Technical Test

Objective

Build a web application that displays **annual greenhouse gas emissions data** using **Angular** for the frontend and a **Django REST API** for the backend. This test assesses your ability to:

- Design and consume RESTful APIs
- Visualize time-series data in Angular
- Write maintainable code with basic unit testing

Requirements

1. Backend (Python)

Create a REST API that aggregates and serves emission data. You may hardcode the data or store it in a database.

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",
 },
 ...
```

]

Example Endpoint:

- GET /api/emissions/ → Returns all emission records

You may use Django REST Framework or any other supporting packages.

2. Frontend (Angular)

Create an Angular app that:

- Fetches emission data from the Django API
- Displays it in a graphical format such as a line chart using an appropriate library.
- Handles API errors gracefully

Unit Test Requirement

Provide a minimum of **one unit test** for either:

- The Django API view (e.g., test that the endpoint returns correct data)
- The Angular service that fetches the data

Bonus Points

- Use TypeScript interfaces in Angular
- Add filtering by country, activity or emission type
- Include basic styling (e.g., responsive layout)
- Dockerize the project