## Challenge 6: Playlist maker

Tuesday, April 4, 2017 12:55 PM

We've created a database of songs and artists, and you'll make playlists from them in this challenge. In this first step, select the title of all the songs by the artist named 'Queen'.

EXTENDED TO INCLUDE Queensryche for fuzzy search.

```
CREATE TABLE artists (
  id INTEGER PRIMARY KEY AUTOINCREMENT,
  name TEXT,
  country TEXT,
  genre TEXT);
INSERT INTO artists (name, country, genre)
  VALUES ("Taylor Swift", "US", "Pop");
INSERT INTO artists (name, country, genre)
  VALUES ("Led Zeppelin", "US", "Hard rock");
INSERT INTO artists (name, country, genre)
  VALUES ("ABBA", "Sweden", "Disco");
INSERT INTO artists (name, country, genre)
  VALUES ("Queen", "UK", "Rock");
  INSERT INTO artists (name, country, genre)
  VALUES ("Queensrÿche", "Germany", "Rock");
INSERT INTO artists (name, country, genre)
  VALUES ("Celine Dion", "Canada", "Pop");
INSERT INTO artists (name, country, genre)
  VALUES ("Meatloaf", "US", "Hard rock");
INSERT INTO artists (name, country, genre)
  VALUES ("Garth Brooks", "US", "Country");
INSERT INTO artists (name, country, genre)
  VALUES ("Shania Twain", "Canada", "Country");
INSERT INTO artists (name, country, genre)
  VALUES ("Rihanna", "US", "Pop");
INSERT INTO artists (name, country, genre)
  VALUES ("Guns N' Roses", "US", "Hard rock");
INSERT INTO artists (name, country, genre)
  VALUES ("Gloria Estefan", "US", "Pop");
INSERT INTO artists (name, country, genre)
  VALUES ("Bob Marley", "Jamaica", "Reggae");
CREATE TABLE songs (
  id INTEGER PRIMARY KEY AUTOINCREMENT,
  artist TEXT,
  title TEXT);
INSERT INTO songs (artist, title)
  VALUES ("Taylor Swift", "Shake it off");
INSERT INTO songs (artist, title)
  VALUES ("Rihanna", "Stay");
INSERT INTO songs (artist, title)
  VALUES ("Celine Dion", "My heart will go on");
INSERT INTO songs (artist, title)
  VALUES ("Celine Dion", "A new day has come");
INSERT INTO songs (artist, title)
  VALUES ("Shania Twain", "Party for two");
INSERT INTO songs (artist, title)
  VALUES ("Gloria Estefan", "Conga");
INSERT INTO songs (artist, title)
  VALUES ("Led Zeppelin", "Stairway to heaven");
```

DATABASE SCHEMA  artists			
artists 13 rows id (PK)INTEGER  nameTEXT countryTEXT genreTEXT  Songs 12 rows id (PK)INTEGER  artistTEXT titleTEXT  RESULTS title artist Bicycle Race Queen Bohemian Rhapsody Queen	DATABASE SCHEMA		
id (PK)INTEGER  nameTEXT countryTEXT genreTEXT  Songs 12 rows id (PK)INTEGER  artistTEXT titleTEXT  RESULTS  title artist Bicycle Race Queen Bohemian Rhapsody Queen	<u>artists</u>		
nameTEXT countryTEXT genreTEXT  Songs 12 rows id (PK)INTEGER artistTEXT titleTEXT  RESULTS title artist Bicycle Race Queen Bohemian Rhapsody Queen			
countryTEXT genreTEXT  songs 12 rows id (PK)INTEGER artistTEXT titleTEXT  RESULTS title artist Bicycle Race Queen Bohemian Rhapsody Queen	ia (FR)INTEGER		
genreTEXT  Songs 12 rows id (PK)INTEGER  artistTEXT titleTEXT  RESULTS  title artist  Bicycle Race Queen  Bohemian Rhapsody Queen			
songs 12 rows id (PK)INTEGER  artistTEXT titleTEXT  RESULTS title artist Bicycle Race Queen Bohemian Rhapsody Queen			
12 rows id (PK)INTEGER artistTEXT titleTEXT  RESULTS title artist Bicycle Race Queen Bohemian Rhapsody Queen	genreTEXT		
artistTEXT titleTEXT  RESULTS title artist Bicycle Race Queen Bohemian Rhapsody Queen			
titleTEXT  RESULTS  title artist  Bicycle Race Queen  Bohemian Rhapsody Queen	id (PK)INTEGER		
title artist Bicycle Race Queen Bohemian Rhapsody Queen	artistTEXT		
title artist Bicycle Race Queen Bohemian Rhapsody Queen	titleTEXT		
Bicycle Race Queen  Bohemian Rhapsody Queen	RESULTS		
Bohemian Rhapsody Queen	title	artist	
		Queen	
Eyes Of A Stranger Queensrÿche	Bohemian Rhapsody	Queen	
	Eyes Of A Stranger	Queensrÿche	

```
INSERT INTO songs (artist, title)
VALUES ("ABBA", "Mamma mia");

INSERT INTO songs (artist, title)
VALUES ("Queen", "Bicycle Race");
INSERT INTO songs (artist, title)
VALUES ("Queen", "Bohemian Rhapsody");
INSERT INTO songs (artist, title)
VALUES ("Queensrÿche", "Eyes Of A Stranger");

INSERT INTO songs (artist, title)
VALUES ("Gunesnyche", "Don't cry");

SELECT title, artist FROM songs WHERE artist IN (SELECT name FROM artists WHERE name LIKE "%queen%");
```

We've created a database of songs and artists, and you'll make playlists from them in this challenge. In this first step, select the title of all the songs by the artist named 'Queen'.

CREATE TABLE artists ( id INTEGER PRIMARY name TEXT, country TEXT, genre TEXT);

INSERT INTO artists (named)

```
id INTEGER PRIMARY KEY AUTOINCREMENT,
  name TEXT,
  country TEXT,
 genre TEXT);
INSERT INTO artists (name, country, genre)
 VALUES ("Taylor Swift", "US", "Pop");
INSERT INTO artists (name, country, genre)
 VALUES ("Led Zeppelin", "US", "Hard rock");
INSERT INTO artists (name, country, genre)
 VALUES ("ABBA", "Sweden", "Disco");
INSERT INTO artists (name, country, genre)
 VALUES ("Queen", "UK", "Rock");
INSERT INTO artists (name, country, genre)
 VALUES ("Celine Dion", "Canada", "Pop");
INSERT INTO artists (name, country, genre)
  VALUES ("Meatloaf", "US", "Hard rock");
INSERT INTO artists (name, country, genre)
  VALUES ("Garth Brooks", "US", "Country");
INSERT INTO artists (name, country, genre)
  VALUES ("Shania Twain", "Canada", "Country");
INSERT INTO artists (name, country, genre)
  VALUES ("Rihanna", "US", "Pop");
INSERT INTO artists (name, country, genre)
 VALUES ("Guns N' Roses", "US", "Hard rock");
INSERT INTO artists (name, country, genre)
  VALUES ("Gloria Estefan", "US", "Pop");
INSERT INTO artists (name, country, genre)
 VALUES ("Bob Marley", "Jamaica", "Reggae");
CREATE TABLE songs (
 id INTEGER PRIMARY KEY AUTOINCREMENT,
  artist TEXT,
 title TEXT);
INSERT INTO songs (artist, title)
 VALUES ("Taylor Swift", "Shake it off");
INSERT INTO songs (artist, title)
 VALUES ("Rihanna", "Stay");
INSERT INTO songs (artist, title)
 VALUES ("Celine Dion", "My heart will go on");
INSERT INTO songs (artist, title)
 VALUES ("Celine Dion", "A new day has come");
INSERT INTO songs (artist, title)
 VALUES ("Shania Twain", "Party for two");
```

```
id (PK)INTEGER
nameTEXT
countryTEXT
genreTEXT
songs
id (PK)INTEGER
artistTEXT
titleTEXT
title
Bicycle Race
Bohemian Rhapsody
name
Taylor Swift
Celine Dion
Rihanna
Gloria Estefan
title
Shake it off
Stay
My heart will go on
A new day has come
Conga
```

VALUES ("Gloria Estefan", "Conga"); INSERT INTO songs (artist, title) VALUES ("Led Zeppelin", "Stairway to heaven"); INSERT INTO songs (artist, title) VALUES ("ABBA", "Mamma mia"); INSERT INTO songs (artist, title) VALUES ("Queen", "Bicycle Race"); INSERT INTO songs (artist, title) VALUES ("Queen", "Bohemian Rhapsody"); INSERT INTO songs (artist, title) VALUES ("Guns N' Roses", "Don't cry"); SELECT title FROM songs WHERE artist IN (SELECT name FROM artists WHERE name LIKE "%queen%"); SELECT name FROM artists WHERE genre = "Pop"; SELECT title FROM songs WHERE artist IN (SELECT name FROM artists WHERE genre = "Pop"); **EXTENDED TO INCLUDE** CREATE TABLE artists ( artists Queensryche for fuzzy id INTEGER PRIMARY KEY AUTOINCREMENT, 13 rows search. name TEXT, country TEXT, id (PK)INTEGER genre TEXT); nameTEXT INSERT INTO artists (name, country, genre) VALUES ("Taylor Swift", "US", "Pop"); countryTEXT INSERT INTO artists (name, country, genre) genreTEXT VALUES ("Led Zeppelin", "US", "Hard rock"); INSERT INTO artists (name, country, genre) 12 rows VALUES ("ABBA", "Sweden", "Disco"); id (PK)INTEGER INSERT INTO artists (name, country, genre) VALUES ("Queen", "UK", "Rock"); artistTEXT INSERT INTO artists (name, country, genre) titleTEXT VALUES ("Queensrÿche", "Germany", "Rock"); INSERT INTO artists (name, country, genre) title artist VALUES ("Celine Dion", "Canada", "Pop"); Bicycle Race Queen INSERT INTO artists (name, country, genre) Bohemian Rhapsody Queen VALUES ("Meatloaf", "US", "Hard rock"); INSERT INTO artists (name, country, genre) VALUES ("Garth Brooks", "US", "Country"); Eyes Of A Stranger Queensrÿche INSERT INTO artists (name, country, genre) VALUES ("Shania Twain", "Canada", "Country"); INSERT INTO artists (name, country, genre) VALUES ("Rihanna", "US", "Pop"); INSERT INTO artists (name, country, genre) VALUES ("Guns N' Roses", "US", "Hard rock"); INSERT INTO artists (name, country, genre) VALUES ("Gloria Estefan", "US", "Pop"); INSERT INTO artists (name, country, genre) VALUES ("Bob Marley", "Jamaica", "Reggae"); CREATE TABLE songs ( id INTEGER PRIMARY KEY AUTOINCREMENT, artist TEXT, title TEXT); INSERT INTO songs (artist, title) VALUES ("Taylor Swift", "Shake it off"); INSERT INTO songs (artist, title) VALUES ("Rihanna", "Stay"); INSERT INTO songs (artist, title)

INSERT INTO songs (artist, title)

```
VALUES ("Celine Dion", "My heart will go on");
INSERT INTO songs (artist, title)
 VALUES ("Celine Dion", "A new day has come");
INSERT INTO songs (artist, title)
 VALUES ("Shania Twain", "Party for two");
INSERT INTO songs (artist, title)
 VALUES ("Gloria Estefan", "Conga");
INSERT INTO songs (artist, title)
 VALUES ("Led Zeppelin", "Stairway to heaven");
INSERT INTO songs (artist, title)
 VALUES ("ABBA", "Mamma mia");
INSERT INTO songs (artist, title)
 VALUES ("Queen", "Bicycle Race");
INSERT INTO songs (artist, title)
 VALUES ("Queen", "Bohemian Rhapsody");
INSERT INTO songs (artist, title)
 VALUES ("Queensrÿche", "Eyes Of A Stranger");
INSERT INTO songs (artist, title)
 VALUES ("Guns N' Roses", "Don't cry");
SELECT title, artist FROM songs WHERE artist IN (SELECT name FROM artists
WHERE name LIKE "%queen%");
CREATE TABLE artists (
 id INTEGER PRIMARY KEY AUTOINCREMENT,
                                                                           artists
  name TEXT,
  country TEXT,
                                                                           id (PK)INTEGER
  genre TEXT);
                                                                           nameTEXT
INSERT INTO artists (name, country, genre)
                                                                           country \top \mathsf{EXT}
  VALUES ("Taylor Swift", "US", "Pop");
INSERT INTO artists (name, country, genre)
                                                                           genreTEXT
  VALUES ("Led Zeppelin", "US", "Hard rock");
                                                                           songs
INSERT INTO artists (name, country, genre)
  VALUES ("ABBA", "Sweden", "Disco");
                                                                           id (PK)INTEGER
INSERT INTO artists (name, country, genre)
  VALUES ("Queen", "UK", "Rock");
INSERT INTO artists (name, country, genre)
                                                                           artistTEXT
  VALUES ("Celine Dion", "Canada", "Pop");
                                                                           titleTEXT
INSERT INTO artists (name, country, genre)
  VALUES ("Meatloaf", "US", "Hard rock");
INSERT INTO artists (name, country, genre)
                                                                           title
 VALUES ("Garth Brooks", "US", "Country");
                                                                           Bicycle Race
INSERT INTO artists (name, country, genre)
                                                                            Bohemian Rhapsody
 VALUES ("Shania Twain", "Canada", "Country");
INSERT INTO artists (name, country, genre)
 VALUES ("Rihanna", "US", "Pop");
                                                                           name
INSERT INTO artists (name, country, genre)
                                                                           Taylor Swift
 VALUES ("Guns N' Roses", "US", "Hard rock");
                                                                           Celine Dion
INSERT INTO artists (name, country, genre)
 VALUES ("Gloria Estefan", "US", "Pop");
                                                                            Rihanna
INSERT INTO artists (name, country, genre)
                                                                           Gloria Estefan
 VALUES ("Bob Marley", "Jamaica", "Reggae");
                                                                            title
CREATE TABLE songs (
 id INTEGER PRIMARY KEY AUTOINCREMENT,
                                                                           Shake it off
  artist TEXT,
                                                                           Stay
 title TEXT);
                                                                           My heart will go on
INSERT INTO songs (artist, title)
                                                                           A new day has come
  VALUES ("Taylor Swift", "Shake it off");
INSERT INTO songs (artist, title)
                                                                           Conga
 VALUES ("Rihanna", "Stay");
```

INSERT INTO songs (artist, title)

Now you'll make a 'Pop'

playlist. In preparation,

select the name of all of the

artists from the 'Pop' genre.

(Tip: Make sure you type it

'Pop', SQL considers that

different from 'pop'.)

```
VALUES ("Celine Dion", "My heart will go on");
                              INSERT INTO songs (artist, title)
                               VALUES ("Celine Dion", "A new day has come");
                              INSERT INTO songs (artist, title)
                               VALUES ("Shania Twain", "Party for two");
                              INSERT INTO songs (artist, title)
                               VALUES ("Gloria Estefan", "Conga");
                              INSERT INTO songs (artist, title)
                               VALUES ("Led Zeppelin", "Stairway to heaven");
                              INSERT INTO songs (artist, title)
                                VALUES ("ABBA", "Mamma mia");
                              INSERT INTO songs (artist, title)
                                VALUES ("Queen", "Bicycle Race");
                              INSERT INTO songs (artist, title)
                                VALUES ("Queen", "Bohemian Rhapsody");
                              INSERT INTO songs (artist, title)
                               VALUES ("Guns N' Roses", "Don't cry");
                              SELECT title FROM songs WHERE artist IN (SELECT name FROM artists
                              WHERE name LIKE "%queen%");
                              SELECT name FROM artists WHERE genre = "Pop";
                              SELECT title FROM songs WHERE artist IN (SELECT name FROM artists
                              WHERE genre = "Pop");
To finish creating the 'Pop'
                              CREATE TABLE artists (
playlist, add another query
                               id INTEGER PRIMARY KEY AUTOINCREMENT,
                                                                                                         artists
that will select the title of all
                                name TEXT,
                                                                                                               12 rows
                                country TEXT,
                                                                                                         id (PK)INTEGER
artists. It should use \ensuremath{\mathsf{IN}} on a
                                genre TEXT);
                                                                                                         nameTEXT
                              INSERT INTO artists (name, country, genre)
                                                                                                         countryTEXT
                                VALUES ("Taylor Swift", "US", "Pop");
                              INSERT INTO artists (name, country, genre)
                                                                                                         genreTEXT
                                VALUES ("Led Zeppelin", "US", "Hard rock");
                                                                                                          songs
                              INSERT INTO artists (name, country, genre)
                                                                                                                11 rows
                                VALUES ("ABBA", "Sweden", "Disco");
                                                                                                          id (PK)INTEGER
                              INSERT INTO artists (name, country, genre)
                                VALUES ("Queen", "UK", "Rock");
                                                                                                         artistTEXT
                              INSERT INTO artists (name, country, genre)
                                VALUES ("Celine Dion", "Canada", "Pop");
                                                                                                         titleTEXT
                              INSERT INTO artists (name, country, genre)
                                VALUES ("Meatloaf", "US", "Hard rock");
                              INSERT INTO artists (name, country, genre)
                                                                                                         title
                               VALUES ("Garth Brooks", "US", "Country");
                                                                                                          Bicycle Race
                              INSERT INTO artists (name, country, genre)
                                                                                                          Bohemian Rhapsody
                               VALUES ("Shania Twain", "Canada", "Country");
                              INSERT INTO artists (name, country, genre)
                               VALUES ("Rihanna", "US", "Pop");
                                                                                                         name
                              INSERT INTO artists (name, country, genre)
                                                                                                          Taylor Swift
                               VALUES ("Guns N' Roses", "US", "Hard rock");
                                                                                                          Celine Dion
                              INSERT INTO artists (name, country, genre)
                               VALUES ("Gloria Estefan", "US", "Pop");
                                                                                                          Rihanna
                              INSERT INTO artists (name, country, genre)
                                                                                                          Gloria Estefan
                               VALUES ("Bob Marley", "Jamaica", "Reggae");
                                                                                                          title
                              CREATE TABLE songs (
                               id INTEGER PRIMARY KEY AUTOINCREMENT,
                                                                                                          Shake it off
                                artist TEXT,
                                                                                                          Stay
                               title TEXT);
                                                                                                          My heart will go on
                              INSERT INTO songs (artist, title)
                                                                                                         A new day has come
                                VALUES ("Taylor Swift", "Shake it off");
                              INSERT INTO songs (artist, title)
                                                                                                          Conga
```

VALUES ("Rihanna", "Stay");

the songs from the 'Pop'

nested subquery that's

based on your previous

query.

```
INSERT INTO songs (artist, title)
 VALUES ("Celine Dion", "My heart will go on");
INSERT INTO songs (artist, title)
 VALUES ("Celine Dion", "A new day has come");
INSERT INTO songs (artist, title)
 VALUES ("Shania Twain", "Party for two");
INSERT INTO songs (artist, title)
 VALUES ("Gloria Estefan", "Conga");
INSERT INTO songs (artist, title)
 VALUES ("Led Zeppelin", "Stairway to heaven");
INSERT INTO songs (artist, title)
  VALUES ("ABBA", "Mamma mia");
INSERT INTO songs (artist, title)
 VALUES ("Queen", "Bicycle Race");
INSERT INTO songs (artist, title)
 VALUES ("Queen", "Bohemian Rhapsody");
INSERT INTO songs (artist, title)
 VALUES ("Guns N' Roses", "Don't cry");
SELECT title FROM songs WHERE artist IN (SELECT name FROM artists
WHERE name LIKE "%queen%");
SELECT name FROM artists WHERE genre = "Pop";
SELECT title FROM songs WHERE artist IN (SELECT name FROM artists
WHERE genre = "Pop");
```