

```

6 import pandas as pd
7 import numpy as np
8 import matplotlib.pyplot as plt
9 import warnings
10 warnings.filterwarnings('ignore')
11 from sklearn.model_selection import train_test_split
12
13 df = pd.read_csv("D:\College\emails.csv")
14
15 df.drop(['Email No.'], axis=1, inplace=True)
16 X = df.drop(['Prediction'], axis=1)
17 y = df['Prediction']
18
19 X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.20, random_state = 0)
20
21 "FeatureScaling"
22 from sklearn.preprocessing import StandardScaler
23 sc = StandardScaler()
24 X_train = sc.fit_transform(X_train)
25 X_test = sc.transform(X_test)
26
27 "*****KNN*****"
28 from sklearn.neighbors import KNeighborsClassifier
29 model_KNN = KNeighborsClassifier(n_neighbors = 5)
30 model_KNN.fit(X_train, y_train)
31
32 y_pred = model_KNN.predict(X_test)
33
34 from sklearn.metrics import mean_squared_error, accuracy_score
35
36
37 mse = mean_squared_error(y_test, y_pred)
38 rmse = mean_squared_error(y_test, y_pred, squared=False)
39 ac = accuracy_score(y_test, y_pred)
40
41 print("\n")
42 print("KNN Results")
43 print(f'Accuracy: {ac}')
44 print(f'mse: {mse}')
45 print(f'rmse: {rmse}')

```

```

48  """*****SVM*****"""
49  from sklearn.svm import SVC
50  model_SVC = SVC(C=1)
51  model_SVC.fit(X_train,y_train)
52
53  y_pred_SVC = model_SVC.predict(X_test)
54
55  from sklearn.metrics import mean_squared_error,accuracy_score
56
57
58  mse = mean_squared_error(y_test, y_pred_SVC)
59  rmse = mean_squared_error(y_test, y_pred_SVC, squared=False)
60  ac = accuracy_score(y_test,y_pred_SVC)
61
62  print("\n")
63  print("SVM Results")
64  print(f'Accuracy: {ac}')
65  print(f'mse: {mse}')
66  print(f'rmse: {rmse}')

```

Output -

```
In [1]: runfile('C:/Users/Dell/untitled0.py', wdir='C:/Users/Dell')
```

KNN Results

Accuracy: 0.8231884057971014

mse: 0.17681159420289855

rmse: 0.42048970760637955

SVM Results

Accuracy: 0.9352657004830918

mse: 0.0647342995169082

rmse: 0.254429360563808