9417 homework 2

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Q1:

(1). Since we are using 1-Norm penalty function, we need a coefficient C to adjust the influence of the penalty function. When C is small, then the influence of penalty will be huge, otherwise it will be small. For the parameter in LASSO, it is also the regularization parameter. They are both set to avoid overfitting. The only difference is the positions of them are different and when we are adjusting them, the influence of regularization in logistic regression becomes larger as C increases but becomes smaller when increases.

(2).