STOCK MARKET ANALYZER AND PREDICTOR

Submitted in the partial fulfillment for the award of

the degree of

BACHELOR OF ENGINEERING

IN

CSE (IBM BIG DATA ANALYTICS)

Submitted by:

Shashank Shekhar Dubey
20BCS4444
Pooja Verma
20BCS4439

Under the Supervision of:
PUNEET KAUR BHATIA

Department of AIT-CSE

DISCOVER . LEARN . EMPOWER

Outline

- Introduction to Project
- Problem Formulation
- Objectives of the work
- Methodology used
- Results and Outputs
- Conclusion
- Future Scope
- References

Introduction to Project

- Our project will help user to get the analysis of stock market trends of which will include closing graphs of each year,100 days moving average,200 days moving average and the graph that contains our prediction vs actual stats
- Our software uses machine learning as the base for creation of the
- of the prediction. In which we are using LSTM Model for the predcition of data which gives very wonderful result for prediction

Problem Formulation

- In this busy world we don’t have the time to learn the basis of investment and this is the reason why a lot of people have the fear not not investing into the stock market ,but stock market helps a nation to generate revenue and maximum inclusion of citizen of a country .
- Our project will help these kind of people to invest wisely and will help them to understand the trends of the previous years of data .

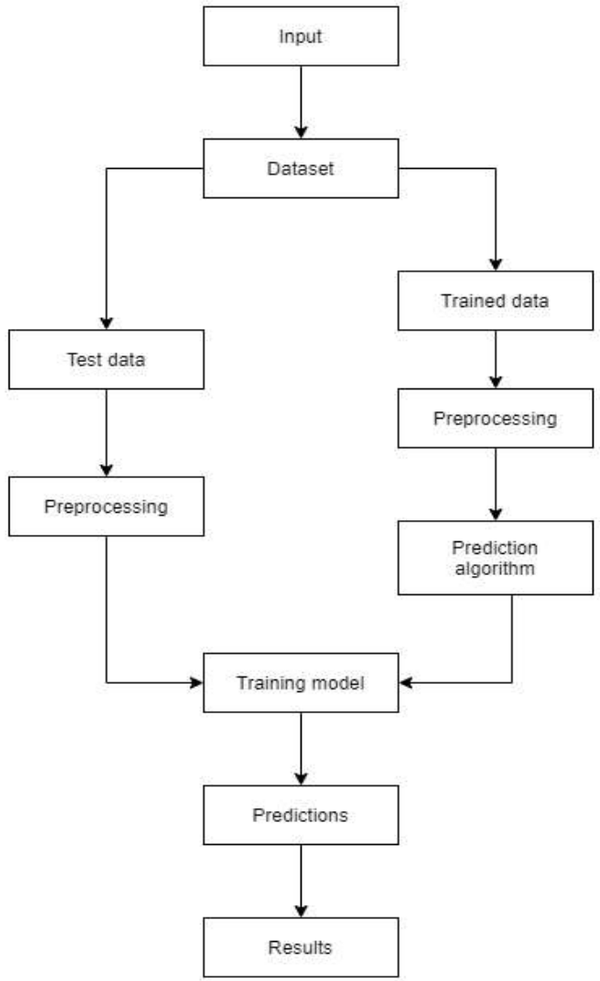
Cont.

- The previous 100 days closing value graph will help the user to understand the ongoing trends of 100 days which will help them to analyze the recent trends.
- The graph between 100 and 200 days moving average will help them to understand the changes in market trends in these change of 100 days which will help them in taking better decisions.
- The prediction graph used here takes consideration of 70% of pervious data which it trains and makes the system aware of the tredns and helps in prediction.

Objectives of the Work

- 1. It will be analyzing the data of various stocks from taking the data from yahoo-finance
- 2.It will be using keras and sklearn for training data and using LSTM model.
- 3.It gives brief description about the particular stock with reference to the market trends

Methodology used



2.2 Methodology(Using LSTM)

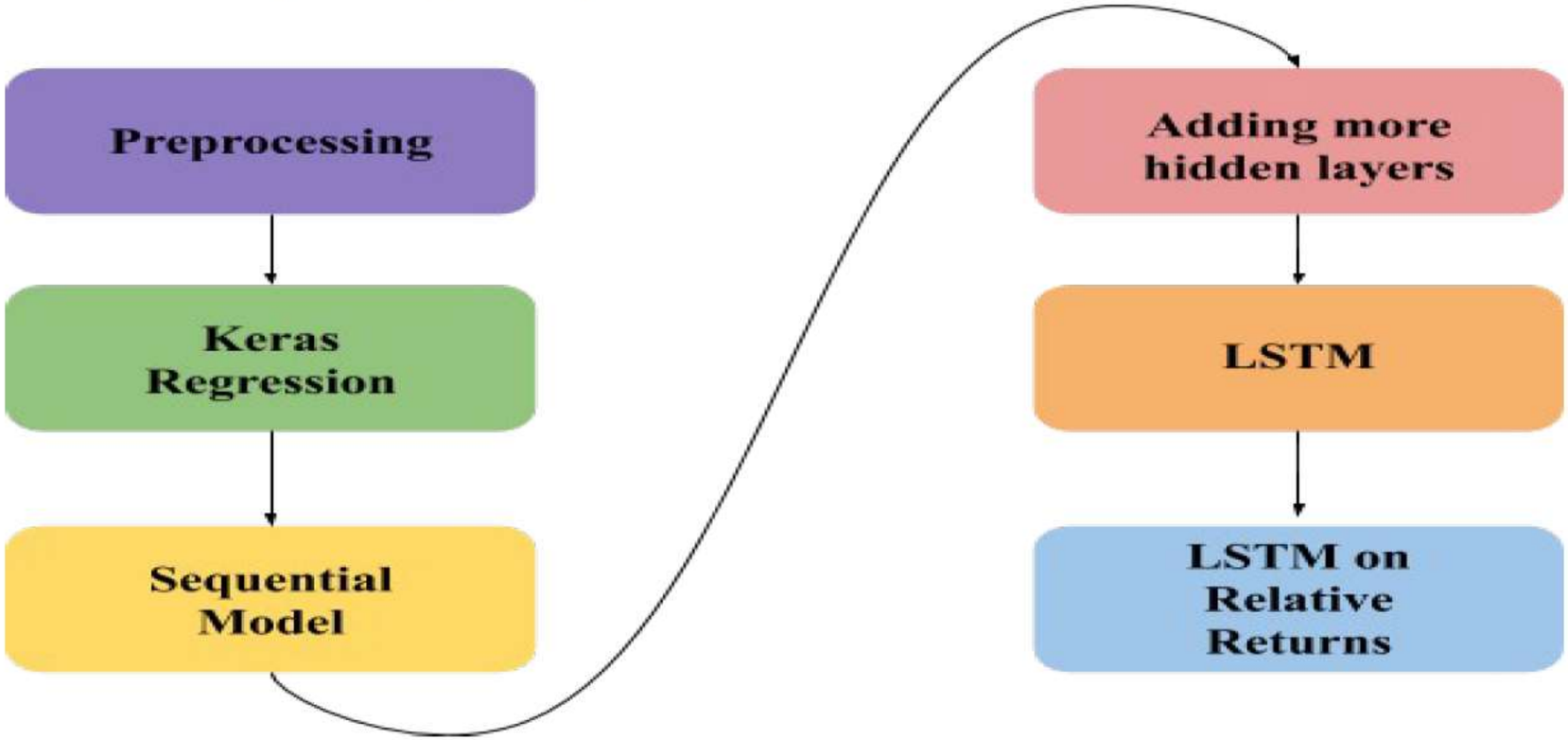
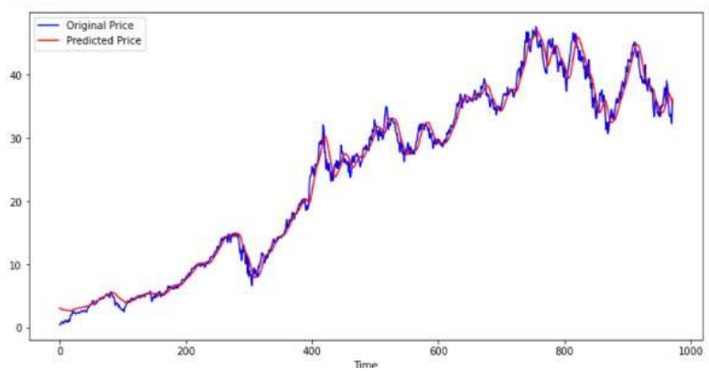


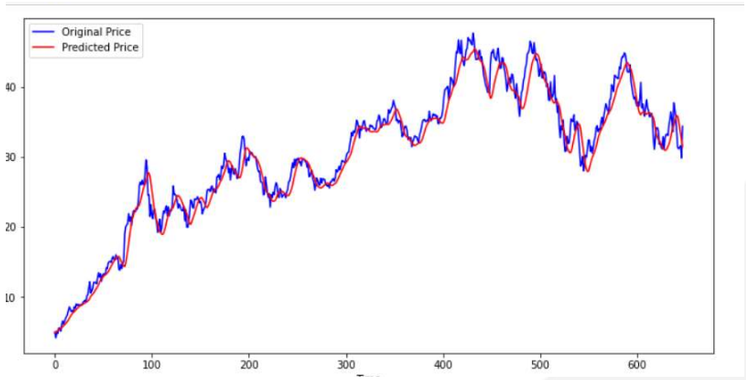
Fig 2.2.1

Percentage based training data set result

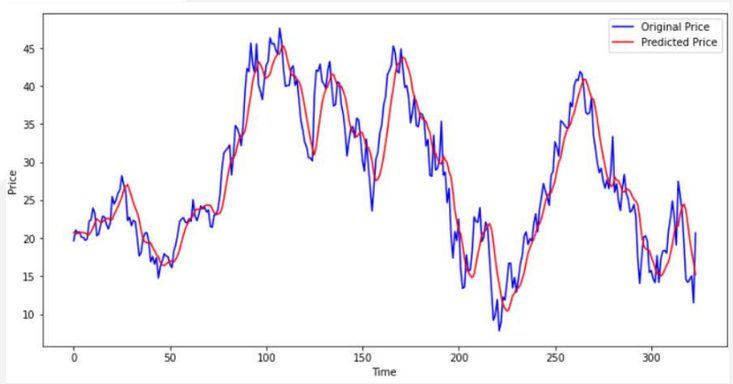
As we can see the offset in 70% training data is low so the ideal consideration is given for training 70% data



With 70% in training

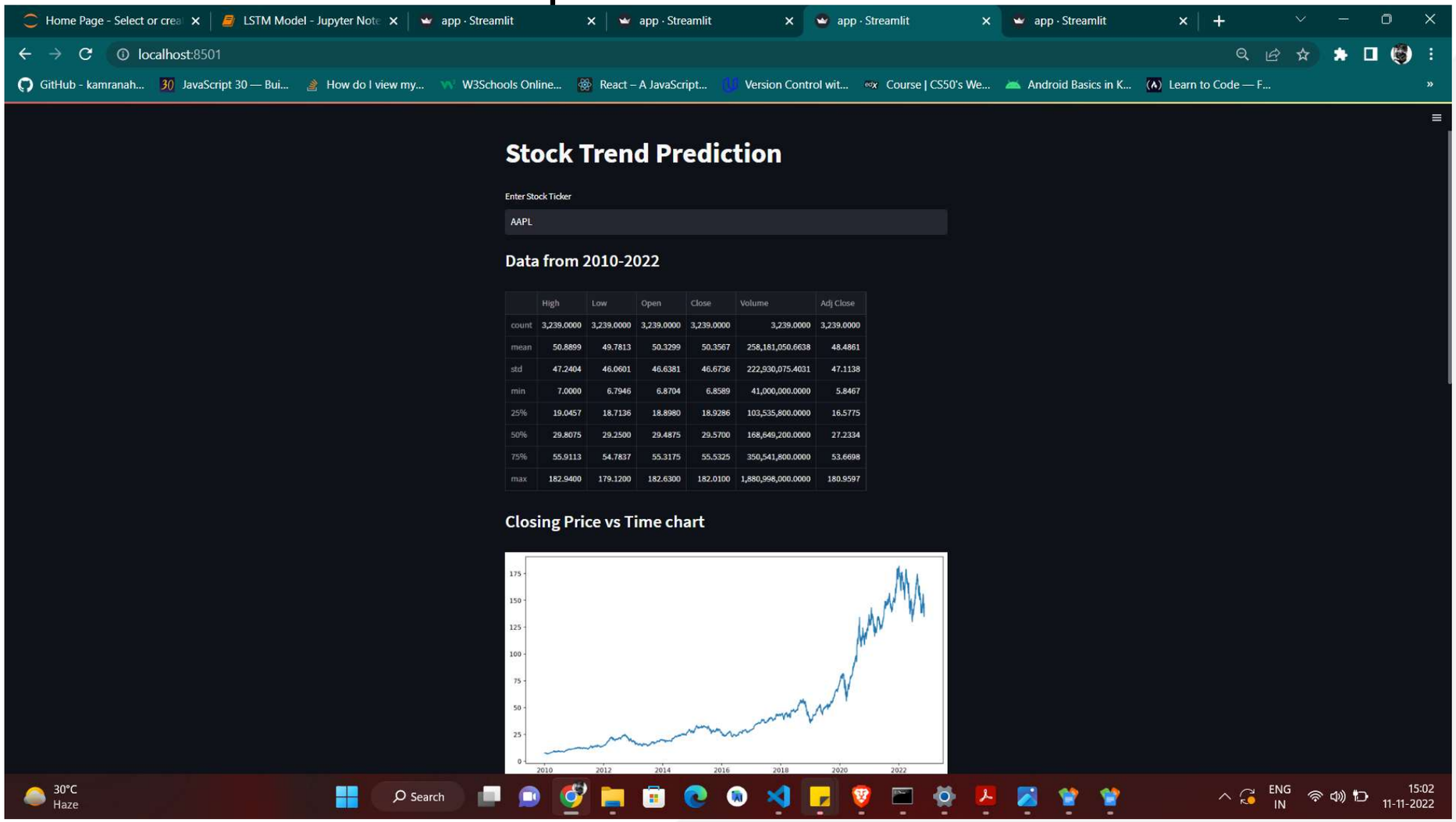


with 80% data in training



with 90% data in training

Results and Outputs

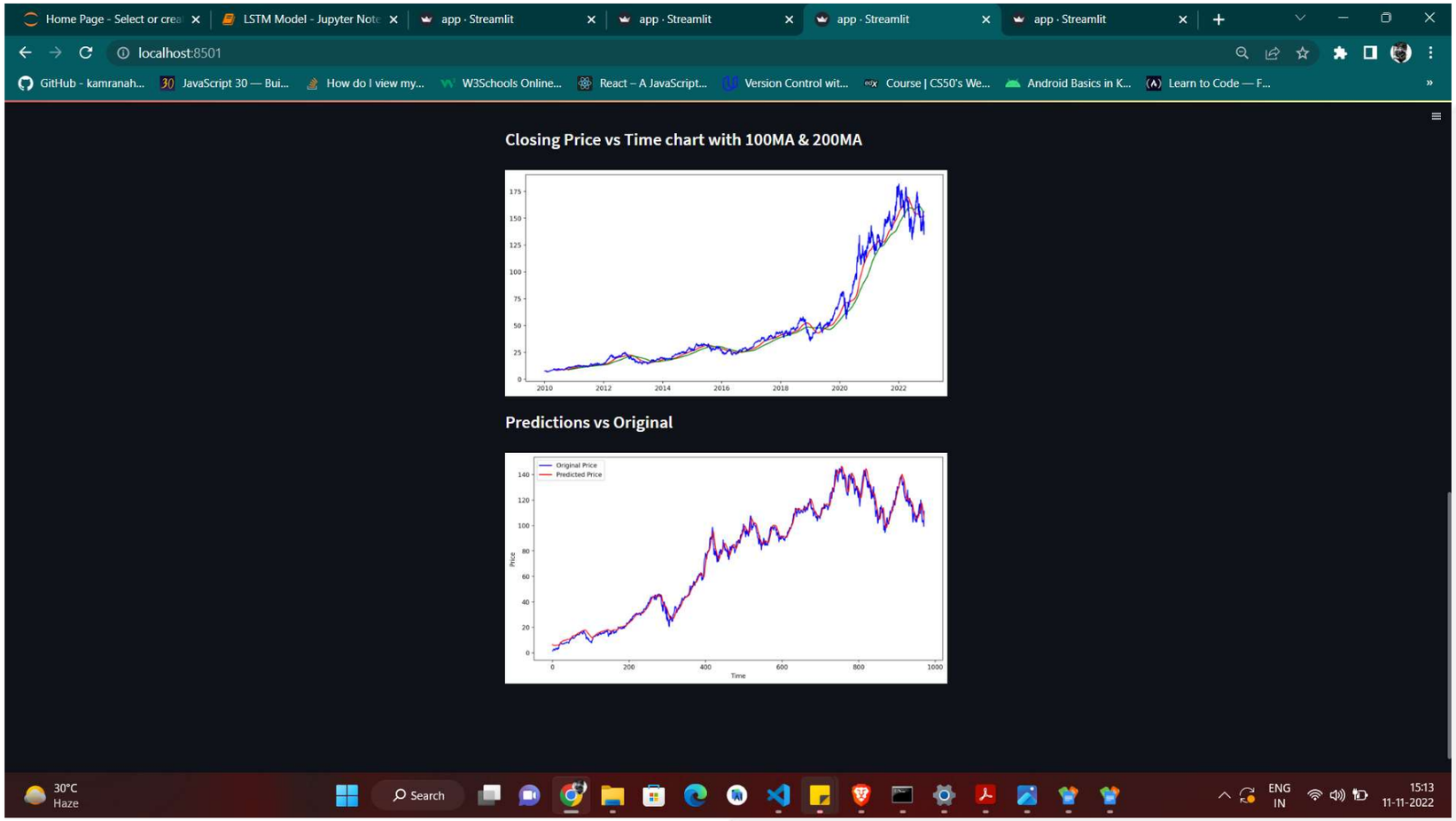


	High	Low	Open	Close	Volume	Adj Close
count	3,239.0000	3,239.0000	3,239.0000	3,239.0000	3,239.0000	3,239.0000
mean	50.8899	49.7813	50.3299	50.3567	258,181,050.6638	48.4861
std	47.2404	46.0601	46.6381	46.6736	222,930,075.4031	47.1138
min	7.0000	6.7946	6.8704	6.8589	41,000,000.0000	5.8467
25%	19.0457	18.7136	18.8980	18.9286	103,535,800.0000	16.5775
50%	29.8075	29.2500	29.4875	29.5700	168,649,200.0000	27.2334
75%	55.9113	54.7837	55.3175	55.5325	350,541,800.0000	53.6698
max	182.9400	179.1200	182.6300	182.0100	1,880,998,000.0000	180.9597

Results


Home Page - Select or crea
LSTM Model - Jupyter Note
app · Streamlit
app · Streamlit
app · Streamlit
app · Streamlit
localhost:8501
GitHub - kamranah...
JavaScript 30 — Bui...
How do I view my...
W3Schools Online...
React – A JavaScript...
Version Control wit...
Course | CS50's We...
Android Basics in K...
Learn to Code — F...
Closing Price vs Time chart with 100MA
Closing Price vs Time chart with 100MA & 200MA
Predictions vs Original
Original Price
Predicted Price
30°C
Haze
Search
ENG
IN
15:11
11-11-2022

Results


Home Page - Select or crea
LSTM Model - Jupyter Note
app · Streamlit
app · Streamlit
app · Streamlit
app · Streamlit
localhost:8501
GitHub - kamranah...
JavaScript 30 — Bui...
How do I view my...
W3Schools Online...
React – A JavaScript...
Version Control wit...
Course | CS50's We...
Android Basics in K...
Learn to Code — F...
Closing Price vs Time chart with 100MA & 200MA
Predictions vs Original
Original Price
Predicted Price
Price
Time
30°C
Haze
Search
ENG
IN
15:13
11-11-2022

Conclusion

- Working on the project was an excellent experience. It helped us to understand the importance of planning, designing and implementation so far we have learnt in our theory books. It helped us unleashing our creativity while working in a team. It also realized the importance of team working, communication as a part of this project.

- The project was successfully completed after a lot of efforts and work hours. This project underwent number of compiling, debugging, removing errors, making it bug free, adding more accuracy in prediction and interactivity making it more reliable and useful.

FUTURE SCOPE

- The system can be developed as a mobile application and can be hosted as an api for implementation into various cross platform apps.
- This could act as game changer in stock market and would attract a investors into the market attaracting more customers.

References

- https://www.officetimeline.com/make-gantt-chart/excel
- https://medium.com/@datamateuaecrescent/hospital-management-system- features-objectives-62eeb13f4fc4
- R.S Pressman, Software Engineering: A Practitioner's Approach, Mc-Graw-Hill, Edition-7 (2010).
- P. Jalote, an Integrated Approach to Software Engineering, Narosa publication house, Edition -3 (2011).