

DATA MINING (UCS625) PROJECT ABSTRACT

CAR EVALUATOR

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Objective

To evaluate new cars with different attributes so as to measure how acceptable they are to the potential customer.

Introduction

Many types of cars are manufactured that differ on various attributes such as buying price, the size of luggage boot, safety of the car. With the availability of cheap data storage, it is easy to run analysis on historical data. Therefore, an automated system is required to rate the cars on the basis of these attributes and see, from past data, how much a new car will be acceptable to the target customers. Our system uses the technique of Supervised Machine Learning (Classification) to classify the acceptability of car into various classes like, unacceptable, acceptable, good and very good.

Dataset

We will use the training dataset provided by Centre for Machine Learning and Intelligent Systems with the URL:

<https://archive.ics.uci.edu/ml/datasets/Car+Evaluation>

The dataset has 1728 instances and 6 attributes are used for classification.

Methodology

We will use the software WEKA to analyse and classify the new dataset. The techniques we will be using are classification. The optimum algorithm will be decided after testing each algorithm on the testing dataset and measuring the error. We will be using CATEGORY field as the class attribute and BUYING, MAINT, DOORS, PERSONS, LUG_BOOT and SAFETY as the instance attributes.

Attribute Information

DESCRIPTION: Car parameters

Class Values:

unacc, acc, good, vgood

Attributes:

buying: vhigh, high, med, low.

maint: vhigh, high, med, low.

doors: 2, 3, 4, 5more.

persons: 2, 4, more.

lug_boot: small, med, big.

safety: low, med, high.