WTAX

TECHNICAL ASSESSMENT

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Technical Assessment

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Background

You are the senior developer in a weather reporting agency that provides critical updates to clients who are subscribed to the company's services. One of the product owners in the company has submitted the below user story that needs to be urgently developed and implemented. The tasks have been assigned to you as our most senior developer.

User Story

As a client I would like to see the weather forecast (daily minimum and daily maximum temperature) for the cities I am interested in. I would like to see a forecast for five days and be able to toggle between a "five days" overview option and "48-hour detailed" option.

Technical Scoping

The development manager has assigned the tasks to you and together you derived the following technical tasks to consider for development of this feature.

Resources

- https://openweathermap.org/api - this site provides accurate weather information that has API documentation available.
- You have derived that 'One Call API' and '5 Day / 3 Hour Forecast' will satisfy the requirement from a data point of view.
- For this assessment, you can use the following OpenWeatherMap API key: **291a7314f5a640a5c792282cc91d849f**

- Use a local SQL database to story the cities selected by each user as well as the weather data for each city. You can choose any commonly used SQL database, e.g. MySQL, PostgreSQL, H2.
- Note that the OpenWeatherApi uses latitude and longitude geographical coordinates as input: you can look up the geographical coordinates for cities on https://developers.google.com/maps/documentation/geocoding/overview . Store these coordinates along with the city names in your database.

Constraints/Tasks

PLEASE NOTE THAT THESE TASKS ARE NON-EXHAUSTIVE AND YOU CAN ADD EXTRA FEATURES THAT YOU FEEL WOULD ADD TO THE USABILITY AND EXPERIENCE

- Make sure data is automatically updated daily and stored in a local database.
- Display the temperatures in degrees Celsius.
- Develop test classes to show that your code has the correct behaviour.
- Create a web-based UI to show the weather data for the cities that the user has selected (this does not need to look fancy).
- Create a REST API to return the weather data for the cities the user has selected (apply RESTful principles).
- If requirements are unclear or you don't know how to implement them, use your professional judgment to decide how to proceed.

Timeline

The development manager will review your work before pushing it to the testing team. Even if you do not manage to implement all the requirements within this time, make sure the requirements you *have* implemented work correctly, and that the code is clean and has test coverage. The review will be in the form of a 20 min demo of working product and the code to the development manager

Email fransf@wtax.co with details for the demo and to arrange a timeslot beforehand.