Coding Challenge

Request

A customer wants a purely client-side programmed display of the current weather data at his location. The customer would like to use the "OpenWeatherMap" service, as it is free of charge and offers sufficient functions within the scope of use. In the future, however, the external API is to be replaced by the client's own API.

The following information is to be retrieved:

- Current temperature

- Minimum temperature

- Maximum temperature

- Air pressure

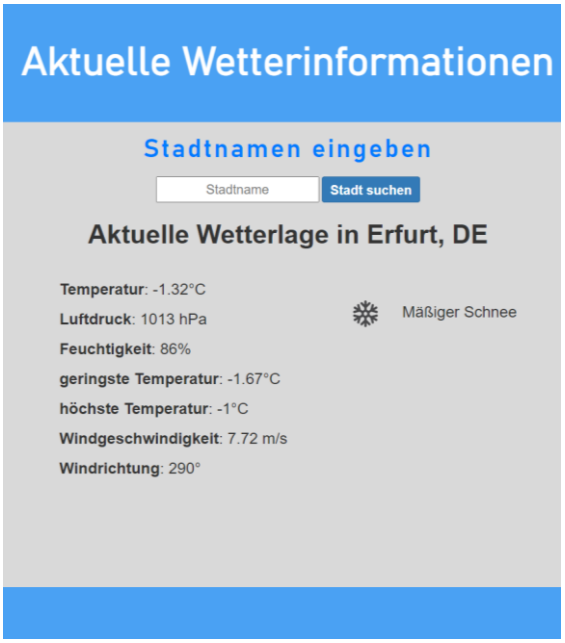
- Humidity

- Wind Speed

- Wind Direction

- Cloud cover condition

The following display was suggested by the customer as a mockup:



Since the customer uses a mixture of old and modern browsers, there is a desire for a way to facilitate the entry of the city name in modern browsers by locating it.

General conditions

The described task deals with basic functions and properties of the languages HTML, CSS and JavaScript. The solution can also be done with the JavaScript framework jQuery or similar.

The task covers the following activities in dealing with HTML manipulation:

- Identifying HTML objects

- Basics of Javascript implementation

- Controlling HTML objects with Javascript

- Events in HTML/Javascript

- Changing HTML object properties with Javascript

- Calling an external API

Assignments

1. develop the basics for a concept for the implementation of the task.

2. develop the weather application with the web technologies HTML, CSS & Javascript (incl. corresponding frameworks)

3. develop a demo API. Use the Microsoft MVC - WebApi technology stack for this purpose.
Note: with Visual Studio Community (free of charge)

   a. The demo API should have a database with 10 sample data sets.

   b. The queries and response objects shall match the OpenWeatherMap API functions used previously to ease the transition between data sources.

There is no need for completion, this is supposed to be a way for you to demonstrate how well you can work yourself into an API and work with the means that the framework provides. Provide the final application repository hosted on either GitHub or Bitbucket and send us the link. Try to think in small features when structuring your repository.

Good Luck and have fun!