Start

Read S&P500 tickers CSV

Map ticker to yfinance historical data

Data Cleanup & wrangling

Tab 1

Tab 2

Tab 3

End

Tab 1: Display single ticker info, raw data, Bollinger bands,Financial ratios, Prophet Time Series Forecast, Message Us

Tab 2: Unsupervised Learning using K-Means/Silhoutte score to get optimized clusters for Top 10 tickers (by marketcap) in the Top 10 sectors (by count), using daily returns. Data is saved as a csv in the "results" folder

Tab 3: Supervised Learning