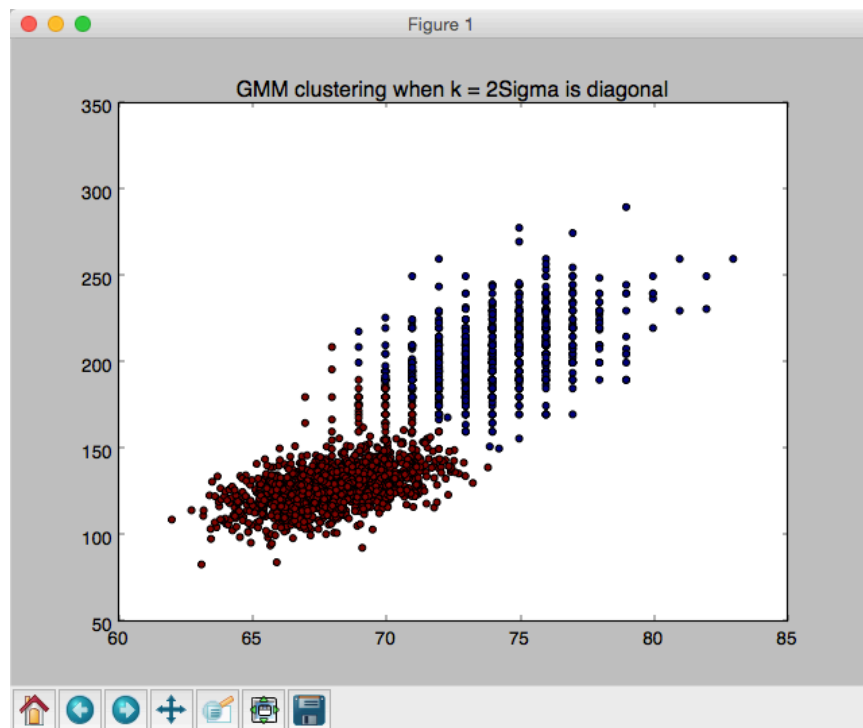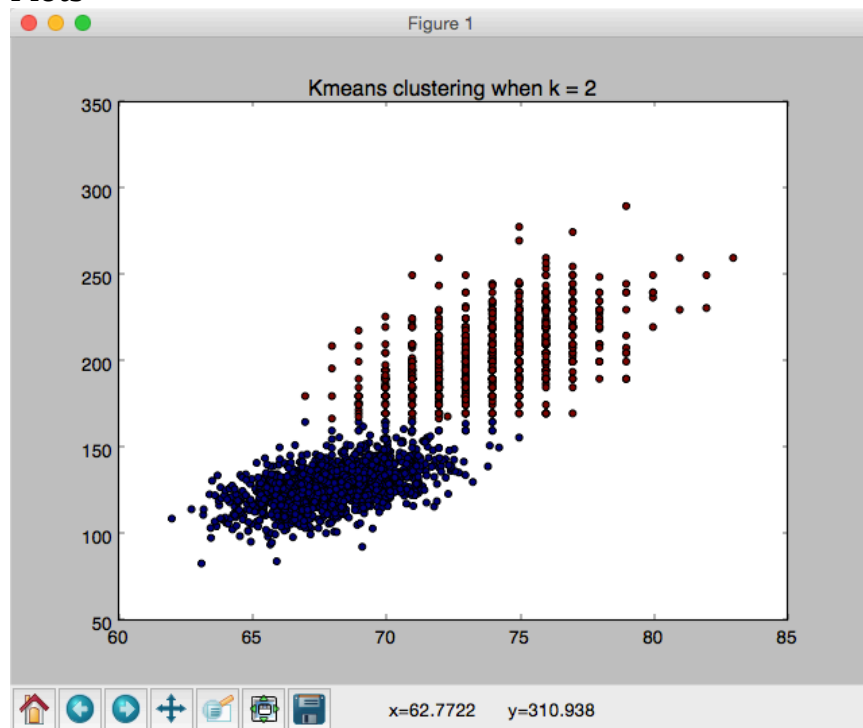# CS6316 Machine Learning Homework 5

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1. Scatter Plots

GMM clustering when k = 2 Sigma is full

x=81.9758   y=76.5625

GMM clustering when k = 2Sigma is full

x=85.2016   y=-10.0651
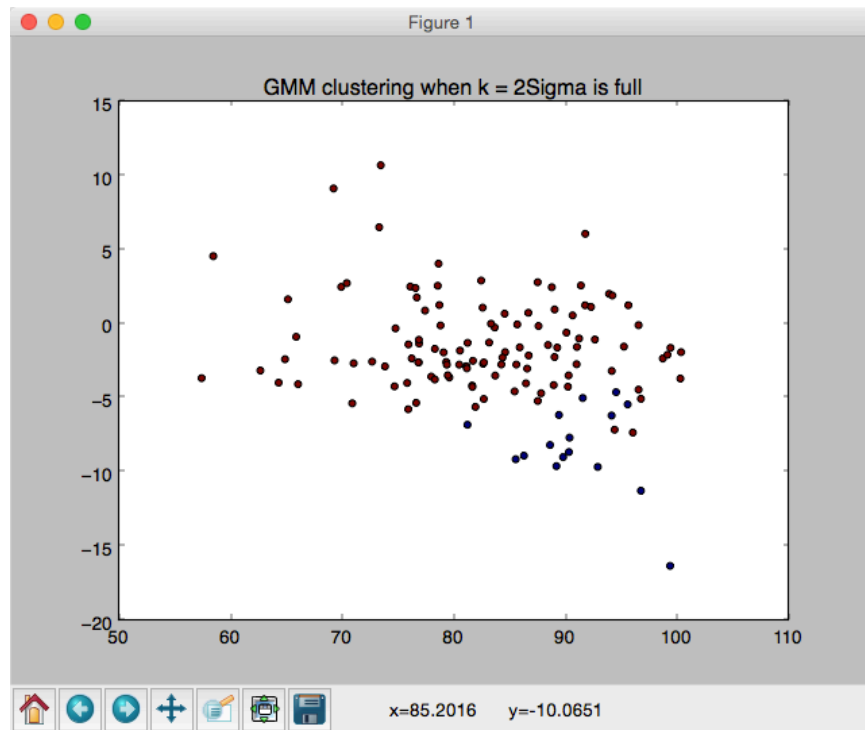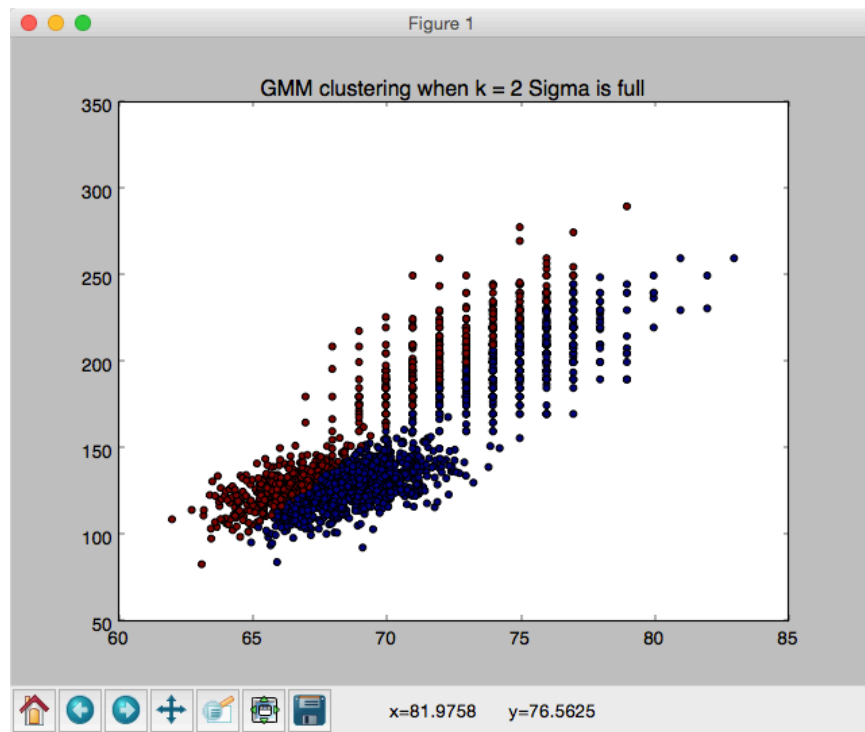
2. k knee-finding plot
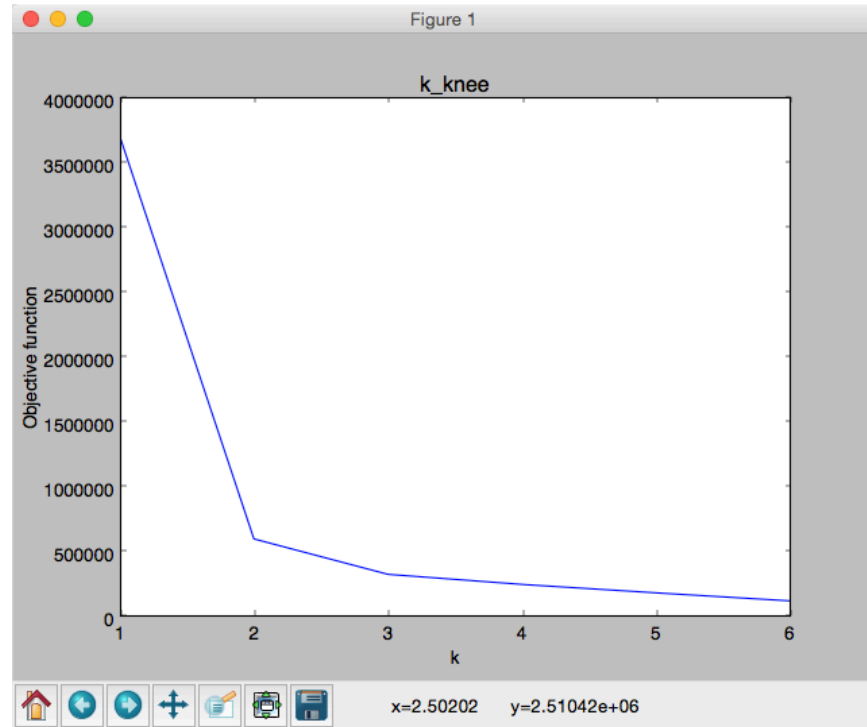
3. Purity Metric

	Method	Purity for Cluster 1	Purity for Cluster 2
Q3	Kmeans	0.97242	0.99900
Q7	GMM_diag_data_1	0.91374	0.99675
	GMM_full_data_1	1.0	0.54078
Q8	GMM_diag_data2	0.52678	0.6875