STOCK TREND PREDICTIONUSING KNN

K.BHARGAVSUNIL,M.NIKHILSAI,SANDEEPLONKALA(ASST,PROF)

STUDENT,INFORMATION TECHNOLOGY, B.V.RAJU INSTITUTE OF TECHNOLOGY, TELAGANA, INDIA
STUDENT,INFORMATION TECHNOLOGY, B.V.RAJU INSTITUTE OF TECHNOLOGY, TELAGANA, INDIA
ASST.PROF,INFORMATION TECHNOLOGY, B.V.RAJU INSTITUTE OF TECHNOLOGY, TELAGANA, INDIA

ABSTRACT

Stock market as we know, is a very important trading platform which affect everyone at an individual and national level. The basic principle is quite simple, Companies will list their shares in the companies as small commodities called Stocks. They do so in order to raise money for the firm. A company lists its stock at a price called the IPO or initial public offering. This is the offer price at which the company sells the stock and raises money. Impact of many factors on the stock prices makes the stock prediction a difficult and highly complicated task.

In this project ,We propose KNN algorithm for the stock price Prediction in order to over come such difficulties. It is easy to predict the stock market trends and estate the prices by using the proposed method. KNN is used to predict future stock market indices by computing k-weighted nearest neighbor from the historical dataset.

information reflected in market prices. In addition to purchasing and selling stocks and shares in stock markets, each stock is not only characterized by its price, but also by other variables such as closing price which represents the most important variable for predicting next day price for a specific stock. There is a relationship and specific behavior exists between all variables that effect stock movements overtime.

Keywords—Stock Market. pricmes. prediction ,knn algorithm

I.Introduction

Recent business research interests concentrated on areas of future predictions of stock prices movements which make it challenging and demanding. Researchers, business communities, and interested users who assume that future occurrence depends on present and past data, are keen to identify the stock price prediction of movements in stock markets (Kim, 2003). However, financial data is considered as complex data to forecast and or predict. Predicting market prices are seen as problematical, and as explained in the efficient market hypotheses (EMH) that was put forward by Fama (1990). The EMH is considered as bridging the gap between financial information and the financial market; it also affirms that the fluctuations in prices are only a result of newly available information; and that all available.

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II SURVEY OF LITERATURE

Financial services companies are developing their products to serve future prediction. There are a large amount of financial information sources in the world that can be valuable research areas, one of these areas is stock prediction and also called stock market mining. Stock prediction becomes increasingly important especially if number of rules could be created to help making better investment decisions in different stock markets.

The genetic algorithm had been adopted by Shin et al. (2005); the number of trading rules was generated for Korea Stock Price Index 200 (KOSPI 200), in Sweden Hellestrom and Homlstrom (1998) used a statistical analysis based on a modified kNN to determine where correlated areas fall in the input space to improve the performance of prediction for the period 1987-1996. Both models mentioned were provided in the Zimbabwe stock exchange to predict the stock prices which included Weightless Neural Network (WNN) model and single exponential smoothing (SES) model Mpofu (2004). Clustering stocks approach was provided by Gavrilov et al. (2004) to group 500 stocks from the Standard & Poor. The data represented a series of 252 numbers including the opening stock price. A fuzzy genetic algorithm was presented by Cao (1977) to discover pair relationship in stock data based on user preferences. The study developed potential guidelines to mine pairs of stocks, stock-trading rules, and markets; it also showed that such

approach is useful for real trading. Moreover, other studies adopted kNN as prediction techniques such as (Subha et al., 2012; Liao et al. 2010; Tsai and Hsiao 2010; Qian and Rasheed, 2007)

III . EXISTING SYSTEM

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a) DISADVANTAGES OF EXIXTING SYSTEM

- Stock prices prediction is interesting and challenging research topic. Developed countries' economies are measured according to their power economy. Currently, stock markets are considered to be an illustrious trading field because in many cases it gives easy profits with low risk rate of return

● Existing algorithms doesn't give better results

b) Pruposed System

● In this project, we propose KNN algorithm for the stock price.

●   Prediction in order to overcome such difficulties. It is easy to predict the stock market trends and estate the prices by using the proposed method. KNN is used to predict future stock market indices by computing k-weighted nearest neighbor from the historical dataset.

● For predicting stock market trend.

● For giving a wide analaysis of the ongoing stock market condition.

Description Of Modules

In this project has mainly, using three modules cloud server, clients, and authorities each module has own priorities, and instructions.

Implementation is the stage of the project when the theoretical design is turned out into a working system. Thus it can be considered to be the most critical stage in achieving a successful new system and in giving the user, confidence that the new system will work and be effective. The implementation stage involves careful planning, investigation of the existing system and it's constraints on implementation, designing of methods to achieve changeover and evaluation of changeover methods.

● Differential Query Services.

● Efficient Information Retrieval for Ranked Query.

● Aggregation and Distribution Layer.

CONCLUSION:

The proposed project has been implemented using KNN algorithm for predicting the stock price. All sample test cases which were taken in my project was successfully done. The testing strategies like system testing, integration testing, unit testing is used in my project to test the established system. Finally, I conclude that my project has been working very accurately with quality and good performance.

FUTURE WORK

The application was implemented for predicting the accurate price of the stock in the stock market. Further we can add modules that predicts the exact predict the market price of the stock by using random forest algorithm

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