

This bachelor thesis tackles model selection for classification problems and presents binary logistic regression. A method of parameter estimation is discussed and the necessity of numerical approach is explained, iteratively reweighted least squares method is used. The Wald and Wilks tests are defined to measure statistical significance of the parameters. The difference between qualitative and quantitative data and their interpretation is discussed. Model selection method of the stepwise selection is defined, residual plots and other methods of the model fit measurement are introduced. Acquired knowledge is applied to a data set of bank clients.