# Lab # 3

Step 1. Choose variables for sampling from your dataset (overall – about 10 variables, 3-4 – target variables, the rest - predictors).

Step 2. Using univariate parametric distributions that were fitted in Lab#2 make sampling of chosen target variables. Use for this 2 different sampling methods.

Step 3. Estimate relations between predictors and chosen target variables. At least, they should have significant correlation coefficients.

Step 4. Build a Bayesian network for chosen set of variables. Choose its structure on the basis of multivariate analysis and train distributions in nodes using chosen algorithm.

Step 5. Build a Bayesian network for the same set of variables but using 2 chosen algorithms for structural learning.

Step 6. Analyze a quality of sampled target variables from the point of view of problem statement (e.g. prediction, gap filling, synthetic generation).