The task of this thesis is implementation of an application for educational purposes, which will be used for evaluating queries in tuple relational calculus. It is aimed at visualization of query structure and evaluation process. The application is especially intended for understanding evaluation process of queries in tuple relational calculus on simple user defined database. The output of the application is a tree structure of query, and requested data from database. The application allows user to trace the evaluation process and watch values of variables used in query and results of operations in query tree.