**Week 6 Seminar Questions**

The following operation can be implemented in the Python Jupyter Notebook or Spyder. Please sign up for a Github account and submit your codes to your own Github repo.

1. Download the daily data (from 1/Nov/2021 to 1/Nov/2022) for the Amazon.com, Inc. (AMZN) and the Tesla, Inc. (TSLA) from Yahoo Finance by using yfinance package.

2. Save the adjusted close price of these two stocks as a ‘pandas’ DataFrame Called ‘ADJ’. Plot the figure of these two prices.

3. Show the statistical description of ADJ and get the daily return of these two stocks.

4. Plot the cumsum of the log returns in one figure and compare the trends.

5. Find the SMA1 (10 days) and SMA2 (60 days) for AMZN. Plot the close price of TSLA with SMA1, SMA2, and the position trend line.

6. Plot two return series and each of their histogram and scatter plot. Find the coefficient of the regression where the independent variable is AMZN’s log return and the dependent variable is TSLA’s log return. Plot the observations and the fitted line. Find the correlation between the log return of AMZN and TSLA. Plot the correlation coefficient by using 20-day rolling windows.