This text is especially intended to those who are interested into fuzzy logic and its application in relational databases. It is mainly focused on concept of fuzzyfied relational database and implementation of such database. This text consists of two parts: theoretical aspects of fuzzyfication and implementation part. Selected extension is based on fuzzy E-R model so the requirements of the real world can be better met. This paper also describes existing solutions on different level of fuzzyfication. Part of the work is design and implementation of a simple software for querying over fuzzyfied relational database. This work should also serve as a guide for design and implementation of fuzzy database.