

MariaDB cheat sheet v2.1

Installing

It's going to be different for each OS. I recommend you give the prompt "how to install mariadb client on a windows machine" to ChatGPT, and follow the instructions. (Obviously if you're on a Mac or Linux, substitute one of those words for "windows".)

Important note: you only need to install the MariaDB *client* software to your machine, not the entire MariaDB server. If you do install the server, that's okay – you can now run a MariaDB instance on your laptop (cool!) – but it won't be necessary for this class, and it will take a crap ton of disk space.

"Except where indicated..."

Talking to a MariaDB database is *almost identical* to talking to an SQLite database, once you're connected to it. The main differences are listed below.

Connecting

```
$ mariadb -u username -psum_kewl_password -h hostname -P portnumber
```

Running commands from a plain-text .sql file

You can do the same sort of thing that ".read filename.sql" did in SQLite – i.e., bulk running a bunch of commands that you have put into a plain-text file with vim – but instead of ".read filename.sql" the command is:

```
MariaDB> source filename.sql
```

Data types

Instead of `text`, use `varchar(*n*)`, where "n" is replaced by the maximum number of characters the field will hold. (For example, `varchar(40)`.)

Instead of `integer`, use `int`.

Instead of `real`, use `float`.

Browsing databases/tables

In place of the `.tables` and `.schema` commands of the SQLite CLI, use these meta commands at the MariaDB command line:

```
MariaDB> show databases;
MariaDB> use someDatabase;
MariaDB> show tables;
MariaDB> show create table someTableName;
```

Python connectivity

Install connector package

```
$ sudo apt-get install libmariadb3 libmariadb-dev
$ pip install mariadb
```

Access DB from Python

```
import mariadb
conn = mariadb.connect(user=, password=, host=, port=3306, database=)
cur = conn.cursor()
cur.execute("SQL GOES HERE")
results = cur.fetchall() / cur.fetchone() / cur.fetchmany()
conn.commit()    # if necessary
```