Abstract
Every day organizations have more information because their systems produce a large amount of daily operations which are stored in transactional databases. In order to analyze this historical information, an interesting alternative is to implement a Data Warehouse. In the other hand, Data Warehouses are not able to perform predictive analysis for themselves, but machine learning techniques can be used to classify, grouping and predict historical information in order to improve the quality of analysis. This paper depicts architecture of a Data Warehouse useful to perform an analysis of students' academic performance. The Data Warehouse is used as input of a Neural Network in order to analyze historical information and forecast. The results show the viability of using Data Warehouse for academic performance analysis and the feasibility of predicting the number of approved courses for students using only their own historical information.

Keywords
Data warehouse, neural networks, historical analysis, prediction, strategic information.