SQLite CLI

Shell for SQLite

CONCEPTS

Dot-commands are shell commands, not SQL: they sit alone on one line, need no semicolon and cannot be used from a library. SQL statements need a closing ;.

Input file, SQL arg, stdin
↓ `-cmd -init`
Shell dot-commands + SQL
↓ `.mode .headers`
Formatter box, csv, json...
↓ `.once .output`
Output stdout, file or pipe

OPEN AND RUN

`sqlite3` *`<file.db>`*
Open (or create) a database

`sqlite3` *`<file.db>`* **`"`***`<sql>`***`"`**
Run one statement and exit

`sqlite3` *`<file.db>`* **`<`** *`<script.sql>`*
Run a SQL script

`.read` *`<script.sql>`*
Run a script from inside the shell

`.open` *`<file.db>`*
Switch to another database file

`sqlite3 -readonly` *`<file.db>`*
Open without write access

`.help`
List all dot-commands

`.quit`
Exit the shell

OUTPUT MODES

`.mode box`
Unicode box table

`.mode column`
Aligned plain columns

`.mode csv`
Comma separated values

`.mode json`
JSON array of objects

`.mode line`
One column per line

`.headers on`
Print column names

INSPECT SCHEMA

`.tables`
List tables and views

`.schema`
All CREATE statements

`.schema` *`<table>`*
CREATE statements for one table

`.indexes` *`<table>`*
List indexes

`pragma table_info(`*`<table>`***`);`**
Columns and types

IMPORT AND EXPORT

`.import --csv` *`<file>`* *`<table>`*
Load CSV into a table

`.import --csv --skip 1` *`<file>`* *`<table>`*
Load into an existing table

`.once` *`<file>`*
Send next result to a file

`.output` *`<file>`*
Send all results to a file

BACKUP AND RECOVER

`.backup` *`<file>`*
Binary copy of main database

`.restore` *`<file>`*
Load a backup into this database

`.dump`
Whole database as SQL text

`.dump` *`<table>`*
One table as SQL text

`sqlite3` *`<old.db>`* **`.dump | sqlite3`** *`<new.db>`*
Rebuild into a fresh file

`pragma integrity_check;`
Check for corruption

DEBUG AND TUNE

`.timer on`
Time each statement

`.eqp on`
Show query plan automatically

`explain query plan` *`<sql>`***`;`**
Plan for one statement