3MERN

Become a MERN stack JavaScript developer

1 - Instructions

Competences	Node.js, Express.js, MongoDB & React.js
Modalities	Individual, written (20 points) + viva (10 points)
Duration	4-6 weeks

This is an individual project, therefore you are not allowed to host your project online, use someone else's code, copy and paste code from the internet. If someone is caught cheating, he will receive a 0 mark and be marked as cheater.

2 - Project implementation

Context

You have just arrived in your new company for your full-time internship, and you are entrusted with your first assignment.

Your project consists in the realization of a Meteo web application using the API [OpenWeather.](#)

At the end of your mission you will have to make a presentation to your managers to validate the delivery of the project.

Graphic charter

You must download the various assets provided in the appendix of the project, as well as use the logo and palette that are also in the appendix. The application will have a light and a dark theme, it will be possible to switch from one to the other easily. You will find an example of a possible design in the annex.

The tasks to be performed

A - Registration, Login, Logout

In order for the user to add their favorite cities, you are asked to set up a user registration, login and logout system.
Your application will contain a database that will store the user's information.

B - Home page

Once the user has logged in to the site, he or she will arrive on the home page. The latter will contain all the cities added with the weather of the day as well as the minimum, current and maximum temperature. There will also be a button to add a city, a delete button per city and a toggle button to change the theme.
When you click on a city, you will reach its detail page.
You can find in the annex, an example of a design for the home page.

C - Detail page

The detail page will contain the weather over a week with the minimum and maximum temperatures per day.
You can find in the annex, an example of a design for the detail page.

D - Unit tests

You can use either Mocha or Jest framework to perform unit tests of your application. You are asked for a minimum code coverage of 50%.

E - Secure the application

Your application must use the HTTPS protocol, and must be protected against:
- JS server code injection
- XSS attacks
- DoS attacks
- CSRF attacks

Grading Scale

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Registration, Login, Login, Logout (in database)	2 points
Home page	2 points
Detail page	2 points
Adding and deleting a city	2 points
Creation of unit tests	3 points
Secure the code	3 points
Design, light theme and dark theme (design)	4 points
Clean code	2 points

3 - Viva

You must present your project for 10 to 15 minutes in your company to validate the delivery of your project. You can use any medium for your presentation.
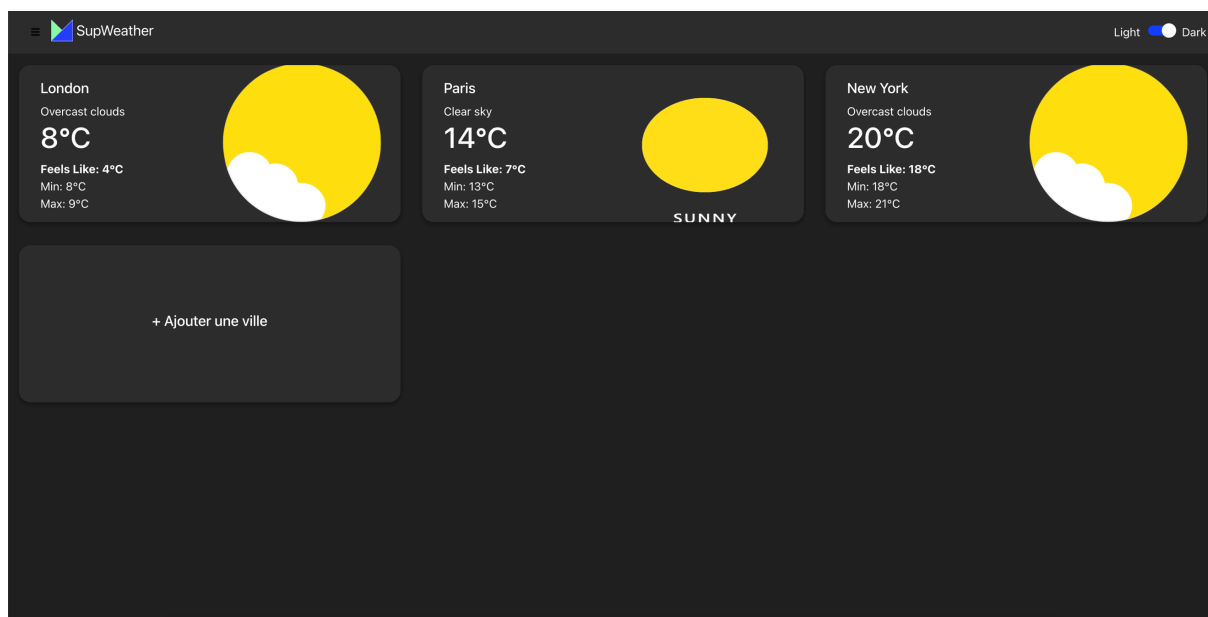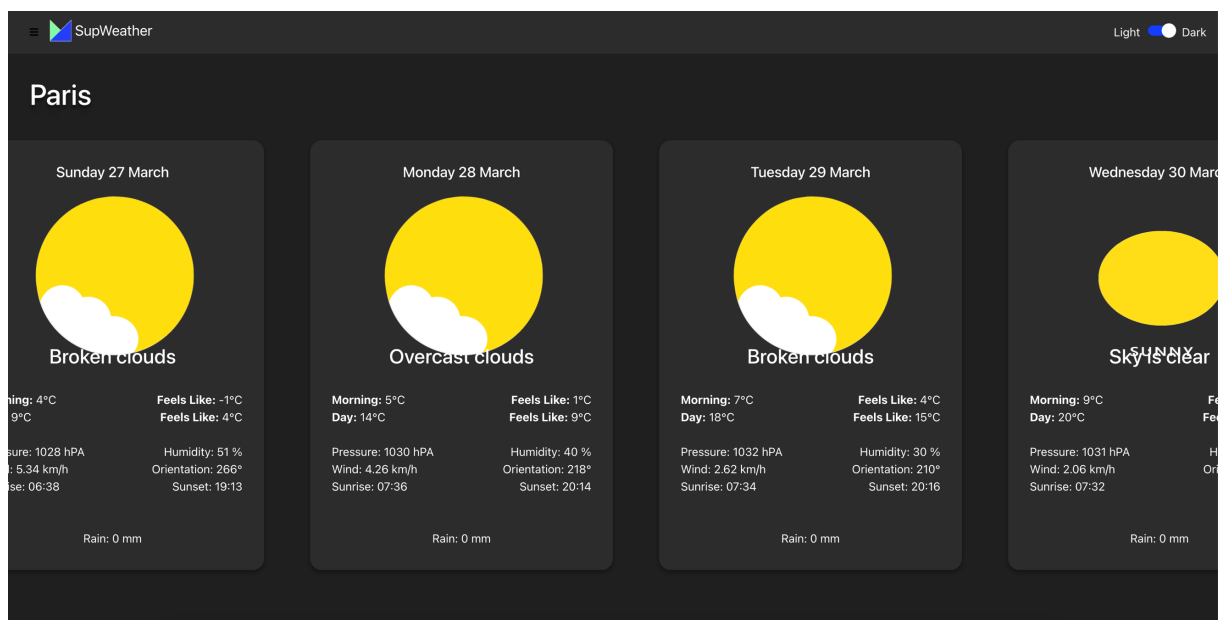
4 - Annex

Assets are email attached.

Design examples :
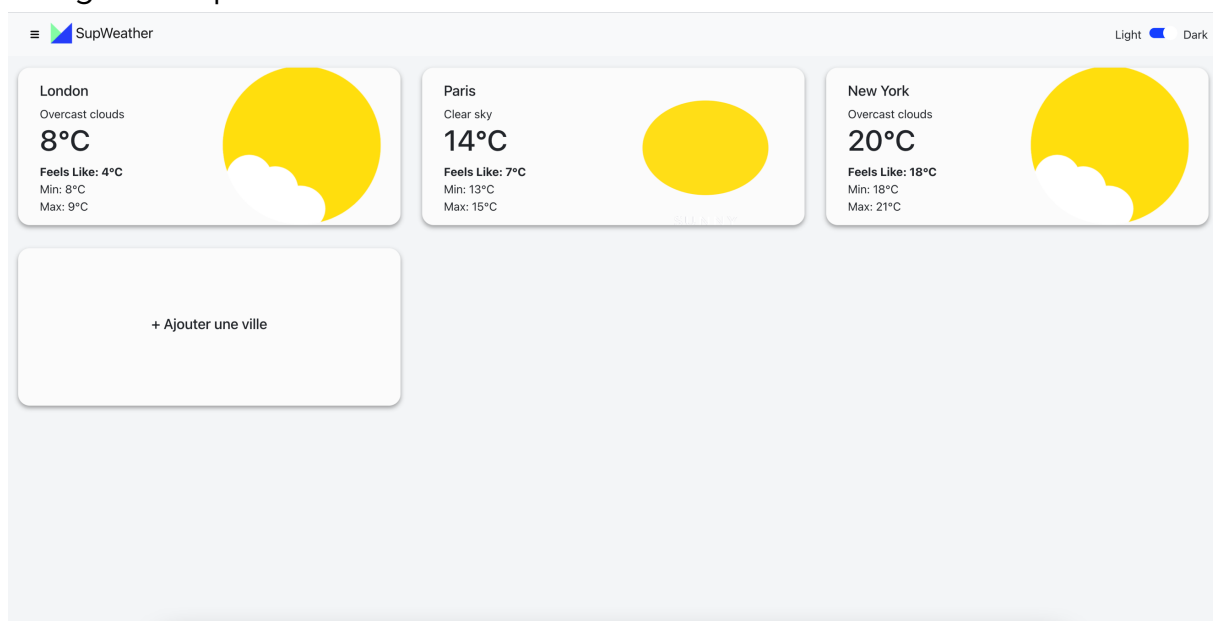
1 - Home page example (light)

2 - Home page example (dark)

3 - Detail page example