<http://en.wikipedia.org/wiki/Support_Vector_Machine>

Support vector machine (SVMs) are supervised learning models with associated learning algorithms what analyze data and recognize pattern used for classification and regression analysis.

Basic SVM only support to classify 2 classes.

Multiclass SVM: assign labels to instances by using support vector machines, where the labels are drawn from a finite set of several elements.

This approach is extend of basic SVM (binary classification):

* One-versus-all: Using binary classifiers with between one of the labels and the rest. The result calculate by winner-takes-all, in which the classifier with the highest output function assigns the class.
* One-versus-one: between every pair of classes. The result calculate by max-wins voting strategy, in which every classifier assigns the instance to one of the two classes, then the vote for assigned class is increased by one vote, and finally the class with the most votes determines the instance classification.

<http://www.cs.cornell.edu/people/tj/svm_light/svm_multiclass.html>