

**Story A**

Peter, a trader at Macquarie, is considering buying stock in Homes4U, a construction company specialised in residential spaces. Peter wants to be sure of what the interest will be in early January because inflation can seriously affect interest rates and as a result the cost of loans. These changes can seriously impact Homes4U’s valuation.

**Story B**

Asia, a business analyst in Macquarie, is working with a client who wants to buy multiple plane engines. The timeline for the deal is flexible, but Asia knows that inflation changes will be reflected in the price of the engines and making the deal at the right time could save the client millions.

**Story C**

Abdul is an FX trader at Macquarie and his client wants to engage in a EUR/GBP trade. Abdul needs to predict the interest rate of GBP to understand the risk of the trade that the client is entering, because a rising interest rate would erode the value of the pound and therefore the value of the deal.



**Dataset & Data Description**

You can use any data that you can legally access online, however, we expect you to use the ONS data set that can be downloaded following this link:

<https://www.ons.gov.uk/economy/inflationandpriceindices/datasets/consumerpriceindices>

**Judging Criteria**

We are most interested in your process, the thought you put into the task and the skills you use.

We will be specifically looking at:

* Justification of dataset usage
* Justification of data cleaning choice
* Justification of ML choice
* Story telling
* Analysis/Understanding (histograms, correlations)
* Aesthetics and efficacy of your Visualisation
* Accuracy (low impact)

Problem Statement & Task

One of Macquarie’s fields of expertise is commodity trading. Commodity prices are known to have a leading impact on inflation. However, we fear that some of our analysts have become too dependent on that relationship and are failing to see the whole picture. Incorrect assumptions about inflation could cost other branches of the company a fortune. For that reason, Macquarie has hired your boutique consultancy firm to **provide a rate of inflation for the 1st of January 2024**.