PROGRAM :

```
import numpy as npfrom sklearn.metrics

import classification_report,

confusion matriximport matplotlib.

pyplot as pltimport seaborn as sns# Assuming you have a trained model and a test se

# model = ... (your trained Keras model)# x_test, y test=...

 (your test data and labels)

# class_names = [...] (list of traffic sign class names)

# Predict labels for test datay_pred = model.predict(x_test)y_pred_classes =
np.argmax(y_pred, axis=1)y_true = np.argmax(y_test, axis=1

# Confusion Matrixcm = confusion_matrix(y_true, y_pred_classes)

# Plotting Confusion Matrixplt.figure(figsize=(12, 8))sns.heatmap(cm, annot=True, fmt='d',
cmap='Blues', xticklabels-class_names,

 yticklabels=class_names)plt.xlabel('Predicted') plt.ylabel( 'True') plt.title('Confusion
Matrix')plt.show()

# Classification Reportprint("Classification Report:")

print(classification_report(y_true, y_pred_classes, target_names=class_names))
```

OUTPUT:


Traffic Sign Confusion Matrix
Speed Limit
Stop
Yield
True
3
0
1
1
2
0
0
0
3
Speed Limit
Stop
Yield
Predicted
3.0
2.5
2.0
1.5
1.0
0.5
0.0