This talk gives an overview of security mechanisms for logical databases (or knowledge bases). A key characteristic of these mechanisms is that security policies are expressed as sets of logical formulas while an attacker tries to retrieve as much secret information from the database as possible. Preservation of secrecy is then defined by non-derivability of secrets from the database answers.

A further characteristic is that the attacker may possess additional external information (also called background or a priori knowledge) that he can apply to derive more secret information.

Logical formalisms presented in this talk are:
- model-theoretic computation of secure views under expressive constraints
- weakening of necessity degrees for possibilistic knowledge bases
- horizontal fragmentation of multi-relational databases