DATABASE DESIGN PROJECT 2

USER MANUAL

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Objective

The aim of this project is to implement a rudimentary DBMS, called DavisBase, which is a hybrid of MySQL and SQLite. This DBMS can be used to execute few SQL commands and all data is stored using B+ tree indexing.

Assumption

1. The DBMS contains only one database, named as “data”.
2. When the program is executed for the first time, the database is initialized by creating a “data” folder that contains two file, davisbase_tables.tbl and davisbase_columns.tbl. davisbase_tables.tbl contains schematic details about the tables created while davisbase_columns.tbl contains details about the columns.
3. Every table created is stored as a separate file with a “.tbl” extension.
4. The first column of the table is considered as the primary key and must always be of type INT.
5. The syntax for the different executable SQL commands that can be used by the user is mentioned in the “Commands.docx” file, given with this document.

Features

1. All DDL (like insert, update, delete), DML (create, drop) and SDL (Select, Exit) commands can be executed from the prompt.
2. The user can configure the prompt to his choice.
3. The commands are case sensitive.
4. The DBMS checks for Primary Key and Not Null constraints.
5. All records are stored using B+ tree indexing.
6. All the column data types and constraints are stored and can be displayed from davisbase_columns.tbl file.
7. All tables can be displayed using the show command.