CS599 Project 1 Purpose:

The purpose of this project is reproducing a figure on the book
 Hastie, et al. Elements of Statistical Learning, Figure 13.2
This figure shows the result of K-mean algorithm, I will come true this algorithm reproduces this graph
In this figure, the solid points show the position of final center points that generate by K-mean. The hollow points show the position of training data, the lattice points show the position of test data, the black line is the boundary calculated according to test data, and the purple line shows the Bayes boundary. What's more, this figure shows the error of Bayes model and training set
To finish this figure, I will use python to do K-mean algorithm and use Rstudio to draw the figure.