Multi-Table Database - Tracks

In this assignment you will parse an XML list of albums, artists, and Genres and produce a properly normalized database using a Python program.

This course uses a third-party tool, Multi-Table Database - Tracks, to enhance your learning experience. The tool will reference basic information like your name, email, and Coursera ID.

I, **ISHAAN NARULA**, understand that submitting another's work as my own can result in zero credit for this assignment. Repeated violations of the Coursera Honor Code may result in removal from this course or deactivation of my Coursera account.

Learn more about Coursera's Honor Code

Open Tool

Done

Your answer is correct, score saved.

Welcome Ishaan Narula from Using Databases with Python

To get credit for this assignment, perform the instructions below and upload your SQLite3 database here:
Choose File no file selected

(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. Y 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

Select Language ▼