

Exercise - Fullstack Developer

Functional Requirements

To build a responsive application for mobile devices, tablets and desktop .

The application will ingest the following parameters:

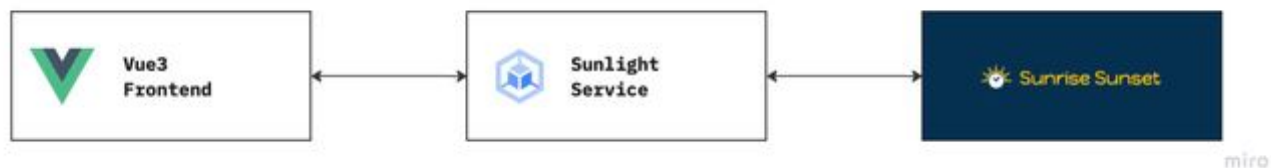
- Current Date
- Current latitude and longitude

The app will output:

- the daylight duration for the same day of the current date in every months of the year. The duration is represented in hours, minutes and seconds
E.g. If today is 15/09/2022, output the daylight duration for every 15th day of the months (15th October, 15th November, 15th December, 15th January, ...)

The app needs:

- to be installable on the user device (if the user supports the PWA);
- an internet connection;
- the access to your location;
- consumes internal services;



Technical Requirements

The application should consume internal APIs through the `sunlight-service`

- Use the following technologies:
 - *Frontend*: Typescript, HTML5 and VueJS 3;
 - *Backend*: Typecript, NodeJs
- Support for the last two version of Chrome, Firefox, Safari (no need to use a transpiler);
- Use Luxon for the date management;
- Use HTML5 GeoLocation API;
- Use <https://sunrise-sunset.org/api> as daylight information provider;
- Use Express library to create the backend service to connect with the daylight information provider;

Score

The exercise's aim is to evaluate the applicant skills on:

- TypeScript language;
- Handle the arrays with `.map()` and `.filter()` ;
- ES6 modules, arrow functions, template literals, classes, default parameters, promises, async/await;
- The framework Vue / Vuex / VueRouter;
- The usage of third-party components (like PrimeView, Bootstrap);
- CSS Flexbox;
- Consume REST APIs;
- Single responsibility of the components;

- Clean code;
- Correctness of the implementation requirements;
- Ease of execution;

Is considered a ***plus***:

- create a `docker-compose` file for the execution of all the services;
- create script to deploy a serverless function (preferred GCP Cloud Functions);

Output

- git repositories;
- File `README.md` with the instructions to run all the services;

Example of the frontend expected result: <https://daylight-in-month.netlify.app/>