LAB ASSIGNMENT-1

TIME SERIES ANALYSIS AND FORECASTING

- Check whether the data is a clean data.
- Print the dtypes of the given data.
- Change the dtype of first column to datetime64 and rename the second column as 'Production of electric utilities'.
- Plot the time series data with suitable labels and title. What do you conclude from the plotted data.
- Decompose the time series model using an appropriate model form with a valid explanation. Plot all the decomposed components of the chosen model.
- Calculate the expected value and variance of the time series. Next, calculate the same for both for t+1. Is the data stationary?
- Calculate the autocovariance between the time series and its lag (t+1).
- Calculate the autocorrelation between the time series and its lag (t+1).
- Create ACF plot. What do you observe from the plot.