

# HOMEWORK *Time to get things done!*

You are getting this homework because throughout our exchanges we found your profile to be very interesting, and potentially a good fit for our mission...

Now we would like to learn a bit more about you in the context of a real technical project. This will allow you to demonstrate to us the different aspects of your capabilities: like programming and design skills, autonomy, sense of accomplishment and creativity.

This homework consists of creating a small web application that does simple analysis of data coming from an external services and displaying the results in the browser.

## Displaying forecast

The [www.weather.com](http://www.weather.com) web application provides to developers a web service to get weather conditions. For example, weather data are available for French cities on the given URL :

<http://api.wunderground.com/api/{key}/geolookup/conditions/forecast/q/France/{CITY}.{FORMAT}>.

- City is then replaced by a specific name : Paris, Lyon.
- Key is a valid registration key. This key is available for free but a registration on the web site is needed (registration is needed). For instance, the krono-safe key is : fdb61d8a3c1e4be4.
- FORMAT is either xml or json

Hence, in this homework, the current forecast condition for Paris is available in XML from :

<http://api.wunderground.com/api/fdb61d8a3c1e4be4/geolookup/conditions/forecast/q/France/Paris.xml>

## Specification

Using this service, your application must fulfill the following requirements:

- 1- A user should be able to search for a French City.
- 2- The user will choose one of the city returned by the search.
- 3- The current weather conditions are graphically displayed in the browser.
- 4- A graph sum up the temperature of the several searched cities.

## Optional

Along with these basic needed features, feel free to extend the requirements by:

- 1- Adding new kinds of graphics - if you think that manipulating data is fun.
- 2- Extending and polishing the user interface (Ajax, auto-suggest, animated results; ...) if you're a UI guy.
- 3- Doing both - if you are Super(wo)man.

## Any questions?

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If you need to do some search about the weather service, the API is documented <http://www.wunderground.com/weather/api/>

## Technical requirements:

You are free to implement this project using the technology of your choice. However keep in mind that the target client is a recent web browser.

## Presentation of your project:

You will have thirty minutes on a given date to present the result of your work. We expect to see the application running. You can bring your own laptop with the application already installed. You have also the choice to bring your source code, and we will deploy it on one of our machines. Obviously we can't have all dependencies already installed so please send us a note before the meeting to plan the installation of any special component. Attending, will be some of your potentially future colleagues. This is your opportunity to explain your technical choices and detail any problem you encountered during the implementation.

Two points are of particular interest: Your approach, the final result, and the quality of code. Your final code must be committed to github before the presentation.

## Hints:

It is essential in this exercise to have a result even this result is not complete. So please focus on getting something done. If you feel blocked by any aspect, try to move on. During the presentation what is important is to expose your choices, your difficulties and your facility for such application. We invite you to demonstrate and use your special capacities to add your special touch to the project. Prefer using technologies you are comfortable with. We don't evaluate regarding a particular technology, but rather the way you handle and deal with the project.

**Good luck.**