

SVM EXERCISES

Question 1: Using the dataset provided, train a multiclass SVM classifier to *classify activities into one of the six activities performed*. (WALKING, WALKINGUPSTAIRS, WALKINGDOWNSTAIRS, SITTING, STANDING, LAYING)

(i) Apply different kernels and give reasons which kernel works the best and why?

(ii) Plot the confusion matrix and the precision, recall, f1 scores for each model.

(iii) Tune various parameters such as C, gamma and degree to find out the best performing model.

Note: Train and Test csv files can be downloaded from link below:
<https://www.kaggle.com/pranathichunduru/svm-for-multiclass-classification/data?select=train.csv>