Final Report

CSC 675

4.30.2018

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All work available at: <https://github.com/krozet/Music-Application-Database>

***CREATE STATEMENTS***

/\* create database music\_app \*/

CREATE DATABASE music\_app;

/\* use database music\_app \*/

USE music\_app;

/\* entity \*/

CREATE TABLE artist

(aname CHAR(20),

PRIMARY KEY(aname));

CREATE TABLE album

(abname CHAR(40),

abtranum INTEGER,

date DATE,

PRIMARY KEY (abtranum)

);

CREATE TABLE song

(stranum INTEGER,

sname CHAR(20),

abname CHAR(20),

aname CHAR(20),

PRIMARY KEY (stranum),

FOREIGN KEY (aname)

REFERENCES artist(aname)

);

CREATE TABLE featured\_artist

(faname CHAR(20),

PRIMARY KEY (faname));

/\* relation \*/

CREATE TABLE composed\_of

(abtranum INTEGER,

stranum INTEGER,

PRIMARY KEY (abtranum, stranum),

FOREIGN KEY (abtranum)

REFERENCES album (abtranum),

FOREIGN KEY (stranum)

REFERENCES song (stranum)

);

CREATE TABLE releases

(abtranum INTEGER,

aname CHAR(20),

PRIMARY KEY (abtranum, aname),

FOREIGN KEY (abtranum)

REFERENCES album (abtranum),

FOREIGN KEY (aname)

REFERENCES artist (aname)

);

CREATE TABLE feature

(faname CHAR(20),

stranum INTEGER,

abtranum INTEGER,

PRIMARY KEY (faname, stranum, abtranum),

FOREIGN KEY (faname)

REFERENCES featured\_artist (faname),

FOREIGN KEY (stranum)

REFERENCES song (stranum),

FOREIGN KEY (abtranum)

REFERENCES album (abtranum)

);

/\* insert data into artist table \*/

INSERT INTO artist VALUES ('Jason Aldean');

INSERT INTO artist VALUES ('Pentatonix');

INSERT INTO artist VALUES ('Chris Stapleton');

INSERT INTO artist VALUES ('John Prine');

INSERT INTO artist VALUES ('LEDGER');

INSERT INTO artist VALUES ('Midland');

INSERT INTO artist VALUES ('Hillsong Worship');

INSERT INTO artist VALUES ('Imagine Dragons');

/\* insert data into album table \*/

INSERT INTO album (abname, abtranum, date) VALUES ('Rearview Town', '0000001', '2018-04-13');

INSERT INTO album (abname, abtranum, date) VALUES ('They Don’t Know', '0000002', '2016-09-9');

INSERT INTO album (abname, abtranum, date) VALUES ('PTX Presents: Top Pop, Vol. I', '0000003', '2018-04-13');

INSERT INTO album (abname, abtranum, date) VALUES ('A Pentatonix Christmas Deluxe', '0000004', '2017-10-20');

INSERT INTO album (abname, abtranum, date) VALUES ('From A Room: Volume 1', '0000005', '2017-05-05');

INSERT INTO album (abname, abtranum, date) VALUES ('From A Room: Volume 2', '0000006', '2017-12-01');

INSERT INTO album (abname, abtranum, date) VALUES ('The Tree of Frogiveness', '0000007', '2018-08-13');

INSERT INTO album (abname, abtranum, date) VALUES ('Fair and Square', '0000008', '2006-05-26');

INSERT INTO album (abname, abtranum, date) VALUES ('Ledger - EP', '0000009', '2018-04-13');

INSERT INTO album (abname, abtranum, date) VALUES ('Lon the Rocks', '0000010', '2017-09-22');

INSERT INTO album (abname, abtranum, date) VALUES ('Che Magnifico Nome - Single', '0000011', '2018-04-06');

INSERT INTO album (abname, abtranum, date) VALUES ('There Is More', '0000012', '2018-04-06');

INSERT INTO album (abname, abtranum, date) VALUES ('Evolve', '0000013', '2017-06-23');

/\* insert data into song table \*/

INSERT INTO song VALUES ('123', 'Dirt To Dust', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('223', 'Set it Off', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('323', 'Girl Like You', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('423', 'You Make It Easy', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('523', 'Gettin’ Warmed Up', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('623', 'Blacktop Gone', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('7231', 'Drowns the Whiskey', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('823', 'Rearview Town', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('923', 'Love Me Or Don’t', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('1023', 'Like You Were Mine', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('1123', 'Better At Being Who I Am', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('1223', 'I’ll Wait For You', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('1323', 'Ride All Night', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('1423', 'Up In Smoke', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('1523', 'High Noon Neon', 'Rearview Town', 'Jason Aldean');

INSERT INTO song VALUES ('134', 'Lights Come On', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('234', 'A Little More Summertime', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('334', 'This Plane Don’t Go There', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('434', 'Comin’ In Hot', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('5341', 'First Time Again', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('634', 'Bad', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('734', 'They Don’t Know', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('834', 'One Way Won’t Forget', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('934', 'Whiskey’d Up', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('1034', 'In Case You Don’t Remember', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('1134', 'All Out of Beer', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('1234', 'Any Ol’ Barstool', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('1334', 'The Way a Night Should Feel', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('1434', 'Reason to Love L.A.', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('1534', 'When the Lights Go Out', 'They Don’t Know', 'Jason Aldean');

INSERT INTO song VALUES ('145', 'Attention', 'PTX Presents: Top Pop, Vol. I', 'Pentatonix');

INSERT INTO song VALUES ('245', 'Finesse', 'PTX Presents: Top Pop, Vol. I', 'Pentatonix');

INSERT INTO song VALUES ('345', 'New Rules x Are You That Somebody', 'PTX Presents: Top Pop, Vol. I', 'Pentatonix');

INSERT INTO song VALUES ('445', 'Havana', 'PTX Presents: Top Pop, Vol. I', 'Pentatonix');

INSERT INTO song VALUES ('545', 'Perfect', 'PTX Presents: Top Pop, Vol. I', 'Pentatonix');

INSERT INTO song VALUES ('645', 'Stay', 'PTX Presents: Top Pop, Vol. I', 'Pentatonix');

INSERT INTO song VALUES ('745', 'Feel It Still', 'PTX Presents: Top Pop, Vol. I', 'Pentatonix');

INSERT INTO song VALUES ('845', 'Despacito x Shape Of You', 'PTX Presents: Top Pop, Vol. I', 'Pentatonix');

INSERT INTO song VALUES ('945', 'Issues', 'PTX Presents: Top Pop, Vol. I', 'Pentatonix');

INSERT INTO song VALUES ('1045', 'Praying', 'PTX Presents: Top Pop, Vol. I', 'Pentatonix');

INSERT INTO song VALUES ('1145', 'Sorry Not Sorry', 'PTX Presents: Top Pop, Vol. I', 'Pentatonix');

INSERT INTO song VALUES ('156', 'O Come, All Ye Faithful', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('256', 'God Rest Ye Merry gentlemen', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('356', 'White Christmas', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('456', 'I’ll Be Home For Christmas', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('556', 'Up On the Housetop', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('656', 'The Christmas Song-Along', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('756', 'Coventry Carol', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('856', 'Hallelujah', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('956', 'Coldest Winter', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('1056', 'Good To Be Bad', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('1156', 'Merry Christmas, Happy Holidays', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('1256', 'Deck the Halls', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('1356', 'How Great Thou Art', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('1456', 'Away in a Manger', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('1556', 'Let it Snow! Let It Snow! Let It Snow!', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('1656', 'Hallelujah', 'A Pentatonix Christmas Deluxe', 'Pentatonix');

INSERT INTO song VALUES ('167', 'Broken Halos', 'From A Room: Volume 1', 'Chris Stapleton');

INSERT INTO song VALUES ('267', 'Last Thing I Needed, First Thing This Morning', 'From A Room: Volume 1', 'Chris Stapleton');

INSERT INTO song VALUES ('367', 'Second One to Know', 'From A Room: Volume 1', 'Chris Stapleton');

INSERT INTO song VALUES ('467', 'Up to No Good Livin’', 'From A Room: Volume 1', 'Chris Stapleton');

INSERT INTO song VALUES ('567', 'Either Way', 'From A Room: Volume 1', 'Chris Stapleton');

INSERT INTO song VALUES ('667', 'I Was Wrong', 'From A Room: Volume 1', 'Chris Stapleton');

INSERT INTO song VALUES ('767', 'Without Your Love', 'From A Room: Volume 1', 'Chris Stapleton');

INSERT INTO song VALUES ('867', 'Them Stems', 'From A Room: Volume 1', 'Chris Stapleton');

INSERT INTO song VALUES ('967', 'Death Row', 'From A Room: Volume 1', 'Chris Stapleton');

INSERT INTO song VALUES ('178', 'Millionaire', 'From A Room: Volume 2', 'Chris Stapleton');

INSERT INTO song VALUES ('278', 'Hard Livin’', 'From A Room: Volume 2', 'Chris Stapleton');

INSERT INTO song VALUES ('378', 'Scarecrow in the Garden', 'From A Room: Volume 2', 'Chris Stapleton');

INSERT INTO song VALUES ('478', 'Nobody’s Lonely Tonight', 'From A Room: Volume 2', 'Chris Stapleton');

INSERT INTO song VALUES ('578', 'Tryin’ to Untangle My Mind', 'From A Room: Volume 2', 'Chris Stapleton');

INSERT INTO song VALUES ('678', 'A Simple Song', 'From A Room: Volume 2', 'Chris Stapleton');

INSERT INTO song VALUES ('778', 'Midnight Train to Memphis', 'From A Room: Volume 2', 'Chris Stapleton');

INSERT INTO song VALUES ('878', 'Drunkard’s Prayer', 'From A Room: Volume 2', 'Chris Stapleton');

INSERT INTO song VALUES ('978', 'Friendship', 'From A Room: Volume 2', 'Chris Stapleton');

INSERT INTO song VALUES ('189', 'Knockin’ on Your Screen Door', 'The Tree of Forgiveness', 'John Prine');

INSERT INTO song VALUES ('289', 'I Have Mey My Love Today', 'The Tree of Forgiveness', 'John Prine');

INSERT INTO song VALUES ('389', 'Egg & Daughter Nite', 'The Tree of Forgiveness', 'John Prine');

INSERT INTO song VALUES ('489', 'Summer’s End', 'The Tree of Forgiveness', 'John Prine');

INSERT INTO song VALUES ('589', 'Caravan of Fools', 'The Tree of Forgiveness', 'John Prine');

INSERT INTO song VALUES ('689', 'Lonesome Friends of Science', 'The Tree of Forgiveness', 'John Prine');

INSERT INTO song VALUES ('789', 'No Ordinary Blue', 'The Tree of Forgiveness', 'John Prine');

INSERT INTO song VALUES ('889', 'Boundless Love', 'The Tree of Forgiveness', 'John Prine');

INSERT INTO song VALUES ('989', 'God Only Knows', 'The Tree of Forgiveness', 'John Prine');

INSERT INTO song VALUES ('1089', 'When I Get to Heaven', 'The Tree of Forgiveness', 'John Prine');

INSERT INTO song VALUES ('113', 'Glory of True Love', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('213', 'Crazy as a Loon', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('313', 'Long Monday', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('413', 'Taking a Walk', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('513', 'Some Humans Ain’t Human', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('613', 'My Darlin’ Hometown', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('713', 'Morning Train', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('813', 'The Moon Is Down', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('913', 'Clay Pigeons', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('1013', 'She Is My Everything', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('1113', 'I Hate It When That Happens to Me', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('1213', 'Bear Creek Blues', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('1313', 'Other Side of Town (Live)', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('1413', 'Safety Joe', 'Fair and Square', 'John Prine');

INSERT INTO song VALUES ('114', 'Not Dead Yet', 'Ledger – EP', 'LEDGER');

INSERT INTO song VALUES ('214', 'Warrior', 'Ledger – EP', 'LEDGER');

INSERT INTO song VALUES ('314', 'Bold', 'Ledger – EP', 'LEDGER');

INSERT INTO song VALUES ('414', 'Foreigner', 'Ledger – EP', 'LEDGER');

INSERT INTO song VALUES ('514', 'Ruins', 'Ledger – EP', 'LEDGER');

INSERT INTO song VALUES ('614', 'Iconic', 'Ledger – EP', 'LEDGER');

INSERT INTO song VALUES ('115', 'Lonely for You Only', 'On the Rocks', 'Midland');

INSERT INTO song VALUES ('215', 'Make a Little', 'On the Rocks', 'Midland');

INSERT INTO song VALUES ('315', 'Drinkin’ Problem', 'On the Rocks', 'Midland');

INSERT INTO song VALUES ('415', 'At Least you Cried', 'On the Rocks', 'Midland');

INSERT INTO song VALUES ('515', 'Burn Out', 'On the Rocks', 'Midland');

INSERT INTO song VALUES ('615', 'Out of Sight', 'On the Rocks', 'Midland');

INSERT INTO song VALUES ('715', 'More Than a Fever', 'On the Rocks', 'Midland');

INSERT INTO song VALUES ('815', 'Check Cashin’ Country', 'On the Rocks', 'Midland');

INSERT INTO song VALUES ('915', 'Nothin’ New Under the Neon', 'On the Rocks', 'Midland');

INSERT INTO song VALUES ('1015', 'This Old Heart', 'On the Rocks', 'Midland');

INSERT INTO song VALUES ('1115', 'Attitude Adjustment', 'On the Rocks', 'Midland');

INSERT INTO song VALUES ('1215', 'Electric Rodeo', 'On the Rocks', 'Midland');

INSERT INTO song VALUES ('1315', 'Somewhere on the Wind', 'On the Rocks', 'Midland');

INSERT INTO song VALUES ('1251', 'Che Magnifico Nome', 'Che Magnifico Nome - Single', 'Hillsong Worship');

INSERT INTO song VALUES ('125', 'Who You Say I Am', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('225', 'You Are Life', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('325', 'The Passion', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('425', 'God So Loved', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('525', 'Be Still', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('625', 'Remembrance', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('725', 'Valentine', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('825', 'Touch of Heaven', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('925', 'Lettered Love', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('1025', 'The Lord’s Prayer', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('1125', 'New Wine', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('1225', 'So Will I', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('1325', 'Seasons', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('1425', 'Who You Say I Am', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('1525', 'Remembrance', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('1625', 'Touch of Heaven', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('1725', 'The Passion', 'There Is More', 'Hillsong Worship');

INSERT INTO song VALUES ('135', 'Next To Me', 'Evolve', 'Imagine Dragons');

INSERT INTO song VALUES ('235', 'I Don’t Know Why', 'Evolve', 'Imagine Dragons');

INSERT INTO song VALUES ('335', 'Whatever It Takes', 'Evolve', 'Imagine Dragons');

INSERT INTO song VALUES ('435', 'Believer', 'Evolve', 'Imagine Dragons');

INSERT INTO song VALUES ('535', 'Walking the Wire', 'Evolve', 'Imagine Dragons');

INSERT INTO song VALUES ('635', 'Rise Up', 'Evolve', 'Imagine Dragons');

INSERT INTO song VALUES ('735', 'I’ll Make It Up To You', 'Evolve', 'Imagine Dragons');

INSERT INTO song VALUES ('835', 'Yesterday', 'Evolve', 'Imagine Dragons');

INSERT INTO song VALUES ('935', 'Mouth of the River', 'Evolve', 'Imagine Dragons');

INSERT INTO song VALUES ('1035', 'Thunder', 'Evolve', 'Imagine Dragons');

INSERT INTO song VALUES ('1135', 'Start Over', 'Evolve', 'Imagine Dragons');

INSERT INTO song VALUES ('1235', 'Dancing in the Dark', 'Evolve', 'Imagine Dragons');

/\* insert data into featured\_artist table \*/

INSERT INTO featured\_artist VALUES ('Miranda Lambert');

INSERT INTO featured\_artist VALUES ('Kelsea Ballerini');

INSERT INTO featured\_artist VALUES ('The Manhattan Transfer');

INSERT INTO featured\_artist VALUES ('Jennifer Hudson');

INSERT INTO featured\_artist VALUES ('The String Mob');

INSERT INTO featured\_artist VALUES ('John Cooper');

/\* insert data into feature table \*/

INSERT INTO feature (faname, stranum, abtranum) VALUES ('Miranda Lambert', '7231', '0000001');

INSERT INTO feature (faname, stranum, abtranum) VALUES ('Kelsea Ballerini', '5341', '0000002');

INSERT INTO feature (faname, stranum, abtranum) VALUES ('The Manhattan Transfer', '356', '0000004');

INSERT INTO feature (faname, stranum, abtranum) VALUES ('Jennifer Hudson', '1356', '0000004');

INSERT INTO feature (faname, stranum, abtranum) VALUES ('The String Mob', '1656', '0000004');

INSERT INTO feature (faname, stranum, abtranum) VALUES ('John Cooper', '213', '0000009');

/\* insert data into release table \*/

INSERT INTO releases (abtranum, aname) VALUES ('0000001', 'Jason Aldean');

INSERT INTO releases (abtranum, aname) VALUES ('0000002', 'Jason Aldean');

INSERT INTO releases (abtranum, aname) VALUES ('0000003', 'Pentatonix');

INSERT INTO releases (abtranum, aname) VALUES ('0000004', 'Pentatonix');

INSERT INTO releases (abtranum, aname) VALUES ('0000005', 'Chris Stapleton');

INSERT INTO releases (abtranum, aname) VALUES ('0000006', 'Chris Stapleton');

INSERT INTO releases (abtranum, aname) VALUES ('0000007', 'John Prine');

INSERT INTO releases (abtranum, aname) VALUES ('0000008', 'John Prine');

INSERT INTO releases (abtranum, aname) VALUES ('0000009', 'LEDGER');

INSERT INTO releases (abtranum, aname) VALUES ('0000010', 'Midland');

INSERT INTO releases (abtranum, aname) VALUES ('0000011', 'Hillsong Worship');

INSERT INTO releases (abtranum, aname) VALUES ('0000012', 'Hillsong Worship');

INSERT INTO releases (abtranum, aname) VALUES ('0000013', 'Imagine Dragons');

/\* insert data into composed\_of table \*/

INSERT INTO composed\_of (abtranum, stranum)

SELECT album.abtranum, song.stranum

FROM album, song, releases

WHERE releases.aname = song.aname AND

releases.abtranum = album.abtranum AND

song.abname = album.abname;

***SQL QUERIES***

/\* Find the name of song that is composed of album ‘From A Room: Volume 1‘. \*/

SELECT S.sname

FROM song S

WHERE S.abname IN (SELECT A.abname

FROM album A

WHERE A.abname= 'From A Room: Volume 1');



/\* Find how many albums were released on 2018-04-13 \*/

SELECT A.date, COUNT(\*)

FROM album A

GROUP BY A.date

HAVING A.date= '2018-04-13';

https://i.gyazo.com/f48db4ccee0886bd7e8fc9bca29232d3.png

/\* Find the names of all songs that were written by the artist “Pentatonix” \*/

SELECT S.sname

FROM song S

WHERE S.aname IN (SELECT A.aname

FROM artist A

WHERE A.aname= 'Pentatonix');



/\* Find the total number of songs that are wriiten by artist ‘ Pentatonix’\*/

SELECT COUNT(DISTINCT S.stranum)

FROM song S

WHERE EXISTS (SELECT \*

FROM artist A

WHERE S.aname=A.aname AND A.aname= 'Pentatonix');

https://i.gyazo.com/b186c6504239294ee25c1b9988d1d96a.png

/\* Find the total number of songs that are composed of the album ''From A Room: Volume 1' \*/

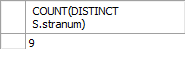
SELECT COUNT(DISTINCT S.stranum)

FROM song S

WHERE EXISTS (SELECT \*

FROM album A

WHERE S.abname=A.abname AND S.abname= 'From A Room: Volume 1');



/\* Find name of artist with the maximum songs \*/

SELECT S.aname, COUNT(S.aname)

FROM song S

GROUP BY S.aname

ORDER BY COUNT(S.aname) DESC

LIMIT 1;

https://i.gyazo.com/d54ebb735592a680c03b3284599de6ac.png

/\* List names of songs if ALL are featured by the featured artist ‘Miranda Lambert’ \*/

SELECT S.sname

FROM song S

WHERE S.stranum = (SELECT F.stranum

FROM feature F

WHERE F.faname='Miranda Lambert');

https://i.gyazo.com/e91a11fbad2227203f0f784fe4a8a6a5.png

/\* List names of featured artists if ALL write song ‘Drowns the Whiskey’ \*/

SELECT F.faname

FROM feature F, song S

WHERE S.stranum=F.stranum AND S.sname = 'Drowns the Whiskey';

https://i.gyazo.com/fb35ced36599dd26e22c75088e9023dd.png

/\* Find artists who have more songs than one artist called “Chris Stapleton”. \*/

SELECT S.aname, COUNT(S.aname)

FROM song S

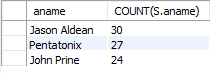
GROUP BY S.aname

HAVING COUNT(S.aname) > (SELECT COUNT(S2.aname)

FROM song S2

WHERE S2.aname = 'Chris Stapleton')

ORDER BY COUNT(S.aname) DESC;



/\* List names of featured artist if any use album ‘'A Pentatonix Christmas Deluxe’ \*/

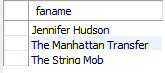
SELECT F.faname

FROM feature F

WHERE F.abtranum = ANY (SELECT A.abtranum

FROM album A

WHERE A.abname='A Pentatonix Christmas Deluxe');



/\* List names of albums if ANY are released by the artist ‘LEDGER’ \*/

SELECT A.abname

FROM album A

WHERE A.abtranum = (SELECT R.abtranum

FROM releases R

WHERE R.aname='LEDGER');

https://i.gyazo.com/083e4f4f9ed80c3d212fa3abe2e42a65.png

/\* List names of albums if ANY are released by the artist ‘Hillsong Worship’ \*/

SELECT abname

FROM album

WHERE abtranum = ANY (SELECT abtranum

FROM releases

WHERE aname = 'Hillsong Worship');

+-----------------------------+

| abname |

+-----------------------------+

| Che Magnifico Nome - Single |

| There Is More |

+-----------------------------+

/\* Find albums that have more than ten songs \*/

SELECT A.abname, COUNT(C.stranum) AS song\_number

FROM album A, song S, composed\_of C

WHERE A.abtranum = C.abtranum AND

C.stranum = S.stranum

GROUP BY A.abname

HAVING COUNT(C.stranum)>10;

+-------------------+-------------+

| abname | song\_number |

+-------------------+-------------+

| Evolve | 12 |

| Fair and Square | 14 |

| Rearview Town | 15 |

| There Is More | 17 |

| They Don’t Know | 15 |

+-------------------+-------------+

/ \*List names of artists if ALL use album ‘A Pentatonix Christmas Deluxe’\*/

SELECT R.aname

FROM releases R

WHERE R.abtranum = ALL (SELECT A.abtranum

FROM album A

WHERE A.abname='A Pentatonix Christmas Deluxe');

+------------+

| aname |

+------------+

| Pentatonix |

+------------+

/\* List names of songs if ALL are featured by the featured artist ‘Miranda Lambert’ \*/

SELECT S.sname

FROM song S

WHERE S.stranum = ALL (SELECT F.stranum

FROM feature F

WHERE F.faname='Miranda Lambert');

+--------------------+

| sname |

+--------------------+

| Drowns the Whiskey |

+--------------------+

/\* CREATE INDEX \*/

CREATE INDEX IX\_firstChar ON artist (aname(1));

CREATE INDEX IX\_song\_name ON song (sname);

/\* CREATE VIEW \*/

/\*List all songs with artists and albums from song table \*/

CREATE VIEW V\_Songs

AS SELECT sname, abname, aname

FROM song;

/\* List all features artists from feature table \*/

CREATE VIEW V\_FeaturedArtists

AS SELECT faname

FROM feature;