

Assignment

Problem Statement

The weather department of a news organization requires weather data for the following cities.

- Bangalore
- Mumbai
- New York
- Dubai
- London
- Mexico City

The stakeholders of this are the weather analysts and news anchors within the organization. This data needs to be consumed visually.

Tasks to be executed

1. Use Python 3.7 or above.
2. Call the following APIs from openweathermap.org to receive the weather data
 - a. [One Call API](#) – Get the daily data for each of the cities above; it should have the temperature, pressure, humidity, and wind metrics. This API needs to be called only once, and the data needs to be stored in a database using the data pipeline suggested in Point (3).
 - b. [Current Weather API](#) – Get the current weather data for temperature, visibility, wind, and clouds. This API needs to be queried every five minutes and stored in the database using the data pipeline in Point (3).
3. Create the data pipeline that queries the data, transforms it into the required form, and finally stores the data in a database.
4. Create the required data model in the database that will store the data.
5. Use a visualization tool to visualize the data. The dashboard should contain the following visual constructs:
 - a. Table View on daily weather data
 - b. Table View on current weather data
 - c. Display the temperature data in the tables in Celsius and Fahrenheit
 - d. Create two charts on any of the data

Success Criteria

1. You need to execute all the tasks above successfully.
2. The code should be well-formatted and properly linted.
3. The Github repository should have a well-documented README file that describes how to execute the repository using docker-compose, how to view the data in the database, and how to open the dashboard in the browser.
4. There should not be any API Keys stored in the repository, and there should be a config file where a user can insert the API Keys.
5. [Optional – Extra Points] - The code for all of the above can be dockerized and committed to a Github repository. This step is not mandatory.

Share the Github repository link with samir@kickfurther.com

Please feel free to ask questions if something is not clear.