Let's summarise the general process we will be following throughout the series:

* Outline a hypothesis about a particular time series and its behaviour
* Obtain the correlogram of the time series (perhaps using R or Python libraries) and assess its serial correlation
* Use our knowledge of time series models and fit an appropriate model to reduce the serial correlation in the *residuals* (see below for a definition) of the model and its time series
* Refine the fit until no correlation is present and use mathematical criteria to assess the model fit
* Use the model and its second-order properties to make forecasts about future values
* Assess the accuracy of these forecasts using statistical techniques (such as [confusion matrices](https://en.wikipedia.org/wiki/Confusion_matrix), [ROC curves](https://en.wikipedia.org/wiki/Receiver_operating_characteristic) for classification or regressive metrics such as [MSE](https://en.wikipedia.org/wiki/Mean_squared_error), [MAPE](https://en.wikipedia.org/wiki/Mean_absolute_percentage_error) etc)
* Iterate through this process until the accuracy is optimal and then utilise such forecasts to create trading strategies

1. Graph change in gold price over time.

Graph growth of price over time.

Possible correlation between market volatility and increases in price

Hypothesis: gold price is correlated with market volatility

**May 5**