Name: **Asheeque Chericham Veettil Maliyakkal**
UBID : 50352955

Face Detection And Face Clustering Report

Face Detection: Face detection was done using both Haar Cascades and Hog + Linear Svm(Histogram of Oriented Gradients with Support Vector Machine) face detector.Haar Cascades is Viola-Jones Face Detection technique.Using this face detection techniques bbox of faces were calculated and stored.Hog + Linear SVM got f1 score of 0.87 on validation data after keeping upsample as 1.There was no much increase in f1 score on increasing upsampling but time taken increased considerably therefore upsample was kept as 1.Haar cascades got f1 score of 0.82.Therefore for final detection Hog+ Linear svm was used.

Kmeans clustering:On the detected faces,Kmeans clustering was performed after converting to 128 d face encodings.Sklearns was used to import Kmeans.For validation data the number of clusters were 5.

Clusters:

cluster0.png

cluster1.png

cluster2.png