



# API Data Extraction

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# Tools

```
import json
import requests|
import os
from IPython.display import JSON
```





# Air Quality

```
[6]: # We can export the information that was returned using method .json()
JSON(res.json())

[6]: ▼ root:
  $id: "1"
  $type: "Tfl.Api.Presentation.Entities.LondonAirForecast, Tfl.Api.Presen
  updatePeriod: "hourly"
  updateFrequency: "1"
  forecastURL: "http://londonair.org.uk/forecast"
  disclaimerText: "This forecast is intended to provide information on ex
    ong or short-lived local sources of pollution."
  ► currentForecast: [] 2 items
```

Low air pollution forecast valid from Friday  
25 June to end of Saturday 26 June GMT



# Modes of Transport

```
bus
cable-car
coach
cycle
cycle-hire
dlr
interchange-keep-sitting
interchange-secure
national-rail
overground
replacement-bus
river-bus
river-tour
taxi
tflrail
tram
tube
walking
Number of different modes of transport: 18
```



# BikePoints

There are 785 BikePoints operated by Transfer of London

There are 32446 docks in all BikePoints



# Tube and Bus Lines

```
The number of tube and bus lines are: 688
```

```
['Bakerloo', 'Central', 'Circle', 'District', 'Hammersmith & City', 'Jubilee', 'Metropolitan', 'Northern', 'Piccadilly', 'Victoria', 'Waterloo & City']
```



# Victoria/District Line

Victoria Line

The victoria line has 16 stations

District Line

The district line has 60 stations



# Heathrow Airport to Tower Bridge

Start Point (Heathrow Airport Terminals 1-3)

- Lat, Long = (51.47115, -0.45649)

```
▼ departurePoint:
  $type: "Tfl.Api.Presentation.Entities.StopPoint, Tfl.Api.Presentation.Entities"
  platformName: ""
  icsCode: "99999997"
  commonName: "Heathrow Airport Terminals 1-3"
  placeType: "StopPoint"
  additionalProperties: [] 0 items
  lat: 51.47109011224
  lon: -0.45644543212
```





# Heathrow Airport to Tower Bridge

End Point (1 Tower Bridge, Tower Hamlets)

- Lat, Long = (51.50559, -0.07528)

```
▼ arrivalPoint:  
  $type: "Tfl.Api.Presentation.Entities.Place, Tfl.Api.Presentation.Entities"  
  commonName: "1 Tower Bridge, Tower Hamlets"  
  placeType: "StopPoint"  
  lat: 51.505596168569994  
  lon: -0.07530376145
```



# Heathrow Airport to Tower Bridge

Depending on the time of travel, the modes of transport change.

```
Planned Duration: 70 minutes  
Bus: ≈ 0 minutes  
Tube: ≈ 15 minutes  
Walking: ≈ 35 minutes  
TFLRail: ≈ 0 minutes  
National-Rail: ≈ 15 minutes
```