

=====| Model SQL Interpreter Readme|=====

## Quick Run

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```
$ make -f Makefile-test
$ make -f Makefile-test clean
$ bash tester.sh ./ModelSQLserver ./tests/tests_ok
```

## How to make it work:

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Compile program with make utilite:

use Makefile-reg for regular run,  
use Makefile-regsan for regular run with sanitizer,  
use Makefile-test for from tester.sh.

Run ./ModelSQLserver

Insert SQL expression one after another. The programm will reply to each of them demonstrating up to date table or giving diagnostics.

## Testing script:

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To run tests from the directory of tester.sh:

```
bash tester.sh <path to directory with .dat and .ans>
```

## Noticed puculiarities:

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If there are invalid field names requested to SELECT the program will simply ignore them and will not give any diagnostics.

If there are less atributes than expected to INSERT the program will ignore it and fill residuare fields with neutral values. The diagnostics will not be given.

## TODO programm notes:

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tableint.cpp: -print() : level off the output

-select() : change order (in cycle go through user's list instead of table fields list)

-get\_type: mb return type and no close/open table

-separate tablint.hpp and table.h

interpreter.cpp/tableint.cpp:

-change poliz form frim two std::vectors to one vector of structs

## Something about the program:

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This project is a realization of Model SQL Interpreter built on client-server architecture. (praktikum 4th semester cmc msu assignment)

The program can be logically divided into parts

- the CLIENT takes user requests from std::in and sends them to the SERVER
- the SERVER receives the message and gives it to INTERPRETER for processing
- the INTERPRETER consists of the LEXER and the PARSER
- the LEXER analyzes regular language of lexemes providing the parser with lexeme sequence
- the PARSER analyzes syntax language with recursive descent method. In process it calls appropriate functions of the DATA BASE INTERFACE to execute SQL commands given.
- the DATA BASE INTERFACE implements its short functions as sequences of calls of C library table.h.
- table.h is responsible for internal form of sql data base.

===== The project is done by: =====  
Evgeny Gurov, Egor Zadorin, Arkadiy Vladimirov. 2020.