**Title :** Stock price Prediction

**Code :**

Import pandas as pd

From sklearn.model\_selection import train\_test\_split

From sklearn.ensemble import RandomForestRegressor

From sklearn.metrics import r2\_score,mean\_squared\_error,mean\_absolute\_error

Data = pd.read\_excel(r”D:\Visual studio\ADS\ADS\_phase1\Dataset\MSFT.xlsx”)

Date = data[‘Date’]

Date = pd.to\_datetime(date, format=”%d-%m-%Y”)

Data[‘Year’] = date.dt.year

Data[‘Month’] = date.dt.month

Data[‘Day’] = date.dt.day

X = data[[‘Day’,’Month’,’Year’,’Open’]]

Y = data[‘Adj Close’]

X\_train,X\_test,y\_train,y\_test = train\_test\_split(X,y,train\_size=0.2,random\_state=42)

Model = RandomForestRegressor(n\_estimators=10,random\_state=42)

Model.fit(X\_train,y\_train)

Score = model.score(X\_test,y\_test)

Prediction = model.predict(X\_test)

Predicted\_score = r2\_score(y\_test,prediction)

Mse = mean\_squared\_error(y\_test,prediction)

Mae = mean\_absolute\_error(y\_test,prediction)

Rmse = mean\_squared\_error(y\_test,prediction,squared=False)

Print(f’Score : {score}’)

Print(f’R squared score : {predicted\_score}’)

Print(f’Mean squared error : {mse}’)

Print(f’Mean absolute error :{mae}’)

Print(f’Root mean squared error :{rmse}’)

**Output:**

Score : 0.9994888994161154

R squared score : 0.9994888994161154

Mean squared error : 0.4098517797615241

Mean absolute error :0.31215766045454557

Root mean squared error :0.6401966727198167

**Conclusion:**

Thus concluded that we predicted the stock price Prediction by using Random forest algorithm and trained and evaluated .