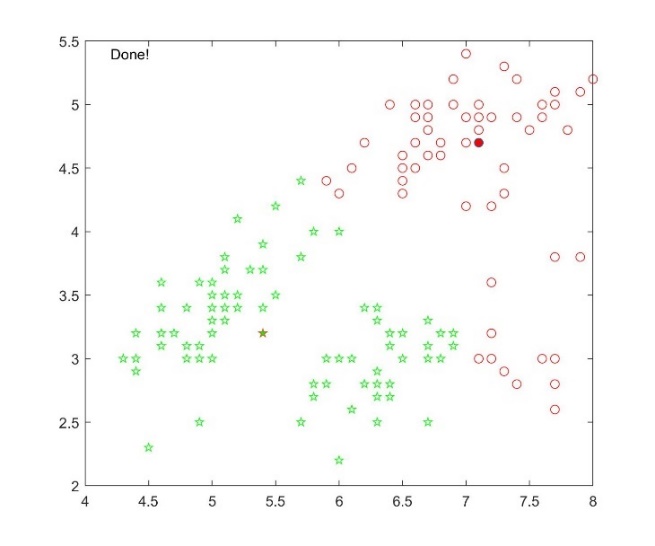
# ELEC 425 – Assignment 2

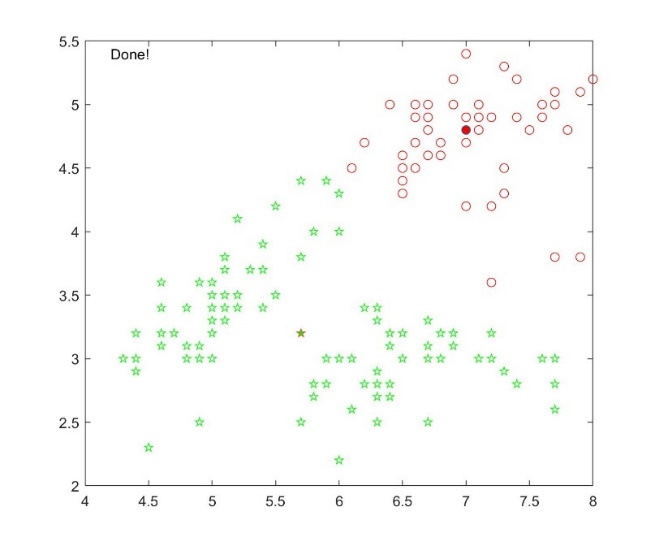
## 1 – Implement K-medians

### 2 clusters

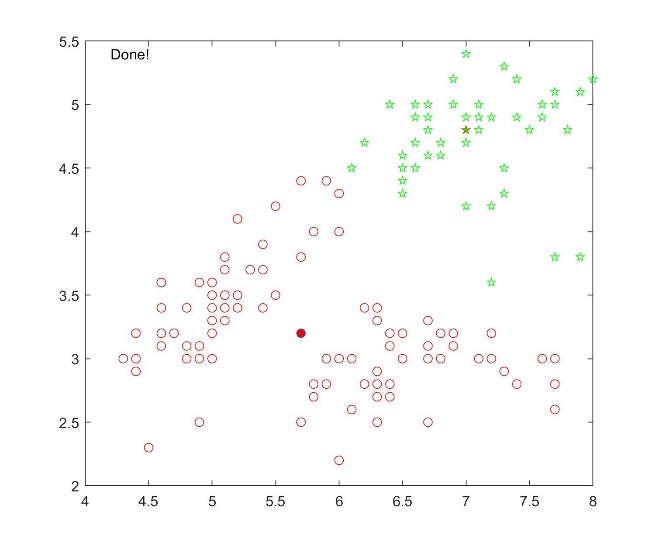
#### Cluster centres = [5.5, 4; 4.5, 3.2]



#### Cluster centres = [3.1, 5.2; 3.8, 4.2;]

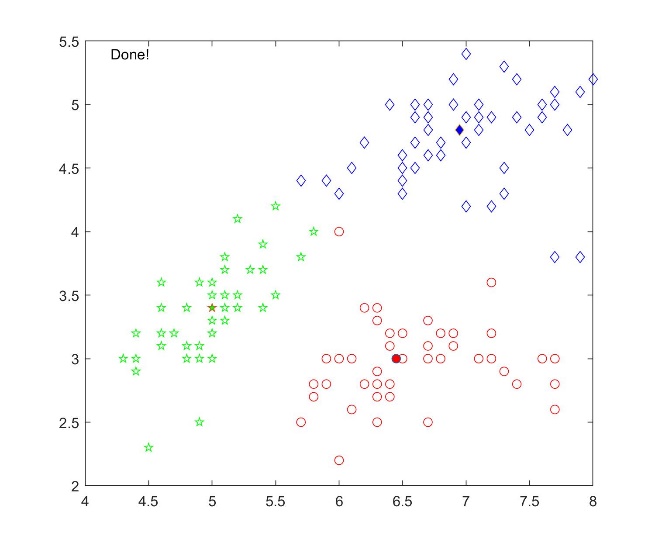


#### Cluster centres = [3, 3; 6, 6]

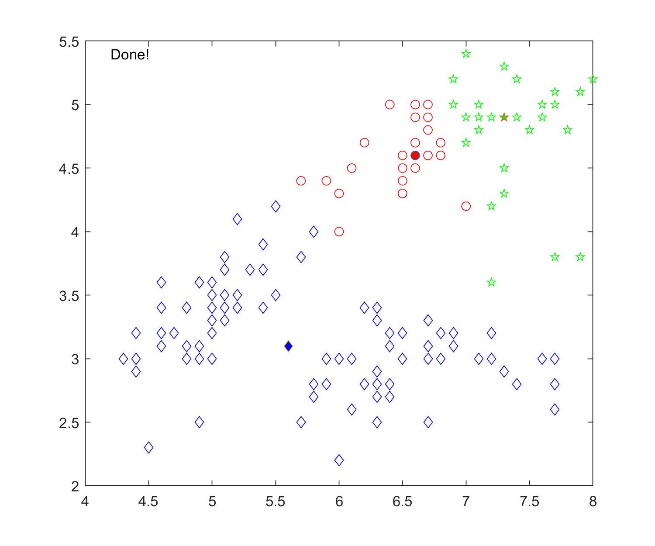


### 3 clusters

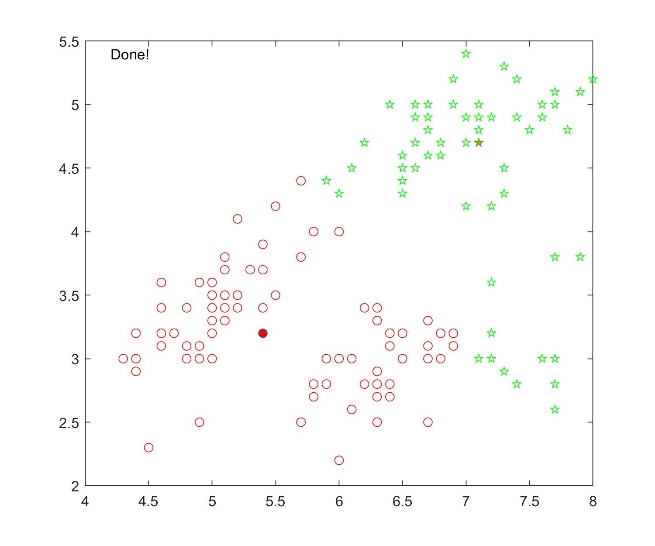
#### Cluster centres = [3, 3; 4, 4; 6, 6]



#### Cluster centres = [3.5, 4.3; 3.9, 5.6; 3.4, 3.8]

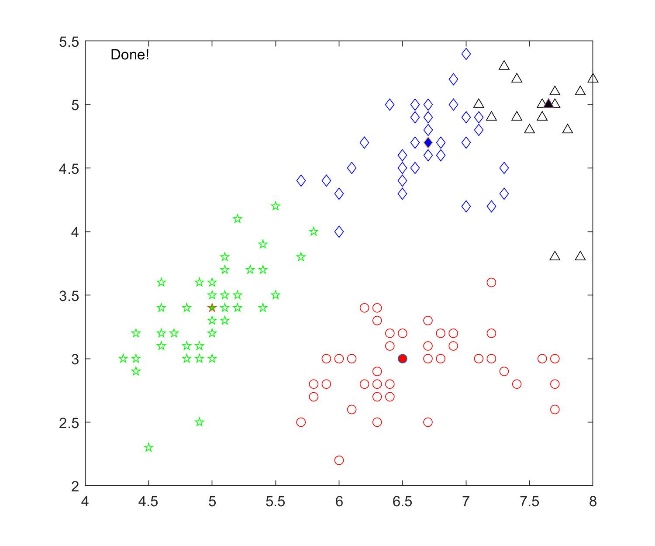


### *Cluster centres = [4, 5; 4.8, 5.2; 3.9, 6]*

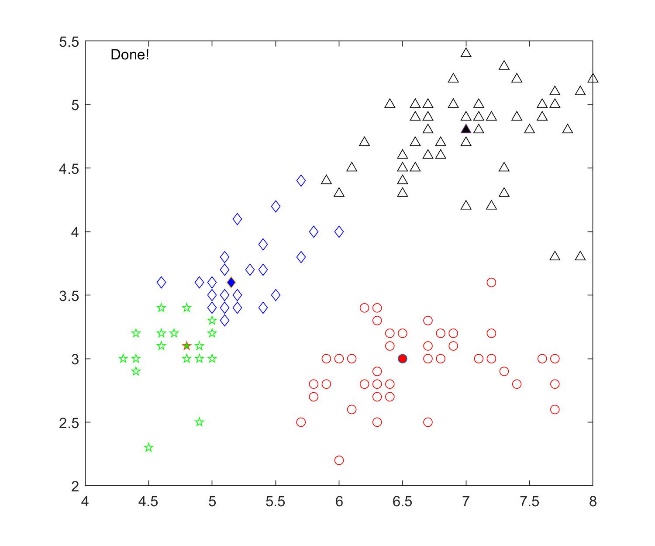


### 4 clusters

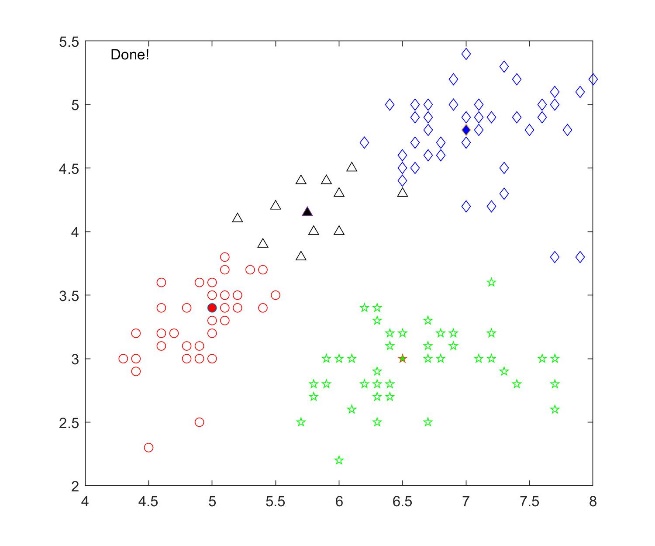
#### Cluster centres = [3, 3; 4, 4; 5, 5; 6, 6]



#### Cluster centres = [6, 4; 4, 3; 5, 4; 6, 5]



#### Cluster centres = [4, 5; 8, 3; 7.6, 5; 8, 3.5]



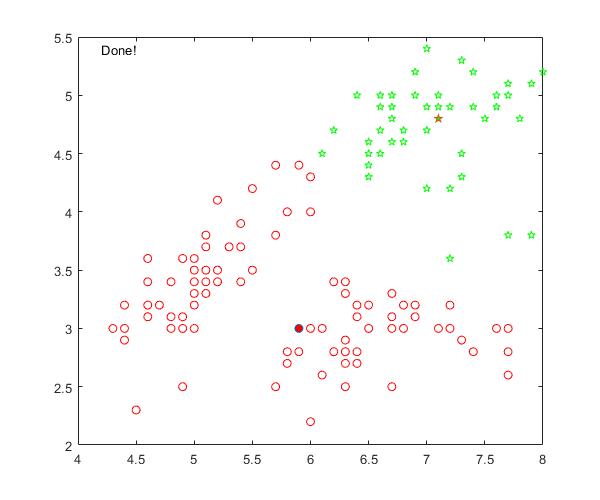
ADD CODE SNIPPET???

## 2 – Prove the EM Updating Algorithm Used in K-medians

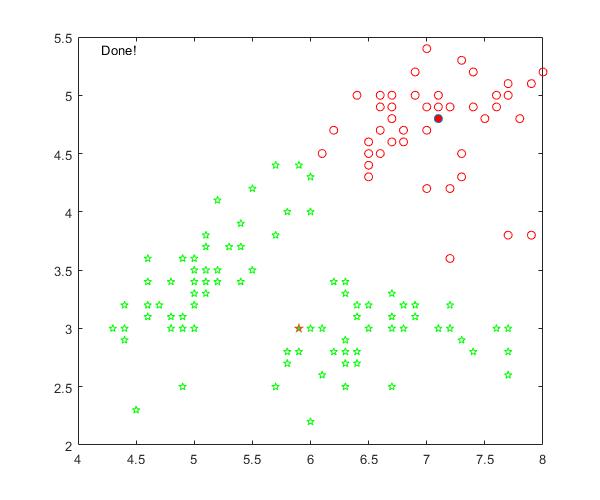
## 3 - K-medioids

### 2 clusters

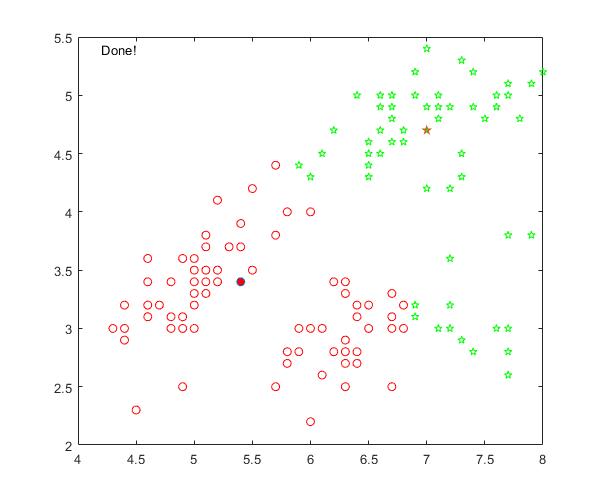
#### Cluster Centres = [5.9, 3.0; 7.1, 4.8]



#### Cluster Centres = [7.1, 4.8; 5.9, 3.0]

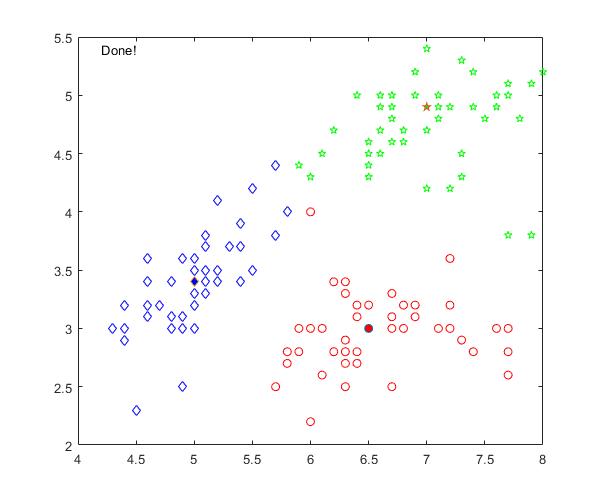


#### Cluster Centres = [5.4, 3.4; 7.0, 4.7]

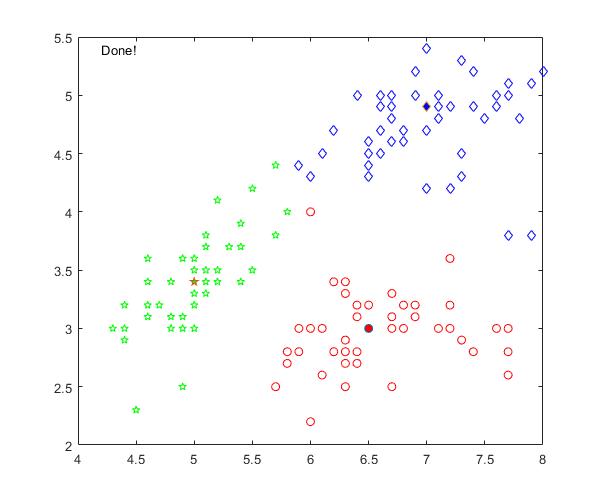


### 3 clusters

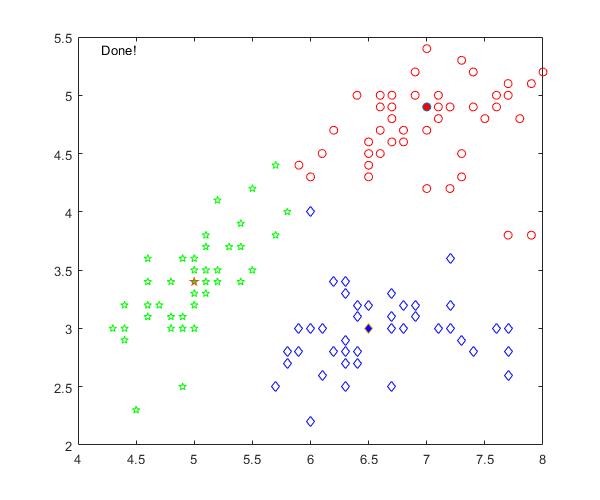
#### Cluster Centres = [6.5, 3.0; 7.0, 4.9; 5.0, 3.4]



#### Cluster Centres = [6.5, 3.0; 5.0, 3.4; 7.0, 4.9]

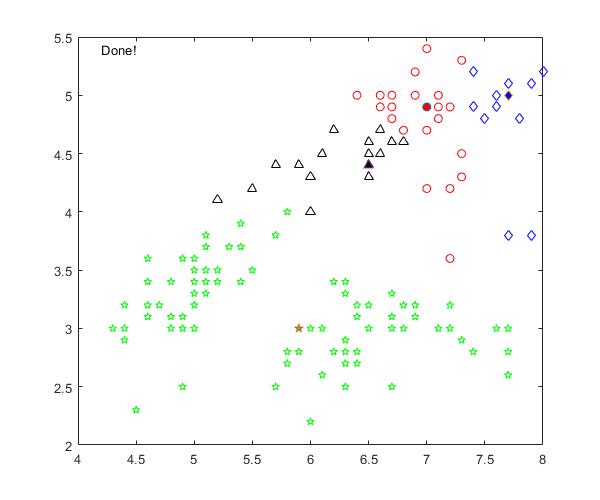


#### Cluster Centres = [7.0, 4.9; 5.0, 3.4; 6.5, 3.0]

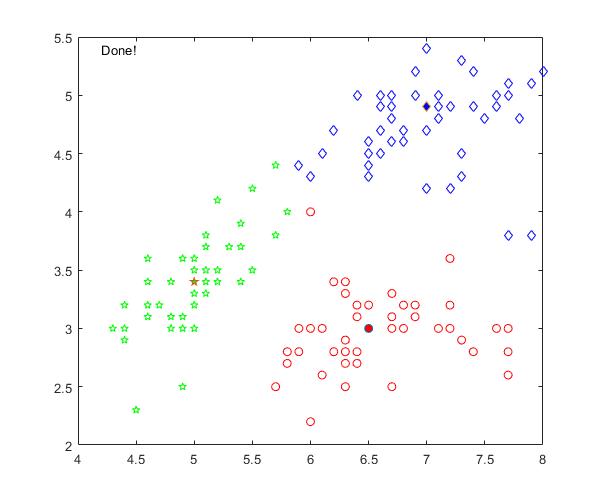


### 4 clusters

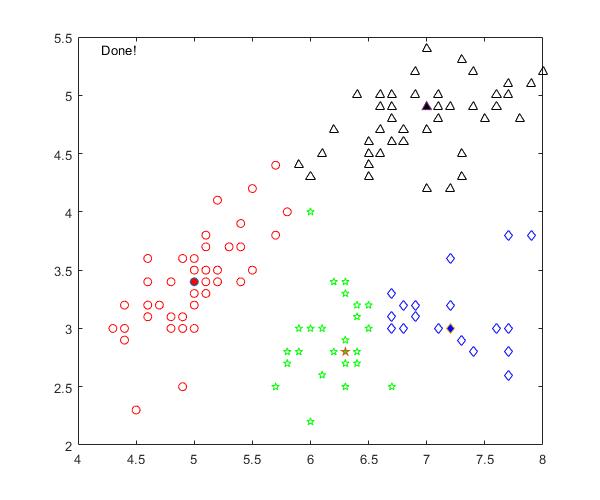
#### Cluster Centres = [7.0, 4.9; 5.9, 3.0; 7.7, 5.0; 6.5, 4.4]



#### Cluster Centres = [5.4, 3.9; 6.5, 3.0; 4.8, 3.1; 7.0, 4.9]



#### Cluster Centres = [5.0, 3.4; 6.3, 2.8; 7.2, 3.0; 7.0, 4.9]



ADD CODE SNIPPET???