Technical Test – Front-end developer

Objective

Build a web application that displays **annual greenhouse gas emissions data** using **Angular**. This test assesses your ability to:

- Visualize time-series data in Angular
- Read and parse data from local JSON files.
- Display the data using graphical visualization (charts/graphs).
- Apply clean coding practices, modular design, and documentation.

Tools & Libraries

- **Framework:** Angular (latest version).
- **Charting Library:** Candidate may choose (e.g., Chart.js, ngx-charts, D3.js).
- **Data Source:** JSON files stored as local assets.

Sample Data Format:

```
[
 {
  "year": 2015,
  "emissions": 5.2,
  "emission_type": "CO2",
  "country": "United Kingdom",
  "activity": "Air travel",
 },
 {
  "year": 2016,
  "emissions": 2.9,
  "emission_type": "N2O",
  "country": "United Kingdom",
  "activity": "Waste",
 },
 …
```

✳

]

Requirements

The application should:

- demonstrate an advanced understanding of Angular including separation of concerns into services, components and templates.
- demonstrate an advanced understanding of Typescript and Javascript types more generally.
- include at least one or two front-end tests, using a library of the candidate's choosing
- demonstrate understanding of UI patterns

Bonus Points

- Use TypeScript interfaces in Angular
- Add filtering by country, activity or emission type
- Dockerize the project