


## Data Engineer - Coding Challenge - PM 2.5

We would like you to implement a small program to read live data from the public API  [PM2.5 Open Data Portal](#) , perform some simple analysis on it, and generate a report.

Your program should

- read the data for a device using the `/device/<device_id>/history/` endpoint
- Save the data into local persistent storage (what solution you use is up to you)
- detect periods where the PM2.5 level goes above the threshold of 30
- output a report containing:
  - a list of times when the level when above the danger threshold
  - the daily maximum, daily minimum, and daily average pollution value

If new data becomes available from the API, your solution should insert any new data into the local storage, maintaining any data that is already there.

Please deliver the source code in a git repository (it is fine to deliver it in a zip archive).

We should be able to run your code without any changes, and see the results.

Your solution should be to the quality you would expect for a production application, inasmuch as the time allows.