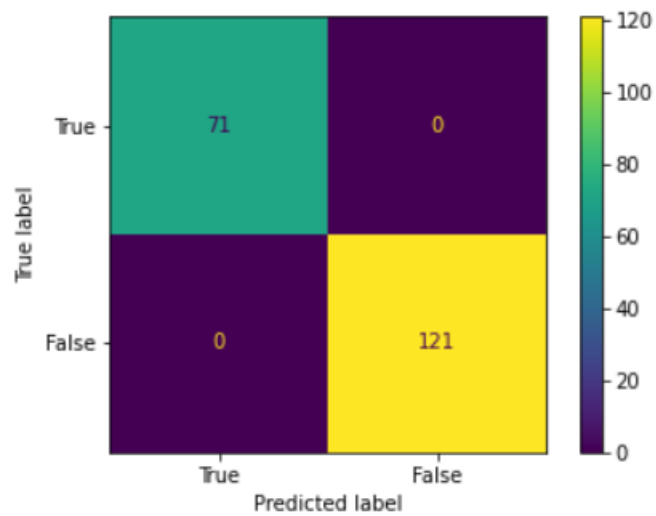


RESULTS FOR TIC TAC TOE AND CONNECT FOUR

KNN CLASSIFIER ON FINAL DATASET

Accuracy of KNN Classifier on Final dataset is 1.0

Confusion matrix



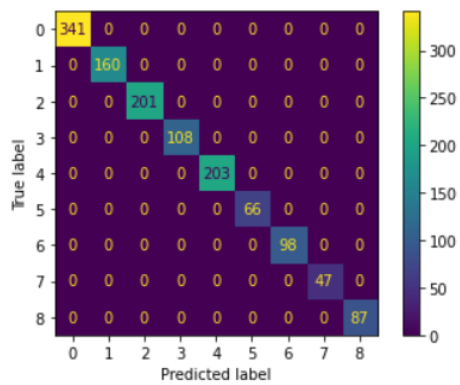
Normalized confusion matrix

```
[[1 0]
 [0 1]]
```

Maximum test accuracy acheived with K-Fold Cross validation is 1.0

KNN CLASSIFIER ON SINGLE DATASET

Confusion matrix



Normalized confusion matrix

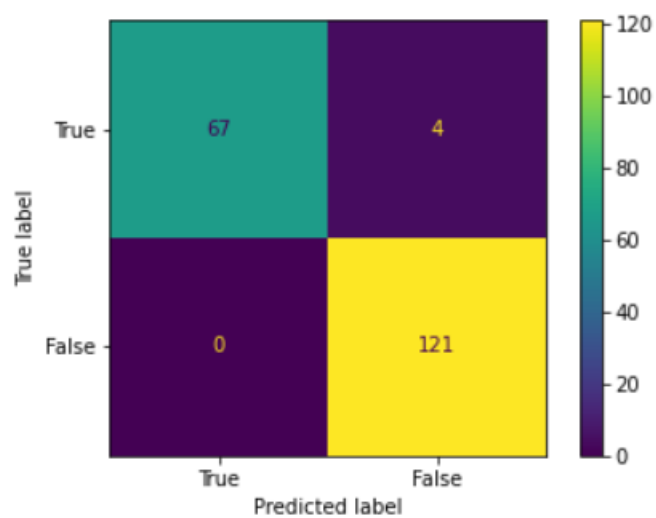
```
[[1 0 0 0 0 0 0 0 0]
 [0 1 0 0 0 0 0 0 0]
 [0 0 1 0 0 0 0 0 0]
 [0 0 0 1 0 0 0 0 0]
 [0 0 0 0 1 0 0 0 0]
 [0 0 0 0 0 1 0 0 0]
 [0 0 0 0 0 0 1 0 0]
 [0 0 0 0 0 0 0 1 0]
 [0 0 0 0 0 0 0 0 1]]
```

Maximum test accuracy acheived with K-Fold Cross validation is 0.9267734553775744

SVM ON FINAL DATASET

Accuracy of SVM on Final dataset is 0.9791666666666666

Confusion matrix



Normalized confusion matrix

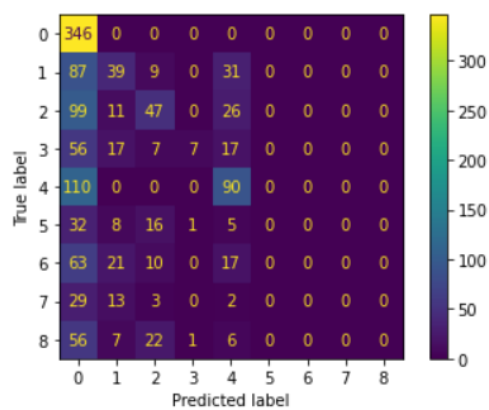
```
[[0 0]
 [0 1]]
```

Maximum test accuracy achieved with K-Fold Cross validation is 0.9947916666666666

SVM CLASSIFIER ON SINGLE DATASET

Accuracy of SVM Classifier on dataset is 0.4035087719298245

Confusion matrix



Normalized confusion matrix

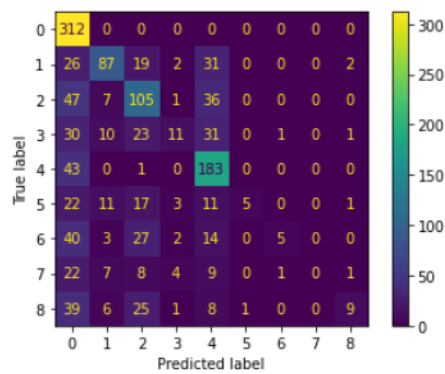
```
[[1 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0]]
```

Maximum test accuracy acheived with K-Fold Cross validation is 0.5469107551487414

MLP CLASSIFIER ON FINAL DATASET

Classification Accuracy : 0.5469107551487414

Confusion Matrix:



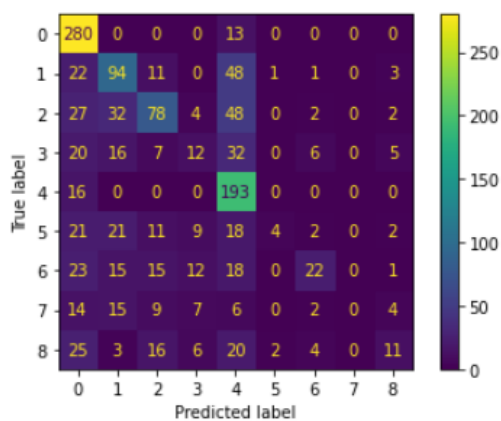
Normalized confusion matrix: $\begin{bmatrix} 1. & 0. & 0. & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.08333333 & 0.52095808 & 0.09693878 & 0.01869159 & 0.13656388 & 0. & 0. & 0. & 0. \\ 0. & 0. & 0.02247191 & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.15064103 & 0.04191617 & 0.53571429 & 0.00934579 & 0.15859031 & 0. & 0. & 0. & 0. \\ 0. & 0. & 0. & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.09615385 & 0.05988024 & 0.11734694 & 0.10280374 & 0.13656388 & 0. & 0. & 0. & 0. \\ 0.01098901 & 0. & 0.01123596 & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.13782051 & 0. & 0.00510204 & 0. & 0.8061674 & 0. & 0. & 0. & 0. \\ 0. & 0. & 0. & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.07051282 & 0.06586826 & 0.08673469 & 0.02803738 & 0.04845815 & 0.07142857 & 0. & 0. & 0. \\ 0. & 0. & 0.01123596 & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.12820513 & 0.01796407 & 0.1377551 & 0.01869159 & 0.06167401 & 0. & 0. & 0. & 0. \\ 0.05494505 & 0. & 0. & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.07051282 & 0.04191617 & 0.04081633 & 0.03738318 & 0.03964758 & 0. & 0. & 0. & 0. \\ 0.01098901 & 0. & 0.01123596 & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.125 & 0.03592814 & 0.12755102 & 0.00934579 & 0.03524229 & 0.01428571 & 0. & 0. & 0. \\ 0. & 0. & 0.1011236 & 0. & 0. & 0. & 0. & 0. & 0. \end{bmatrix}$

Maximum test accuracy acheived with K-Fold Cross validation is 0.8764302059496567

MLP CLASSIFIER ON SINGLE DATASET

Classification Accuracy : 0.5293668954996186

Confusion Matrix:



Normalized confusion matrix: $\begin{bmatrix} 0.9556314 & 0. & 0. & 0. & 0.06220096 & 0. & 0. & 0. & 0. \\ 0. & 0. & 0. & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.07508532 & 0.52222222 & 0.05699482 & 0. & 0.22966507 & 0.01136364 & 0. & 0. & 0. \\ 0.00943396 & 0. & 0.03448276 & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.09215017 & 0.17777778 & 0.40414508 & 0.04081633 & 0.22966507 & 0. & 0. & 0. & 0. \\ 0.01886792 & 0. & 0.02298851 & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.06825939 & 0.08888889 & 0.03626943 & 0.12244898 & 0.15311005 & 0. & 0. & 0. & 0. \\ 0.05660377 & 0. & 0.05747126 & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.05460751 & 0. & 0. & 0. & 0.92344498 & 0. & 0. & 0. & 0. \\ 0. & 0. & 0. & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.07167235 & 0.11666667 & 0.05699482 & 0.09183673 & 0.0861244 & 0.04545455 & 0. & 0. & 0. \\ 0.01886792 & 0. & 0.02298851 & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.07849829 & 0.08333333 & 0.07772021 & 0.12244898 & 0.0861244 & 0. & 0. & 0. & 0. \\ 0.20754717 & 0. & 0.01149425 & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.04778157 & 0.08333333 & 0.04663212 & 0.07142857 & 0.02870813 & 0. & 0. & 0. & 0. \\ 0.01886792 & 0. & 0.04597701 & 0. & 0. & 0. & 0. & 0. & 0. \\ 0.08532423 & 0.01666667 & 0.08290155 & 0.06122449 & 0.09569378 & 0.02272727 & 0. & 0. & 0. \\ 0.03773585 & 0. & 0.12643678 & 0. & 0. & 0. & 0. & 0. & 0. \end{bmatrix}$

Maximum test accuracy acheived with K-Fold Cross validation is 0.8924485125858124

KNN REGRESSOR ON MULTI DATASET

Accuracy of KNN Regressor on Multi dataset is 1.0

Maximum test accuracy acheived with K-Fold Cross validation is 0.9636980491942324

LINEAR REGRESSOR ON MULTI DATASET

accuracy: 0.5061728395061729

Accuracy acheived with K-Fold Cross validation is 0.7903307888040713

MLP REGRESSOR ON MULTI DATASET

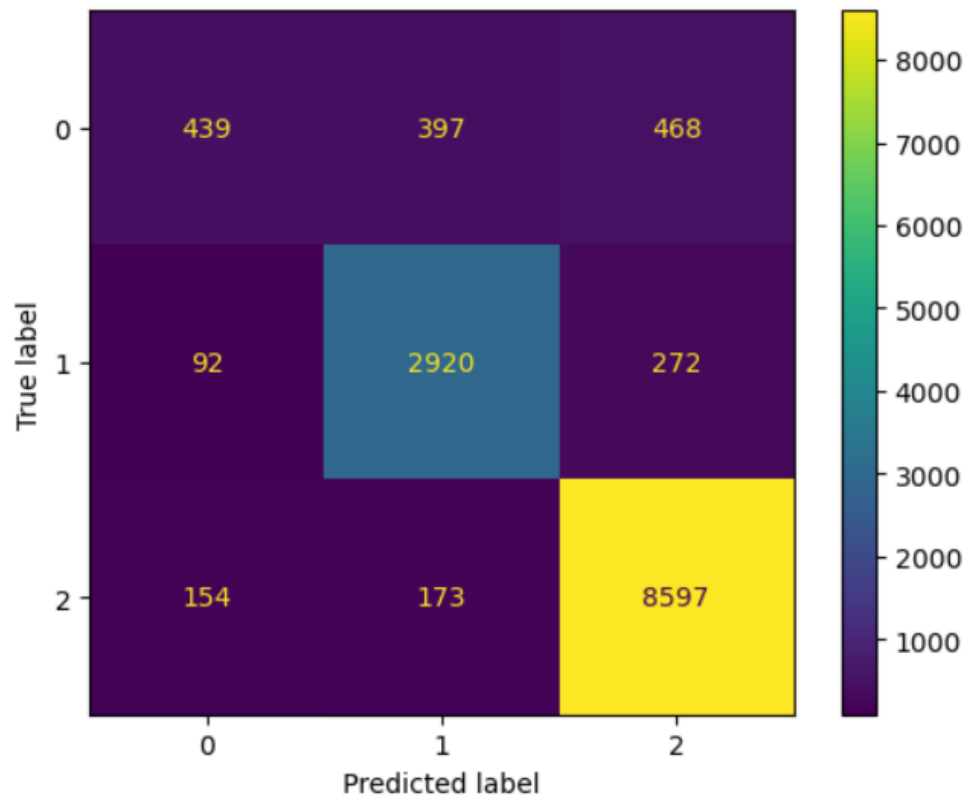
Regressor score (R^2) :
0.6785245854911729

Maximum test accuracy acheived with K-Fold Cross validation is 0.9229855810008482

CONNECT FOUR

Accuracy of MLP Classifier on Connect dataset is 0.8848431024274719

Confusion matrix



Normalized confusion matrix

```
[[0 0 0]
 [0 0 0]
 [0 0 0]]
```