

SQLite

COMS10012 Software Tools

SQLite

Embedded database:

- Use from the command line.
- Connect via JDBC.
- Use within your own programs.

A database is simply a file.

command line

<code>.tables</code>	list the tables
<code>.schema NAME</code>	describe a table
<code>.mode MODE</code>	set output mode
<code>.once FILE</code>	send next result to file
<code>.excel</code>	send next result to excel
<code>.quit</code>	exit

q

<http://harelba.github.io/q/>

```
$ q "SELECT id, name FROM candidate.csv"
```

CSV import

```
.mode csv
```

```
.header off
```

```
.import CSVFILE TABLENAME
```

C

```
#include <sqlite3.h>
```

```
sqlite3 *db;
```

```
int ok = sqlite3_open("data.db", &db);
```

```
// check for SQLITE_OK
```

```
sqlite3_close(db);
```

C

```
char *err;
```

```
ok = sqlite3_exec(db, "SELECT * FROM Ward",  
    handler, NULL, &err);
```

```
// int (*handler)(void*, int, char**, char**)
```

C

```
int handler(void *p, int argc, char **argv,  
            char **names) { ... }
```

p: 4th arg to sqlite_exec (lets you pass extra data)

argc: row length (number of columns)

argv: row data

names: column names

