Assignment 3 Part 1

Use the GermanCredit data (package caret) in R or from UCI Machine Learning's website.

Latent Class Analysis Homework

1. Perform latent class analysis of only the categorical variables for market segmentation using (function poLCA in package poLCA). Remember: the local optima problem is big for all the clustering and latent class methods. The data for analysis should only include the variables that you think have business relevance for market segmentation.
2. Determine 2, 3,..,K class/cluster solutions. Remember to run from multiple random starts. Use AIC criterion and interpretation based on graphs to interpret LCA solutions.
3. Perform Test validation of LCA.
   a. For Test, use the centers class-conditional probabilities - probs - from training set as input to probs.start for test (generated from the training set LCA solution, as the starting point for test. Use similarity of relative class sizes and test class conditional probabilities as measures of stability.
4. Look at the marginal distribution from the plot. Try to give a name to each of the classes.
5. Was naming the classes easy? What was the difficulty? State in a few sentences

Each of the (5) parts is worth 1 point each. TOTAL: 5 points.