

STOCK PRICE PREDICTION

USING PYTHON PROGRAMMING

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# PROBLEM: - PREDICT PRICES OF STOCKS USNG LINEAR REGRESSION ON A GIVEN SET OF DATA.

ALGORITHM/APPROACH APPLIED: -

* THIS STEP INVOLVES ORGAININSING DATA INTO VAIOUS CSV FILES-{sl=d['symbol'].unique().tolist()# storing uniques values to a list sl[500]# accesing one of the stock names} {for i in range(501): df[sl[i]].to\_csv('{}.csv'.format(sl[i]))}
* THIS STEP IS USED FOR SPLITTING DATA FOR TRAINING- {from sklearn.model\_selection import train\_test\_split X\_train, X\_test, y\_train, y\_test = train\_test\_split(X, y, test\_size=0.2, random\_state=0) X\_train=X\_train.reshape(-1, 1) X\_test=X\_test.reshape(-1, 1) X\_train}
* STEP IS USED FOR TRAINING VALUES- {from sklearn.linear\_model import LinearRegression regressor = LinearRegression() Regressor.fit(X\_train, y\_train)}
* FOR PREDICTING VALUES, WE USE-

{y\_pred = regressor.predict(X\_test)}

* FOR DISPLAYIN LIST OF ACTUAL AND PREDICTED VALUES-

{df = p.DataFrame({'Actual': y\_test, 'Predicted': y\_pred})

df}

* METRICS LIBRARY IS USED FOR DIFFERENCE BETWEEN ACTULA AND PREDICTED VAUES.
* FURTHERMORE, GRAPHS ARE PLOT.

SOLUTION/CONCLUSION: -

* STOCK DATA CONTAINED AROUND 85163 ENTERIES WHICH INCLUDED DIFFERENT STOCKS WITH UNIQUE SYMBOL NAMES.
* BIFFERCATING STOCKS ACCORDING TO THEIR SYMBOL NAMES AND STORING EACH UNIQUE STOCK DATA SEPRATELY INTO A CSV FILE.
* THEN ACCESSING DIFFERENT STOCK FILES TAKING THEIR GIVEN DATA FOR TRAINING AND PREDICTING THEIR VALUES ALONGSIDE AND DISPLAYING DATA IN VARIOUS GRAPHS.

## INFERENCE’S

INTERNET ALONGSIDE ELECTRICITY{INCLUDING METAL WIRES,PLASTIC MODEM BOX},SOMETIMES PHONE AND MOM WAKING ME UP TODAY EARLY FOR A TIMELY SUBMISSIONOF THIS PROJECT WERE ALL GREAT FRIENDS TO ME SOLVING THIS QUESTION AND WE CAN’T FORGET OUR MENTOR VIBHOR SIR AS WELL AS KARISHMA MA’AM FOR THEIR EFFORTS TOWARDS US ALONGSIDE 12 EXTENDED HOURS FOR THIS PROJECT.THANKING YOU ALL TRULY FROM OUR HEART.