## Exercise 3: Using Python + Google Colab to generate a London Property Market Report

Objective:

You will create a Google Colab Notebook that:

* Scrapes live property price data for London, UK.
* Calculates the highest, lowest, and average property prices.
* Converts these prices into EUR and USD.
* Outputs the results into a downloadable Excel file.

They will use Gemini AI (Code Assistance) in Google Colab with provided prompt hints.

Setup

1. Create a Google Colab account
   * Go to [colab.research.google.com](https://colab.research.google.com/) and log in with a Google account.
   * Start a new Notebook.
2. Use the Gemini Code Assistant to complete the following tasks:

Prompt 1: Scrape Property Data

# Prompt:

# Find a UK property market price trends website and scrape the contents of a website to determine the highest, lowest and average cost of property in London

Challenge:   
To see a working example, try RightMove. An example target URL is:

https://www.rightmove.co.uk/property-for-sale/find.html?searchLocation=NW3&useLocationIdentifier=true&locationIdentifier=OUTCODE%5E1859&radius=0.0&\_includeSSTC=on

The CSS select is: PropertyPrice\_price\_\_VL65t

Choose a property data source (example: Rightmove, Zoopla, or any open market trend page).

Prompt 2: Display Data as a Grid

## # Prompt:

## # Take the highest, lowest and average and display as a grid

Note:  
This will Create a simple table/grid using a pandas.DataFrame.

Prompt 3: Currency Conversion

## # Prompt:

## # Using the highest, lowest and average property prices, get the latest currency rates for Euro and USD, then display the highest, lowest and average property prices currently in GBP alongside USD and Euro

Note:  
This will use an API like [ExchangeRate-API](https://www.exchangerate-api.com/), [CurrencyLayer](https://currencylayer.com/), or free alternatives.

Libraries that might be used: requests, forex-python (optional).

Prompt 4: Save as Excel File

## # Prompt:

## # Convert the above data to an Excel spreadsheet that can be downloaded

Note:  
This will use pandas.to\_excel() to create a downloadable .xlsx file.  
Include a download link inside the Notebook.

### Final Step:

* Share your Colab Notebook (using “Anyone with the link can view”).
* Submit the link for review and future reuse.

### Key Skills practiced

1. Setting up and using Google Colab.
2. Using AI (Gemini) to assist coding tasks.
3. Scraping data from websites with Python.
4. Cleaning and processing data with pandas.
5. Calculating basic statistics (high, low, average).
6. Making API requests for live data (currency rates).
7. Merging different data sources into one report.
8. Creating and formatting tables (DataFrames).
9. Exporting data to Excel (.xlsx) format.
10. Sharing and publishing work using Google Colab.