## Assignment #2: Classification with car data

Use different classification algorithms and tune the parameters to predict the acceptibility of a car using the [car data (this is a link to the car data)](http://dev.cs.smu.ca/~pawan/5580/assignments/car.data)

Here is a [sample classification session](http://dev.cs.smu.ca/~pawan/5580/assignments/assign2historySonarClassify.r) on [sonar data](http://dev.cs.smu.ca/~pawan/5580/assignments/sonar.all-data)

Please use this sample session as a guideline instead of following it literally. Using your judgement instead of blindly following instructions is an important trait. Creativity with justification is encouraged.

If you just follow minimal steps from the sample session and write a report that explains your understanding of each of the classifications using meaningful figures and tables:

* drawing a part of the tree
* listing some of the rules
* accuracy, recall, AUC

you will be marked out of 80 (since all the computing steps are already written down for you). Please note that the sample session may not have all the evaluations for all the models. The sample session is for a dataset with two classes. There are some notes for working with multiclass problems. In order to be marked out of 100, you may want to play with the various parameters within rpart, randomForest, and caret packages with a thorough analysis.

**Note for submission:** Submit a pdf (no word processor files) file describing your data processing efforts and analysis.