Quantified Self App

Capstone Project for Modern Application Development I Course
(IIT Madras)

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Main Features

- Basic User Model with Password Based Authentication
- 5 Different Tracker Types: `Boolean`, `Integer`, `Decimal`, `Duration`, `Single Select`, `Multi Select`
- Add, Edit, Delete, View Trackers
- Add, Edit, Delete, View Tracker Logs
- Dashboard with Option to Export Data as `CSV` and `TSV`
- Dashboard with Trendlines
- Token for API Validation
- Get Tracker Types, Trackers, Logs, Trendlines using API
- Add Trackers, Logs using API
- Delete Trackers, Logs using API
- Special Focus on UI/UX

Libraries and Frameworks

- Python Libraries
    - Flask, Flask-Login, Flask-RESTful, Flask-SQLAlchemy
    - Werkzeug, SQLAlchemy, Jinja2
    - matplotlib, numpy
    - humanize, python-dotenv, requests
- Database
    - SQLite3
- Frontend
    - HTML5, CSS3, Javascript
    - Bootstrap
- API
    - OpenAPI, SwaggerUI

- Version Control

    - Git, GitHub

Issues

- Trendlines generated are stored in `static` folder which is accessible to everyone. We could add some kind of authentication to allow only specific users to access the generated trendlines.

- It is not clear what to do to the existing logs when a user deletes an option in case of `Single Select` and `Multi Select` Tracker Types. It may depend on the user preference. So, I did not implement this option.

GitHub Link

- `https://github.com/JameelKaisar/Quantified-Self-App`

Replit Link

- `https://replit.com/@JameelKaisar/Quantified-Self-App`

Video Link

- `<Pending>`