# Introduction to Java for C++ Programmers

SQLite Installation for Windows and Introduction

By: Mahboob Ali

# Installation

- www.sqlite.org

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SQLite Home Page

sqlite.org/index.html

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SQLite is a self-contained, high-reliability, embedded, full-featured, public-domain, SQL database engine. SQLite is the most used database engine in the world. More Info

**Latest Release:** Version 3.23.0 (2018-04-02). Download Prior Releases

## Sponsors

Ongoing development and support of SQLite is made possible in part by SQLite Consortium members, including:






### Common Links

- Features
- When to use SQLite
- Frequently Asked Questions
- Getting Started
- Prior Releases
- SQL Syntax
  - Pragmas
  - SQL functions
  - Date & time functions
  - Aggregate functions
  - JSON functions
- C/C++ Interface Spec
  - Introduction
  - List of C-language APIs
- The TCL Interface Spec
- Commit History
- Report a Bug
- News

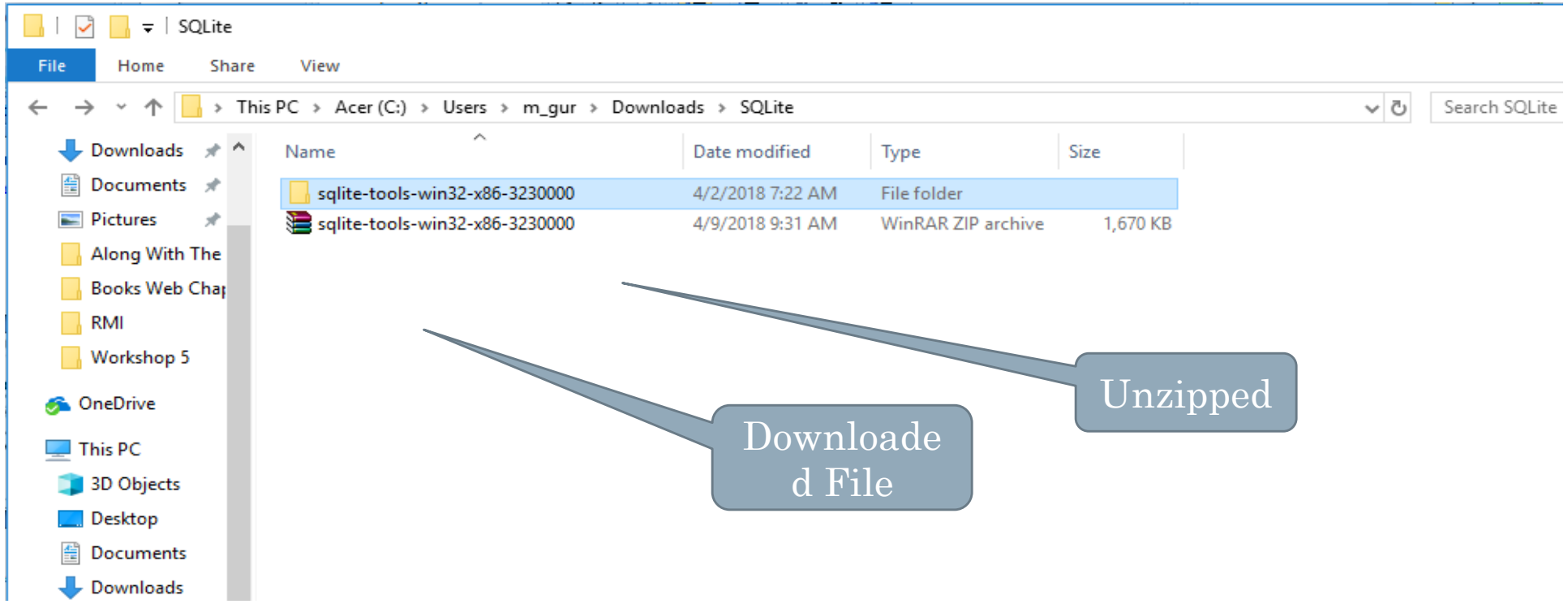
- Go to the section for **Precompiled Binaries for Windows,**

**Precompiled Binaries for Windows**

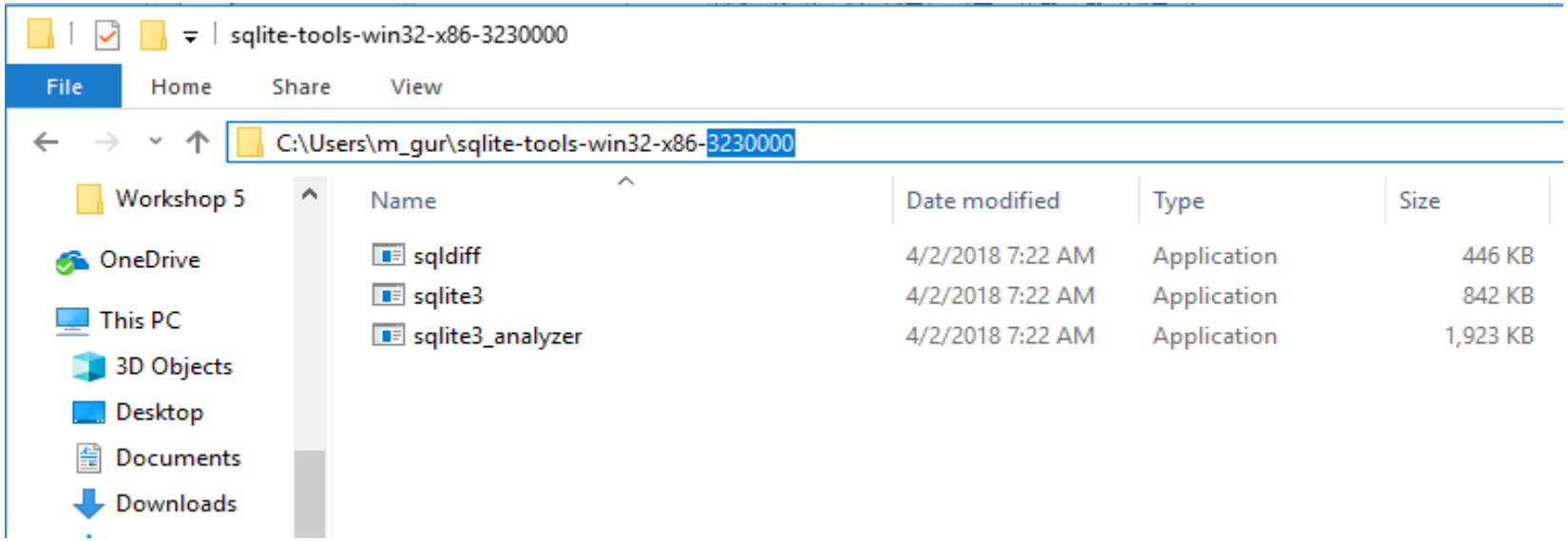
| | |
|---|---|
| sqlite-dll-win32-x86-3230000.zip (440.48 KiB) | 32-bit DLL (x86) for SQLite version 3.23.0. (sha1: 0a33fdef5084db25e24451dbde80238b487fbe78) |
| sqlite-dll-win64-x64-3230000.zip (730.96 KiB) | 64-bit DLL (x64) for SQLite version 3.23.0. (sha1: ef73841fd55156120a0d7312ecc385bebffae780) |
| sqlite-tools-win32-x86-3230000.zip (1.63 MiB) | A bundle of command-line tools for managing SQLite database files, including the command-line shell program, the sqldiff.exe program, and the sqlite3_analyzer.exe program. (sha1: 21a88ca75419f8ba514dd58dfc480da36ca4c0d3) |

Click to Download

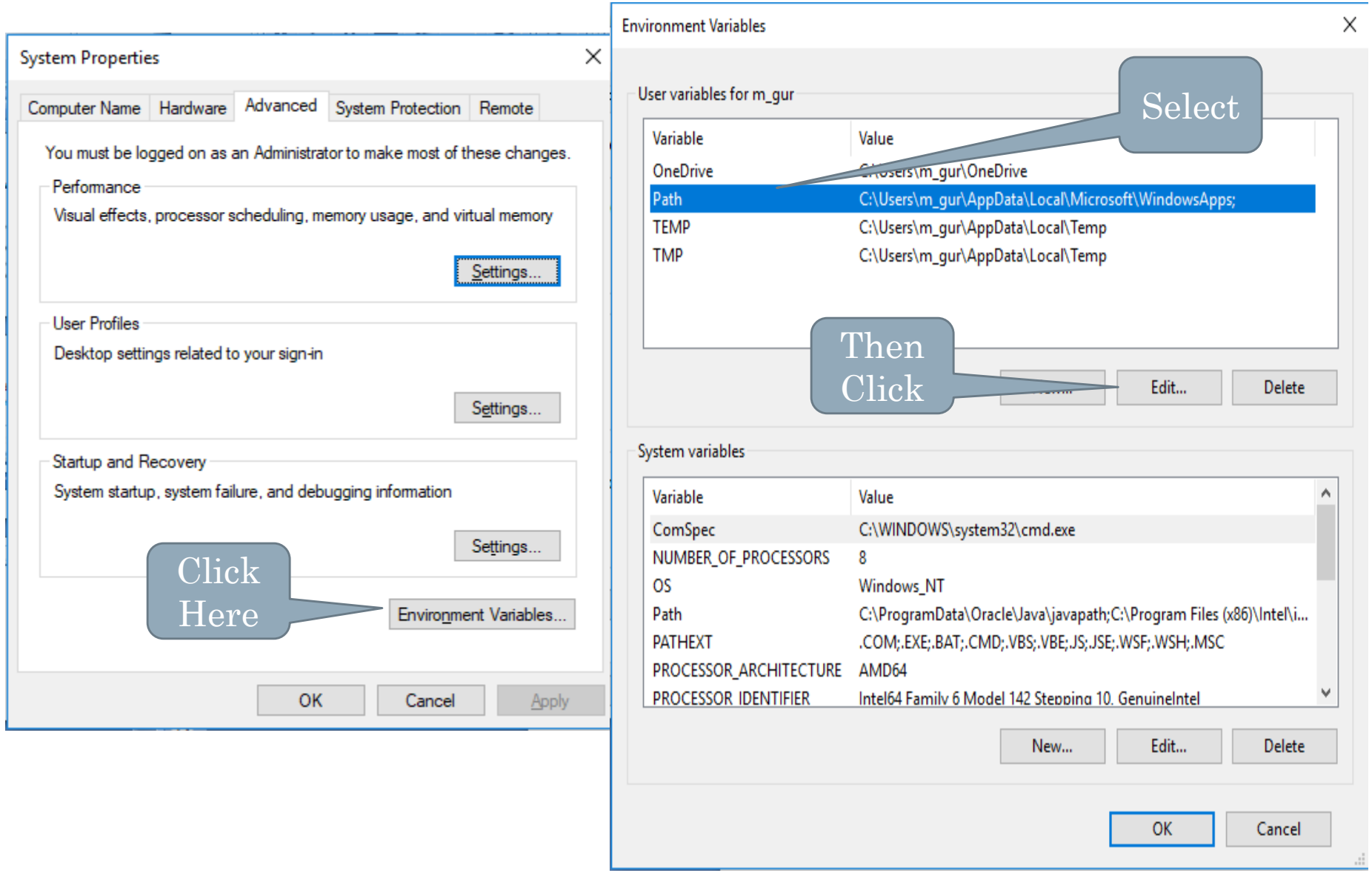
- Unzip the file you just downloaded.
- Cut the unzipped folder and paste into your user folder.

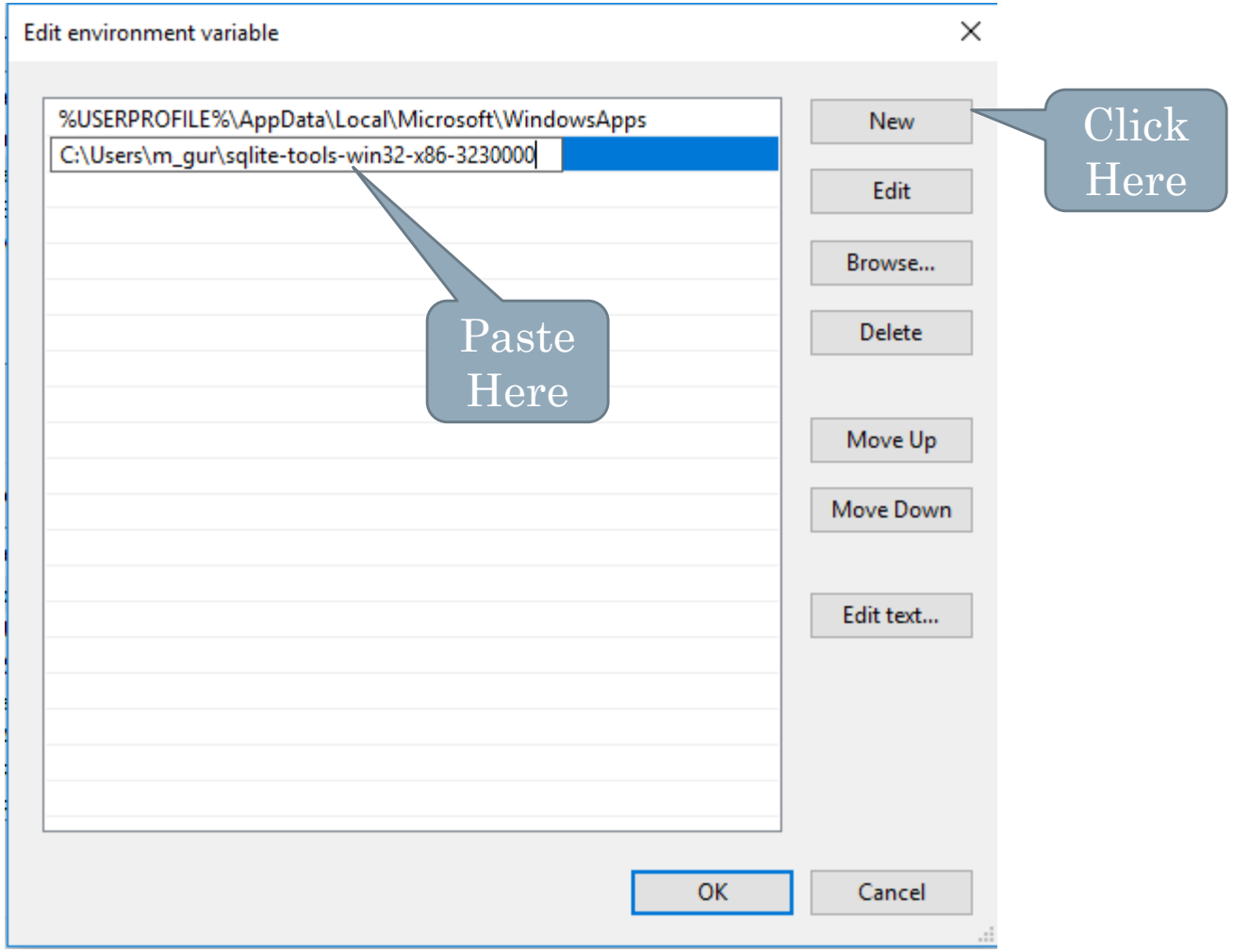


Copy the Path



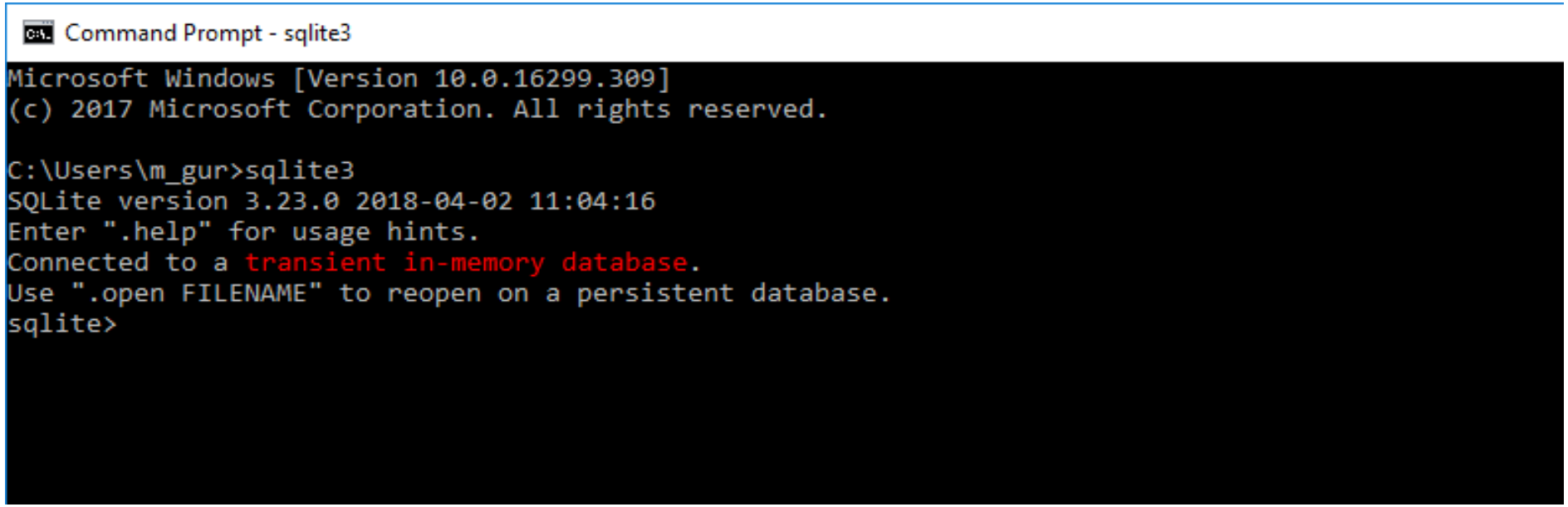
- Open Environment Variable on windows




Edit environment variable
%USERPROFILE%\AppData\Local\Microsoft\WindowsApps
C:\Users\m_gur\sqlite-tools-win32-x86-3230000
New
Edit
Browse...
Delete
Move Up
Move Down
Edit text...
OK
Cancel
Click Here
Paste Here

# Installation check

- Open command prompt.




- Write **.quit** command to exit the SQLite.

# SQLite 3

- For more commands on SQLite3 you can use the official link for SQLite, https://www.sqlite.org/cli.html

# Test Database

Command Prompt - sqlite3 test.db

```
C:\Users\m_gur>sqlite3 test.db
SQLite version 3.23.0 2018-04-02 11:04:16
Enter ".help" for usage hints.
sqlite>
```

Turn on the headers of the tables

```
sqlite> .headers on
```

Create table Contacts

```
sqlite> create table contacts (name text, phone integer, email text);
```

Insert data into table Contacts

```
sqlite> insert into contacts (name, phone, email) values('Ali', 123456, 'ali@myemail.com');
```

Select command on table

```
sqlite> SELECT * FROM contacts;
name|phone|email
Ali|123456|ali@myemail.com
```

Backup command

```
sqlite> .backup testbackup
```

UPDATE command

```
sqlite> update contacts set email="fake@myemail.com";
```

```
sqlite> select * from contacts
   ...> ;
name|phone|email
Ali|123456|fake@myemail.com
Mahboob|123456789|fake@myemail.com
John|789456|fake@myemail.com
```

Restore command

```
sqlite> .restore testbackup
sqlite> select * from contacts
   ...> ;
name|phone|email
Ali|123456|ali@myemail.com
Mahboob|123456789|mahboob@myemail.com
John|789456|
```

WHERE clause update

```
sqlite> update contacts set email="newemail@myemail.com" Where name="Ali"
   ...> ;
sqlite> select * from contacts
   ...> ;
name|phone|email
Ali|123456|newemail@myemail.com
Mahboob|123456789|mahboob@myemail.com
John|789456|
```

Delete and WHERE clause commands

```
sqlite> delete from contacts where phone=789456
   ...> ;
sqlite> select * from contacts
   ...> ;
name|phone|email
Ali|123456|newemail@myemail.com
Mahboob|123456789|mahboob@myemail.com
```

Checking tables in the database

```
sqlite> .tables
contacts
```

Checking the Schema command

```
sqlite> .schema
CREATE TABLE contacts (name text, phone integer, email text);
```

```
sqlite> .dump
PRAGMA foreign_keys=OFF;
BEGIN TRANSACTION;
CREATE TABLE contacts (name text, phone integer, email text);
INSERT INTO contacts VALUES('Ali',123456,'newemail@myemail.com');
INSERT INTO contacts VALUES('Mahboob',123456789,'mahboob@myemail.com');
COMMIT;
```