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Since I have conflicting memories with the assignment slide in the lecture note, I have decided to submit two sets of codes and two sets of training data sets.

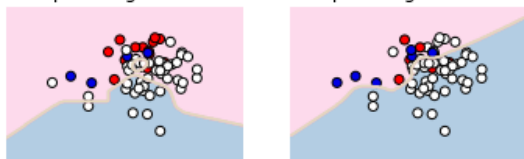
Approach 1 : [label_prop_20_svm_62](#)

It follows the instruction of the assignment slide.

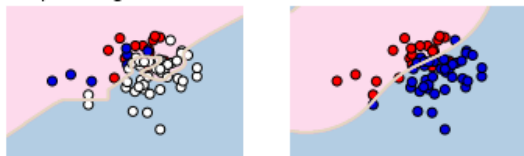
Labelled Propagation use 30%, 50% and 100% of 20 labelled samples.

Support Vector Machine uses all labelled data from 1.

Label Spreading 30% data (6) Label Spreading 50% data (10)



Label Spreading 100% data (20) SVC with rbf kernel (62)



Unlabeled points are colored white

Approach 2 : [label_prop_62_svm_20](#)

It follows which I believed is Ajarn's instruction in class.

Labelled Propagation use 30%, 50% and 100% of all labelled samples.

Support Vector Machine uses 20 labelled samples.

Label Spreading 30% data Label Spreading 50% data



Label Spreading 100% data



SVM (poly)

SVM (gaussian)

Unlabeled points are colored white

I decide to use 3 different kernels for SVM in this situation.

Linear and poly kernels worked relatively better with 20 samples.