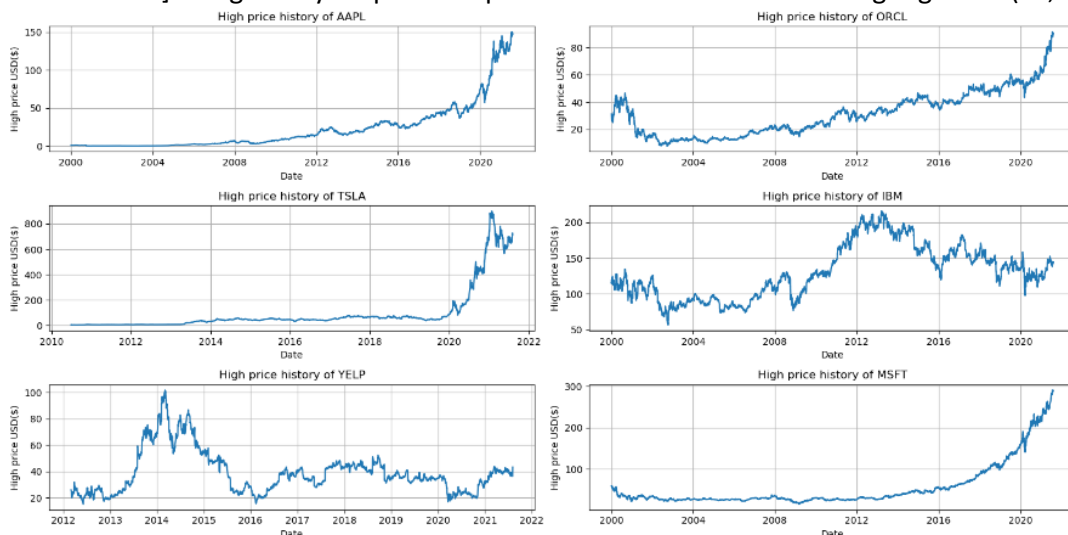


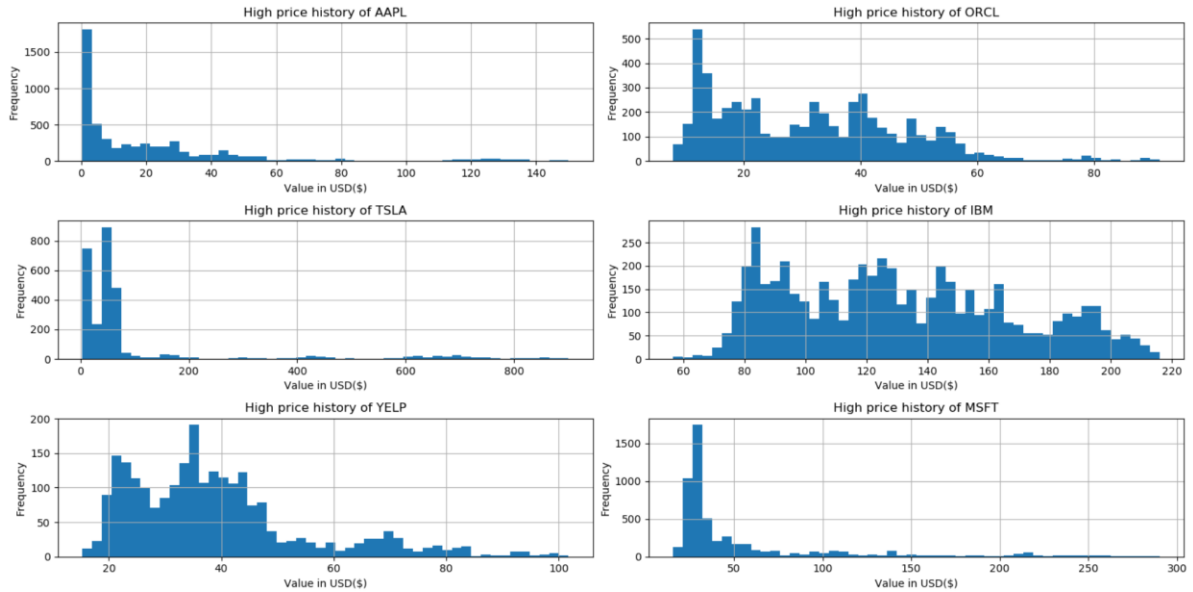
In this LAB, you will use only **pandas** package and visualize the stock values for major giant companies. Display numbers with 2-digit decimal precision. Using the `pandas_datareader` package connect to yahoo database and load the stock value for the following giant companies. Pick the start date as '2000-01-01' and the end date "Aug 28th, 2023".

```
stocks = ['AAPL', 'ORCL', 'TSLA', 'IBM', 'YELP', 'MSFT']
```

1. The database contains 6 features: "High", "Low", "Open", "Close", "Volume", "Adj Close" in USD(\$). Using the panda package, plot the "High" columns for all companies in one figure with 3 rows and 2 columns graph. Make sure to add title, legend, x-label, y-label [all font size =15 and line width = 3] and grid to your plot. The plot should look like the following. Fig size = (16,8) [5pts]



2. Repeat previous question for, "Low", "Open", "Close", "Volume", "Adj Close". [25pts]
3. Using the panda package and hist command, plot the histogram plot of the "High" columns for all companies in a 3x2 graph. Make sure to add title, legend, x-label, y-label [all font size =15] and grid to your plot. The final plot should look like the following. # of bins = 50 , Fig size = (16,8) [5pts]



4. Repeat previous question for, “Low”, “Open”, “Close”, “Volume”, “Adj Close”. [25pts]
5. Use pandas package to plot the scatter matrix. Using pandas package plot the scatter matrix plot of the “AAPL” company with the following parameters: `hist_kws={'bins': 50}`, `alpha = 0.5`, `s = 10`, `diagonal = 'kde'`. Hint: you can use the following command: `pd.plotting.scatter_matrix()`. Write down your observations about the correlation between different features. [5pts]
6. Repeat previous question for, “ORCL”, “TSLA”, “IBM”, “YELP” and “MSFT”. [25pts]

Upload the **solution report (as a single pdf)** plus a **.py file** through Canvas by the due date.