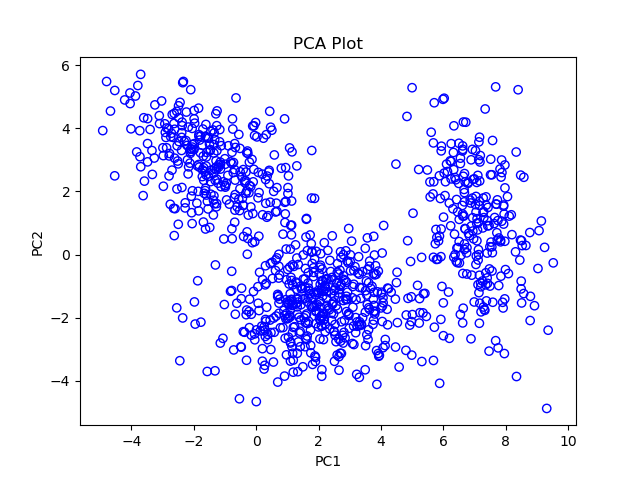
# CSE 472 (Machine Learning Sessional)

# Assignment 3: Dimensionality Reduction using Principal Component Analysis and Clustering using Expectation-maximization Algorithm

## **Moaz Mahmud (1505064)**

 **PCA implementation**

**EM implementation**

From PCA, number of clusters in the data in two principal components,

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**Python Format**

np.array([[ 7.07860183, 0.99051031],

[ 2.1049187 , -1.63644085],

[-1.30281985, 2.79003276]])

np.array([[[ 0.82725394, -0.57770596],

[-0.57770596, 3.36105752]],

[[ 2.5259442 , 0.16589947],

[ 0.16589947, 1.09054177]],

[[ 1.99641987, -0.87684847],

[-0.87684847, 1.47243505]]])

np.array([0.24037177, 0.45676345, 0.30286478])