Project Report

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Advanced Databases (W2024)
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Strategy of the Project:

The primary aim of this project is to re-use as much of the existing functionality as possible. The premise of the project is that the drc, alg and trc functionality is correct.

This project involves a python script that accepts user input, and depending on the characteristics of the user input determines which script to call. It does this by spawning a child process. There are four options for child processes: drc, alg, trc and sqlplus.

This project assumes that a database named XE already exists on the VM and that sqlplus is installed. It assumes that the executables drc, alg and trc are executable. The only environment that this has been tested on are the VMs provided in class.

In order to enable accepting user input as command line arguments, some minor changes had to be made: Due to the nature of scanf; standard piping did not work; so the python program writes all the data it wants to pass in to the executable into a file, and the executables just read the contents of the files. There are two files: one for credentials and one for the query itself.
The output of the executables is returned to the user in the command line as usual.

The work for this project is stored publically on github, along with comments and pull requests demonstrating the changes to existing code. The existing files that were changed was the main function of alg.y, trc.y and drc.y

Github: https://github.com/ana108/advanceddatabases_rql

To run this script requires python version 2.7 (NOT 3.+)
Prior to running this script, execute the following commands:
chmod u+x alg
chmod u+x drc
chmod u+x trc
Simply run:
python rql.py
And follow the instructions.

The executables and the python script are expected to be in the same directory.