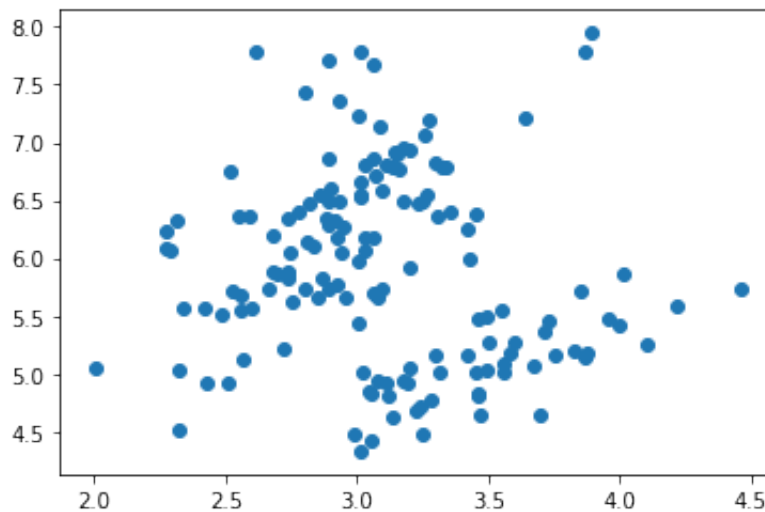```
In [2]: import sys
         import numpy as np

         import mltools as ml
         import matplotlib.pyplot as plt
```

## Question1

## Question1.1

```
In [3]:  iris = np.genfromtxt("data/iris.txt", delimiter=None)
         features = iris[:,0:2]
         x1=features[:,0]
         x2=features[:,1]
         plt.scatter(x1,x2)
         plt.show()
```


In my opinion, there are two or more clusters. For two clusters, the boundary is a increasing line from the bottom right side to the upper left side. For more clusters, the more and more dispersed points on the right upper side, for instance, there can be one more cluster with the boundary from the moddle to the bottom right side to seperate the dispersed points in the right side, which is right behind the x=4.

Question3

I write this hw after reading the lec ppt and discussion,and the onlune resoucrse about the clustering, and with no collaboration with others.