**Assignment 12**

**Roll no.: A-44**

**Subject: DAP**

**Code:**

import pandas as pd

from sklearn.linear\_model import LinearRegression

data=pd.read\_csv("stocks.csv")

df=pd.DataFrame(data)

prediction={}

while True:

print()

print("--------------------------------------------------------------")

print()

ticker=input("Enter company name : ")

ticker=ticker.upper()

company\_data=df[df["Ticker"]==ticker]

X=company\_data.drop(["Ticker","Date","Volume"],axis=1)

Y=company\_data["Volume"]

model=LinearRegression()

model.fit(X,Y)

new\_data=pd.DataFrame({

'Open':[150,260,358,103],

'High':[155,268,368,108],

'Low':[150,260,354,103],

'Close':[154,267,366,108],

'Adj Close':[154,266,366,108]

})

cor\_coe=company\_data.drop(["Ticker","Date"],axis=1).corr()

print("Correlation coefficient : ")

print(cor\_coe)

predicts=model.predict(new\_data)

print("Prediction : ",predicts)

print("Want to predict more ?(y/n) : ",end=" ")

choice=input("")

if choice=="n" or choice=="N":

break

**Output**

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Enter company name : aapl

Correlation coefficient :

Open High Low Close Adj Close Volume

Open 1.000000 0.986165 0.992285 0.972388 0.972268 -0.137920

High 0.986165 1.000000 0.992529 0.989163 0.988973 -0.042706

Low 0.992285 0.992529 1.000000 0.988408 0.988441 -0.112138

Close 0.972388 0.989163 0.988408 1.000000 0.999977 -0.056305

Adj Close 0.972268 0.988973 0.988441 0.999977 1.000000 -0.057066

Volume -0.137920 -0.042706 -0.112138 -0.056305 -0.057066 1.000000

Prediction : [8.59587317e+07 1.12821232e+08 1.49320050e+08 8.65125315e+07]

Want to predict more ?(y/n) : y

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Enter company name : msft

Correlation coefficient :

Open High Low Close Adj Close Volume

Open 1.000000 0.987666 0.993666 0.976729 0.976506 -0.004256

High 0.987666 1.000000 0.991091 0.991644 0.991183 0.068482

Low 0.993666 0.991091 1.000000 0.988911 0.988908 -0.017123

Close 0.976729 0.991644 0.988911 1.000000 0.999938 0.030692

Adj Close 0.976506 0.991183 0.988908 0.999938 1.000000 0.026710

Volume -0.004256 0.068482 -0.017123 0.030692 0.026710 1.000000

Prediction : [26411491.70506924 46372997.64589792 53686295.22221073 25128154.9293117 ]

Want to predict more ?(y/n) : n