**Air Pollution Project Proposal**

**Proposal**:

To create an interactive dashboard displaying air pollution levels in the UK. The aim is to uncover regional trends in air quality and identify possible reasons/causes of disparity.

The results will be presented using a collaboration of charts and API Maps to show the varying demographics within the data

**GitHub repository link:** <https://github.com/ashejaz/air-pollution-project>

**Team members:** Ash (Eimaan) Ejaz, Ayroza Dobson, Musab Rahim, Shabana Qureshi, Tooba Ahmed

**Data Source:** Air Quality Open Data Platform

* Link - <https://aqicn.org/api/>
* An air quality API which returns data in JSON format including air quality index, city & lat long co-ordinates for mapping

Example request url: <http://api.waqi.info/feed/london/?token=4a880169279a5068a1ce72938e02e43e7510290b>"  
A screenshot of a computer screen

Description automatically generated

Example response:

A computer code with text and numbers

Description automatically generated

**Plan of action (tasks to be split between group members):**

* Retrieve all raw data from api
* Data cleaning and export as JSON file
* Load data in a SQL database
* Map out initial dashboard design (charts/graphs)
* Write HTML/CSS
* Write javascript code (bulk)
* Create powerpoint

**Dashboard:**

We aim to have at least 3 views which can be interacted with via dropdown selection:

* Bar or line chart showing top 5-10 most polluted regions
* bubble chart showing magnitude of each pollutant
* map showing the geographical spread of air pollution/air quality

The main pollutants we will be examining are: Carbon monoxide (CO), Nitrogen monoxide (NO), Nitrogen dioxide (NO2), Ozone (O3), Sulphur dioxide (SO2), Ammonia (NH3), and particulates (PM2.5 and PM10).

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