

Welcome Ayush Singh from Using Databases with Python

Your current grade on this assignment is: 100%

To get credit for this assignment, perform the instructions below and upload your SQLite3 database here:

Choose File

 No file chosen

(Must have a .sqlite suffix)

Submit

You do not need to export or convert the database - simply upload the **.sqlite** file that your program creates. See the example code for the use of the **connect()** statement.

## Musical Track Database

This application will read an iTunes export file in XML and produce a properly normalized database with this structure:

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

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

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

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

If you run the program multiple times in testing or with different files, make sure to empty out the data before each run.

You can use this code as a starting point for your application: <http://www.py4e.com/code3/tracks.zip>. The ZIP file contains the **Library.xml** file to be used for this assignment. You can export your own tracks from iTunes and create a database, but for the database that you turn in for this assignment, only use the **Library.xml** data that is provided.

To grade this assignment, the program will run a query like this on your uploaded database and look for the data it expects to see:

```
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
ORDER BY Artist.name LIMIT 3
```

The expected result of the modified query on your database is: (shown here as a simple HTML table with titles)

Track	Artist	Album	Genre
Chase the Ace	AC/DC	Who Made Who	Rock
D.T.	AC/DC	Who Made Who	Rock
For Those About To Rock (We Salute You)	AC/DC	Who Made Who	Rock