Logig, Language, and Learning (SS05)

Assignment 7

Deadline: **Tuesday, 21.06.05, 10:00 am**

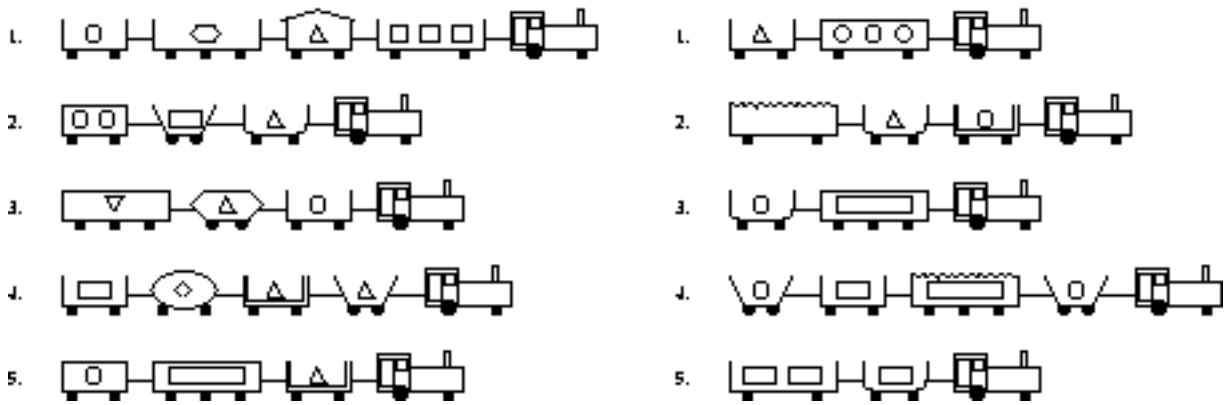
General remarks: Please note: You can either hand in your solutions on paper sheet into the postbox in building 051 ("Nordeingang"), ground floor, middle top most row, labeled with `logic, language, and learning` or send it by EMAIL to `torge@informatik.uni-freiburg.de` with subject: `LLL_tutorial`.

Exercise 1 *(8pt)*

In the draft chapters of the book "From Inductive Logic Programming to Multi-Relational Data Mining" by Luc De Raedt you find the **summerschool database** *in figure 3.2 (If you didn't receive the hand out so far, you can get one in building 079, room no 1011.). Assume that the target relation in the summer school database is* **subscription**. *Specify a feasible clause that would result in an attribute-value representation, and specify another one that would yield a proper multi-instance representation.*

Exercise 2 *(8pt)*

The Michalski train problem was invented by Ryszard Michalski around 20 years ago. It is simply stated - find a concept which explains why the five trains on the left are travelling eastbound and the ones on the right are travelling westbound. The solution must involve the concepts on view: size, number, position, contents of carriages, etc.



This is a standard problem which has been used to test and demonstrate many machine learning techniques. In particular, Inductive Logic Programming implementations use this example for demonstrative purposes.

Represent Michalski's famous train problem using a relational representation.