### Author

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Working as New Product Development Engineer in Lithium ION battery manufacturing organisation.

### Description

A web app needs to be developed to track daily life activities of a person. User login is must and after that

User can select trackers of his/her choice. Trackers can be numeric; Boolean, etc. user must also be able to

Monitor his activity by means of graphs and tables.

### Technologies used

Flask => to develop web application.

Flask\_restful => to maintain REST API using Flask as backend.

Numpy => to perform mathematical operations on arrays and lists.

Matplotlib => to plot graphs.

Flask sqlalchemy => to maintain database of application.

### DB Schema Design

Table name = “Credentials”

{

To store user login details,

Id = integer value, primary key, auto increment,

User ID = string value, not null, unique value,

Password = string value, not null

}

Table name = “tracker\_list”

{

To store list of tracker for a user,

ID = integer value, not null, primary key,

Tracker name = string value, not null,

User\_ID = integer value, not null,

Tracker data type = string, not null,

Units = string value, not null,

Description = string,

}

Table name = “Tracker\_data”,

{

To store tracker data values of a user,

S\_no = integer value, not null, primary key, auto increment,

Tracker\_ID = integer value, not null,

User\_ID = integer value, not null,

Timestamp = string, not null,

Value = string, not null,

Notes = string value.

}

### API Design

API is implemented to user login, add new user and add new tracker.

### Architecture and Features

main.py is the main file to launch web application in the submitted zip folder. Scripts for API,

Configuration, controllers, database, models, controllers and validation is in the application directory.

Database file “user\_database.sqlite3” is in the db\_directory directory.

All html files are in templates directory.

Images/graphs are in images directory inside static directory.

### Video