import pandas as pd

df = df = pd.read\_csv("/content/Ecommerce Customers")

pd.set\_option('display.max\_columns', None)

df

df.info()

df.describe()

import seaborn as sns

sns.pairplot(df)

y = df['Yearly Amount Spent']

df.columns

X = df[['Avg. Session Length', 'Time on App', 'Time on Website', 'Length of Membership']]

X

Y

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

from sklearn.linear\_model import LinearRegression

X\_train, X\_test, y\_train, y\_test = train\_test\_split(X, y, test\_size=0.3, random\_state=101)

lm = LinearRegression()

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

print('Coefficients: \n', lm.coef\_)

predictions = lm.predict(X\_test)

import pandas as pd

import numpy as np

import seaborn as sns

from matplotlib import pyplot as plt

plt.scatter(y\_test,predictions)

plt.xlabel('Y Test')

plt.ylabel('Predicted Y')

from sklearn import metrics

print('MAE:', metrics.mean\_absolute\_error(y\_test, predictions))

print('MSE:', metrics.mean\_squared\_error(y\_test, predictions))

print('RMSE:', np.sqrt(metrics.mean\_squared\_error(y\_test, predictions)))

sns.distplot((y\_test-predictions),bins=50);

coeffecients = pd.DataFrame(lm.coef\_,X.columns)

coeffecients.columns = ['Coeffecient']

coeffecients