Project: Time Series

In this lab, you are asked to apply the Box and Jenkins method to a **series of your choice**.

it is a question of building the adequate model making it possible to forecast the chronological series. To do the following:

1. Retrieve the data file On R.
2. Divide the data into a training sample and a validation sample. The construction of the model will be done on the training sample and will be validated using the validation sample.
3. Create a time series type object containing this series. Represent the series graphically.
4. Qualitatively analyze this series, ie identify any trends and/or seasonality.
5. Plot and Analyze the simple and partial correlograms of the series for a lag of order $K \geq 36$. Interpret these results.
6. Apply the Box and Jenkins method to your series.
7. Graph the series as well as the forecast.
8. Evaluate the predictions obtained and interpret the results.

NB1: it is a question of submitting a detailed and well-written report. The report should contain:

- a description of the data;
- The obtained results ;
- discussion and interpretation of results.

NB2: it is a question of rendering:

- the detailed report in Format (.pdf)
- the R code used;
- the series used format (.text)

The final file must contain the name of the Team.