Title : Future Sales Prediction

Code :

Import pandas as pd

Import numpy as np

From sklearn.preprocessing import StandardScaler

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

From sklearn.ensemble import RandomForestRegressor

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

Data = pd.read\_csv(r”D:\Visual studio\Course\Naan Mudhalvan\Data Science\course\Sales.csv”)

X = data[[‘TV’,’Radio’,’Newspaper’]]

Y = data[‘Sales’]

X\_train,X\_test,y\_train,y\_test = train\_test\_split(X,y,train\_size=0.3,random\_state=42)

Model = RandomForestRegressor(n\_estimators=400,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 : 0.9093587380521827

R squared score : 0.9093587380521827

Mean squared error : 2.5192362491071543

Mean absolute error :1.2580928571428582

Root mean squared error :1.5872102094893272

Conclusion:

Thus we conclude that , we predicted future sales prediction by using random forest algorithm evaluated and tested successfully.