Machine Learning Exam 2018

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1 Matching Clustering Algorithm

Expectation maximization => Naïve Bayes
The link between both approaches is the application of Bayes rule. EM uses Bayes rule to find out which points belong to which distribution at which probability and Naive Bayes applies the Bayes rule to calculate the posterior probability from the likelyhood and prior.
K-Means => Logistic regression
Both of them are very simple and intuitive approaches and therefore very often used. So both have great "bang for the bucks".
Single linkage clustering => Decision trees
Both of those have the underlying idea of building trees e.g. trees of classes with subclasses. How the trees are build is different, because decision trees are more top down and single linkage clustering more bottom up.