Paradigm Specific and Language Specific Constructs

- The logic programming paradigm has several unique features, like:
  - Database for both program clauses and data clauses
  - Unification
  - Forward and backward reasoning
- In theory, all kinds of inference processes can be used by an interpreter, even several different ones
- This allows to "build-in" rather complex computations by just realizing an inference process

Paradigm-specific considerations

- This makes it easy to couple logic programming with data bases (especially relational data bases)
- But there are also several shortcomings due to the fact that theorem proving (for the class of logics we need for programming) needs to be guided or can be extremely inefficient (enumeration of possibilities)
- Also, logic usually deals with tautologies, unsatisfiable formulas and formulas that are neither of those, which is not appropriately modelled in logic programming
Language-specific constructs

- We have covered all language constructs in PROLOG in the previous sections.