

Student Academic Performance by using Multiple regression model

Abstract

Prediction of student academic performance helps instructors develop a good understanding of how well or how poorly the students in their classes will perform, so instructors can take proactive measures to improve student learning. The interest of this study is in developing a prediction model of student success based on measured factors of success in Mathematics and Portuguese. Multiple regression is applied to develop a regression classifier based on student-provided factors that relate to living conditions and education conditions. Though regression tree modeling would appear at first to be the correct approach here, the number and high-cardinality nature of many of the variables in this data makes such an approach less feasible in practice.

Keywords: *Multiple regression, regression classifier, regression tree modeling*