



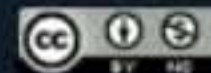
Unit 03.03

Data Models and Relational SQL: Inserting Data

USING DATABASES WITH PYTHON

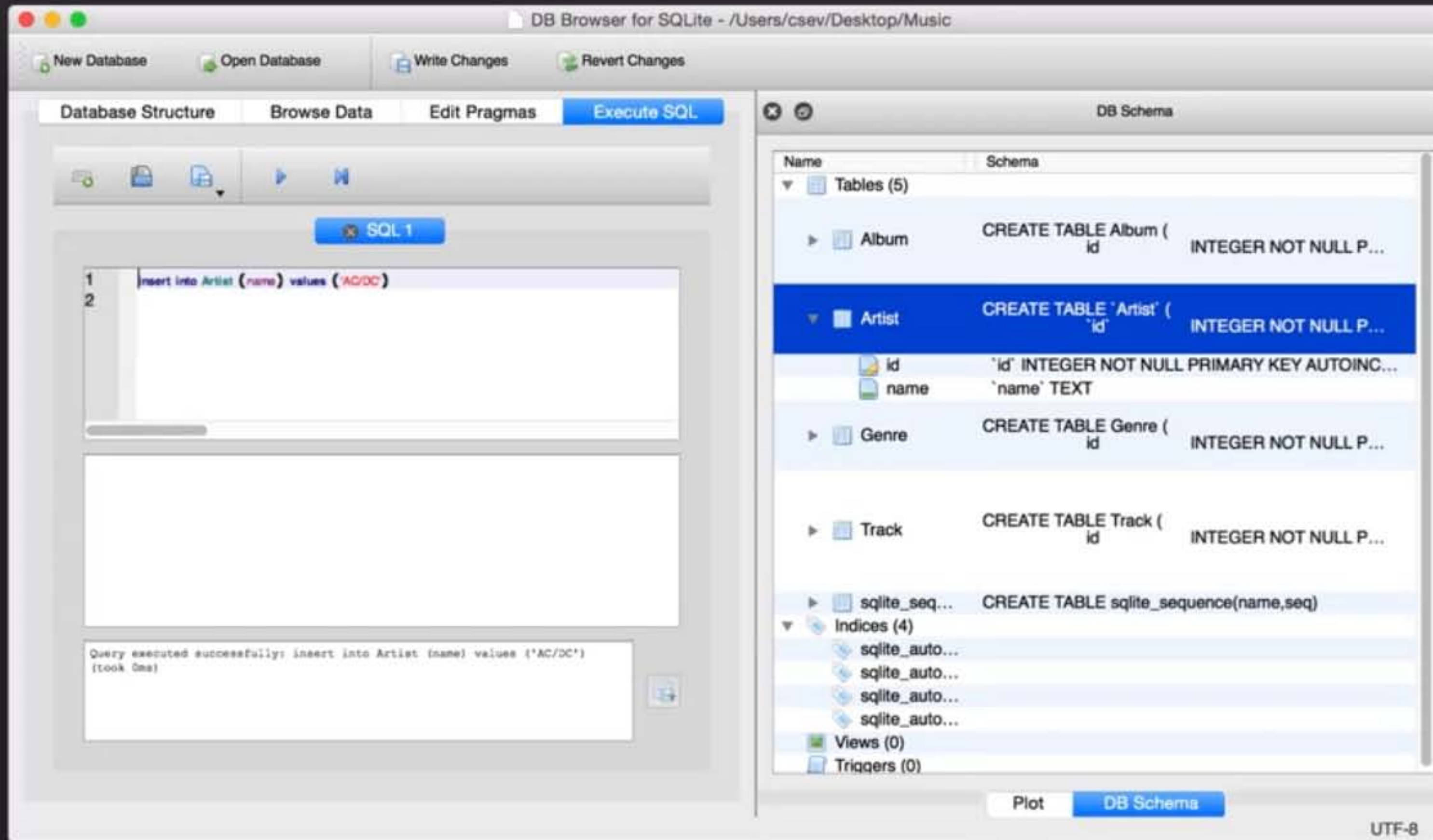
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School of Information



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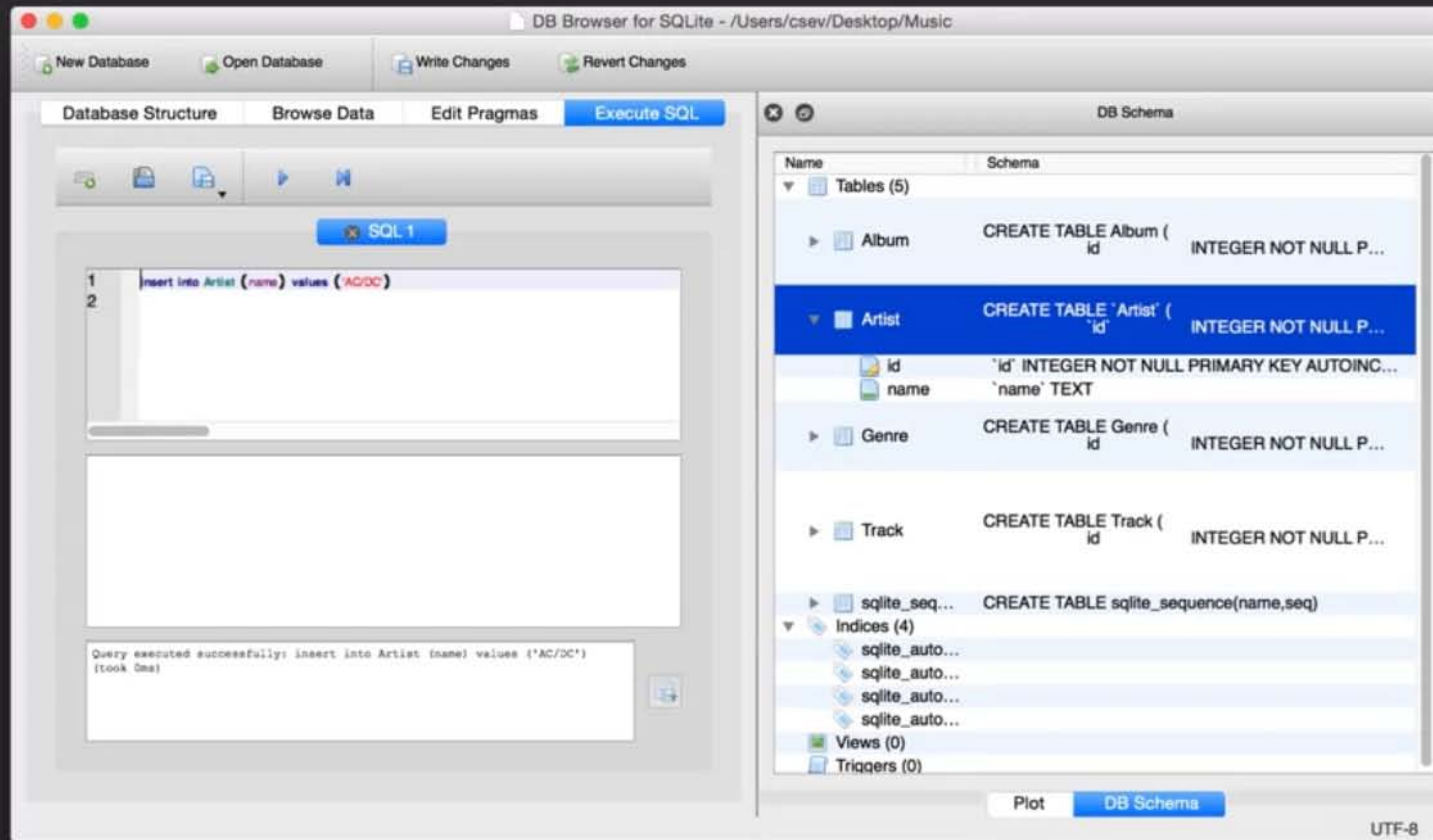
03.03 Data Models and Relational SQL: Inserting Data



insert into Artist (name) values ('Led Zeppelin')

insert into Artist (name) values ('AC/DC')
Just like we're inserting data from
kind of like the outward simple things

03.03 Data Models and Relational SQL: Inserting Data



insert into Artist (name) values ('Led Zeppelin')
to the more central ones, we're going to
do the same thing when we insert data.

SQL 1

```
1 insert into Artist (name) values ('Led Zeppelin')
2
```

	name	email
1	Charles	csev@umich.edu
2	Colleen	vlt@umich.edu
3	Kristin	kf@umich.edu
4	Sally	sally@umich.edu

Query executed successfully: CREATE TABLE Track (
 id INTEGER NOT NULL PRIMARY KEY
 AUTOINCREMENT UNIQUE,
 title TEXT,
 album_id INTEGER,
 genre_id INTEGER,
 len INTEGER rating INTEGER count INTEGER

DB Schema

Name	Type	Schema
▼ Tables (5)		
▶ Album		CREATE TABLE Album (id INTEGER ...
▶ Artist		CREATE TABLE `Artist` (`id` INTEG...
▶ Genre		CREATE TABLE Genre (id INTEGER ...
▶ Track		CREATE TABLE Track (id INTEGER ...
▶ sqlite_sequ...		CREATE TABLE sqlite_sequence(nam...
▼ Indices (3)		
▶ sqlite_autoi...		
▶ sqlite_autoi...		
▶ sqlite_autoi...		
Views (0)		
Triggers (0)		

So I'm going to run this now, INSERT INTO
 Artist with a name of Led Zeppelin.

New Database Open Database Write Changes Revert Changes

Database Structure Browse Data Edit Pragmas Execute SQL

Table: Artist New Record Delete Record

	id	name
	Filter	Filter
1	1	Led Zeppelin

1 - 1 of 1 Go to: 1

DB Schema

Name	Type	Schema
Tables (5)		
▶ Album		CREATE TABLE Album (id INTEGER ...
▶ Artist		CREATE TABLE `Artist` (`id` INTEG...
▶ Genre		CREATE TABLE Genre (id INTEGER ...
▶ Track		CREATE TABLE Track (id INTEGER ...
▶ sqlite_sequ...		CREATE TABLE sqlite_sequence(nam...
Indices (3)		
▶ sqlite_autoi...		
▶ sqlite_autoi...		
▶ sqlite_autoi...		
Views (0)		
Triggers (0)		

And if then we Browse Data and we go look at the artist, it's added the number 1.

PowerPoint File Edit View Insert Format Arrange Tools Slide Show Window Help

Py4Inf-14-Database_CS_081315.pptx

Search in Presentation

Home Themes Tables Charts SmartArt Transitions Animations Slide Show Review

Slides Outline

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Click to add notes

Normal View Slide 65 of 81 143%

DB Browser for SQLite

Database Structure Browse Data Edit Pragma Execute SQL

Table: Genre

id	name
1	Rock
2	Metal

Go to: 1

DB Schema

- Tables (5)
 - Album CREATE TABLE Album (id INTEGER NOT NULL PRIMARY KEY)
 - Artist CREATE TABLE Artist (id INTEGER NOT NULL PRIMARY KEY)
 - Genre CREATE TABLE Genre (id INTEGER NOT NULL PRIMARY KEY)
 - Track CREATE TABLE Track (id INTEGER NOT NULL PRIMARY KEY)
 - sqlite_sequence CREATE TABLE sqlite_sequence(name,seq)
- Indices (4)
 - sqlite_autoindex_album_1
 - sqlite_autoindex_artist_1
 - sqlite_autoindex_track_1
 - sqlite_autoindex_genre_1
- Views (0)
- Triggers (0)

Post DB Schema UTF-8

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

kind of working outward in,
and insert the value Rock and

Custom Animation

Animation order:

instructionalmet hods_S...5a.mov

BOOTCAMP

Parallels

My Boot Camp

LPT SYTCH

pythonlearn

mckay

SQL-02-MySQL...215.ppt

006.0801_Shari ng bes...071615

SQL 1

```
1 insert into Genre (name) values ('Rock');
2 insert into Genre (name) values ('Metal');
```

	name	email
1	Charles	csev@umich.edu
2	Colleen	vlt@umich.edu
3	Kristin	kf@umich.edu
4	Sally	sally@umich.edu

Query executed successfully: insert into Artist (name) values ('AC/DC') (took 0ms)

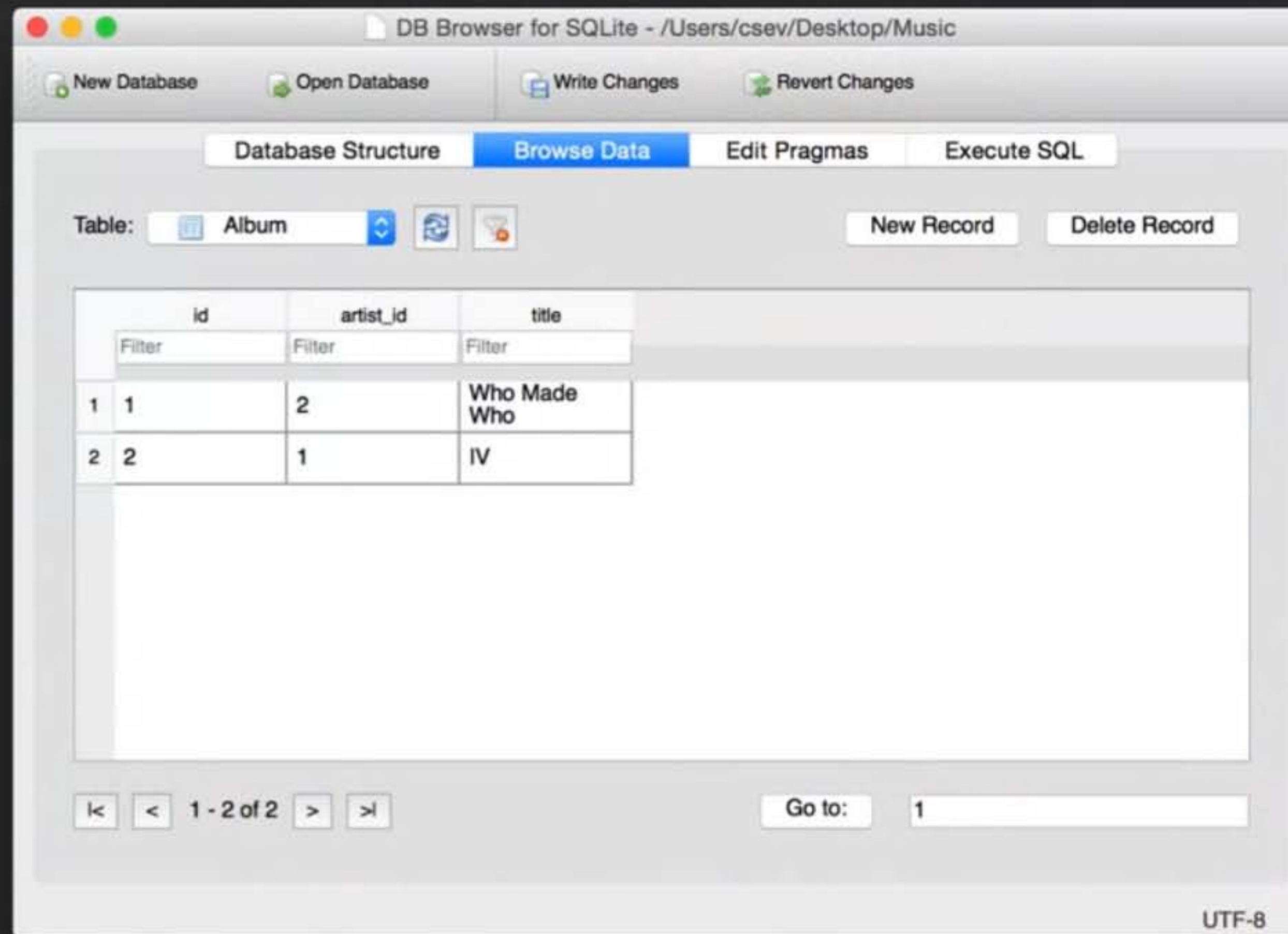
DB Schema

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▼ Indices (3)		
▶ sqlite_autoi...		
▶ sqlite_autoi...		
▶ sqlite_autoi...		
Views (0)		
Triggers (0)		

an INSERT INTO Genre of Metal and
I'm going to run the SQL.

DB Schema

03.03 Data Models and Relational SQL: Inserting Data



insert into Album (title, artist_id) values ('Who Made Who', 2)
insert into Album (title, artist_id) values ('IV', 1)

SQL 1

```
1 Insert into Album (title, artist_id) values ('Who Made Who', 2);
2 Insert into Album (title, artist_id) values ('IV', 1);
3
4
5
```

	name	email
1	Charles	csev@umich.edu
2	Colleen	vlt@umich.edu
3	Kristin	kf@umich.edu
4	Sally	sally@umich.edu

Query executed successfully: insert into Genre (name) values ('Metal') (took 0ms)

DB Schema

Name	Type	Schema
▼ Tables (5)		
▶ Album		CREATE TABLE Album (id INTEGER ...
▶ Artist		CREATE TABLE `Artist` (`id` INTEG...
▶ Genre		CREATE TABLE Genre (id INTEGER ...
▶ Track		CREATE TABLE Track (id INTEGER ...
▶ sqlite_sequ...		CREATE TABLE sqlite_sequence(nam...
▼ Indices (3)		
▶ sqlite_autoi...		
▶ sqlite_autoi...		
▶ sqlite_autoi...		
Views (0)		
Triggers (0)		

and I'll put a semicolon here so
we can do it all at once.




```
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)
```

id		title	album_id	genre_id	len	rating	count
Filter		Filter	Filter	Filter	Filter	Filter	Filter
1	1	Black Dog	2	1	297	5	0
2	2	Stairway	2	1	482	5	0
3	3	About to Rock	1	2	313	5	0
4	4	Who Made Who	1	2	207	5	0

We have relationships!

id	title	album_id	genre_id	len	rating	count
Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	Black Dog	2	1	297	5	0
2	Stairway	2	1	482	5	0
3	About to Rock	1	2	313	5	0
4	Who Made Who	1	2	207	5	0

Track

Album

id	artist_id	title
Filter	Filter	Filter
1	2	Who Made Who
2	1	IV

Artist

id	name
Filter	Filter
1	Led Zeppelin
2	AC/DC

id	name
Filter	Filter
1	Rock
2	Metal

Genre

So if you look at all these tables, we've constructed them outwardly in.