

Web Application for Real-time Forex Rate and Stock Price Prediction

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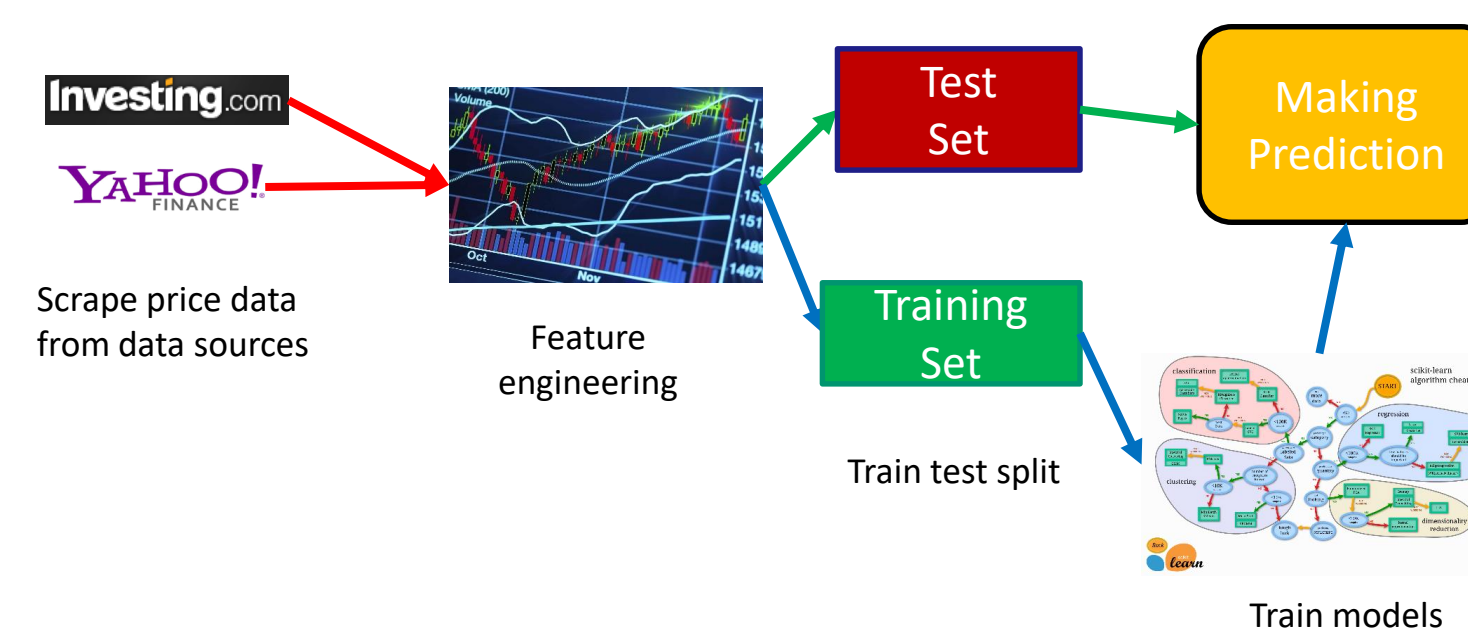
Introduction:

A web application for predicting the short term prices and the long term price trends of various forexes and stocks has been developed in this project, which the historical prices and various statistical indicators have been utilized to train several supervised machine learning models to produce predictions on latest available price data.

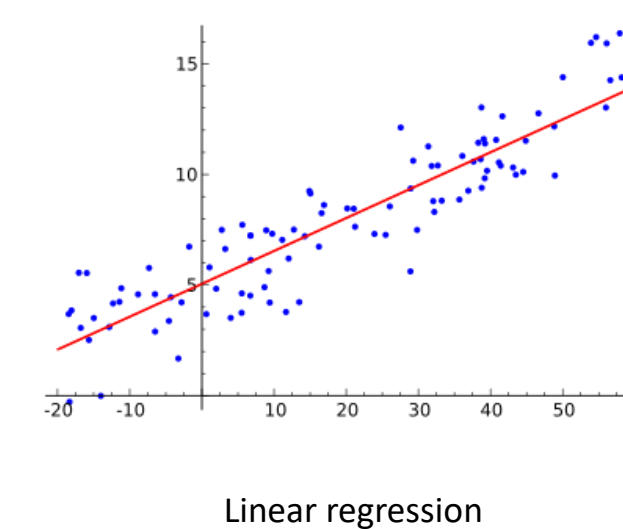
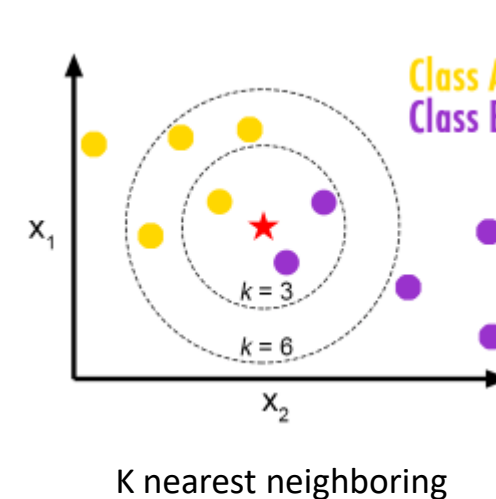
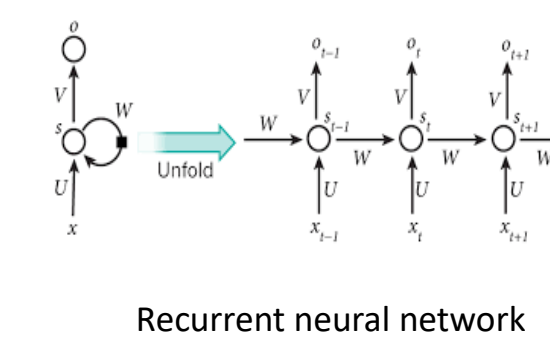
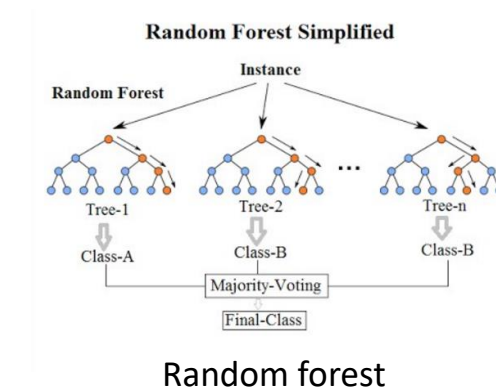
Objectives:

1. Build an online system to predict the long-term rise/fall trend and short-term prices of various most traded forex and stock, based on statistical indicators.
2. Build a user-friendly web application that allows users to view prediction results and visualize the trends via charts.
3. Provide the 70% confidence interval of short term price predictions and the probability of prediction confidence for long term price trend prediction.

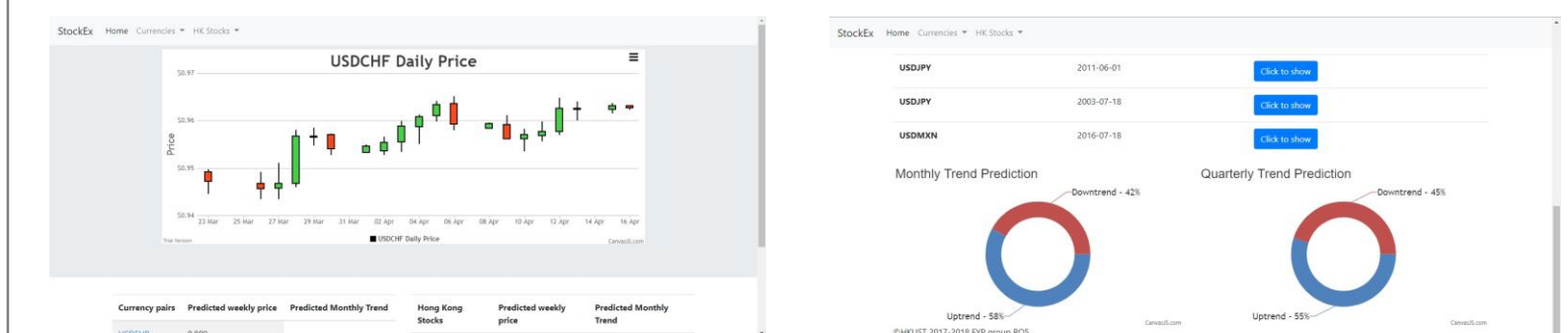
Work flow for constructing prediction models



Models trained in our web application



User Interface of our web application



Prediction performance for trend predictions

	Monthly	Quarterly
Stock	73.9%	76.1%
Forex	73.2%	77.2%

Conclusion

The evaluation results of trend predictions are significantly greater than the accuracy of random guessing (50%), which indicate the trend prediction models developed in this project are able to generate trend predictions with satisfactory accuracy.