

**Homework Assignment 3 – Decision Tree**

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**BACKGROUND**

This data set is populated by capturing used car attribute for the purpose of their evaluation whether they are acceptable or unacceptable by their potential buyers.

The data set was converted to values as described in the next section

**ATTRIBUTE INFORMATION**

- buying\_price → The buying price of the car: 1 = Very High; 2 = High; 3 = Medium; 4 = Low
- maintenance\_price → The car's maintenance price: 1 = Very High; 2 = High; 3 = Medium; 4 = Low
- doors → The car's number of doors: 1 = 2 doors; 2 = 4 doors; 3 = 5 doors or more
- persons → The capacity of persons to carry in the car: 1 = 2 persons; 2 = 4 persons; 3 = 5 persons or more
- luggage\_boot → The size of the car's luggage boot: 1 = Small; 2 = Medium; 3 = Big
- safety → Estimated safety of the car: 1 = Low; 2 = Medium; 3 = High
- acceptable → The car's acceptability: 0 = Unacceptable; 1 = Acceptable
- train → Does the record belong to the train set: 0 = Test; 1 = Train
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**REFERENCES**

Bohanec, M., & Rajkovic, V. (1988). Knowledge acquisition and explanation for multi-attribute decision making. In *8th Intl Workshop on Expert Systems and their Applications* (pp. 59-78). France: Avignon.

Zupan, B., Bohanec, M., Bratko, I., & Demsar, J. (1997, July). Machine learning by function decomposition. In *ICML* (pp. 421-429).

**Good Luck!**