

Gardenify - External API Documentation

Back-end:

To obtain all relevant information concerning plants, we used the **Trefle** API. These are links to its official website and API documentation:

- Website: <https://trefle.io/>
- Documentation: <https://docs.trefle.io/reference>

We made use of the following Trefle endpoints:

- '*species*': to obtain general information about a particular species which includes:
 - slug: An unique human-readable identifier (if you can, prefer to use this over id)
 - common_name: The usual common name, in english, of the species (if any).
 - genus: The scientific name of the species genus
 - family: The scientific name of the species family
 - image_url: A main image url of the species
 - trefle_id: An unique identifier used in the Trefle database
- '*growth*': to obtain information related a plant's scientific characteristics. This is to help the user understand how to grow a plant and which plants suit their growing capacities. This includes:
 - description: A description on how the plant usually grows
 - ph_minimum: The maximum acceptable soil pH (of the top 30 centimeters of soil) for the plant
 - ph_maximum: The minimum acceptable soil pH (of the top 30 centimeters of soil) for the plant
 - light: Required amount of light, on a scale from 0 (no light, <= 10 lux) to 10 (very intensive insulation, >= 100 000 lux)
 - minimum_precipitation: Minimum precipitation per year, in milimeters per year
 - maximum_precipitation: Maximum precipitation per year, in milimeters per year
 - minimum_temperature: The minimum tolerable temperature for the species. In celsius or fahrenheit degrees
 - maximum_temperature: The maximum tolerable temperature for the species. In celsius or fahrenheit degrees
 - soil_salinity: Tolerance to salinity, on a scale from 0 (untolerant) to 10 (hyperhaline)
 - soil_texture: Required texture of the soil, on a scale from 0 (clay) to 10 (rock)
 - soil_humidity: Required humidity of the soil, on a scale from 0 (xerophile) to 10 (subaquatic)

Front-end:

To visualise a plant's distribution on a global scale, we made use of **React's Google Maps API**. This is a link to its official documentation:

- <https://tomchentw.github.io/react-google-maps/>

This is done by obtaining the geographic coordinates of the city or country using the **OpenCage Geocoding**. This is a link to its official documentation:

- <https://opencagedata.com/api>