

## Python for Informatics Database Handout

### Download and install FireFox and the SQLite Manager

<http://www.mozilla.org/en-US/firefox/new/>  
<https://addons.mozilla.org/en-US/firefox/addon/sqlite-manager/>

### Queries

```
insert into Users (name, email) values ('Ted', 'ted@umich.edu')
```

```
delete from Users where email='ted@umich.edu'
```

```
update Users set name="Charles" where email='csev@umich.edu'
```

```
select * from Users
```

```
select * from Users where email='csev@umich.edu'
```

```
select * from Users order by email
```

```
insert into Artist (name) values ('Led Zepplin')
```

```
insert into Artist (name) values ('AC/DC')
```

```
insert into Genre (name) values ('Rock')
```

```
insert into Genre (name) values ('Metal')
```

```
insert into Album (title, artist_id) values ('Who Made Who', 2)
```

```
insert into Album (title, artist_id) values ('IV', 1)
```

```
insert into Track (title, rating, len, count, album_id, genre_id) values ('Black Dog', 5, 297, 0, 2, 1)
```

```
insert into Track (title, rating, len, count, album_id, genre_id) values ('Stairway', 5, 482, 0, 2, 1)
```

```
insert into Track (title, rating, len, count, album_id, genre_id) values ('About to Rock', 5, 313, 0, 1, 2)
```

```
insert into Track (title, rating, len, count, album_id, genre_id) values ('Who Made Who', 5, 207, 0, 1, 2)
```

```
select Track.title, Genre.name from Track join Genre on Track.genre_id = Genre.id
```

```
select Track.title, Artist.name, Album.title, Genre.name from Track join Genre join Album join Artist on  
Track.genre_id = Genre.id and Track.album_id = Album.id and Album.artist_id = Artist.id
```

Create Table Statements:

```
CREATE TABLE "Users" ("name" TEXT, "email" TEXT)
```

```
CREATE TABLE "Artist" ("id" INTEGER PRIMARY KEY AUTOINCREMENT NOT NULL UNIQUE, "name" TEXT)
```

```
CREATE TABLE "Album" ("id" INTEGER PRIMARY KEY AUTOINCREMENT NOT NULL UNIQUE, artist_id INTEGER, "title"  
TEXT)
```

```
CREATE TABLE "Genre" ("id" INTEGER PRIMARY KEY AUTOINCREMENT NOT NULL UNIQUE, "name" TEXT)
```

```
CREATE TABLE "Track" ("id" INTEGER PRIMARY KEY AUTOINCREMENT NOT NULL UNIQUE, album_id INTEGER, genre_id  
INTEGER, len INTEGER, rating INTEGER, "title" TEXT, "count" INTEGER)
```