**Mini Project Report on**

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**Stock price prediction using machine learning**

https://lh6.googleusercontent.com/lTvVO5mGsxI3uakC_7uud7KzllVTZC7hx71ehfQsR6rUOBs1bxocSmbu3kj5XcqmZk-KPFE22bGQn-YCsiPBPOOBF46_lQ0k3SFwqUfuAoeQ7gdvzq4PUHViCY2yJJLg8CoUCMtsRRcFVsjT0rRX76A7INaSBW5kTlLu-_AKhJGjOtbD6BmWcBzbCNUVw4qxdSZyw0XooQ

**Submitted in partial fulfillment of the requirement for the award of the degree of**

**BACHELOR OF TECHNOLOGY**

**IN**

**COMPUTER SCIENCE & ENGINEERING**

**Submitted by: Monika kumari nath**

**University Roll No: 2016856**

***Under the Mentorship of***

Mr. Kireet Joshi



**Department of Computer Science and Engineering**

**Graphic Era (Deemed to be University)**

**Dehradun, Uttarakhand**

**January 2023**



**CANDIDATE’S DECLARATION**

I hereby certify that the work which is being presented in the project report entitled **“ stock price prediction using machine learning ”** in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineeringof the Graphic Era (Deemed to be University), Dehradun shall be carried out by the under the mentorship of **Mr. kireet joshi sir,** Department of Computer Science and Engineering, Graphic Era (Deemed to be University), Dehradun.

Name :Monika kumari nath

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**Chapter 1**

**Introduction**

Due to high profit if stock market ,it is one of the most popular investments. people investigated for methods and tools that would increase their gains while minimizing the risk, as the level of trading and investing grew .two stock exchanges namely the national stock exchange(NSE) and the Bombay stock exchange (BSE) which are the most of the trading in Indian stock market takes place .

A moving average (MA) is a stock indicator commonly used in technical analysis. The moving average helps to level the price data over a specified period by creating a constantly updated average price. A simple moving average (SMA) is a calculation that takes the arithmetic mean of a given set of prices over a specific number of days in the past. An exponential moving average (EMA) is a weighted average that gives greater importance to the price of a stock in more recent days, making it an indicator that is more responsive to new information

next is LINEAR REGRESSION Regression is also useful when you want to forecast a response using a new set of predictors. For example, you could try to predict electricity consumption of a household for the next hour given the outdoor temperature, time of day, and number of residents in that household. Regression is used in many different fields, including economics, computer science, and the social sciences. Its importance rises every day with the availability of large amounts of data and increased awareness of the practical value of data.

**Chapter 2**

**Literature Survey**

**Stock Market Prediction Using Machine Learning:**

**Publication** **Year**: 2018

**Author**: Ishitam Parmar, Ridam Arora, Lokesh Chouhan, Navanshu Agarwal, Shikhin Gupta, Sheirsh Saxena, Himanshu Dhiman

**Journal Name**: 2018 IEEE

**Summary**: In this paper studies, the use [3] of Regression and LSTM based Machine learning to forecast stock prices. Factors measured are open, close, low, high and volume. This paper was an attempt to determine the future prices of the stocks of a company with improved accuracy and reliability using machine learning techniques. LSTM algorithm resulted in a positive outcome with more accuracy in predicting stock prices.

**Forecasting stock price in two ways based on LSTM neural network:**

**Publication Year**: 2019

**Author**: Jingyi Du, Qingli Liu, Kang Chen, Jiacheng Wang

**Journal Name**: 2019 IEEE

**Summary**: The LSTM neural network is used to predict Apple stocks by consuming single feature input variables and multi-feature input variables to verify the forecast effect of the model on stock time series. The experimental results show that the model has a high accuracy of 0.033 for the multivariate input and is accurate, that is in line with the actual demand. For the univariate feature input, the predicted squared absolute error is 0.155, which is inferior to the multi-feature variable input.

**Chapter 3**

**Methodology**

Language used: Python

Tool used: Jupyter Notebook

Installation: We need to install Libraries of Python:

* Pandas
* Numpy
* Matplotlib
* Sklearn
* Keras

**Now, let us try to understand the code:**

## Reading data:

## 

## 

## 

## 2-Exploring Dataset:

## 

**3- Data Pre-processing:**

## 

## Implementation

**Chapter 4**

**Result and Discussion.**

In this project, we explored moving average and stock price using linear regression. We then use the moving average to skip first 100 days values and then at last, visualized the closing price value after using LSTM.

The stock market plays a remarkable role in our daily lives.It is a significant factor in a country’s GDP growth

**Chapter 5**

**Conclusion and Future Work**

In this report we can conclude that we will compare a learning model such as exponential moving average which will further help us in avoiding the problem of vanishing or exploding gradients and would help us in prediciting the stock price

**References**

[1] B. Jeevan, E. Naresh, B. P. V. kumar, and P. Kambli, “Share Price Prediction using Machine Learning Technique,” in 2018 3rd International Conference on Circuits, Control, Communication and Computing (I4C), Bangalore, India, Oct. 2018, pp. 1–4, doi: 10.1109/CIMCA.2018.8739647

[2] <https://the-learning-machine.com/article/dl/long-short-term-memory>.

[3] K. Joshi, kartik-joshi/Stock-predection. 2020  
[4] A. Tipirisetty, “Stock Price Prediction using Deep Learning,” p. 60.