An increase in the number of granted loans in last decades resulted in more attention paid to proper assessment of borrower's creditworthiness. For this purpose, credit scoring aims to classify good and bad applicants prior loan granting. In this thesis, I analyze a large real-world dataset of borrowers who were granted an unsecured consumer loan in the Czech Republic. The objective is to determine core default predictors while employing seven classification methods. Additionally, a performance measure is computed for each method in order to compare their suitability for examined loan types. Using logistic regression as the core model, the results suggest that borrower's age, monthly income, region of residence, and the number of children substantially influence the probability of default. Conversely, borrower's gender and education level did not prove to be significant for assessing client's creditworthiness. Comparing the performance of employed classification methods, it can be concluded that all models produced almost identical results and can be used for the purpose of credit scoring. This thesis complements rather a limited number of credit scoring studies in the Czech Republic and provides new findings about default determinants for unsecured consumer loans.