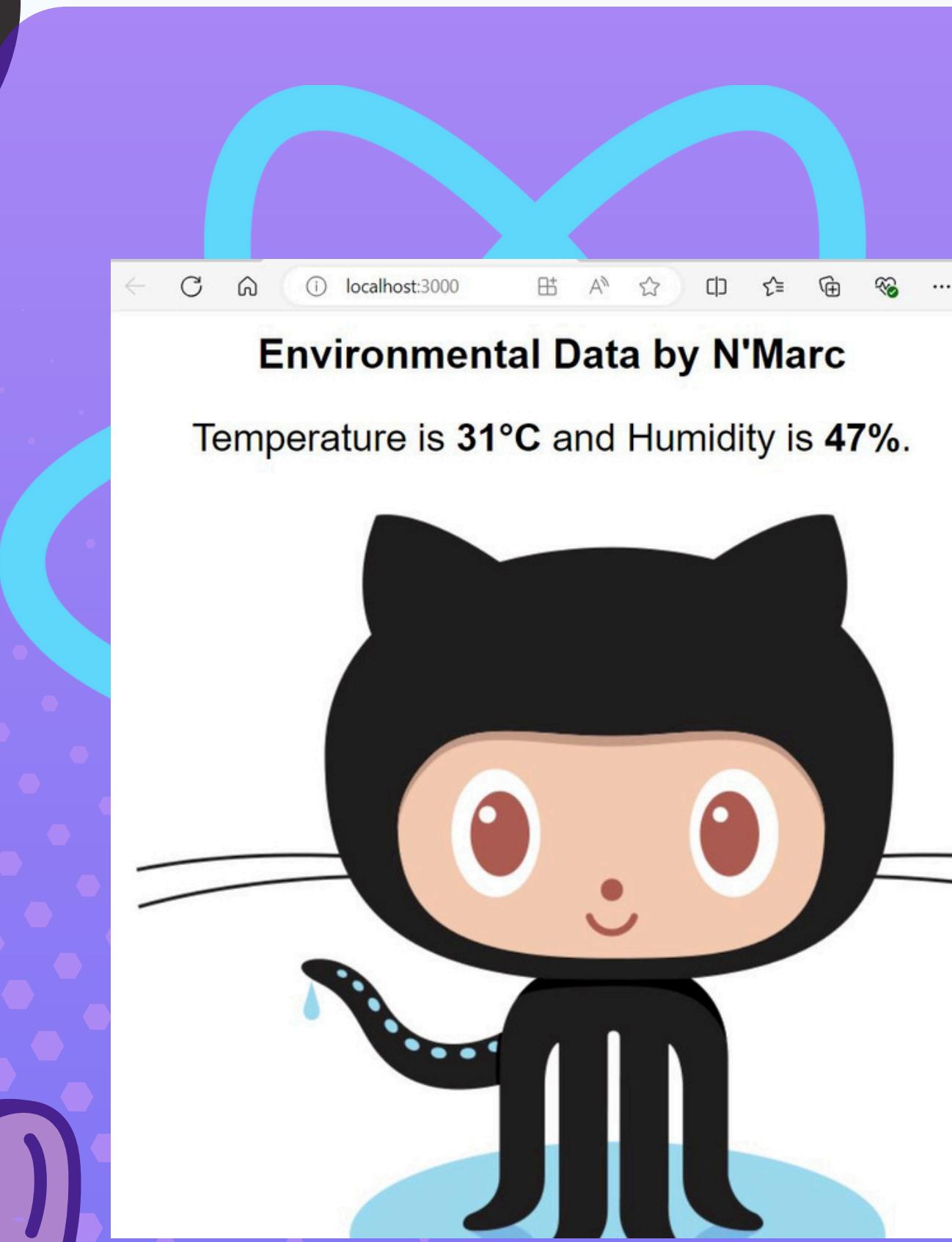


REACT

- React is a powerful JavaScript library for building user interfaces. It allows developers to create reusable components, manage state efficiently, and build dynamic and responsive web applications.



REACT

1. Install Node.js and npm

Download and Install Node.js:

- Go to Node.js official website. <https://nodejs.org/en>
- Download the LTS (Long-Term Support) version.
- Follow the installation instructions.



Run JavaScript Everywhere

Node.js® is a free, open-source, cross-platform JavaScript runtime environment that lets developers create servers, web apps, command line tools and scripts.

[Download Node.js \(LTS\)](#)

Downloads Node.js v22.13.1¹ with long-term support.
Node.js can also be installed via package managers.

Want new features sooner? Get [Node.js v23.6.1¹](#) instead.

REACT

```
1. bash
daves-mbp:install-node dave$ node -v
v0.10.31
daves-mbp:install-node dave$ npm -v
1.4.27
daves-mbp:install-node dave$
```

Verify Installation:

- Open your terminal and run:
- `node -v`
- `npm -v`

REACT

2. Set Up Your React Project

- cd dev/react
 - npx create-react-app my-app
 - npm install react-scripts@latest
 - npm install react-scripts --save

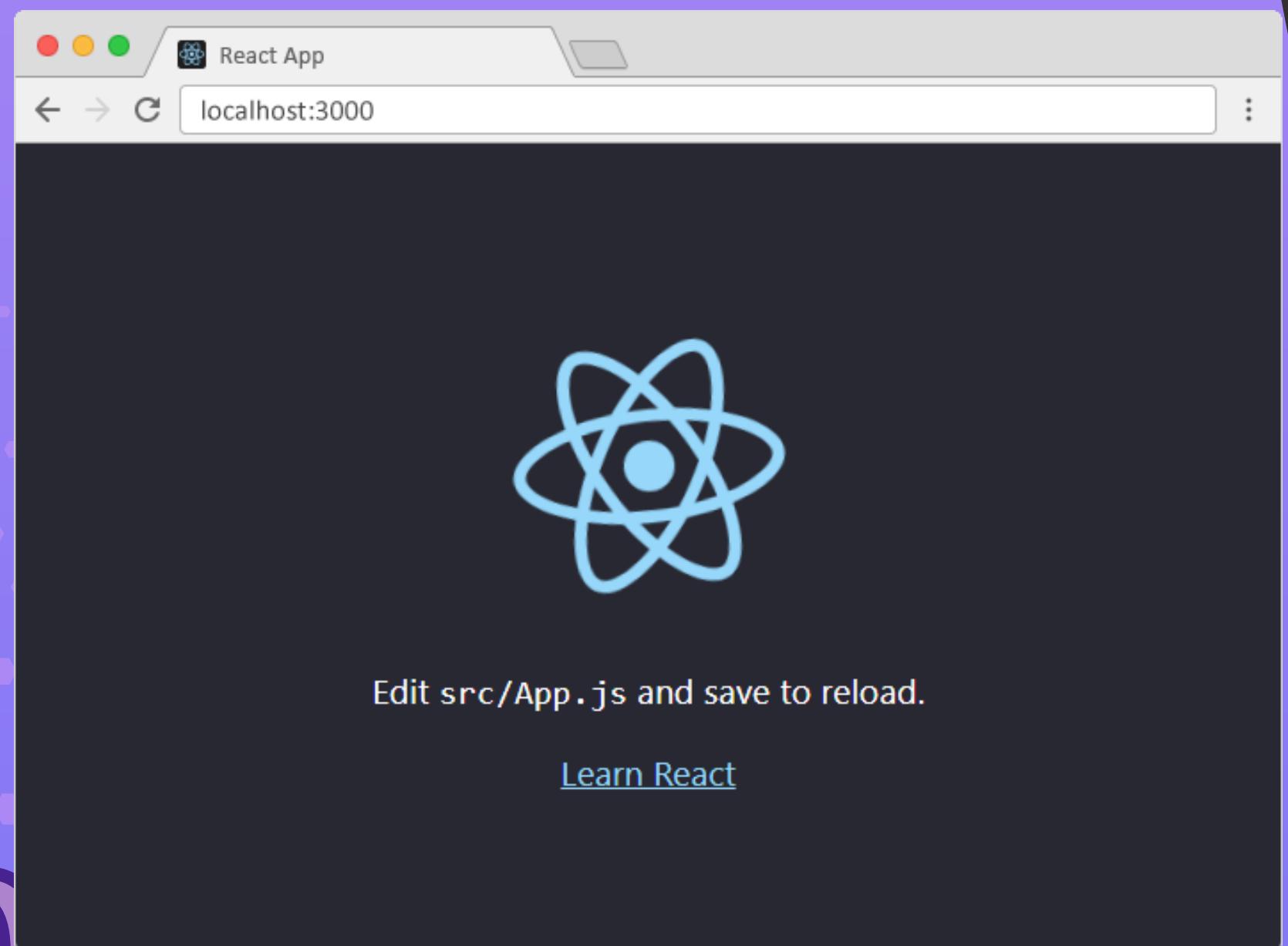
```
npx /Users/flavio/dev/react
Last login: Mon Nov 12 13:02:44 on ttys002
You have new mail.
Welcome to fish, the friendly interactive shell
Type help for instructions on how to use fish
[→ ~ cd dev/react
[→ react npx create-react-app todolist

Creating a new React app in /Users/flavio/dev/react/todolist.
Installing packages. This might take a couple of minutes.
Installing react, react-dom, and react-scripts...
(( [██████████] )) └ fetchMetadata: sill resolveWithNewModule js-tokens@4.0.
```

REACT

3. Test React Project

- cd my-app
- npm start



REACT

Create Simple Web with JavaScript

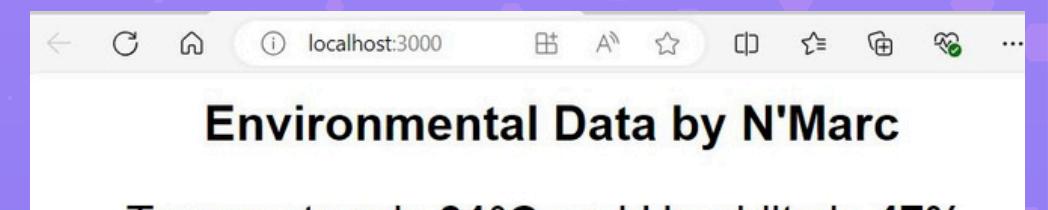
The **<div>** element is by default a block element.

The **<p>** tag defines a paragraph.

<h1> defines the most important heading. **<h6>** defines the least important heading.

The **** tag is used to embed an image in an HTML page.

```
1 <div style={{ textAlign: "center", marginTop: "40px", fontFamily: "Arial, sans-serif" }}>
2   <h1>Environmental Data by N'Marc</h1>
3   <p style={{ fontSize: "30px" }}>
4     Temperature is <strong>{temperature}<strong>°C and Humidity is <strong>{humidity}<strong>%.
5   </p>
6   
7 </div>
```



REACT

API (Application Programming Interface)

The Fetch API provides a JavaScript interface for making HTTP requests and processing the responses.

useEffect is a React Hook that lets you synchronize a component with an external system.

Fetching Data in React

```
● ● ●  
1  useEffect(() => {  
2    const fetchModelOutput = () => {  
3      fetch('http://127.0.0.1:3001/all')  
4        .then(response => response.json())  
5        .then(data => setModelOutput(data))  
6        .catch(error => console.error('Error fetching model output:', error));  
7    };  
8  
9    fetchModelOutput(); // Initial fetch  
10   const intervalId = setInterval(fetchModelOutput, 1000); // Fetch every 5 seconds  
11  
12   return () => clearInterval(intervalId); // Cleanup on unmount  
13 }, []);
```



API Reference

REACT.DEV/REFERENCE/REACT

useEffect

The library for web and native user interfaces

reactjs

API (Application Programming Interface)

Create values and send to show on web.

```
● ● ●  
1 // Extract values  
2 const temperature = modelOutput.find((item) => item.temp)?.temp || "N/A";  
3 const humidity = modelOutput.find((item) => item.humi)?.humi || "N/A";
```

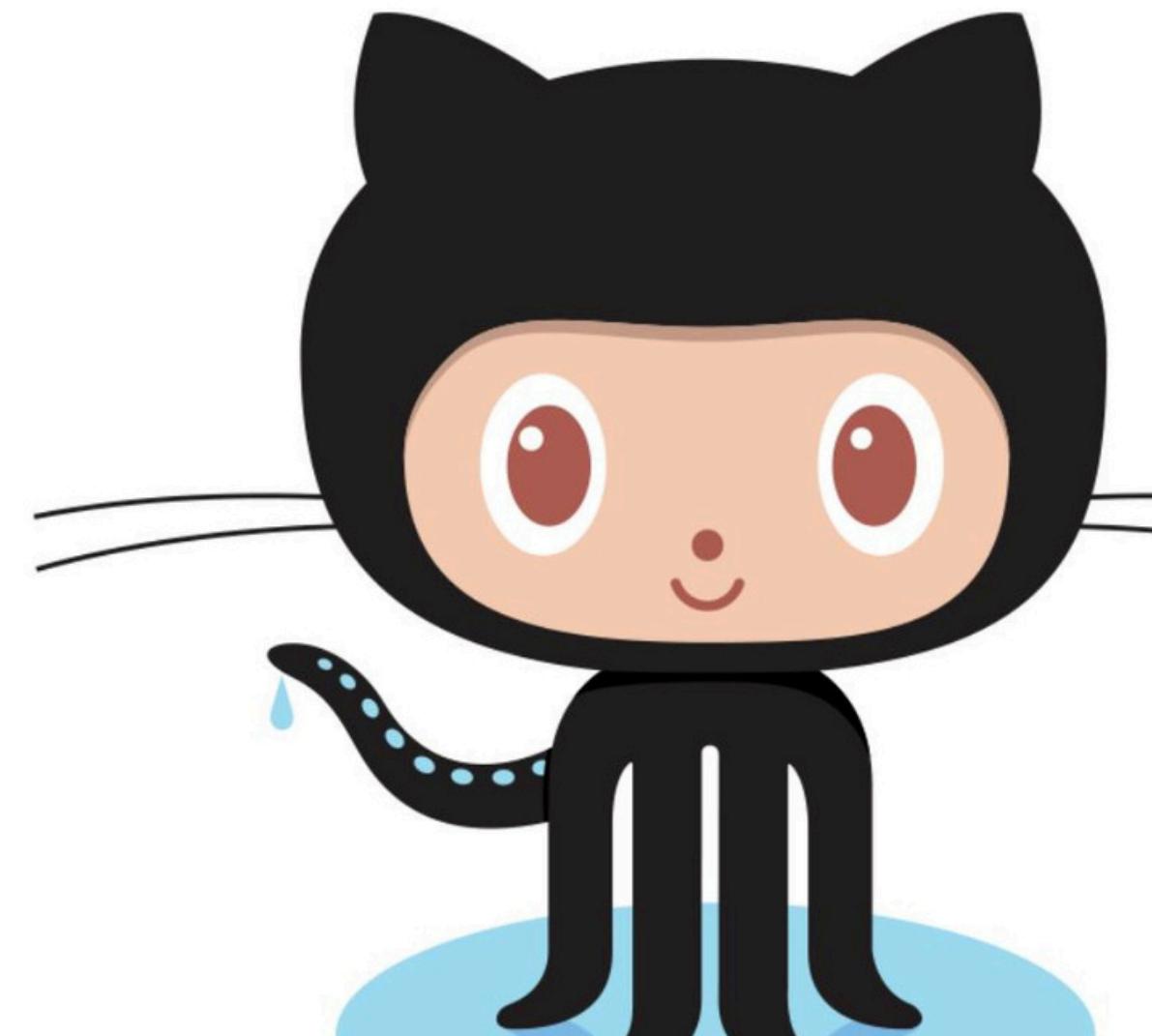
```
● ● ●  
1 <div style={{ textAlign: "center", marginTop: "40px", fontFamily: "Arial, sans-serif" }}>  
2   <h1>Environmental Data by N'Marc</h1>  
3   <p style={{ fontSize: "30px" }}>  
4     Temperature is <strong>{temperature}°C</strong> and Humidity is <strong>{humidity}%</strong>.  
5   </p>  
6     
7 </div>
```

REACT

localhost:3000

Environmental Data by N'Marc

Temperature is 31°C and Humidity is 47%.



PYTHON

API (Application Programming Interface)

Flask Python is a microframework that will allow you to have a web application running with very few steps and nearly no setup

GET requests are the most common and widely used methods in APIs and websites.

```
● ● ●  
1 from fastapi import FastAPI, HTTPException  
2 from flask import Flask, cli, jsonify  
3 from flask_cors import CORS  
4 # Api  
5 app = Flask(__name__)  
6 CORS(app) # This will allow your React app to connect to this Flask API  
7  
8 @app.route('/all', methods=['GET'])  
9 def get_data_all():  
10     # Simulate a data response  
11     return jsonify({"temp":str(temp)}, {"humi": str(humi)})
```

END