Naive Bayesian Learner - Implementation for given CarData

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Overview

This submission includes a python 3.6 script for creation of a naive bayesian learner, as well as the needed data. Additional comments are available in the code.

Code

We reused some parts of the previous assignment and simply added a new algorithm for the naive bayesian learner.
New methods are:

- selectCase: selects random entries of the data list
- collectSpecific: collects information about a single class value

additionally there is one loop that includes the whole naive bayesian algorithm

Result

	class unacc	class acc	class good	class vgood
correct	314	132	0	0
wrong	81	0	25	24

Error rate: 0.22569444444444445
Average error rate: 0.22295138888888885

classified examples are mostly correct but do not reach the 100 % correct classification rate of the ID3 tree, but it can classify 80 % of examples correct with a much smaller and incomplete training set and can also interpret new previous unknown cases.