

### Assignment on Week 3

In the following assignment, you will build a copy of the "Music" database covered in lecture. You will populate your database with tracks, artists, albums and genres that are different from the ones used in class. You must include three artists, five albums, and 20 tracks in your data. Choose a genre for each track. Your tables need to be normalized as described in class.

Then you must construct and run some queries on your data and then take screen shots of those queries and submit the screen shots as your assignment.

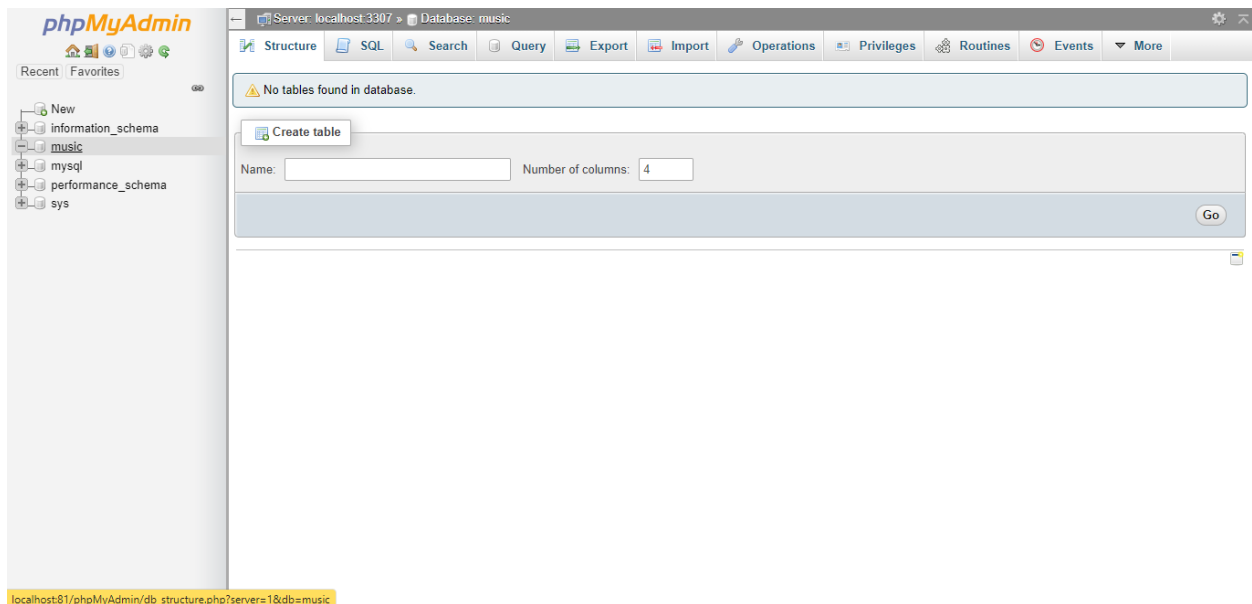
### Submitting Your Assignment

For this assignment you will hand in:

- Screen shot (JPG or PNG) of data in the Track table
- Screen shot (JPG or PNG) of all the data joined up sorted in ascending order by the album title
- Screen shot (JPG or PNG) of all of the genres for a particular artist. Hint - use JOIN, DISTINCT and WHERE

### Step 1: Create a Database (Music)

CREATE DATABASE Music;



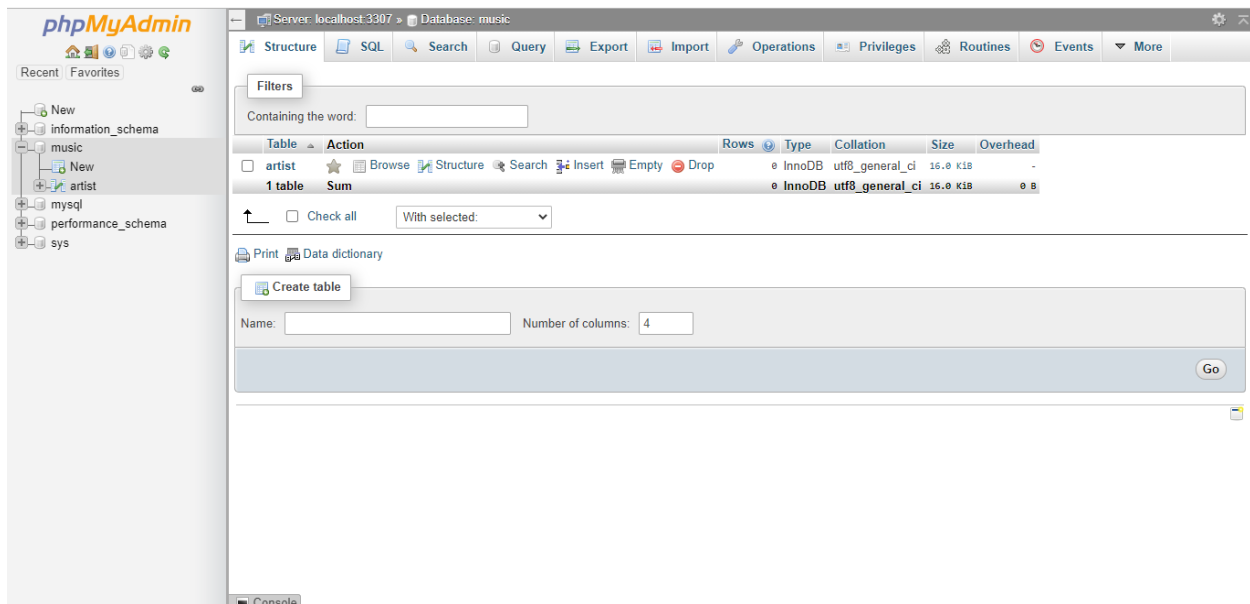
## Step 2: Create a Table (Artist side)

CREATE TABLE Artist (

artist\_id INT PRIMARY KEY NOT NULL Auto\_increment,

name VARCHAR(255)

);



## Step 3: Create a Table (Album)

CREATE TABLE album(

album\_id INT NOT NULL Auto\_increment,

title VARCHAR(255),

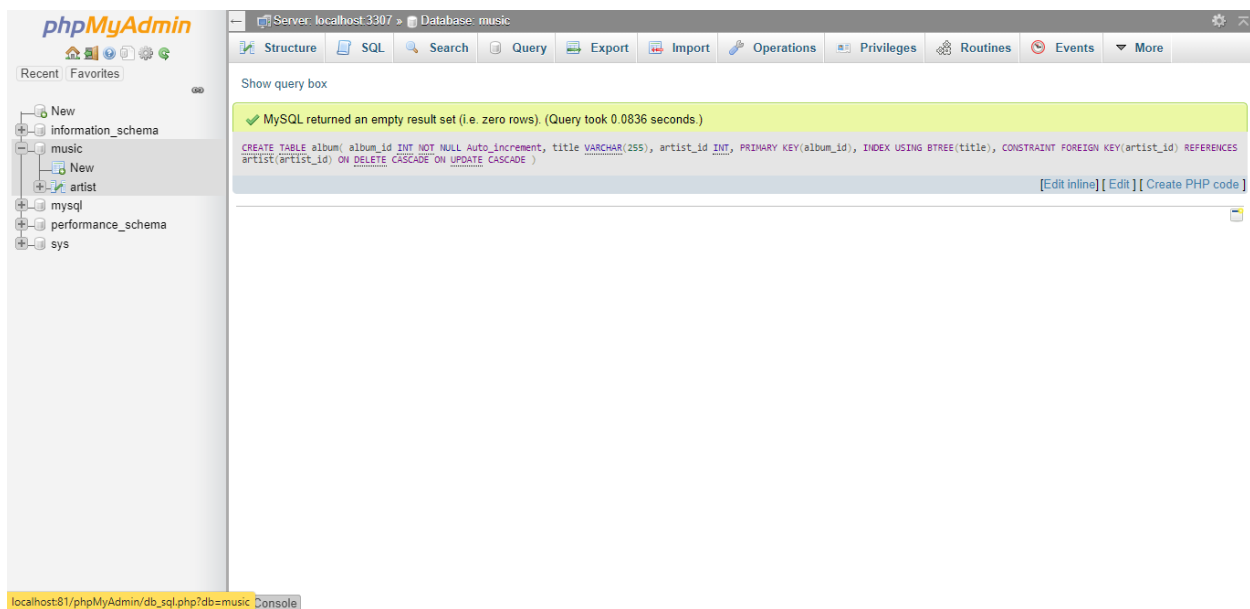
artist\_id INT,

PRIMARY KEY(album\_id),

INDEX USING BTREE(title),

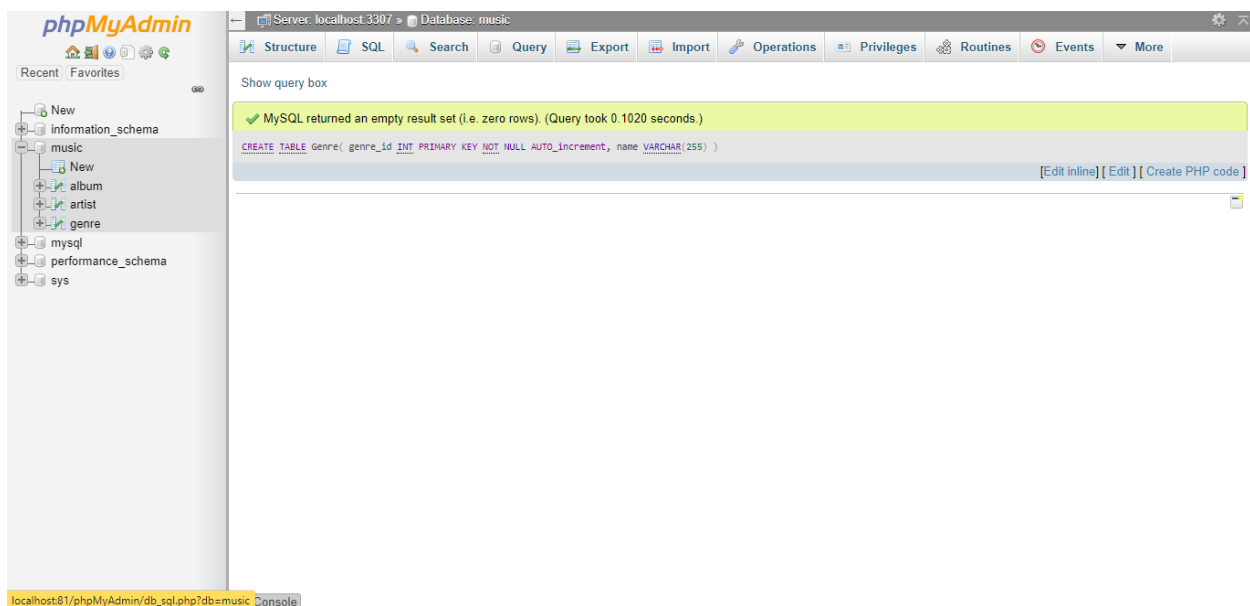
CONSTRAINT FOREIGN KEY(artist\_id) REFERENCES artist(artist\_id) ON DELETE CASCADE ON UPDATE CASCADE

);



#### Step 4: Create a Table (Genre)

```
CREATE TABLE Genre(
genre_id INT PRIMARY KEY NOT NULL AUTO_increment,
name VARCHAR(255)
);
```



#### Step 5: Create a Table (Track)

```
CREATE TABLE track(
```

```

track_id INT NOT NULL auto_increment,
title VARCHAR(255),
len INT,
rating INT,
count INT,
album_id INT,
genre_id INT,
Primary Key(track_id),
INDEX USING BTREE(title),
FOREIGN KEY(album_id) REFERENCES album(album_id) ON DELETE CASCADE ON
UPDATE CASCADE,
FOREIGN KEY(genre_id) REFERENCES genre(genre_id) ON DELETE CASCADE ON
UPDATE CASCADE
);

```

Server: localhost:3307 » Database: music

Filters

Containing the word:

Table	Action	Rows	Type	Collation	Size	Overhead
<input type="checkbox"/> album		0	InnoDB	utf8_general_ci	48.0 KiB	-
<input type="checkbox"/> artist		0	InnoDB	utf8_general_ci	16.0 KiB	-
<input type="checkbox"/> genre		0	InnoDB	utf8_general_ci	16.0 KiB	-
<input type="checkbox"/> track		0	InnoDB	utf8_general_ci	64.0 KiB	-
<b>4 tables</b>	<b>Sum</b>		InnoDB	utf8_general_ci	144.0 KiB	0 B

☐ Check all With selected:

Print Data dictionary

Create table

Name: Number of columns: 4

Go

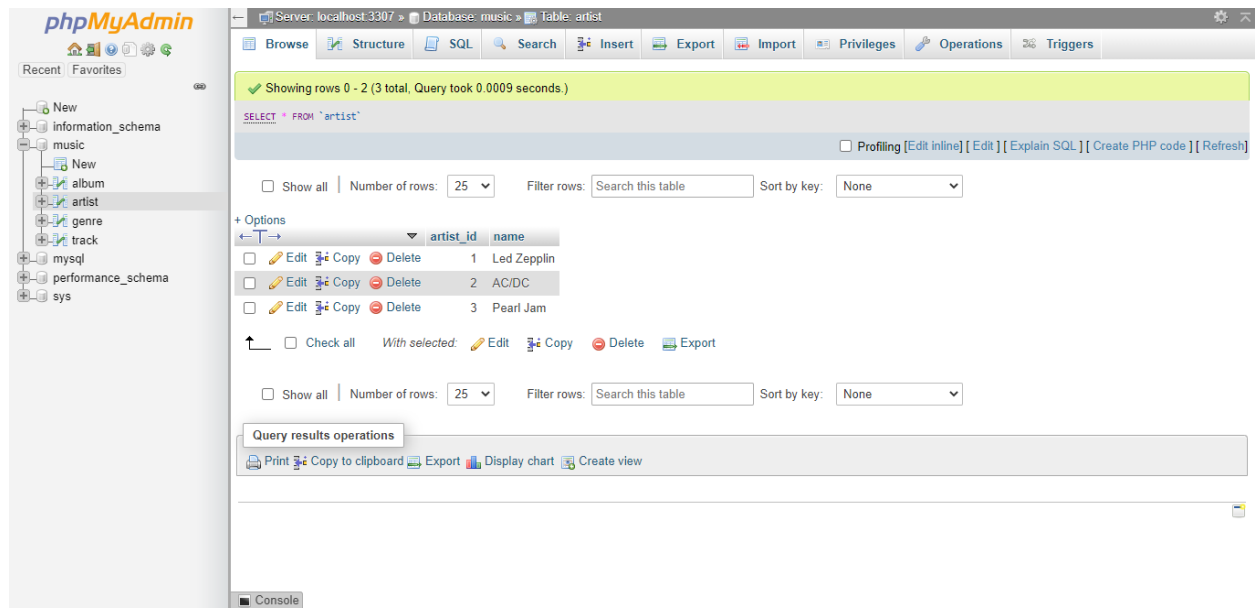
localhost:81/phpMyAdmin/db\_structure.php?server=1&db=music

Step 6: Insert the Artist Names (3) inside the artist table

```

INSERT INTO Artist (name) VALUES ('Led Zepplin');
INSERT INTO Artist (name) VALUES ('AC/DC');
INSERT INTO Artist (name) VALUES ('Pearl Jam');

```

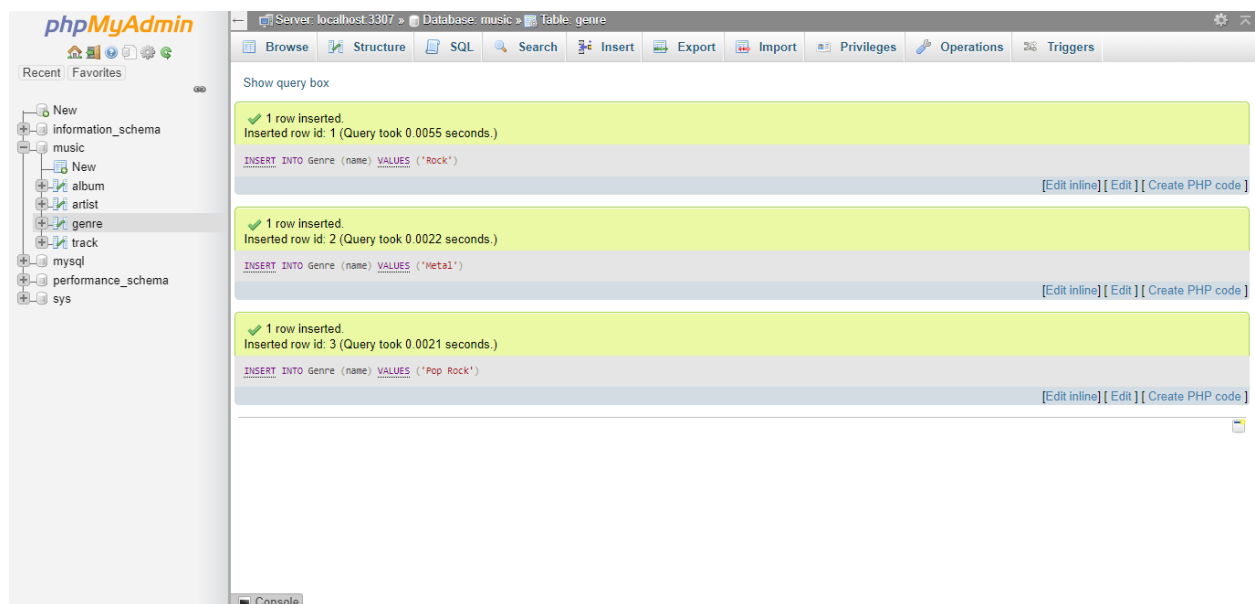


Step 7: Insert the genre Names (3) inside the genre table

INSERT INTO Genre (name) VALUES ('Rock');

INSERT INTO Genre (name) VALUES ('Metal');

INSERT INTO Genre (name) VALUES ('Pop Rock');



Step 8: Insert the Album Names (5) inside the Album table

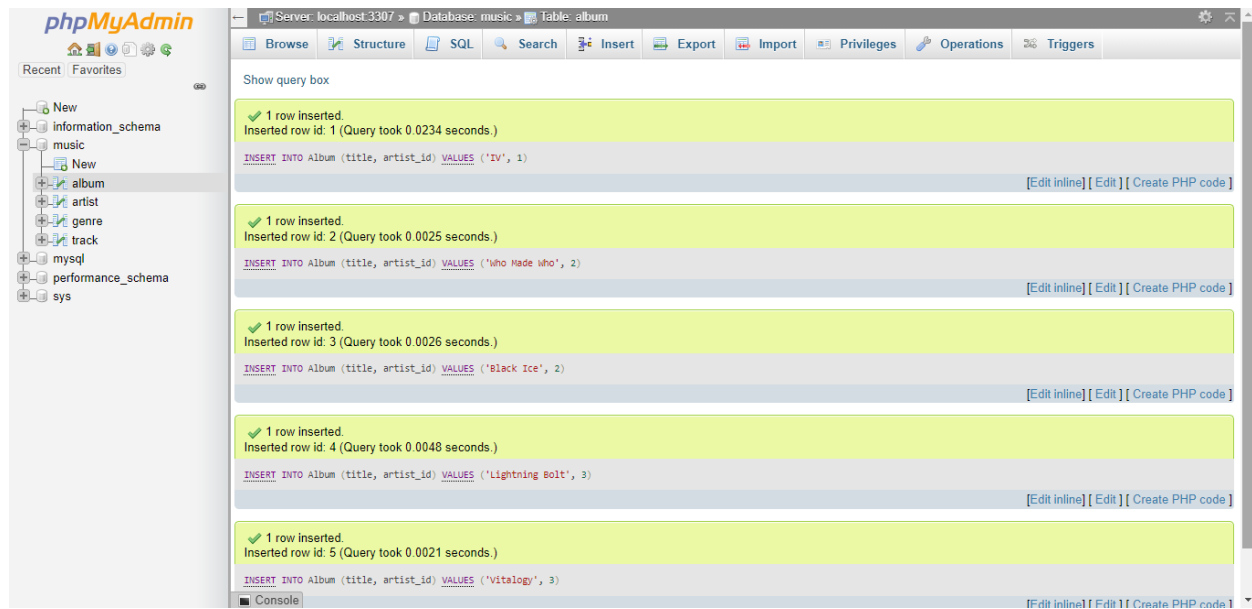
INSERT INTO Album (title, artist\_id) VALUES ('IV', 1);

INSERT INTO Album (title, artist\_id) VALUES ('Who Made Who', 2);

INSERT INTO Album (title, artist\_id) VALUES ('Black Ice', 2);

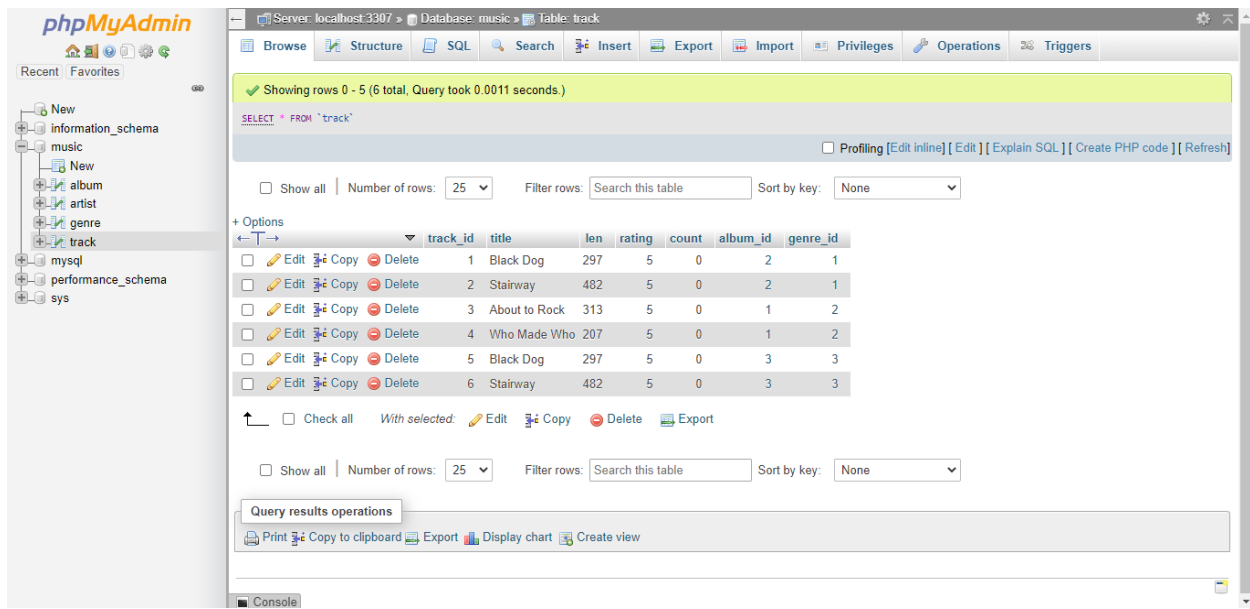
INSERT INTO Album (title, artist\_id) VALUES ('Lightning Bolt', 3);

INSERT INTO Album (title, artist\_id) VALUES ('Vitalogy', 3);



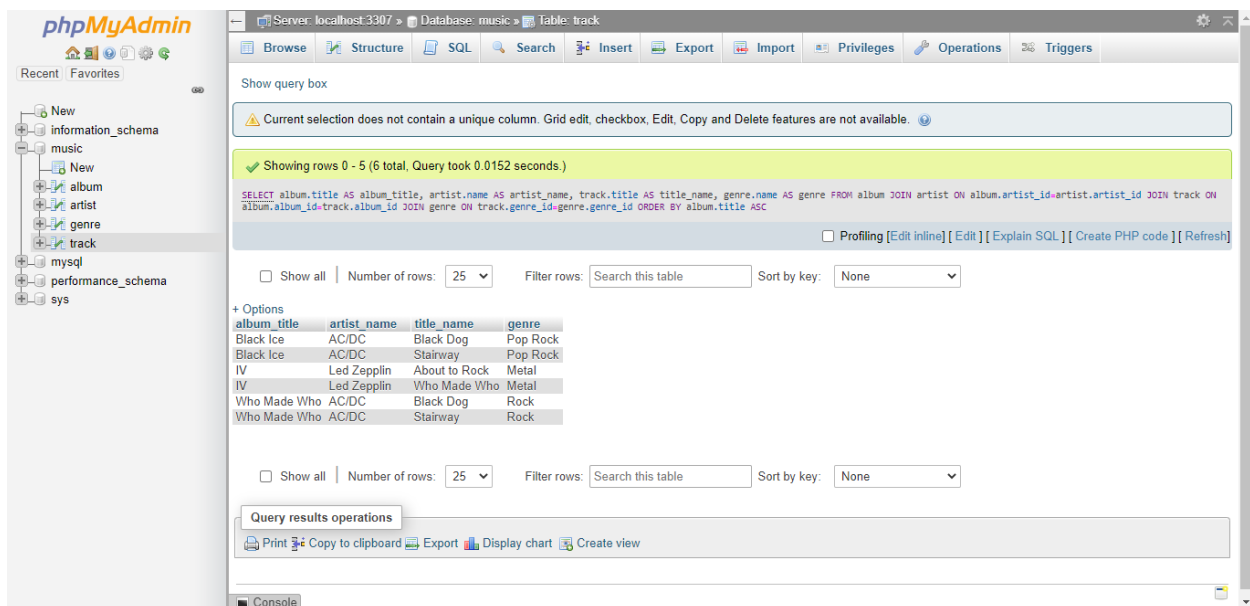
Step 9: Insert the Track Names (20) inside the Track table (I wrote the summary of the code)  
Answers the first picture

```
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);
INSERT INTO Track (title, rating, len, count, album_id, genre_id)
VALUES ('Black Dog', 5, 297, 0, 3, 3);
INSERT INTO Track (title, rating, len, count, album_id, genre_id)
VALUES ('Stairway', 5, 482, 0, 3, 3);
```



Step 10: Make it ascending in order the track and join all the tables. (Answers the second picture)

```
SELECT album.title AS album_title, artist.name AS artist_name, track.title AS title_name, genre.name AS genre FROM album JOIN artist ON album.artist_id=artist.artist_id JOIN track ON album.album_id=track.album_id JOIN genre ON track.genre_id=genre.genre_id ORDER BY album.title ASC
```



Step 11: Make it particular to the certain artist with their albums (Answers the third picture)

```
SELECT distinct artist.name AS artist_name, genre.name as genre FROM album JOIN artist ON album.artist_id=artist.artist_id JOIN track ON album.album_id=track.album_id JOIN genre ON track.genre_id=genre.genre_id WHERE artist.name='Led Zeppelin'
```

phpMyAdmin

Server: localhost:3307 » Database: music » Table: track

Browse Structure SQL Search Insert Export Import Privileges Operations Triggers

Show query box

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 0 (1 total. Query took 0.0052 seconds.)

```
SELECT distinct artist.name AS artist_name, genre.name as genre FROM album JOIN artist ON album.artist_id=artist.artist_id JOIN track ON album.album_id=track.album_id JOIN genre ON track.genre_id=genre.genre_id WHERE artist.name='Led Zeppelin'
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table

+ Options

artist_name	genre
Led Zeppelin	Metal

Show all | Number of rows: 25 | Filter rows: Search this table

Query results operations

Print Copy to clipboard Export Display chart Create view

Console

Voila!

My Answers in the Coursera:

phpMyAdmin

Server: 127.0.0.1 » Database: music » Table: track

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

+ Options

	track_id	title	len	rating	count	album_id	genre_id			
<input type="checkbox"/>	Edit	Copy	Delete	1	Drunk in Love	323	5	0	1	3
<input type="checkbox"/>	Edit	Copy	Delete	2	XO	215	5	0	1	3
<input type="checkbox"/>	Edit	Copy	Delete	3	Partition	319	5	0	1	3
<input type="checkbox"/>	Edit	Copy	Delete	4	Pretty Hurts	257	5	0	1	3
<input type="checkbox"/>	Edit	Copy	Delete	5	1+1	428	5	0	2	3
<input type="checkbox"/>	Edit	Copy	Delete	6	Run the World (Girls)	450	5	0	2	3
<input type="checkbox"/>	Edit	Copy	Delete	7	Rather Die Young	342	5	0	2	3
<input type="checkbox"/>	Edit	Copy	Delete	8	Love on Top	316	5	0	2	3
<input type="checkbox"/>	Edit	Copy	Delete	9	Thinking About You	247	5	0	3	2
<input type="checkbox"/>	Edit	Copy	Delete	10	Under Control	184	5	0	3	2
<input type="checkbox"/>	Edit	Copy	Delete	11	Summer	222	5	0	3	2
<input type="checkbox"/>	Edit	Copy	Delete	12	Outside	227	5	0	3	2
<input type="checkbox"/>	Edit	Copy	Delete	13	NO	334	5	0	4	1
<input type="checkbox"/>	Edit	Copy	Delete	14	Me Too	301	5	0	4	1
<input type="checkbox"/>	Edit	Copy	Delete	15	Better	248	5	0	4	1
<input type="checkbox"/>	Edit	Copy	Delete	16	I Love Me	248	5	0	4	1
<input type="checkbox"/>	Edit	Copy	Delete	17	All About That Bass	311	5	0	5	1
<input type="checkbox"/>	Edit	Copy	Delete	18	Dear Future Husband	304	5	0	5	1
<input type="checkbox"/>	Edit	Copy	Delete	19	Lips Are Movin	302	5	0	5	1
<input type="checkbox"/>	Edit	Copy	Delete	20	Bang Dem Sticks	301	5	0	5	1

Console



phpMyAdmin

Server: 127.0.0.1 » Database: music » Table: track

Recent Favorites

Information schema  
music  
mysql  
performance\_schema  
phpmyadmin  
test  
week2

Options

album_title	artist_name	title_name	genre
4	Beyonce	1+1	R&B
4	Beyonce	Run the World (Girls)	R&B
4	Beyonce	Rather Die Young	R&B
4	Beyonce	Love on Top	R&B
Beyonce	Beyonce	Partition	R&B
Beyonce	Beyonce	Pretty Hurts	R&B
Beyonce	Beyonce	Drunk in Love	R&B
Beyonce	Beyonce	XO	R&B
Motion	Calvin Harris	Thinking About You	Electro Music
Motion	Calvin Harris	Under Control	Electro Music
Motion	Calvin Harris	Summer	Electro Music
Motion	Calvin Harris	Outside	Electro Music
Thank You	Meghan Trainor	NO	Pop
Thank You	Meghan Trainor	Me Too	Pop
Thank You	Meghan Trainor	Better	Pop
Thank You	Meghan Trainor	I Love Me	Pop
Title	Meghan Trainor	All About That Bass	Pop
Title	Meghan Trainor	Dear Future Husband	Pop
Title	Meghan Trainor	Lips Are Movin	Pop
Title	Meghan Trainor	Bang Dem Sticks	Pop

Console

phpMyAdmin

Server: 127.0.0.1 » Database: music » Table: track

Recent Favorites

Information schema  
music  
mysql  
performance\_schema  
phpmyadmin  
test  
week2

Show query box

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 0 (1 total. Query took 0.0255 seconds.)

```
SELECT distinct artist.name AS artist_name, genre.name as genre FROM album JOIN artist ON album.artist_id=artist.artist_id JOIN track ON album.album_id=track.album_id JOIN genre ON track.genre_id=genre.genre_id WHERE artist.name='Meghan Trainor'
```

Options

artist_name	genre
Meghan Trainor	Pop

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Let every user access this bookmark

Console