Pimpri Chinchwad Education Trust's
Pimpri Chinchwad College of Engineering

Department of Computer Engineering

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Title

Stock Trend Prediction

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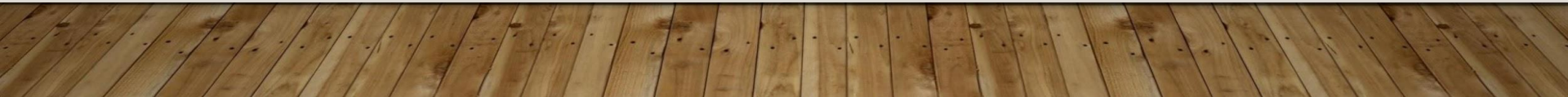
STOCK MARKET TREND PREDICTION



INTRODUCTION

- In the past decades, there is an increasing interest in predicting markets among economists, policymakers, academics and market makers.
- The objective of the proposed work is to study and improve the supervised learning algorithms to predict the stock price.
- There are 50 stocks in Nifty.From which we have chosen KOTAKBANK dataset.
- The NIFTY 50 is a benchmark Indian stock market index that represents the weighted average of 50 of the largest Indian companies listed on the National Stock Exchange.
- The prediction of a stock market direction may serve as an early recommendation system for short-term investors and as an early financial distress warning system for long-term shareholders.
- Forecasting accuracy is the most important factor in selecting any forecasting methods.
- Research efforts in improving the accuracy of forecasting models are increasing since the last decade.
- The appropriate stock selections those are suitable for investment is a very difficult task.
- The key factor for each investor is to earn maximum profits on their investments.

REQUIREMENTS

1. Numpy - for Linear Algebra

2. Pandas - for Data Preprocessing and CSV I/O

3. Matplotlib - Data Visualization

4. Seaborn for Data Visualization
5. sklearn.neighbors - for KNeighbors Classifier
6. sklearn..tree - for DecisionTreeClassifier
7. sklearn.metrics - for Accuracy Score, Confusion Matrix and Classification Report
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Algorithms Used in this project:

1)Decision Tree

2)Naive Bayes Classifier

3) KNN K Nearest Neighbor(KNN)

Comparison of all algorithms on KOTAKBANK.csv Dataset:

Classifier	Accuracy	Confusion matrix
Decision Tree	52.038%	[[155 245] [167 266]]
Naive Bayes classifier	52.09%	[[76 324]] [86 374]]
KNN(K-nearest neighbor)	51.5%	[[206 194] [217 216]]

THANK YOU