Python Frontend , API and Database Developer Test:

Introduction:

The goal of this project is to develop a python web app that displays real-time cryptocurrency and Commodity information using the Alpha Vantage Api. This project involves designing , implementing and testing a software solution that interfaces with the Alpha Vantage Api to retrieve and display data on a web app.

Focus on Cryptocurrencies values of :   Bitcoin (BTC) and Etherium (ETH)

API:

This Test makes use of the https://www.alphavantage.co/ api.
You are welcome to get your own Free api key or use the "demo" key.

This API key should be stored in a config.py file along with any data you wish to keep separate from the project. Keeping config.py in your .gitignore please make a duplicate file with dummy data.

Database:

Requirements:

Using the data pulled from the api such as daily cryptocurrency statistics, this data should be stored into a MySql database to be used.

- A User table is required for login
- API Data
  - Create tables for required data
    - Current Exchange rates for BTC and ETH
    - Historical data for BTC and ETH
    - Coffee Commodity
    - Sugar Commodity
  - Required Functions:
    - Add an entry for a commodity
    - Update a commodity entry
    - Delete a commodity entry
    - Update Current exchange rate by recalling api

Please handle request errors

Frontend:

Requirements:

- This application needs to be behind a login (register disabled)
    - The user needs to be created by a seeder, and the readme of the project needs to indicate how to get the project working on a local machine including the credentials that are required to login.

- **Dashboard**
    - After logging in the user should be presented with:
        - cryptocurrency information:
            - The current currency exchange rate.
            - Tables and graphs displaying Daily , Weekly and Monthly Historical data. Please make these representations as meaningful as possible.
        - Commodity information for coffee and sugar:
            - Graphs displaying the value for the past 6 months
            - There needs to be the ability to add a new value for the current month that adds to the database.

- **Commodities Page**
    - Search functionality should be available to search for a specific commodity with error handling in place.
        - Data provided from this search should display similar to that of the dashboard commodities.

Submission:

Create a repo on GitHub with a readme as to how to build the project and view the project.