Individual Assignment in MATLAB
FIN41660
Financial Econometrics

You have to return a PDF file with answers to all questions, reporting tables with results, plots, and you should add MATLAB codes for all points. Remember to add your name and your ID number on the first page!
Deadline: December, 18 2022 late evening. Brightspace.

PART 1: MATLAB FUNCTIONS

Write a MATLAB function that has as output:

a) OLS estimators;
b) confidence intervals;
c) statistical significance;
d) Rsquared and Adjusted Rsquared;
e) F-statistic;
f) plot of the fitted model;
g) Diagnostic tests for residuals (normality, heteroskedasticity, serial correlation);
h) multicollinearity.

PART 2: EMPIRICAL ANALYSIS

Use the above function to estimate a linear model. You have to pick one dependent variable and at least two regressors. It is up to you the choice of these series!
(Hint: you can check slides to be inspired from some examples or propose new examples)
You have to show results for the above points from a) to h) and comment on the results reported according to what discussed in the theoretical lectures.

PART 3: ARIMA and FORECASTING

Use one of the time series of the FED St Louis https://research.stlouisfed.org/econ/mccracken/fred-databases/.
Propose an adequate ARIMA model and use it to make forecasts. Comment on results.