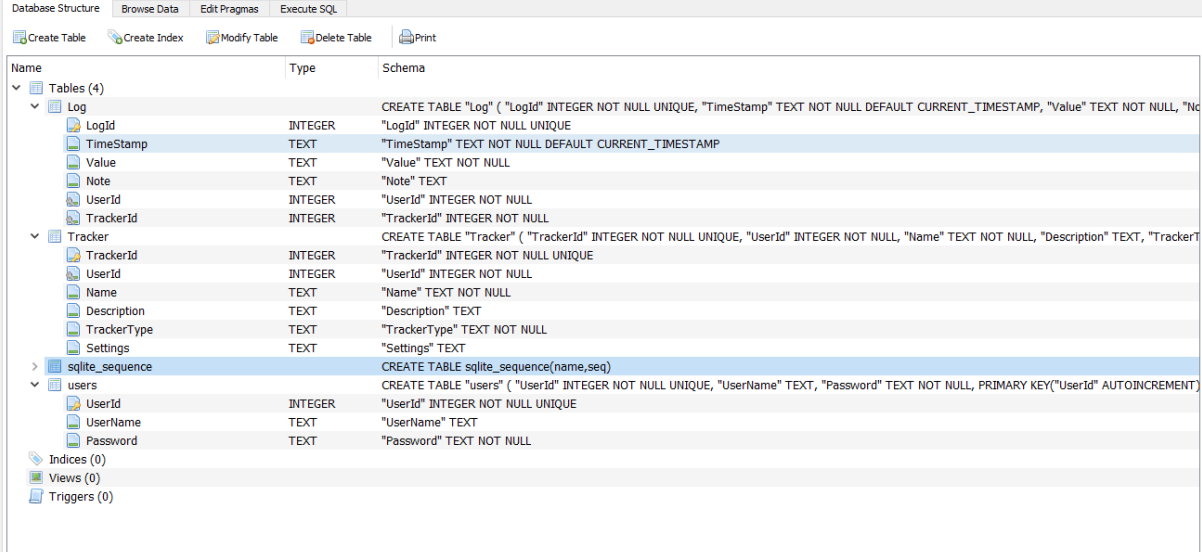
Technologies used

- Flask
 - Flask extensions- session, api, http, redirect, url_for, render_template, request, flash, app
- Jinja2 templates
- Bootstrap
- SQLite

Purpose:

- I used Bootstrap for HTML generation and styling
- SQLite for data storage and DB browser as the UI
- Flask for application code

DB Schema Design



Name	Type	Schema
Tables (4)		
Log		CREATE TABLE "Log" ("LogId" INTEGER NOT NULL UNIQUE, "TimeStamp" TEXT NOT NULL DEFAULT CURRENT_TIMESTAMP, "Value" TEXT NOT NULL, "Note" TEXT NOT NULL)
LogId	INTEGER	"LogId" INTEGER NOT NULL UNIQUE
TimeStamp	TEXT	"TimeStamp" TEXT NOT NULL DEFAULT CURRENT_TIMESTAMP
Value	TEXT	"Value" TEXT NOT NULL
Note	TEXT	"Note" TEXT
UserId	INTEGER	"UserId" INTEGER NOT NULL
TrackerId	INTEGER	"TrackerId" INTEGER NOT NULL
Tracker		CREATE TABLE "Tracker" ("TrackerId" INTEGER NOT NULL UNIQUE, "UserId" INTEGER NOT NULL, "Name" TEXT NOT NULL, "Description" TEXT, "TrackerType" TEXT, "Settings" TEXT)
TrackerId	INTEGER	"TrackerId" INTEGER NOT NULL UNIQUE
UserId	INTEGER	"UserId" INTEGER NOT NULL
Name	TEXT	"Name" TEXT NOT NULL
Description	TEXT	"Description" TEXT
TrackerType	TEXT	"TrackerType" TEXT NOT NULL
Settings	TEXT	"Settings" TEXT
sqlite_sequence		CREATE TABLE sqlite_sequence(name,seq)
users		CREATE TABLE "users" ("UserId" INTEGER NOT NULL UNIQUE, "UserName" TEXT, "Password" TEXT NOT NULL, PRIMARY KEY("UserId" AUTOINCREMENT))
UserId	INTEGER	"UserId" INTEGER NOT NULL UNIQUE
UserName	TEXT	"UserName" TEXT
Password	TEXT	"Password" TEXT NOT NULL
Indices (0)		
Views (0)		
Triggers (0)		

- I have designed the database based on the key features of this project
- I choose to have three main tables for the Users login (users), Trackers storage and retrieval(Tracker) and for the logs corresponding to the Trackers (Log)

API Design

1. APIs for interaction with trackers and logs
 - a. CRUD on tracker
 - b. CRUD on the tracker log event
 - c. Additional APIs for getting trend lines

Architecture and Features

- All the html templates are in the templates folder
- There a single database in the project
- There is a static folder that stores the images to display the trend line graph for the tracker
- There are four python files

Features

- User Login
- Dashboard
 - Dashboard with list of trackers
 - Time of last review
 - average value on tracker
 - Ability to go to logging view for any tracker (link on tracker name)
 - Ability to go to create or edit tracker
 - Ability to go the specific tracker details
- Tracker management- CRUD operations also trend line graph of a tracker
- Logging- CRUD operations

Video

https://drive.google.com/file/d/1_KjIDAuvBgt-7_TEpiSGDaeHyddfC2o6/view?usp=sharing