Investment Dashboard

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Overview

- The purpose of the dashboard is to present a detailed visualized company insight with historical performance, technical indicators and predict the upcoming volatility applying machine learning.

- Target clients: experienced investors.

Data Sources:
Yahoo finance

Business Intelligence Architecture

Existing Library:
- Matplotlib
- Pandas
- Numpy
- Plotly
- Sklearn
- Stats model
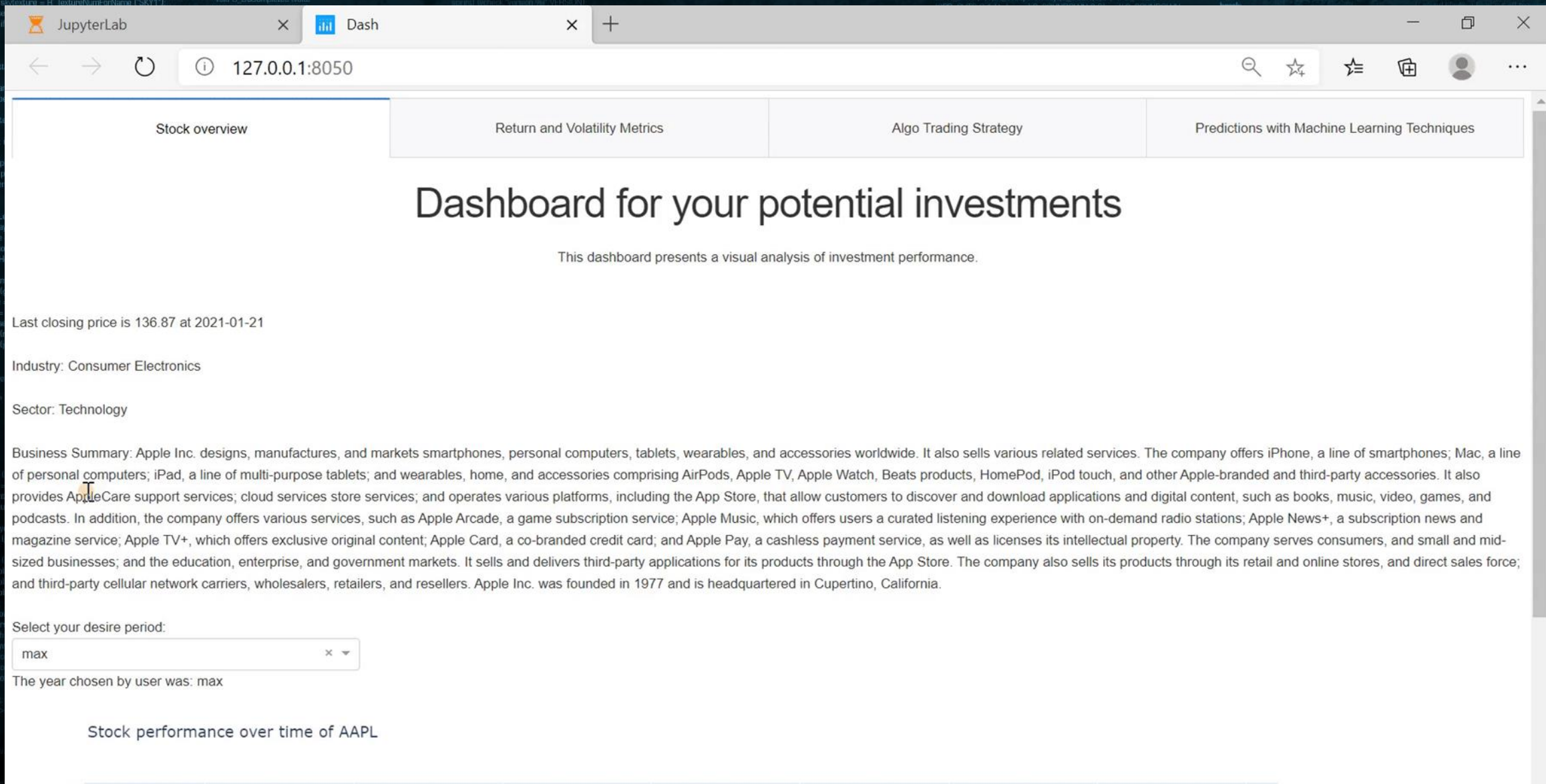
New Library:
- Dash
- Tkinter
- Quantstats

APPROACH

1. Imported various libraries for visualization of stock performances

2. Imported Ticker and created a selection window for all the tickers available at Yfinance.

3. Identified the trend and visualized the historical prices for the selected tickers (for coding refer Jupyter Notebook)

4. Apply multiple models to predict future Price and volatility.

5. Based on those models we prepared a dashboard consisting of 4 tabs:
   - Stock Overview
   - Return and Volatility matrix
   - Algo Trading Strategy
   - Predictions with machine learning technique

Proceed to Dashboard

Demo Dashboard - AAPL

Room for Improvement:

- Adding more parameters to build better prediction model.
- Adding more modelling options.
- Improve the Dashboard running speed.