

BA 840 Business Data Management

Term Project: Music Streaming Service Database

Team	Team Members
G_14	Darain Khan Rohan Kaushik

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1. Music Streaming Service

Music streaming services are a platform of providing audio content to users by enabling them to access services over the web using streaming features. These services can be used to deliver songs to the user on all different types of devices such as smartphones or computers.

Most of these streaming services offer different subscription plans to provide an advertisement free experience to the user.

1.1 System Set-up and Components

The music streaming service set-up being considered functions on six main entities - users, artists, albums, songs, playlists, and subscriptions.

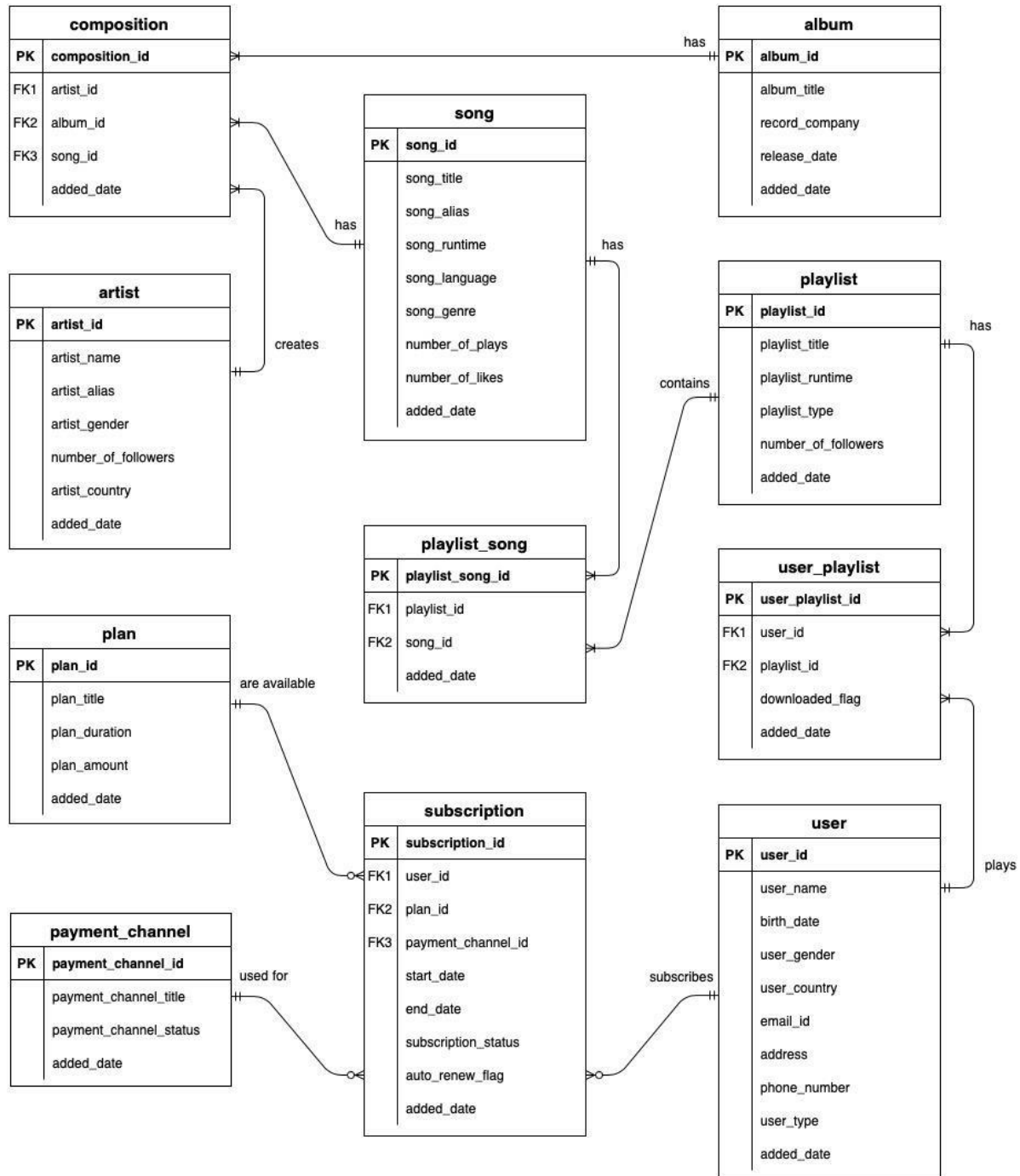
1.2 Business Rules

1. Backbone of the system is to have albums created by artists, containing songs. Hence, the first three tables are ALBUM, ARTIST, and SONG.
2. Tables ALBUM, ARTIST and SONG are connected through the table COMPOSITION.
 - Each album can have one or multiple artists, each artist can be part of one or multiple albums.
 - Each song can be created by one or multiple artists and each artist can sing one or multiple songs.
 - Each album can have one or multiple songs.
3. Tables SONG, PLAYLIST and USER are connected through the tables PLAYLIST_SONG and USER_PLAYLIST.
 - Each playlist can have one or multiple songs and each song can be part of one or multiple playlists.
 - Each user can play one or multiple playlists and each playlist can be followed by multiple users.
4. Tables PLAN, PAYMENT_CHANNEL and USER are connected through the SUBSCRIPTION table.
 - Each user may or may not have an active subscription at a time.
 - Each plan can have one or multiple subscriptions.
 - Each payment_channel can have one or multiple subscriptions.

2. Entity Relation Diagram

1.1 Tables Overview and ERD

Database Table(s)	
Table Name	Description
album	contains data for all albums on the streaming service
artist	contains artist information like name, followers, etc.
song	contains song data like title, genre, language, etc.
plan	contains data on offered plans like title charges, duration, etc.
payment_channel	contains information on payment channels like cards, status, etc.
user	contains user data such as name, email, address, gender, etc.
playlist	contains information for playlists title, runtime, followers, etc.
playlist_song	table used to connect songs with playlist information
user_playlist	table used to connect user with available playlist
composition	tables bring information across albums, artists and song in one place
subscription	contains the user's subscription data on plan, payment, status, etc.



1.2 Tables-Columns Description

Table - album

Field Name	Description	Key
album_id	unique identifier for album	Primary Key
album_title	name of album	
record_company	record company sponsoring the album	
release_date	release date	
release_country	country of release	
added_date	system date for adding the record into album table	

Table - artist

Field Name	Description	Key
artist_id	unique identifier for artist	Primary Key
artist_name	name of artist	
artist_alias	alias that artist goes by	
artist_gender	gender of artist	
number_of_followers	number of followers for artist	
artist_country	origin country of artist	
added_date	system date for adding the record into artist table	

Table - song

Field Name	Description	Key
song_id	unique identifier for artist	Primary Key
song_title	title of song	
song_alias	alias that song goes by	
song_runtime	runtime of song in milliseconds	
song_language	language used in song	
song_genre	genre associated with song	
number_of_plays	number of times song has been played	
number_of_likes	number of likes song has been liked by users	
added_date	system date for adding the record into song table	

Table - plan

Field Name	Description	Key
plan_id	unique identifier for available plans	Primary Key
plan_title	title of plan	
plan_duration	duration of plan in months	
plan_amount	charges for subscribing the plan in USD	
added_date	system date for adding the record into plan table	

Table - payment_channel

Field Name	Description	Key
payment_channel_id	unique identifier for available payment channels	Primary Key
payment_channel_title	title of payment channel	
payment_channel_status	current status of payment channel	
added_date	system date for adding the record into payment_channel table	

Table - user

Field Name	Description	Key
user_id	unique identifier for music streaming service users	Primary Key
user_name	name of user	
birth_date	birth date of user	
user_gender	gender of user	
user_country	country that user belongs to	
email_id	email-id of user	
address	address of user	
phone_number	phone number of user	
user_type	type of user as Subscriber or, Guest	
added_date	system date for adding the record into user table	

Table - playlist

Field Name	Description	Key
playlist_id	unique identifier for compiled playlist	Primary Key
playlist_title	title of playlist	
playlist_runtime	runtime of playlist in milliseconds	
playlist_type	type of playlist	
number_of_followers	number of users who follow the playlist	
added_date	system date for adding the record into playlist table	

Table – playlist_song

Field Name	Description	Key
playlist_song_id	unique identifier for playlist's song	Primary Key
playlist_id	playlist identifier from playlist table	Foreign Key
song_id	song identifier from song table	Foreign Key
added_date	system date for adding the record into playlist_song table	

Table – user_playlist

Field Name	Description	Key
user_playlist_id	unique identifier for user accessed playlist	Primary Key
user_id	user identifier from user table	Foreign Key
playlist_id	playlist identifier from playlist table	Foreign Key
downloaded_flag	flag indicating whether playlist was downloaded by user	
added_date	system date for adding the record into user_playlist table	

Table - composition

Field Name	Description	Key
composition_id	unique identifier for composition information	Primary Key
artist_id	artist identifier from artist table	Foreign Key
album_id	album identifier from album table	Foreign Key
song_id	song identifier from song table	Foreign Key
added_date	system date for adding the record into composition table	

Table - subscription

Field Name	Description	Key
subscription_id	unique identifier for user subscription data	Primary Key
user_id	user identifier from user table	Foreign Key
plan_id	plan identifier from plan table	Foreign Key
payment_channel_id	payment channel identifier from payment_channel table	Foreign Key
start_date	start date of subscription	
end_date	end date of subscription	
subscription_status	status of subscription	
auto_renew_flag	flag indicating whether auto renew was enabled by user	
added_date	system date for adding the record into subscription table	

3. Database Creation

The app database comprises of 11 tables as included below:

1.1 DDL Scripts for Creation of Tables

-- Table Album contains released albums detail

```
CREATE TABLE album(  
album_id VARCHAR(50),  
album_title VARCHAR(50) NOT NULL,  
record_company VARCHAR(25) NOT NULL,  
release_date DATE NOT NULL,  
added_date DATE NOT NULL,  
PRIMARY KEY (album_id));
```

-- Table Artist contains artist details

```
CREATE TABLE artist(  
artist_id VARCHAR(50),  
artist_name VARCHAR(50) NOT NULL,  
artist_alias VARCHAR(25),  
artist_gender VARCHAR(10),  
number_of_followers INT(20),  
artist_country VARCHAR(25),  
added_date DATE NOT NULL,  
PRIMARY KEY (artist_id));
```

-- Table Song contains artist's created songs information

```
CREATE TABLE song(  
song_id VARCHAR(50),  
song_title VARCHAR(50) NOT NULL,  
song_alias VARCHAR(50),  
song_runtime INT(10),  
song_language VARCHAR(25),  
song_genre VARCHAR(50),  
number_of_plays INT(20),  
number_of_likes INT(20),  
added_date DATE NOT NULL,  
PRIMARY KEY (song_id));
```

-- Table Plan contains available plans for music streaming app users

```
CREATE TABLE plan(  
  plan_id INT(10),  
  plan_title VARCHAR(30) NOT NULL,  
  plan_duration INT(10),  
  plan_amount DECIMAL(5,2),  
  added_date DATE NOT NULL,  
  PRIMARY KEY (plan_id));
```

-- Table Payment_Channel contains available payment methods for app users

```
CREATE TABLE payment_channel(  
  payment_channel_id INT(10),  
  payment_channel_title VARCHAR(30) NOT NULL,  
  payment_channel_status VARCHAR(10),  
  added_date DATE NOT NULL,  
  PRIMARY KEY (payment_channel_id));
```

-- Table User contains app user's information

```
CREATE TABLE user(  
  user_id VARCHAR(20),  
  user_name VARCHAR(50) NOT NULL,  
  birth_date DATE,  
  user_gender VARCHAR(10),  
  user_country VARCHAR(25),  
  email_id VARCHAR(50),  
  address VARCHAR(200),  
  phone_number VARCHAR(20),  
  user_type VARCHAR(15) NOT NULL,  
  added_date DATE NOT NULL,  
  PRIMARY KEY (user_id));
```

-- Table Playlist contains compiled playlist details

```
CREATE TABLE playlist(  
  playlist_id VARCHAR(50),  
  playlist_title VARCHAR(100) NOT NULL,  
  playlist_runtime INT(20),  
  playlist_type VARCHAR(50),
```

```
number_of_followers INT(20),  
added_date DATE NOT NULL,  
PRIMARY KEY (playlist_id));
```

-- Table Playlist_Song contains playlist's songs

```
CREATE TABLE playlist_song(  
playlist_song_id INT(10),  
playlist_id VARCHAR(50) NULL,  
song_id VARCHAR(50) NULL,  
added_date DATE NOT NULL,  
PRIMARY KEY (playlist_song_id),  
FOREIGN KEY (playlist_id) REFERENCES playlist(playlist_id),  
FOREIGN KEY (song_id) REFERENCES song(song_id));
```

-- Table User_Playlist contains playlists accessed by the users

```
CREATE TABLE user_playlist(  
user_playlist_id VARCHAR(50),  
user_id VARCHAR(20) NULL,  
playlist_id VARCHAR(50) NULL,  
downloaded_flag CHAR(1),  
added_date DATE NOT NULL,  
PRIMARY KEY (user_playlist_id),  
FOREIGN KEY (user_id) REFERENCES user(user_id),  
FOREIGN KEY (playlist_id) REFERENCES playlist(playlist_id));
```

-- Table Composition contains artist's composition across the albums and songs

```
CREATE TABLE composition(  
composition_id INT(10),  
artist_id VARCHAR(50) NULL,  
album_id VARCHAR(50) NULL,  
song_id VARCHAR(50) NULL,  
added_date DATE NOT NULL,  
PRIMARY KEY (composition_id),  
FOREIGN KEY (artist_id) REFERENCES artist(artist_id),  
FOREIGN KEY (album_id) REFERENCES album(album_id),  
FOREIGN KEY (song_id) REFERENCES song(song_id));
```

-- Table Subscription contains user's subscribed data

```
CREATE TABLE subscription(
subscription_id INT(10),
user_id VARCHAR(20) NULL,
plan_id INT(10) NULL,
payment_channel_id INT(10) NULL,
start_date DATE,
end_date DATE,
subscription_status VARCHAR(10),
auto_renew_flag CHAR(1),
added_date DATE NOT NULL,
PRIMARY KEY (subscription_id),
FOREIGN KEY (user_id) REFERENCES user(user_id),
FOREIGN KEY (plan_id) REFERENCES plan(plan_id),
FOREIGN KEY (payment_channel_id) REFERENCES payment_channel(payment_channel_id));
```

#	Time	Action	Message	Duration / Fetch
12	15:01:23	CREATE TABLE album(album_id VARCHAR(50), album_title VARCHAR(50) NOT NULL, rec...	0 row(s) affected	0.078 sec
13	15:01:23	CREATE TABLE artist(artist_id VARCHAR(50), artist_name VARCHAR(50) NOT NULL, artist...	0 row(s) affected, 1 warning(s): 1681 Integer display width is deprecated and will be removed i...	0.078 sec
14	15:01:23	CREATE TABLE song(song_id VARCHAR(50), song_title VARCHAR(50) NOT NULL, song_...	0 row(s) affected, 3 warning(s): 1681 Integer display width is deprecated and will be removed i...	0.063 sec
15	15:01:23	CREATE TABLE plan(plan_id INT(10), plan_title VARCHAR(30) NOT NULL, plan_duration I...	0 row(s) affected, 2 warning(s): 1681 Integer display width is deprecated and will be removed i...	0.079 sec
16	15:01:23	CREATE TABLE payment_channel(payment_channel_id INT(10), payment_channel_title VA...	0 row(s) affected, 1 warning(s): 1681 Integer display width is deprecated and will be removed i...	0.063 sec
17	15:01:23	CREATE TABLE user(user_id VARCHAR(20), user_name VARCHAR(50) NOT NULL, birth_...	0 row(s) affected	0.063 sec
18	15:01:24	CREATE TABLE playlist(playlist_id VARCHAR(50), playlist_title VARCHAR(100) NOT NULL, ...	0 row(s) affected, 2 warning(s): 1681 Integer display width is deprecated and will be removed i...	0.063 sec
19	15:01:24	CREATE TABLE playlist_song(playlist_song_id INT(10), playlist_id VARCHAR(50) NULL, son...	0 row(s) affected, 1 warning(s): 1681 Integer display width is deprecated and will be removed i...	0.093 sec
20	15:01:24	CREATE TABLE user_playlist(user_playlist_id VARCHAR(50), user_id VARCHAR(20) NULL, ...	0 row(s) affected	0.094 sec
21	15:01:24	CREATE TABLE composition(composition_id INT(10), artist_id VARCHAR(50) NULL, album_...	0 row(s) affected, 1 warning(s): 1681 Integer display width is deprecated and will be removed i...	0.094 sec
22	15:01:24	CREATE TABLE subscription(subscription_id INT(10), user_id VARCHAR(20) NULL, plan_id ...	0 row(s) affected, 3 warning(s): 1681 Integer display width is deprecated and will be removed i...	0.109 sec

1.2 DML Scripts for Data Insertion in Tables

The entries were added to tables in an order that maintained referential integrity.

-- INSERT INTO album table

```
INSERT INTO album VALUES('02tlakRsIFGW8sO4pBtJgJ', 'Neotheater', 'Death Row', '2022-07-01', '2022-07-01');
```

```
INSERT INTO album VALUES('02wYIKnvxHqwr5m5X3wVQG', 'Brain Disorder - EP', 'Sony', '2020-01-21', '2020-01-21');
```

```
INSERT INTO album VALUES('0AKuWXcsRF1NmDP7YouXk2', 'Get Money', 'Lime Records', '2021-06-01', '2021-06-01');
```

```
INSERT INTO album VALUES('106XQVyuqKuW1mFE2ER7bZ', 'what happened', 'Universal', '2021-04-16', '2021-04-16');
```

```
INSERT INTO album VALUES('11Ru2GeXZmOgXAjwtaAtSk', 'John Dee', 'Blue Wire', '2022-09-09', '2022-09-09');
```

```




INSERT INTO album VALUES('16lBrGQxR5nAVvMVPpP2NE', 'Amy Locust Whatever', 'Death
Row', '2022-01-13', '2022-01-13');
INSERT INTO album VALUES('1rfUwzULy9A6KPJPAMRW8G', 'I Dont Know', 'Lime Records',
'2021-05-14', '2021-05-14');
INSERT INTO album VALUES('1wTqdsmCCQQLCQjXZM3H59', 'Brain Salad Surgery', 'Universal',
'2021-07-22', '2021-07-22');
INSERT INTO album VALUES('1ZECAGsOPwGB3nwZC8Pqnl', 'Mad Liberation', 'Mint records',
'2022-03-22', '2022-03-22');
INSERT INTO album VALUES('25Gi0Cqs9E26ztzNevJpQU', 'Anastasy', 'Sony', '2021-03-18', '2021-
03-18');
INSERT INTO album VALUES('3MzHv1bXT2KR73iWcVuB8Q', 'Tear It Down', 'Sony', '2021-05-05',
'2021-05-05');
INSERT INTO album VALUES('3R3x4zlabsvpD3yxqLaUpc', 'An Innocent Man', 'Universal', '2021-
02-05', '2021-02-05');
INSERT INTO album VALUES('3VQuuzb980WzIV29yv4oeq', 'Dababy', 'Death Row', '2021-09-21',
'2021-09-21');
INSERT INTO album VALUES('4L3NypDieOS8taEKJRdGbY', 'Vem Mulher', 'Universal', '2020-09-
22', '2020-09-22');
INSERT INTO album VALUES('4OkA09FvGYrV1cwJghn0BW', 'Haloes', 'Sony', '2022-06-20', '2022-
06-20');
INSERT INTO album VALUES('4yOWnTrCkOOpl4liVnpj3H', 'X (Deluxe Version)', 'Mint records',
'2022-05-05', '2022-05-05');
INSERT INTO album VALUES('54DjkEN3wdCQgfCTZ9WjdB', 'Parade', 'Mint records', '2020-01-
03', '2020-01-03');
INSERT INTO album VALUES('5IbET08TfVlxiolQ9YSjWo', 'R.O.S.S.', 'Universal', '2020-02-24',
'2020-02-24');
INSERT INTO album VALUES('658wGGULI0Jkm1Ee0S8k9g', 'Yeah', 'Mint records', '2022-09-01',
'2022-09-01');
INSERT INTO album VALUES('68psFr57W11XOyGdB2IOzk', 'Carry On (Acoustic)', 'Death Row',
'2022-02-17', '2022-02-17');
INSERT INTO album VALUES('6Syxhy1xpKZXWO8Kpm34G3', 'Zorra', 'Death Row', '2021-05-13',
'2021-05-13');
INSERT INTO album VALUES('70kdvnoDEA1srIsofErTEw', 'Let It All Go', 'Blue Wire', '2020-07-10',
'2020-07-10');

```

Action Output				
#	Time	Action	Message	Duration / Fetch
23	15:01:37	INSERT INTO album VALUES('02lakRsiFGW8o4pBtJg', 'Neotheater', 'Death Row', '2022-...	1 row(s) affected	0.016 sec
24	15:01:37	INSERT INTO album VALUES('02wYlKnoHqWR5m5X3wVQG', 'Brain Disorder - EP', 'Sony', '...	1 row(s) affected	0.016 sec
25	15:01:37	INSERT INTO album VALUES('0AKuWXcsRF1NmdP7YouXkZ', 'Get Money', 'Lime Records', ...	1 row(s) affected	0.015 sec
26	15:01:37	INSERT INTO album VALUES('106XQYyuqKuW1mFE2ER7bZ', 'what happened', 'Universal', ...	1 row(s) affected	0.000 sec
27	15:01:37	INSERT INTO album VALUES('11Ru2GeXZnOgXAwtAAkSk', 'John Dee', 'Blue Wire', '2022-...	1 row(s) affected	0.015 sec
28	15:01:37	INSERT INTO album VALUES('16lBrGQxR5nAVvMVPpP2NE', 'Amy Locust Whatever', 'Deat...	1 row(s) affected	0.016 sec
29	15:01:37	INSERT INTO album VALUES('1rfUwzULy9A6KPJPAMRW8G', 'I Dont Know', 'Lime Records...	1 row(s) affected	0.016 sec
30	15:01:37	INSERT INTO album VALUES('1wTqdsmCCQQLCQjXZM3H59', 'Brain Salad Surgery', 'Unive...	1 row(s) affected	0.000 sec
31	15:01:37	INSERT INTO album VALUES('1ZECAGsOPwGB3nwZC8Pqnl', 'Mad Liberation', 'Mint record...	1 row(s) affected	0.015 sec
32	15:01:37	INSERT INTO album VALUES('25Gi0Cqs9E26ztzNevJpQU', 'Anastasy', 'Sony', '2021-03-18', ...	1 row(s) affected	0.016 sec

-- Display album table data

```
SELECT * FROM album;
```

Result Grid					
Filter Rows: <input type="text"/>					
Edit:   					
Export/Import:  					
Wrap					
	album_id	album_title	record_company	release_date	added_date
▶	02tiakRsIFGW8sO4pBtJgj	Neotheater	Death Row	2022-07-01	2022-07-01
	02wYlKnxvXhqwR5m5X3wVQG	Brain Disorder - EP	Sony	2020-01-21	2020-01-21
	0AKuWXcsRF1NmdP7YouXk2	Get Money	Lime Records	2021-06-01	2021-06-01
	106XQVyuqKuW1mFE2ER7bZ	what happened	Universal	2021-04-16	2021-04-16
	11Ru2GeXZmOgXAjwAAAtSk	John Dee	Blue Wire	2022-09-09	2022-09-09
	16IBrGQxR5nAvvMVPpP2NE	Amy Locust Whatever	Death Row	2022-01-13	2022-01-13
	1rfUwzULy9A6KPJPAMRW8G	I Dont Know	Lime Records	2021-05-14	2021-05-14
	1wTqdsMCCQQLCQjXZM3H59	Brain Salad Surgery	Universal	2021-07-22	2021-07-22
	1ZECAGsOPwGB3nwZC8Pqnl	Mad Liberation	Mint records	2022-03-22	2022-03-22
	25Gi0Cqs9E26ztzNevJpQU	Anastasy	Sony	2021-03-18	2021-03-18

-- INSERT INTO artist table

```
INSERT INTO artist VALUES('7mLatcwUn8BLmVrgfFnzqC', 'Alan Ross', 'Alan', 'Female', 333907, 'Germany', '2020-01-01');
```

```
INSERT INTO artist VALUES('7MHkweinOceprzkRWIYTtc', 'Avicii', 'Avi', 'Male', 411362, 'Spain', '2020-01-01');
```

```
INSERT INTO artist VALUES('7MD0vUh6C3AMn1Uh1DNasq', 'The Game', 'Game', 'Male', 391174, 'Brazil', '2020-01-01');
```

```
INSERT INTO artist VALUES('7m9j9N42SLMCuALFwC6tD4', 'Blvckross', 'Blvck', 'Female', 876398, 'Spain', '2021-04-16');
```

```
INSERT INTO artist VALUES('7m1oRKYiZCfuKXRMWGefWR', 'Chris R', 'R', 'Male', 765504, 'Germany', '2020-01-01');
```

```
INSERT INTO artist VALUES('7lxw3IBFL1tzODZr3KFHa8', 'GRiZ', 'RiZ', 'Female', 436339, 'Belgium', '2020-01-01');
```

```
INSERT INTO artist VALUES('7IVxWMHOC3Bj8b8JLkh9EN', 'Ina Wroldsen', 'Ina', 'Male', 348020, 'USA', '2021-05-14');
```

```
INSERT INTO artist VALUES('7IPo7aUbqNz5qmcan9Oj3F', 'Chris Brown', 'Chris', 'Male', 679942, 'France', '2020-01-01');
```

```
INSERT INTO artist VALUES('7IPaEd1BqOycaFRo05WlWk', 'Jayover', 'Jay', 'Male', 434690, 'USA', '2020-01-01');
```

```
INSERT INTO artist VALUES('7LP4Es66zdY7CyjepqmvAg', 'TheLavish', 'Lavish', 'Male', 606691, 'France', '2021-03-18');
```

```
INSERT INTO artist VALUES('7LKRv9zrKDrLOO8jcFPQxA', 'Tove Lo', 'Tove', 'Male', 362368, 'England', '2020-01-01');
```

```
INSERT INTO artist VALUES('7LeQ55Z5jPBB0ggYJtAiYO', 'Brodinski', 'Brodin', 'Female', 114168, 'USA', '2021-02-05');
```

```
INSERT INTO artist VALUES('7I4OLV2EKT2jHd7kx0EzxV', 'AJR', 'AJ', 'Female', 46540, 'Belgium', '2020-01-01');
```



```

INSERT INTO artist VALUES('7KW3XQV5Or5CF57MYVj5h4', 'Erica', 'Eri', 'Female', 146711,
'Brazil', '2020-01-01');
INSERT INTO artist VALUES('7kQkmyoHCEqwe7QwDbkSXM', 'Young Rising Sons', 'Rising Sons',
'Female', 870729, 'USA', '2022-06-20');
INSERT INTO artist VALUES('7kjrRqp04GGWo7TYhChjpJ', 'Bad Gyal', 'Gyal', 'Male', 393403,
'Brazil', '2020-01-01');
INSERT INTO artist VALUES('7MKz0cVnK5cGImTwxyECKm', 'Cyberbully Mom Club', 'Cyberbully
Club', 'Female', 321187, 'Spain', '2020-01-01');
INSERT INTO artist VALUES('7M2t0mMSjLJSweu8BwrY2R', 'Prince', 'Pri', 'Female', 852231,
'France', '2020-01-01');
INSERT INTO artist VALUES('7LYMT7ZaJC6KaKaXod9qNq', 'Ghostemane', 'Ghost', 'Female',
682482, 'England', '2020-01-01');
INSERT INTO artist VALUES('7mp3ILy8RaBLr6zzhPyWD', 'Birdy', 'Bird', 'Male', 507589, 'Spain',
'2022-02-17');

```

Output					
Action Output					
#	Time	Action	Message	Duration / Fetch	
45	15:01:38	INSERT INTO artist VALUES(7mLatowUn8BLmVrgFrnzqC, 'Alan Ross', 'Alan', 'Female', 333...	1 row(s) affected	0.000 sec	
46	15:01:38	INSERT INTO artist VALUES(7MHkweinOceprzkRWIYTtc, 'Avicii', 'Avi', 'Male', 411362, 'S...	1 row(s) affected	0.000 sec	
47	15:01:38	INSERT INTO artist VALUES(7MD0vUh6C3AMn1Uh1DNsq, 'The Game', 'Game', 'Male', 3...	1 row(s) affected	0.015 sec	
48	15:01:38	INSERT INTO artist VALUES(7m99N42SLMCuALFwC8D4, 'Bivokross', 'Bivok', 'Female', 87...	1 row(s) affected	0.016 sec	
49	15:01:38	INSERT INTO artist VALUES(7mtoRKYiZCfuKXRMWGeWR, 'Chris R', 'R', 'Male', 765504, ...	1 row(s) affected	0.016 sec	
50	15:01:38	INSERT INTO artist VALUES(7xw3IBFLtzODZ3KfHa8, 'GRIZ', 'RIZ', 'Female', 436339, 'B...	1 row(s) affected	0.000 sec	
51	15:01:38	INSERT INTO artist VALUES(7VxWMH0C3Bj8bJLkh9EN, 'Ina Wroldsen', 'Ina', 'Male', 348...	1 row(s) affected	0.000 sec	
52	15:01:38	INSERT INTO artist VALUES(7Po7aUbqNz5qmcAn9Oj3F, 'Chris Brown', 'Chris', 'Male', 6799...	1 row(s) affected	0.016 sec	
53	15:01:38	INSERT INTO artist VALUES(7PaEd1BqOycaFRo05WIwK, 'Jayover', 'Jay', 'Male', 434690, ...	1 row(s) affected	0.016 sec	
54	15:01:38	INSERT INTO artist VALUES(7LP4Es66zdY7CjyepqmvAg, 'TheLavish', 'Lavish', 'Male', 606...	1 row(s) affected	0.015 sec	

-- Display artist table data

```
SELECT * FROM artist;
```

Result Grid							
		Filter Rows:	Edit:		Export/Import:	Wrap Cell Contents:	
artist_id	artist_name	artist_alias	artist_gender	number_of_followers	artist_country	added_date	
7kjrRqp04GGWo7TYhChjpJ	Bad Gyal	Gyal	Male	393403	Brazil	2020-01-01	
7kQkmyoHCEqwe7QwDbkSXM	Young Rising Sons	Rising Sons	Female	870729	USA	2022-06-20	
7KW3XQV5Or5CF57MYVj5h4	Erica	Eri	Female	146711	Brazil	2020-01-01	
7f4OLV2EKT2jHd7kx0EzxV	AJR	AJ	Female	46540	Belgium	2020-01-01	
7LeQ55Z5jPBB0ggYJtAiYO	Brodinski	Brodin	Female	114168	USA	2021-02-05	
7LKRv9zrKDrLO08jCFQxA	Tove Lo	Tove	Male	362368	England	2020-01-01	
7LP4Es66zdY7CjyepqmvAg	TheLavish	Lavish	Male	606691	France	2021-03-18	
7PaEd1BqOycaFRo05WIwK	Jayover	Jay	Male	434690	USA	2020-01-01	
7Po7aUbqNz5qmcAn9Oj3F	Chris Brown	Chris	Male	679942	France	2020-01-01	
7VxWMH0C3Bj8bJLkh9EN	Ina Wroldsen	Ina	Male	348020	USA	2021-05-14	

-- INSERT INTO song table

```

INSERT INTO song VALUES('01D4b305MQyfJfiHHsHkQu', 'Blackhawk', 'Blackhawk', 168856,
'English', 'gangster rap', 46100, 3526, '2021-05-14');
INSERT INTO song VALUES('04gQHzS8FLPoNdnRKw4jDJ', 'Wow, I am Not Crazy', 'Wow, I am Not
Crazy', 196763, 'Spanish', 'indie popoptimism', 53342, 6650, '2021-04-16');

```



```

INSERT INTO song VALUES('0DvhfhHlIE4HqgBX8yDJz3', 'Carry On - Acoustic', 'Carry On - Acoustic', 207880, 'Spanish', 'indie poptimism', 44491, 3751, '2022-02-17');
INSERT INTO song VALUES('0OP1RzrglC008kj79Httv3', 'Zorra', 'Zorra', 186120, 'Spanish', 'dance pop', 70098, 9237, '2022-02-17');
INSERT INTO song VALUES('0RURdPb5FeKDxrl26KSUV1', '9H', '9H', 194325, 'English', 'gangster rap', 21376, 8044, '2021-05-14');
INSERT INTO song VALUES('18AJRdgUoO9EYn11N7xzaT', 'Habits (Stay High)', 'Habits (Stay High)', 209160, 'English', 'electropop', 45998, 9119, '2021-02-05');
INSERT INTO song VALUES('1DgwC3jQkAml7Os6XjxKmY', 'White owl', 'White owl', 232777, 'English', 'gangster rap', 68748, 4239, '2021-05-14');
INSERT INTO song VALUES('1kiEueR1jHSW2dD4LSD6X0', 'Smash the Funk', 'Smash the Funk', 410204, 'French', 'electropop', 49561, 7297, '2021-03-18');
INSERT INTO song VALUES('1O7LD3kX8b75oLmHdCvGRb', 'I Dont Know', 'I Dont Know', 195429, 'Spanish', 'dance pop', 30678, 1425, '2022-02-17');
INSERT INTO song VALUES('2oIc3yUshnfNpy4NjJFAWO', 'Anastasy', 'Anastasy', 201509, 'English', 'dance pop', 72132, 9721, '2021-02-05');
INSERT INTO song VALUES('2WwXhtq2knsErc7ojO0Dgb', 'My Life', 'My Life', 320893, 'English', 'southern hip hop', 14181, 6130, '2021-05-14');
INSERT INTO song VALUES('2zh9VJU5HyZDBJlfdTpeOC', 'Love Me Like You Do', 'Love Me Like You Do', 176000, 'English', 'neo soul', 20803, 7905, '2021-02-05');
INSERT INTO song VALUES('39nlQ3RFgKNMugzPjPWn2v', 'Still', 'Still', 201297, 'Spanish', 'southern hip hop', 19660, 8711, '2022-02-17');
INSERT INTO song VALUES('3jGnPHFrBCTdtEXbfeXgH', 'Dope Boys', 'Dope Boys', 240507, 'French', 'gangster rap', 26233, 1836, '2021-03-18');
INSERT INTO song VALUES('49TrrciRvL6X0VSP4Q3HhA', 'Cali Sunshine', 'Cali Sunshine', 273173, 'English', 'southern hip hop', 59308, 7398, '2022-06-20');
INSERT INTO song VALUES('4B0tKXJguUI5YqW5wDcjNe', 'Came To Do', 'Came To Do', 228400, 'Spanish', 'southern hip hop', 57022, 9092, '2022-02-17');
INSERT INTO song VALUES('4vxSJyTGsAxnXWDuYseeQP', 'Life Time Warranty', 'Life Time Warranty', 203651, 'English', 'indie poptimism', 41019, 1757, '2021-02-05');
INSERT INTO song VALUES('5VIYmXVnGycwv2eaDpyS5Q', 'what happened', 'what happened', 176310, 'English', 'dance pop', 48629, 8852, '2021-05-14');
INSERT INTO song VALUES('62LJFaYihsdVrrkgUOJC05', 'Kiss', 'Kiss', 226240, 'Spanish', 'electropop', 77560, 9327, '2022-02-17');
INSERT INTO song VALUES('62N2JSA0jHmSH7Va9t7hlf', 'Habits (Stay High)', 'Habits (Stay High)', 258933, 'English', 'indie poptimism', 68907, 664, '2022-06-20');
INSERT INTO song VALUES('70K0ezmzYEZeqoSazMyP7o', 'Let It All Go', 'Let It All Go', 280757, 'Spanish', 'indie poptimism', 31884, 7955, '2022-02-17');
INSERT INTO song VALUES('7kqcudBGM74MXVoYMaOWkC', 'Loyal', 'Loyal', 264947, 'French', 'indie poptimism', 66815, 8444, '2021-03-18');
INSERT INTO song VALUES('7vLR7NDAadIXfwjl2nw5Nr', 'Haloes', 'Haloes', 171344, 'French', 'dance pop', 70311, 319, '2021-03-18');

```

#	Time	Action	Message	Duration / Fetch
65	15:01:38	INSERT INTO song VALUES('01D4b305MQyJfHhHkQu', 'Blackhawk', 'Blackhawk', 1688...	1 row(s) affected	0.000 sec
66	15:01:38	INSERT INTO song VALUES('04gQHzS8FLPoNdnRKw4DJ', 'Wow, I am Not Crazy', 'Wow, I...	1 row(s) affected	0.016 sec
67	15:01:38	INSERT INTO song VALUES('0DvfhHIE4HagBX8yDJz3', 'Carry On - Acoustic', 'Carry On - ...	1 row(s) affected	0.000 sec
68	15:01:38	INSERT INTO song VALUES('0OP1RzrgC008kj79Httv3', 'Zorra', 'Zorra', 186120, 'Spanish', '...	1 row(s) affected	0.000 sec
69	15:01:38	INSERT INTO song VALUES('0RURdPb5FeKDxt26KSUV1', '9H', '9H', 194325, 'English', 'ga...	1 row(s) affected	0.016 sec
70	15:01:38	INSERT INTO song VALUES('18AJRdgUo09EYn11N7xzaT', 'Habits (Stay High)', 'Habits (St...	1 row(s) affected	0.000 sec
71	15:01:38	INSERT INTO song VALUES('1DgwC3QkAmI70s6XjxmY', 'White owl', 'White owl', 232777...	1 row(s) affected	0.000 sec
72	15:01:38	INSERT INTO song VALUES('1kiEueR1jHSW2dD4LSD6X0', 'Smash the Funk', 'Smash the ...	1 row(s) affected	0.016 sec
73	15:01:38	INSERT INTO song VALUES('1O7LD3kX8b75oLmHdCvGRb', 'I Dont Know', 'I Dont Know', ...	1 row(s) affected	0.016 sec
74	15:01:38	INSERT INTO song VALUES('2oIc3yUshrfNpy4NjFAWO', 'Anastasy', 'Anastasy', 201509, '...	1 row(s) affected	0.000 sec

-- Display song table data

SELECT * FROM song;

song_id	song_title	song_alias	song_runtime	song_language	song_genre	number_of_plays	number_of_likes	added_date
01D4b305MQyJfHhHkQu	Blackhawk	Blackhawk	168856	English	gangster rap	46100	3526	2021-05-14
04gQHzS8FLPoNdnRKw4DJ	Wow, I am Not Crazy	Wow, I am Not Crazy	196763	Spanish	indie popitism	53342	6650	2021-04-16
0DvfhHIE4HagBX8yDJz3	Carry On - Acoustic	Carry On - Acoustic	207880	Spanish	indie popitism	44491	3751	2022-02-17
0OP1RzrgC008kj79Httv3	Zorra	Zorra	186120	Spanish	dance pop	70098	9237	2022-02-17
0RURdPb5FeKDxt26KSUV1	9H	9H	194325	English	gangster rap	21376	8044	2021-05-14
18AJRdgUo09EYn11N7xzaT	Habits (Stay High)	Habits (Stay High)	209160	English	electropop	45998	9119	2021-02-05
1DgwC3QkAmI70s6XjxmY	White owl	White owl	232777	English	gangster rap	68748	4239	2021-05-14
1kiEueR1jHSW2dD4LSD6X0	Smash the Funk	Smash the Funk	410204	French	electropop	49561	7297	2021-03-18
1O7LD3kX8b75oLmHdCvGRb	I Dont Know	I Dont Know	195429	Spanish	dance pop	30678	1425	2022-02-17
2oIc3yUshrfNpy4NjFAWO	Anastasy	Anastasy	201509	English	dance pop	72132	9721	2021-02-05

-- INSERT INTO plan table

```

INSERT INTO plan VALUES(747831, 'Individual Monthly',1,11.99, '2020-01-01');
INSERT INTO plan VALUES(747832, 'Duo Monthly',1,14.99, '2020-01-01');
INSERT INTO plan VALUES(747833, 'Family Monthly',1,18.99, '2020-01-01');
INSERT INTO plan VALUES(747834, 'Student Monthly',1,5.99, '2020-01-01');
INSERT INTO plan VALUES(747835, 'Individual Quarterly',3,9.99, '2020-01-01');
INSERT INTO plan VALUES(747836, 'Duo Quarterly',3,12.99, '2020-01-01');
INSERT INTO plan VALUES(747837, 'Family Quarterly',3,15.99, '2020-01-01');
INSERT INTO plan VALUES(747838, 'Student Quarterly',3,4.99, '2020-01-01');
INSERT INTO plan VALUES(747839, 'Individual Semiannual',6,17.99, '2020-01-01');
INSERT INTO plan VALUES(747840, 'Duo Semiannual',6,23.99, '2020-01-01');
INSERT INTO plan VALUES(747841, 'Family Semiannual',6,28.99, '2020-01-01');
INSERT INTO plan VALUES(747842, 'Student Semiannual',6,8.99, '2020-01-01');
INSERT INTO plan VALUES(747843, 'Individual Trimester',9,23.99, '2020-01-01');
INSERT INTO plan VALUES(747844, 'Duo Trimester',9,31.99, '2020-01-01');
INSERT INTO plan VALUES(747845, 'Family Trimester',9,38.99, '2020-01-01');
INSERT INTO plan VALUES(747846, 'Student Trimester',9,11.99, '2020-01-01');
INSERT INTO plan VALUES(747847, 'Individual Annual',12,27.99, '2020-01-01');
INSERT INTO plan VALUES(747848, 'Duo Annual',12,36.99, '2020-01-01');
INSERT INTO plan VALUES(747849, 'Family Annual',12,44.99, '2020-01-01');
INSERT INTO plan VALUES(747850, 'Student Annual',12,13.99, '2020-01-01');

```

#	Time	Action	Message	Duration / Fetch
88	15:01:38	INSERT INTO plan VALUES(747831, 'Individual Monthly', 1, 11.99, '2020-01-01')	1 row(s) affected	0.015 sec
89	15:01:38	INSERT INTO plan VALUES(747832, 'Duo Monthly', 1, 14.99, '2020-01-01')	1 row(s) affected	0.016 sec
90	15:01:38	INSERT INTO plan VALUES(747833, 'Family Monthly', 1, 18.99, '2020-01-01')	1 row(s) affected	0.015 sec
91	15:01:38	INSERT INTO plan VALUES(747834, 'Student Monthly', 1, 5.99, '2020-01-01')	1 row(s) affected	0.016 sec
92	15:01:38	INSERT INTO plan VALUES(747835, 'Individual Quarterly', 3, 9.99, '2020-01-01')	1 row(s) affected	0.000 sec
93	15:01:38	INSERT INTO plan VALUES(747836, 'Duo Quarterly', 3, 12.99, '2020-01-01')	1 row(s) affected	0.000 sec
94	15:01:39	INSERT INTO plan VALUES(747837, 'Family Quarterly', 3, 15.99, '2020-01-01')	1 row(s) affected	0.016 sec
95	15:01:39	INSERT INTO plan VALUES(747838, 'Student Quarterly', 3, 4.99, '2020-01-01')	1 row(s) affected	0.015 sec
96	15:01:39	INSERT INTO plan VALUES(747839, 'Individual Semiannual', 6, 17.99, '2020-01-01')	1 row(s) affected	0.016 sec
97	15:01:39	INSERT INTO plan VALUES(747840, 'Duo Semiannual', 6, 23.99, '2020-01-01')	1 row(s) affected	0.000 sec

-- Display plan table data

SELECT * FROM plan;

plan_id	plan_title	plan_duration	plan_amount	added_date
747831	Individual Monthly	1	11.99	2020-01-01
747832	Duo Monthly	1	14.99	2020-01-01
747833	Family Monthly	1	18.99	2020-01-01
747834	Student Monthly	1	5.99	2020-01-01
747835	Individual Quarterly	3	9.99	2020-01-01
747836	Duo Quarterly	3	12.99	2020-01-01
747837	Family Quarterly	3	15.99	2020-01-01
747838	Student Quarterly	3	4.99	2020-01-01
747839	Individual Semiannual	6	17.99	2020-01-01
747840	Duo Semiannual	6	23.99	2020-01-01

-- INSERT INTO payment_channel table

INSERT INTO payment_channel VALUES(2089081, 'Visa Credit Card', 'Active', '2020-01-01');

INSERT INTO payment_channel VALUES(2089082, 'Visa Debit Card', 'Active', '2020-01-01');

INSERT INTO payment_channel VALUES(2089083, 'Mastercard Credit Card', 'Active', '2020-01-01');

INSERT INTO payment_channel VALUES(2089084, 'Mastercard Debit Card', 'Active', '2020-01-01');

INSERT INTO payment_channel VALUES(2089085, 'Amex Credit Card', 'Active', '2020-01-01');

INSERT INTO payment_channel VALUES(2089086, 'Amex Debit Card', 'Active', '2020-01-01');

INSERT INTO payment_channel VALUES(2089087, 'Discover Credit Card', 'Active', '2020-01-01');

INSERT INTO payment_channel VALUES(2089088, 'Discover Debit Card', 'Active', '2020-01-01');

INSERT INTO payment_channel VALUES(2089089, 'Prepaid Cards', 'Active', '2020-01-01');

INSERT INTO payment_channel VALUES(2089090, 'Apple Pay', 'Active', '2020-01-01');

INSERT INTO payment_channel VALUES(2089091, 'Paypal', 'Active', '2020-01-01');

INSERT INTO payment_channel VALUES(2089092, 'Bank Transfer', 'Active', '2020-01-01');

INSERT INTO payment_channel VALUES(2089093, 'Zelle', 'Active', '2020-01-01');


```

INSERT INTO payment_channel VALUES(2089094, 'Credit Card', 'Inactive', '2020-01-01');
INSERT INTO payment_channel VALUES(2089095, 'Debit Card', 'Inactive', '2020-01-01');
INSERT INTO payment_channel VALUES(2089096, 'Amex Credit Card', 'Inactive', '2020-01-01');
INSERT INTO payment_channel VALUES(2089097, 'Amex Debit Card', 'Inactive', '2020-01-01');
INSERT INTO payment_channel VALUES(2089098, 'Discover Credit Card', 'Inactive', '2020-01-01');
INSERT INTO payment_channel VALUES(2089099, 'Discover Debit Card', 'Inactive', '2020-01-01');
INSERT INTO payment_channel VALUES(2089100, 'Prepaid Cards', 'Inactive', '2020-01-01');

```

#	Time	Action	Message	Duration / Fetch
108	15:01:39	INSERT INTO payment_channel VALUES(2089081, 'Visa Credit Card', 'Active', '2020-01-01')	1 row(s) affected	0.000 sec
109	15:01:39	INSERT INTO payment_channel VALUES(2089082, 'Visa Debit Card', 'Active', '2020-01-01')	1 row(s) affected	0.000 sec
110	15:01:39	INSERT INTO payment_channel VALUES(2089083, 'Mastercard Credit Card', 'Active', '2020-01-01')	1 row(s) affected	0.015 sec
111	15:01:39	INSERT INTO payment_channel VALUES(2089084, 'Mastercard Debit Card', 'Active', '2020-01-01')	1 row(s) affected	0.015 sec
112	15:01:39	INSERT INTO payment_channel VALUES(2089085, 'Amex Credit Card', 'Active', '2020-01-01')	1 row(s) affected	0.015 sec
113	15:01:39	INSERT INTO payment_channel VALUES(2089086, 'Amex Debit Card', 'Active', '2020-01-01')	1 row(s) affected	0.000 sec
114	15:01:39	INSERT INTO payment_channel VALUES(2089087, 'Discover Credit Card', 'Active', '2020-01-01')	1 row(s) affected	0.000 sec
115	15:01:39	INSERT INTO payment_channel VALUES(2089088, 'Discover Debit Card', 'Active', '2020-01-01')	1 row(s) affected	0.015 sec
116	15:01:39	INSERT INTO payment_channel VALUES(2089089, 'Prepaid Cards', 'Active', '2020-01-01')	1 row(s) affected	0.016 sec
117	15:01:39	INSERT INTO payment_channel VALUES(2089090, 'Apple Pay', 'Active', '2020-01-01')	1 row(s) affected	0.000 sec

-- Display payment_channel table data

```
SELECT * FROM payment_channel;
```

payment_channel_id	payment_channel_title	payment_channel_status	added_date
2089081	Visa Credit Card	Active	2020-01-01
2089082	Visa Debit Card	Active	2020-01-01
2089083	Mastercard Credit Card	Active	2020-01-01
2089084	Mastercard Debit Card	Active	2020-01-01
2089085	Amex Credit Card	Active	2020-01-01
2089086	Amex Debit Card	Active	2020-01-01
2089087	Discover Credit Card	Active	2020-01-01
2089088	Discover Debit Card	Active	2020-01-01
2089089	Prepaid Cards	Active	2020-01-01
2089090	Apple Pay	Active	2020-01-01

-- INSERT INTO user table

```

INSERT INTO user VALUES('ALdSEltor', 'Madison Gardner', '1993-09-05', 'Male', 'USA',
'gardner.madison23@gmail.com', '604 Vandervort Island, Apt. 005, 14893-4417,
Murphyborough, North Dakota, United States', '(819) 965-1291', 'Subscriber', '2022-03-16');
INSERT INTO user VALUES('angEYErC', 'Amber Lyons', '2000-03-19', 'Female', 'Spain',
'amber.lyons@gmail.com', 'Vía Joaquín Soria, 9 Puerta 297, Esc. 532, 71137, Granada, Canarias,
Spain', '(641) 904-2448', 'Guest', '2020-04-03');

```

```
INSERT INTO user VALUES('coNmArdi', 'Brandon Pierce', '1993-09-16', 'Male', 'Italy',
'brandon.pierce@gmail.com', 'Piazza Trieste, Santa Marinella Roma,76651,Italy', '(234) 109-
6666', 'Subscriber', '2021-12-25');
INSERT INTO user VALUES('endishoNC', 'Cheryl Sparks', '1990-09-13', 'Male', 'India',
'cheryl95@yahoo.com', '76,Chandni Chowki,Old Delhi,India', '(796) 799-6557', 'Guest', '2021-
06-06');
INSERT INTO user VALUES('EtHABiFY', 'Kelley', '2000-03-19', 'Female', 'France',
'jameskelley30@gmail.com', 'Damaschkestr. 71a, Zimmer 798, 08609, Kühnscheid, Hessen,
France', '(523) 489-2839', 'Subscriber', '2021-01-22');
INSERT INTO user VALUES('eUtICKETi', 'Michael Ballard', '2004-10-17', 'Male', 'France',
'michael.ballard007@yahoo.com', '6813 Place de la Ferronnerie, Apt. 747, 13934, Levallois-
Perret, Champagne-Ardenne, France', '(554) 858-1538', 'Guest', '2022-01-02');
INSERT INTO user VALUES('FRucoNm', 'Anthony Dsouza', '1996-07-05', 'Male', 'USA',
'anthony.dee@yahoo.com', 'Apt. 327, 218296,Miami, United States', '(564) 178-5643', 'Guest',
'2020-09-08');
INSERT INTO user VALUES('FRuNsTIS', 'Christopher Lopez', '1993-09-16', 'Female', 'USA',
'christopher.lopez34@yahoo.com', '798 Morris Mountains Suite 028,Washington,United
States', '(448) 665-0374', 'Subscriber', '2021-05-29');
INSERT INTO user VALUES('iNkELmYR', 'Mike King', '1988-03-28', 'Male', 'Italy',
'mike.king34@yahoo.com', 'Incrocio Egizia 92, Appartamento 74, Appartamento 09, 56503, San
Milena calabro, Siena, Italy', '(252) 260-4265', 'Subscriber', '2021-04-13');
INSERT INTO user VALUES('INtRanFe', 'Tracey Crosby', '1988-03-28', 'Male', 'England',
'tracey.crosby34@yahoo.com', '5706 Worchester Drive,36116,Bradford', '(973) 809-3749',
'Guest', '2022-09-02');
INSERT INTO user VALUES('IROcralyS', 'Wanda Hardy', '1995-04-28', 'Female', 'Spain',
'wanda12@gmail.com', 'Riera Rodrigo Oquendo 5, Puerta 799, 56948, Las Palmas de Gran
Canaria, Andalucía, Spain', '(906) 615-7665', 'Subscriber', '2021-01-31');
INSERT INTO user VALUES('jOHMAtenC', 'Amy Robinson', '2004-09-19', 'Male', 'Sri Lanka',
'amyrobinson20@gmail.com', '42, Old road,90827,Colombo,Sri Lanka', '(253) 644-2182',
'Guest', '2022-03-02');
INSERT INTO user VALUES('LarAnantr', 'Charles George', '2000-09-29', 'Female', 'Pakistan',
'charlesgeorge12@gmail.com', '23,new market,31098,Lahore,Pakistan', '(248) 762-0356',
'Subscriber', '2022-02-23');
INSERT INTO user VALUES('louseMENT', 'Aaron Ramirez', '1989-01-27', 'Female', 'England',
'aaron95@yahoo.com', '6118 North 60th Avenue, London,England', '(437) 891-7999',
'Subscriber', '2022-10-07');
INSERT INTO user VALUES('PeSpReByP', 'Dana Peterson', '1994-06-08', 'Female', 'USA',
'dana_peterson121@hotmail.com', '22 Francesco Lakes, East Jayceeville, Kentucky, United
States', '(713) 819-5750', 'Guest', '2020-12-11');
INSERT INTO user VALUES('riAmINET', 'Amanda Gaines', '1997-08-08', 'Male', 'USA',
'amanda.gaines@gmail.com', '61513 Heath Station, Suite 605, 23119, Soledadport, Idaho,
United States', '(201) 725-2054', 'Subscriber', '2022-04-07');
```

```

INSERT INTO user VALUES('seYmbleA', 'Daniel Martinez', '1988-03-28', 'Female', 'France',
'daniel.martinez@gmail.com', 'Croce Di Casale,63044,Aureville,France', '(604) 536-7577',
'Subscriber', '2021-09-24');
INSERT INTO user VALUES('SioNjOYA', 'Melissa Yu', '1996-02-12', 'Female', 'South Korea',
'melissa.yu34@yahoo.com', '3866 Henderson Canyon,26143,South Korea', '(225) 071-7035',
'Subscriber', '2022-10-05');
INSERT INTO user VALUES('tiAntRlc', 'Adam Long', '1992-09-27', 'Male', 'France',
'adam.long@gmail.com', 'MARSEILLE, Provence-Alpes-Côte dAzur(PA), 13013,France', '(802)
992-3981', 'Guest', '2021-05-07');
INSERT INTO user VALUES('yclaYbEle', 'Christine Davis', '1998-11-24', 'Male', 'USA',
'christinedavis90@hotmail.com', '668 Gusikowski Summit, Suite 061, 25760, New Kailyn,
Illinois, United States', '(262) 162-1585', 'Subscriber', '2022-08-27');

```

#	Time	Action	Message	Duration / Fetch
✓ 128	15:01:39	INSERT INTO user VALUES('ALdSElto', 'Madison Gardner', '1993-09-05', 'Male', 'USA', 'gard...	1 row(s) affected	0.000 sec
✓ 129	15:01:39	INSERT INTO user VALUES('angEYErC', 'Amber Lyons', '2000-03-19', 'Female', 'Spain', 'amb...	1 row(s) affected	0.016 sec
✓ 130	15:01:39	INSERT INTO user VALUES('coNmArd', 'Brandon Pierce', '1993-09-16', 'Male', 'Italy', 'brando...	1 row(s) affected	0.016 sec
✓ 131	15:01:39	INSERT INTO user VALUES('endishoNC', 'Cheryl Sparks', '1990-09-13', 'Male', 'India', 'cheryl...	1 row(s) affected	0.000 sec
✓ 132	15:01:39	INSERT INTO user VALUES('EHABIFY', 'Kelley', '2000-03-19', 'Female', 'France', 'jameskelle...	1 row(s) affected	0.016 sec
✓ 133	15:01:39	INSERT INTO user VALUES('eUtICKETi', 'Michael Ballard', '2004-10-17', 'Male', 'France', 'mic...	1 row(s) affected	0.015 sec
✓ 134	15:01:39	INSERT INTO user VALUES('FRucoNm', 'Anthony Dsouza', '1996-07-05', 'Male', 'USA', 'anth...	1 row(s) affected	0.000 sec
✓ 135	15:01:39	INSERT INTO user VALUES('FRuNsTIS', 'Christopher Lopez', '1993-09-16', 'Female', 'USA', '...	1 row(s) affected	0.000 sec
✓ 136	15:01:39	INSERT INTO user VALUES('INkELmYR', 'Mike King', '1988-03-28', 'Male', 'Italy', 'mike.king3...	1 row(s) affected	0.000 sec
✓ 137	15:01:39	INSERT INTO user VALUES('INtRanFe', 'Tracey Crosby', '1988-03-28', 'Male', 'England', 'trac...	1 row(s) affected	0.015 sec

-- Display user table data

```
SELECT * FROM user;
```

user_id	user_name	birth_date	user_gender	user_country	email_id	address	phone_number	user_type	added_date
ALdSElto	Madison Gardner	1993-09-05	Male	USA	gardner.madison23@gmail.com	604 Vandervort Island, A...	(819) 965-1291	Subscriber	2022-03-16
angEYErC	Amber Lyons	2000-03-19	Female	Spain	amber.lyons@gmail.com	Via Joaquín Soria, 9 Puert...	(641) 904-2448	Guest	2020-04-03
coNmArd	Brandon Pierce	1993-09-16	Male	Italy	brandon.pierce@gmail.com	Piazza Trieste, Santa Mar...	(234) 109-6666	Subscriber	2021-12-25
endishoNC	Cheryl Sparks	1990-09-13	Male	India	cheryl95@yahoo.com	76,Chandni Chowki,Old D...	(796) 799-6557	Guest	2021-06-06
EHABIFY	Kelley	2000-03-19	Female	France	jameskelley30@gmail.com	Damaschkestr. 71a, Zimm...	(523) 489-2839	Subscriber	2021-01-22
eUtICKETi	Michael Ballard	2004-10-17	Male	France	michael.ballard007@yahoo.com	6813 Place de la Ferronn...	(554) 858-1538	Guest	2022-01-02
FRucoNm	Anthony Dsouza	1996-07-05	Male	USA	anthony.dee@yahoo.com	Apt. 327, 218296,Miami, ...	(564) 178-5643	Guest	2020-09-08
FRuNsTIS	Christopher Lopez	1993-09-16	Female	USA	christopher.lopez34@yahoo.com	798 Morris Mountains Sut...	(448) 665-0374	Subscriber	2021-05-29
INkELmYR	Mike King	1988-03-28	Male	Italy	mike.king34@yahoo.com	Incrocio Egizia 92, Appart...	(252) 260-4265	Subscriber	2021-04-13
INtRanFe	Tracey Crosby	1988-03-28	Male	England	tracey.crosby34@yahoo.com	5706 Worchester Drive,3...	(973) 809-3749	Guest	2022-09-02

-- INSERT INTO playlist table

```

INSERT INTO playlist VALUES('1y42gwI5cuwjBsIPyQNfqb', 'Dance Pop Tunes', 852141, 'system',
1352399, '2021-05-14');
INSERT INTO playlist VALUES('2ji5tRQVfnhaX1w9FhmSzk', 'Pop / Dance', 1509148, 'user',
267162, '2022-02-17');
INSERT INTO playlist VALUES('4SdfG4cPG3skmTiQLoZGh', 'Todo Ã%oxitos', 1371077, 'system',
468451, '2021-05-14');
INSERT INTO playlist VALUES('6mXh8CUBMBsBUu88a4eAQV', 'Pop Dance Hits', 580953,
'system', 335038, '2021-06-20');
INSERT INTO playlist VALUES('7eERKCKgNKCCx5GYdeMIZf', 'post-teen alternative, indie, pop ',
912156, 'user', 4836100, '2021-02-05');

```

```

INSERT INTO playlist VALUES('2UsEj2GUukV0GLbsE3rldz', 'ELECTROPOP', 88138, 'system',
4617257, '2022-06-20');
INSERT INTO playlist VALUES('65HtIbyFkaQPfICa4oW8KO', '80s Songs | Top 80s Music Hits',
81797, 'user', 4204847, '2021-08-18');
INSERT INTO playlist VALUES('0cuHKz65ZPqBX1brG8djlj', 'The Sound of Indie Poptimism',
118815, 'system', 1589052, '2021-06-03');
INSERT INTO playlist VALUES('7nHgmV7uyIA1KHj6qTttjH', '2019 in Indie Poptimism', 89579,
'system', 575098, '2021-11-20');
INSERT INTO playlist VALUES('16RNbqnNCCLIBJti7JU5nc', 'A Loose Definition of Indie
Poptimism', 107430, 'user', 124569, '2022-04-30');
INSERT INTO playlist VALUES('4ZO0wp9G8FA3X6oYNBzda6', 'indie poptimism', 97912, 'system',
1730697, '2021-10-13');
INSERT INTO playlist VALUES('1E5VdGGWkpDQ682gdvJAZH', 'Deep-deep Bubble Pop', 107813,
'system', 851849, '2021-06-06');
INSERT INTO playlist VALUES('744VCIUYfFnZCDPcOUkg5G', 'Southern California Hip Hop
Primer', 103177, 'system', 1792867, '2021-10-11');
INSERT INTO playlist VALUES('206vi9Q0p3juAU73flxPsz', 'Rock Hard', 112140, 'user', 520824,
'2022-02-13');
INSERT INTO playlist VALUES('0Hr2h94pKN8QAGVAgD6BsD', 'Todo Reggaeton', 110318,
'system', 23760, '2021-05-12');
INSERT INTO playlist VALUES('3jPkaExlWXQWklcmmF5180', 'Electro House 2020', 112126,
'user', 464864, '2021-11-08');
INSERT INTO playlist VALUES('0275i1VNfBnsNbPI0QIBpG', 'HIP&HOP', 102914, 'system',
4863483, '2021-05-04');
INSERT INTO playlist VALUES('5DyJsJZOpMJh34WvUrQzMV', 'Gangster Rap Workout', 76803,
'system', 3867106, '2021-05-07');
INSERT INTO playlist VALUES('0ZRwrJ2EDGyKR6YgQPWXeO', 'Russian Gangster Rap', 80374,
'user', 3685193, '2022-02-05');
INSERT INTO playlist VALUES('0u0qLLE8MZc679RZWck1TT', 'Trapperz Brasil', 109241, 'user',
1767450, '2021-05-05');

```

#	Time	Action	Message	Duration / Fetch
148	15:01:40	INSERT INTO playlist VALUES('1y42gw15cuwBslPyQNiqb', 'Dance Pop Tunes', 852141, 'system', 1589052, '2021-06-03');	1 row(s) affected	0.015 sec
149	15:01:40	INSERT INTO playlist VALUES('2j9RQVfnhaX1w9HmSzk', 'Pop / Dance', 1509148, 'user', 124569, '2022-04-30');	1 row(s) affected	0.000 sec
150	15:01:40	INSERT INTO playlist VALUES('45dfG4cPG3akmTiQLozZGh', 'Todo Axitos', 1371077, 'system', 575098, '2021-11-20');	1 row(s) affected	0.016 sec
151	15:01:40	INSERT INTO playlist VALUES('6mXh8CUBMBsBUu88a4eAGV', 'Pop Dance Hits', 580953, 'system', 851849, '2021-06-06');	1 row(s) affected	0.016 sec
152	15:01:40	INSERT INTO playlist VALUES('7eERKCKgNKCCx5GYdeMIZ', 'post-teen alternative, indie, pop', 107430, 'user', 124569, '2022-04-30');	1 row(s) affected	0.000 sec
153	15:01:40	INSERT INTO playlist VALUES('2UsEj2GUukV0GLbsE3rldz', 'ELECTROPOP', 88138, 'system', 4617257, '2022-06-20');	1 row(s) affected	0.000 sec
154	15:01:40	INSERT INTO playlist VALUES('65HtIbyFkaQPfICa4oW8KO', '80s Songs Top 80s Music Hits', 81797, 'user', 4204847, '2021-08-18');	1 row(s) affected	0.015 sec
155	15:01:40	INSERT INTO playlist VALUES('0cuHKz65ZPqBX1brG8djlj', 'The Sound of Indie Poptimism', 118815, 'system', 1589052, '2021-06-03');	1 row(s) affected	0.016 sec
156	15:01:40	INSERT INTO playlist VALUES('7nHgmV7uyIA1KHj6qTttjH', '2019 in Indie Poptimism', 89579, 'system', 575098, '2021-11-20');	1 row(s) affected	0.016 sec
157	15:01:40	INSERT INTO playlist VALUES('16RNbqnNCCLIBJti7JU5nc', 'A Loose Definition of Indie Poptimism', 107430, 'user', 124569, '2022-04-30');	1 row(s) affected	0.015 sec

-- Display playlist table data

```
SELECT * FROM playlist;
```


Result Grid						
Filter Rows:		Edit:		Export/Import:		Wrap Cell Content:
playlist_id	playlist_title	playlist_runtime	playlist_type	number_of_followers	added_date	
02751VNfBnsNbP0QIBpG	HIP&HOP	102914	system	4863483	2021-05-04	
0cuHKz65ZPqBX1brG8djlq	The Sound of Indie Poptimism	118815	system	1589052	2021-06-03	
0Hr2h94pKN8QAGVAgD6BsD	Todo Reggaeton	110318	system	23760	2021-05-12	
0u0qLE8MZc679RZWck1TT	Trapperz Brasil	109241	user	1767450	2021-05-05	
0ZRwrJ2EDGyKR6YgQPWxeO	Russian Gangster Rap	80374	user	3685193	2022-02-05	
16RNbnqNCClIBJt7JU5nc	A Loose Definition of Indie Poptimism	107430	user	124569	2022-04-30	
1E5VdGGWkpDQ682gdvJAZH	Deep-deep Bubble Pop	107813	system	851849	2021-06-06	
1y42gwI5cuwjBslPyQNfqb	Dance Pop Tunes	852141	system	1352399	2021-05-14	
206vi9Q0p3juAU73fxPsz	Rock Hard	112140	user	520824	2022-02-13	
2ji5tRQVfnhaX1w9FhmSzk	Pop / Dance	1509148	user	267162	2022-02-17	

-- INSERT INTO playlist_song table

```

INSERT INTO playlist_song VALUES(531461721, '1y42gwI5cuwjBslPyQNfqb',
'18AJRdgUoO9EYn11N7xzaT', '2021-02-05');
INSERT INTO playlist_song VALUES(531461722, '1y42gwI5cuwjBslPyQNfqb',
'1DgwC3jQkAml7Os6XjxKmY', '2021-05-14');
INSERT INTO playlist_song VALUES(531461723, '1y42gwI5cuwjBslPyQNfqb',
'1kiEueR1jHSW2dD4LSD6X0', '2021-03-18');
INSERT INTO playlist_song VALUES(531461724, '2ji5tRQVfnhaX1w9FhmSzk',
'OOP1RzrglC008kj79Httv3', '2022-02-17');
INSERT INTO playlist_song VALUES(531461725, '2ji5tRQVfnhaX1w9FhmSzk',
'2zh9VJU5HyZDBJlfdTpeOC', '2021-02-05');
INSERT INTO playlist_song VALUES(531461726, '2ji5tRQVfnhaX1w9FhmSzk',
'39nlQ3RFgKNMugzPjPWn2v', '2022-02-17');
INSERT INTO playlist_song VALUES(531461727, '2ji5tRQVfnhaX1w9FhmSzk',
'3jGnPHFrBCTdtEXbfweXgH', '2021-03-18');
INSERT INTO playlist_song VALUES(531461728, '2ji5tRQVfnhaX1w9FhmSzk',
'49TrrciRvL6X0VSP4Q3HhA', '2022-06-20');
INSERT INTO playlist_song VALUES(531461729, '2ji5tRQVfnhaX1w9FhmSzk',
'4B0tKXJguUI5YqW5wDcjNe', '2022-02-17');
INSERT INTO playlist_song VALUES(531461730, '2ji5tRQVfnhaX1w9FhmSzk',
'4vxsJyTGsAxnXWDuYseeQP', '2021-02-05');
INSERT INTO playlist_song VALUES(531461731, '4SdfG4cPG3skmTiQLozZGh',
'01D4b305MQyfJfiHHsHkQu', '2021-05-14');
INSERT INTO playlist_song VALUES(531461732, '4SdfG4cPG3skmTiQLozZGh',
'62LJFaYihsdVrrkgUOJC05', '2022-02-17');
INSERT INTO playlist_song VALUES(531461733, '4SdfG4cPG3skmTiQLozZGh',
'62N2JSA0jHmSH7Va9t7hlf', '2022-06-20');
INSERT INTO playlist_song VALUES(531461734, '4SdfG4cPG3skmTiQLozZGh',
'70K0ezmzYEZeqoSzMyP7o', '2022-02-17');
INSERT INTO playlist_song VALUES(531461735, '4SdfG4cPG3skmTiQLozZGh',
'7kqcudBGM74MXVoYMAoWkC', '2021-03-18');
INSERT INTO playlist_song VALUES(531461736, '4SdfG4cPG3skmTiQLozZGh',
'7vLR7NDAadIXfwjl2nw5Nr', '2021-03-18');

```



```

INSERT INTO playlist_song VALUES(531461737, '6mXh8CUBMBsBUu88a4eAQV',
'04gQHsS8FLPoNdnRKw4jDJ', '2021-04-16');
INSERT INTO playlist_song VALUES(531461738, '6mXh8CUBMBsBUu88a4eAQV',
'0DvhfhHlIE4HqgBX8yDJz3', '2022-02-17');
INSERT INTO playlist_song VALUES(531461739, '6mXh8CUBMBsBUu88a4eAQV',
'5VlYmXVnGycwv2eaDpyS5Q', '2021-05-14');
INSERT INTO playlist_song VALUES(531461740, '7eERKCKgNKCCx5GYdeMIZf',
'0RURdPb5FeKDxrl26KSUV1', '2021-05-14');
INSERT INTO playlist_song VALUES(531461741, '7eERKCKgNKCCx5GYdeMIZf',
'1O7LD3kX8b75oLmHdCvGRb', '2022-02-17');
INSERT INTO playlist_song VALUES(531461742, '7eERKCKgNKCCx5GYdeMIZf',
'2olc3yUshnfNpy4NjJFAWO', '2021-02-05');
INSERT INTO playlist_song VALUES(531461743, '7eERKCKgNKCCx5GYdeMIZf',
'2WwXhtq2knsErc7ojO0Dgb', '2021-05-14');

```

#	Time	Action	Message	Duration / Fetch
168	15:01:40	INSERT INTO playlist_song VALUES(531461721, '1y42gwI5cuwjBslPyQNfqb', '18AJRdgUo...	1 row(s) affected	0.016 sec
169	15:01:40	INSERT INTO playlist_song VALUES(531461722, '1y42gwI5cuwjBslPyQNfqb', '1DgwC3jQkA...	1 row(s) affected	0.016 sec
170	15:01:40	INSERT INTO playlist_song VALUES(531461723, '1y42gwI5cuwjBslPyQNfqb', '1kiEueR1jHS...	1 row(s) affected	0.000 sec
171	15:01:40	INSERT INTO playlist_song VALUES(531461724, '2ji5tRQVfnhaX1w9FhmSzk', '0OP1RzrglC...	1 row(s) affected	0.000 sec
172	15:01:40	INSERT INTO playlist_song VALUES(531461725, '2ji5tRQVfnhaX1w9FhmSzk', '2zh9VJU5H...	1 row(s) affected	0.016 sec
173	15:01:40	INSERT INTO playlist_song VALUES(531461726, '2ji5tRQVfnhaX1w9FhmSzk', '39nlQ3RFgK...	1 row(s) affected	0.016 sec
174	15:01:40	INSERT INTO playlist_song VALUES(531461727, '2ji5tRQVfnhaX1w9FhmSzk', '3jGnPHFrB...	1 row(s) affected	0.000 sec
175	15:01:40	INSERT INTO playlist_song VALUES(531461728, '2ji5tRQVfnhaX1w9FhmSzk', '49TrrciRvL...	1 row(s) affected	0.000 sec
176	15:01:40	INSERT INTO playlist_song VALUES(531461729, '2ji5tRQVfnhaX1w9FhmSzk', '4B0tKXJguU...	1 row(s) affected	0.015 sec
177	15:01:40	INSERT INTO playlist_song VALUES(531461730, '2ji5tRQVfnhaX1w9FhmSzk', '4vxsJyTGsA...	1 row(s) affected	0.000 sec

-- Display playlist_song table data

```
SELECT * FROM playlist_song;
```

playlist_song_id	playlist_id	song_id	added_date
531461721	1y42gwI5cuwjBslPyQNfqb	18AJRdgUoO9EYn11N7xzaT	2021-02-05
531461722	1y42gwI5cuwjBslPyQNfqb	1DgwC3jQkAml7Os6XjxKmY	2021-05-14
531461723	1y42gwI5cuwjBslPyQNfqb	1kiEueR1jHSW2dD4LSD6X0	2021-03-18
531461724	2ji5tRQVfnhaX1w9FhmSzk	0OP1RzrglC008kj79Httv3	2022-02-17
531461725	2ji5tRQVfnhaX1w9FhmSzk	2zh9VJU5HyzDBJIIfdTpeOC	2021-02-05
531461726	2ji5tRQVfnhaX1w9FhmSzk	39nlQ3RFgkNMugzPjPWn2v	2022-02-17
531461727	2ji5tRQVfnhaX1w9FhmSzk	3jGnPHFrBCTdtEXbfweXgH	2021-03-18
531461728	2ji5tRQVfnhaX1w9FhmSzk	49TrrciRvL6X0VSP4Q3HhA	2022-06-20
531461729	2ji5tRQVfnhaX1w9FhmSzk	4B0tKXJguUl5YqW5wDcjNe	2022-02-17
531461730	2ji5tRQVfnhaX1w9FhmSzk	4vxsJyTGsAxxnXWDuYseeQP	2021-02-05

-- INSERT INTO user_playlist table

```
INSERT INTO user_playlist VALUES(68539041, 'ALdSEltor', '1y42gwI5cuwjBslPyQNfqb', 'Y',
'2022-01-15');
INSERT INTO user_playlist VALUES(68539042, 'angEYErC', '1y42gwI5cuwjBslPyQNfqb', 'Y', '2021-
05-18');
INSERT INTO user_playlist VALUES(68539043, 'iNkELmYR', '2ji5tRQVfnhaX1w9FhmSzk', 'N',
'2021-07-14');
INSERT INTO user_playlist VALUES(68539044, 'ALdSEltor', '2ji5tRQVfnhaX1w9FhmSzk', 'N',
'2022-04-24');
INSERT INTO user_playlist VALUES(68539045, 'coNmArdi', '2ji5tRQVfnhaX1w9FhmSzk', 'Y',
'2021-08-09');
INSERT INTO user_playlist VALUES(68539046, 'jOHMAtenC', '2ji5tRQVfnhaX1w9FhmSzk', 'N',
'2021-08-30');
INSERT INTO user_playlist VALUES(68539047, 'angEYErC', '2ji5tRQVfnhaX1w9FhmSzk', 'Y',
'2021-05-12');
INSERT INTO user_playlist VALUES(68539048, 'EtHABiFY', '2ji5tRQVfnhaX1w9FhmSzk', 'Y',
'2021-09-22');
INSERT INTO user_playlist VALUES(68539049, 'PeSpReByP', '2ji5tRQVfnhaX1w9FhmSzk', 'Y',
'2021-11-05');
INSERT INTO user_playlist VALUES(68539050, 'SioNjOYA', '2ji5tRQVfnhaX1w9FhmSzk', 'Y',
'2021-06-12');
INSERT INTO user_playlist VALUES(68539051, 'coNmArdi', '4SdfG4cPG3skmTiQLozZGh', 'N',
'2021-12-07');
INSERT INTO user_playlist VALUES(68539052, 'endishoNC', '4SdfG4cPG3skmTiQLozZGh', 'N',
'2022-05-06');
INSERT INTO user_playlist VALUES(68539053, 'ALdSEltor', '4SdfG4cPG3skmTiQLozZGh', 'Y',
'2021-10-16');
INSERT INTO user_playlist VALUES(68539054, 'FRucoNm', '4SdfG4cPG3skmTiQLozZGh', 'N',
'2021-09-09');
INSERT INTO user_playlist VALUES(68539055, 'iNkELmYR', '4SdfG4cPG3skmTiQLozZGh', 'Y',
'2021-07-28');
INSERT INTO user_playlist VALUES(68539056, 'jOHMAtenC', '4SdfG4cPG3skmTiQLozZGh', 'Y',
'2022-01-08');
INSERT INTO user_playlist VALUES(68539057, 'PeSpReByP', '6mXh8CUBMBsBUu88a4eAQV', 'N',
'2022-05-26');
INSERT INTO user_playlist VALUES(68539058, 'ALdSEltor', '6mXh8CUBMBsBUu88a4eAQV', 'Y',
'2022-01-04');
INSERT INTO user_playlist VALUES(68539059, 'coNmArdi', '6mXh8CUBMBsBUu88a4eAQV', 'Y',
'2022-02-16');
INSERT INTO user_playlist VALUES(68539060, 'jOHMAtenC', '6mXh8CUBMBsBUu88a4eAQV', 'Y',
'2021-05-05');
INSERT INTO user_playlist VALUES(68539061, 'ALdSEltor', '7eERKCKgNKCCx5GYdeMIZf', 'Y',
'2021-06-10');
INSERT INTO user_playlist VALUES(68539062, 'iNkELmYR', '7eERKCKgNKCCx5GYdeMIZf', 'N',
'2021-10-31');
```

```
INSERT INTO user_playlist VALUES(68539063, 'PeSpReByP', '7eERKCKgNKCCx5GYdeMIZf', 'N', '2021-08-30');
```

```
INSERT INTO user_playlist VALUES(68539064, 'endishoNC', '1y42gwI5cuwjBslPyQNfqb', 'Y', '2022-04-14');
```

```
INSERT INTO user_playlist VALUES(68539065, 'iNkELmYR', '1y42gwI5cuwjBslPyQNfqb', 'N', '2022-01-05');
```

#	Time	Action	Message	Duration / Fetch
191	15:01:40	INSERT INTO user_playlist VALUES(68539041, 'ALdSEltor', '1y42gwI5cuwjBslPyQNfqb', 'Y', ...	1 row(s) affected	0.016 sec
192	15:01:40	INSERT INTO user_playlist VALUES(68539042, 'angEYErC', '1y42gwI5cuwjBslPyQNfqb', 'Y', ...	1 row(s) affected	0.016 sec
193	15:01:40	INSERT INTO user_playlist VALUES(68539043, 'iNkELmYR', '2ji5tRQVfnhaX1w9FhmSzk', 'N', ...	1 row(s) affected	0.000 sec
194	15:01:41	INSERT INTO user_playlist VALUES(68539044, 'ALdSEltor', '2ji5tRQVfnhaX1w9FhmSzk', 'N', ...	1 row(s) affected	0.000 sec
195	15:01:41	INSERT INTO user_playlist VALUES(68539045, 'coNmArdi', '2ji5tRQVfnhaX1w9FhmSzk', 'Y', ...	1 row(s) affected	0.015 sec
196	15:01:41	INSERT INTO user_playlist VALUES(68539046, 'jOHMAtenC', '2ji5tRQVfnhaX1w9FhmSzk', 'N', ...	1 row(s) affected	0.016 sec
197	15:01:41	INSERT INTO user_playlist VALUES(68539047, 'angEYErC', '2ji5tRQVfnhaX1w9FhmSzk', 'Y', ...	1 row(s) affected	0.000 sec
198	15:01:41	INSERT INTO user_playlist VALUES(68539048, 'EtHABiFY', '2ji5tRQVfnhaX1w9FhmSzk', 'Y', ...	1 row(s) affected	0.000 sec
199	15:01:41	INSERT INTO user_playlist VALUES(68539049, 'PeSpReByP', '2ji5tRQVfnhaX1w9FhmSzk', 'Y', ...	1 row(s) affected	0.000 sec
200	15:01:41	INSERT INTO user_playlist VALUES(68539050, 'SioNjOYA', '2ji5tRQVfnhaX1w9FhmSzk', 'Y', ...	1 row(s) affected	0.016 sec

-- Display user_playlist table data

```
SELECT * FROM user_playlist;
```

user_playlist_id	user_id	playlist_id	downloaded_flag	added_date
68539041	ALdSEltor	1y42gwI5cuwjBslPyQNfqb	Y	2022-01-15
68539042	angEYErC	1y42gwI5cuwjBslPyQNfqb	Y	2021-05-18
68539043	iNkELmYR	2ji5tRQVfnhaX1w9FhmSzk	N	2021-07-14
68539044	ALdSEltor	2ji5tRQVfnhaX1w9FhmSzk	N	2022-04-24
68539045	coNmArdi	2ji5tRQVfnhaX1w9FhmSzk	Y	2021-08-09
68539046	jOHMAtenC	2ji5tRQVfnhaX1w9FhmSzk	N	2021-08-30
68539047	angEYErC	2ji5tRQVfnhaX1w9FhmSzk	Y	2021-05-12
68539048	EtHABiFY	2ji5tRQVfnhaX1w9FhmSzk	Y	2021-09-22
68539049	PeSpReByP	2ji5tRQVfnhaX1w9FhmSzk	Y	2021-11-05
68539050	SioNjOYA	2ji5tRQVfnhaX1w9FhmSzk	Y	2021-06-12

-- INSERT INTO subscription table

```
INSERT INTO subscription VALUES(9678581, 'ALdSEltor', 747850,2089087, '2022-03-16', '2023-03-11', 'Active', 'Y', '2022-03-16');
```

```
INSERT INTO subscription VALUES(9678582, 'coNmArdi', 747850,2089088, '2021-12-25', '2022-12-20', 'Active', 'Y', '2021-12-25');
```

```
INSERT INTO subscription VALUES(9678583, 'EtHABiFY', 747842,2089087, '2021-01-22', '2021-07-21', 'Inactive', 'N', '2021-01-22');
```

```
INSERT INTO subscription VALUES(9678584, 'EtHABiFY', 747850,2089081, '2022-11-01', '2023-10-27', 'Active', 'N', '2022-11-01');
```

```
INSERT INTO subscription VALUES(9678585, 'FRuNsTIS', 747843,2089083, '2021-05-29', '2022-02-23', 'Inactive', 'Y', '2021-05-29');
```

```

INSERT INTO subscription VALUES(9678586, 'FRuNsTIS', 747846,2089085, '2022-03-29', '2022-
12-24', 'Active', 'Y', '2022-03-29');
INSERT INTO subscription VALUES(9678587, 'iNkELmYR', 747847,2089087, '2021-04-13', '2022-
04-08', 'Inactive', 'N', '2021-04-13');
INSERT INTO subscription VALUES(9678588, 'iNkELmYR', 747850,2089085, '2022-01-24', '2023-
01-19', 'Active', 'Y', '2022-01-24');
INSERT INTO subscription VALUES(9678589, 'IROcralyS', 747841,2089083, '2022-08-17', '2023-
02-13', 'Active', 'N', '2022-08-17');
INSERT INTO subscription VALUES(9678590, 'IROcralyS', 747838,2089087, '2021-01-31', '2021-
05-01', 'Inactive', 'N', '2021-01-31');
INSERT INTO subscription VALUES(9678591, 'LarAnantr', 747846,2089083, '2022-04-22', '2023-
01-17', 'Active', 'Y', '2022-04-22');
INSERT INTO subscription VALUES(9678592, 'LarAnantr', 747843,2089084, '2022-02-23', '2022-
11-20', 'Inactive', 'Y', '2022-02-23');
INSERT INTO subscription VALUES(9678593, 'louseMENT', 747841,2089085, '2022-10-07',
'2023-04-05', 'Active', 'Y', '2022-10-07');
INSERT INTO subscription VALUES(9678594, 'riAmINET', 747837,2089086, '2022-06-20', '2022-
09-18', 'Inactive', 'Y', '2022-06-20');
INSERT INTO subscription VALUES(9678595, 'riAmINET', 747843,2089085, '2022-04-07', '2023-
01-02', 'Active', 'N', '2022-04-07');
INSERT INTO subscription VALUES(9678596, 'seYmbleA', 747843,2089086, '2021-09-24', '2022-
06-21', 'Inactive', 'N', '2021-09-24');
INSERT INTO subscription VALUES(9678597, 'seYmbleA', 747850,2089084, '2022-07-14', '2023-
07-09', 'Active', 'Y', '2022-07-14');
INSERT INTO subscription VALUES(9678598, 'SioNjOYA', 747832,2089085, '2022-10-05', '2022-
11-04', 'Inactive', 'N', '2022-10-05');
INSERT INTO subscription VALUES(9678599, 'SioNjOYA', 747841,2089082, '2022-10-11', '2023-
04-09', 'Active', 'Y', '2022-10-11');
INSERT INTO subscription VALUES(9678600, 'yclaYbEle', 747850,2089084, '2022-08-27', '2023-
08-22', 'Active', 'Y', '2022-08-27');

```

Action Output					
#	Time	Action	Message	Duration / Fetch	
216	15:01:41	INSERT INTO subscription VALUES(9678581, 'ALdSEktor', 747850,2089087, '2022-03-16', '2...	1 row(s) affected	0.016 sec	
217	15:01:41	INSERT INTO subscription VALUES(9678582, 'coNmAnd', 747850,2089088, '2021-12-25', '2...	1 row(s) affected	0.000 sec	
218	15:01:41	INSERT INTO subscription VALUES(9678583, 'BHABFY', 747842,2089087, '2021-01-22', '2...	1 row(s) affected	0.016 sec	
219	15:01:41	INSERT INTO subscription VALUES(9678584, 'BHABFY', 747850,2089081, '2022-11-01', '2...	1 row(s) affected	0.015 sec	
220	15:01:41	INSERT INTO subscription VALUES(9678585, 'FRuNsTIS', 747843,2089083, '2021-05-29', '...	1 row(s) affected	0.000 sec	
221	15:01:41	INSERT INTO subscription VALUES(9678586, 'FRuNsTIS', 747846,2089085, '2022-03-29', '...	1 row(s) affected	0.015 sec	
222	15:01:41	INSERT INTO subscription VALUES(9678587, 'iNkELmYR', 747847,2089087, '2021-04-13', '...	1 row(s) affected	0.016 sec	
223	15:01:41	INSERT INTO subscription VALUES(9678588, 'iNkELmYR', 747850,2089085, '2022-01-24', '...	1 row(s) affected	0.000 sec	
224	15:01:41	INSERT INTO subscription VALUES(9678589, 'IROcralyS', 747841,2089083, '2022-08-17', '2...	1 row(s) affected	0.000 sec	
225	15:01:41	INSERT INTO subscription VALUES(9678590, 'IROcralyS', 747838,2089087, '2021-01-31', '2...	1 row(s) affected	0.015 sec	

```

-- Display subscription table data
SELECT * FROM subscription;

```


Result Grid										
Filter Rows:		Edit:		Export/Import:		Wrap Cell Content:				
	subscription_id	user_id	plan_id	payment_channel_id	start_date	end_date	subscription_status	auto_renew_flag	added_date	
▶	9678581	ALdSEltor	747850	2089087	2022-03-16	2023-03-11	Active	Y	2022-03-16	
	9678582	coNmArdi	747850	2089088	2021-12-25	2022-12-20	Active	Y	2021-12-25	
	9678583	EtHABIFY	747842	2089087	2021-01-22	2021-07-21	Inactive	N	2021-01-22	
	9678584	EtHABIFY	747850	2089081	2022-11-01	2023-10-27	Active	N	2022-11-01	
	9678585	FRuNsTIS	747843	2089083	2021-05-29	2022-02-23	Inactive	Y	2021-05-29	
	9678586	FRuNsTIS	747846	2089085	2022-03-29	2022-12-24	Active	Y	2022-03-29	
	9678587	iNkELmYR	747847	2089087	2021-04-13	2022-04-08	Inactive	N	2021-04-13	
	9678588	iNkELmYR	747850	2089085	2022-01-24	2023-01-19	Active	Y	2022-01-24	
	9678589	IROcralyS	747841	2089083	2022-08-17	2023-02-13	Active	N	2022-08-17	
	9678590	IROcralyS	747838	2089087	2021-01-31	2021-05-01	Inactive	N	2021-01-31	

-- INSERT INTO composition table

```

INSERT INTO composition VALUES(1765121, '7IVxWMH0C3Bj8b8JLkh9EN',
'1rfUwzULy9A6KPJPAMRW8G', '01D4b305MQyfJfjHHsHkQu', '2021-05-14');
INSERT INTO composition VALUES(1765122, '7m9j9N42SLMCuALFwC6tD4',
'106XQVyuqKuW1mFE2ER7bZ', '04gQHzS8FLPoNdnRKw4jDJ', '2021-04-16');
INSERT INTO composition VALUES(1765123, '7mp3ILyl8RaBLr6zzhPyWD',
'68psFr57W11XOyGdB2lOzk', '0DvhfhHlIE4HqgBX8yDJz3', '2022-02-17');
INSERT INTO composition VALUES(1765124, '7mp3ILyl8RaBLr6zzhPyWD',
'68psFr57W11XOyGdB2lOzk', '0OP1RzrgIC008kj79Httv3', '2022-02-17');
INSERT INTO composition VALUES(1765125, '7IVxWMH0C3Bj8b8JLkh9EN',
'1rfUwzULy9A6KPJPAMRW8G', '0RURdPb5FeKDxrl26KSUV1', '2021-05-14');
INSERT INTO composition VALUES(1765126, '7LeQ55Z5jPBB0ggYJtAiYO',
'3R3x4zlabsvpD3yxqLaUpc', '18AJRdgUoO9EYn11N7xzaT', '2021-02-05');
INSERT INTO composition VALUES(1765127, '7IVxWMH0C3Bj8b8JLkh9EN',
'1rfUwzULy9A6KPJPAMRW8G', '1Dgwc3jQkAml7Os6XjxKmY', '2021-05-14');
INSERT INTO composition VALUES(1765128, '7LP4Es66zdY7CyjepqmvAg',
'25Gi0Cqs9E26ztzNevJpQU', '1kiEueR1jHSW2dD4LSD6X0', '2021-03-18');
INSERT INTO composition VALUES(1765129, '7mp3ILyl8RaBLr6zzhPyWD',
'68psFr57W11XOyGdB2lOzk', '1O7LD3kX8b75oLmHdCvGRb', '2022-02-17');
INSERT INTO composition VALUES(1765130, '7LeQ55Z5jPBB0ggYJtAiYO',
'3R3x4zlabsvpD3yxqLaUpc', '2oIc3yUshnfNpy4NjJFAWO', '2021-02-05');
INSERT INTO composition VALUES(1765131, '7IVxWMH0C3Bj8b8JLkh9EN',
'1rfUwzULy9A6KPJPAMRW8G', '2WwXhtq2knsErc7ojO0Dgb', '2021-05-14');
INSERT INTO composition VALUES(1765132, '7LeQ55Z5jPBB0ggYJtAiYO',
'3R3x4zlabsvpD3yxqLaUpc', '2zh9VJU5HyzDBJlfdTpeOC', '2021-02-05');
INSERT INTO composition VALUES(1765133, '7mp3ILyl8RaBLr6zzhPyWD',
'68psFr57W11XOyGdB2lOzk', '39nlQ3RFgKNMugzPjPWn2v', '2022-02-17');
INSERT INTO composition VALUES(1765134, '7LP4Es66zdY7CyjepqmvAg',
'25Gi0Cqs9E26ztzNevJpQU', '3jGnPHFrBCTdtEXbfweXgH', '2021-03-18');
INSERT INTO composition VALUES(1765135, '7kQkmyoHCEqwe7QwDbkSXM',
'4OkA09FvGYrV1cwJghn0BW', '49TrrciRvL6X0VSP4Q3HhA', '2022-06-20');
INSERT INTO composition VALUES(1765136, '7mp3ILyl8RaBLr6zzhPyWD',
'68psFr57W11XOyGdB2lOzk', '4B0tKXJguUl5YqW5wDcjNe', '2022-02-17');

```

```

INSERT INTO composition VALUES(1765137, '7LeQ55Z5jPBB0ggYJtAiYO',
'3R3x4zIabsvpD3yxqLaUpC', '4vxSjYTGsAxnXWDuYseeQP', '2021-02-05');
INSERT INTO composition VALUES(1765138, '7IVxWMH0C3Bj8b8JLkh9EN',
'1rfUwzULy9A6KPJPAMRW8G', '5VIYmXVnGycwv2eaDpyS5Q', '2021-05-14');
INSERT INTO composition VALUES(1765139, '7mp3ILyl8RaBLr6zzhPyWD',
'68psFr57W11XOyGdB2lOzk', '62LJFaYihsdVrrkgUOJC05', '2022-02-17');
INSERT INTO composition VALUES(1765140, '7kQkmyoHCEqwe7QwDbkSXM',
'4OkA09FvGYrV1cwJghn0BW', '62N2JSA0jHmSH7Va9t7hlf', '2022-06-20');
INSERT INTO composition VALUES(1765141, '7mp3ILyl8RaBLr6zzhPyWD',
'68psFr57W11XOyGdB2lOzk', '70K0ezmzYEZeqoSaZMyP7o', '2022-02-17');
INSERT INTO composition VALUES(1765142, '7LP4Es66zdY7CyjepqmvAg',
'25Gi0Cqs9E26ztzNevJpQU', '7kqCudBGM74MXVoYMaoWkC', '2021-03-18');
INSERT INTO composition VALUES(1765143, '7LP4Es66zdY7CyjepqmvAg',
'25Gi0Cqs9E26ztzNevJpQU', '7vLR7NDAadIXfwJl2nw5Nr', '2021-03-18');

```

#	Time	Action	Message	Duration / Fetch
236	15:01:41	INSERT INTO composition VALUES(1765121, '7VxWMH0C3Bj8b8JLkh9EN', '1rfUwzULy9A...	1 row(s) affected	0.016 sec
237	15:01:41	INSERT INTO composition VALUES(1765122, '7m9j9N42SLMCuALFwC6tD4', '106XQVyuqK...	1 row(s) affected	0.016 sec
238	15:01:41	INSERT INTO composition VALUES(1765123, '7mp3ILyl8RaBLr6zzhPyWD', '68psFr57W11X...	1 row(s) affected	0.000 sec
239	15:01:41	INSERT INTO composition VALUES(1765124, '7mp3ILyl8RaBLr6zzhPyWD', '68psFr57W11X...	1 row(s) affected	0.000 sec
240	15:01:41	INSERT INTO composition VALUES(1765125, '7VxWMH0C3Bj8b8JLkh9EN', '1rfUwzULy9A...	1 row(s) affected	0.015 sec
241	15:01:41	INSERT INTO composition VALUES(1765126, '7LeQ55Z5jPBB0ggYJtAiYO', '3R3x4zIabsvp...	1 row(s) affected	0.016 sec
242	15:01:41	INSERT INTO composition VALUES(1765127, '7VxWMH0C3Bj8b8JLkh9EN', '1rfUwzULy9A...	1 row(s) affected	0.016 sec
243	15:01:41	INSERT INTO composition VALUES(1765128, '7LP4Es66zdY7CyjepqmvAg', '25Gi0Cqs9E26...	1 row(s) affected	0.016 sec
244	15:01:41	INSERT INTO composition VALUES(1765129, '7mp3ILyl8RaBLr6zzhPyWD', '68psFr57W11X...	1 row(s) affected	0.000 sec
245	15:01:42	INSERT INTO composition VALUES(1765130, '7LeQ55Z5jPBB0ggYJtAiYO', '3R3x4zIabsvp...	1 row(s) affected	0.000 sec

-- Display composition table data

SELECT * FROM composition;

composition_id	artist_id	album_id	song_id	added_date
1765121	7VxWMH0C3Bj8b8JLkh9EN	1rfUwzULy9A6KPJPAMRW8G	01D4b305MQyfJfHhHkQu	2021-05-14
1765122	7m9j9N42SLMCuALFwC6tD4	106XQVyuqKuW1mFE2ER7bZ	04gQHsS8FLPoNdnRKw4DJ	2021-04-16
1765123	7mp3ILyl8RaBLr6zzhPyWD	68psFr57W11XOyGdB2lOzk	0DvhfhHIE4HqgBX8yDJz3	2022-02-17
1765124	7mp3ILyl8RaBLr6zzhPyWD	68psFr57W11XOyGdB2lOzk	0OP1RzrglC008kj79Httv3	2022-02-17
1765125	7VxWMH0C3Bj8b8JLkh9EN	1rfUwzULy9A6KPJPAMRW8G	0RURdPb5FeKDXrl26KSUV1	2021-05-14
1765126	7LeQ55Z5jPBB0ggYJtAiYO	3R3x4zIabsvpD3yxqLaUpC	18AJRdgUoO9EYn11N7xzaT	2021-02-05
1765127	7VxWMH0C3Bj8b8JLkh9EN	1rfUwzULy9A6KPJPAMRW8G	1DgwC3jQkAml7Os6XjxKmY	2021-05-14
1765128	7LP4Es66zdY7CyjepqmvAg	25Gi0Cqs9E26ztzNevJpQU	1kiEueR1jHSW2dD4LSD6X0	2021-03-18
1765129	7mp3ILyl8RaBLr6zzhPyWD	68psFr57W11XOyGdB2lOzk	1O7LD3kx8b75oLmHdCvGRb	2022-02-17
1765130	7LeQ55Z5jPBB0ggYJtAiYO	3R3x4zIabsvpD3yxqLaUpC	2oIc3yUshnfNpy4NjJFAWO	2021-02-05

4. Business Summary Using SQL Scripts

Below is a summary of business insights generated using SQL scripts with functions - COUNT, MAX, LIKE, BETWEEN, GROUP BY, HAVING, Table join, Subquery:

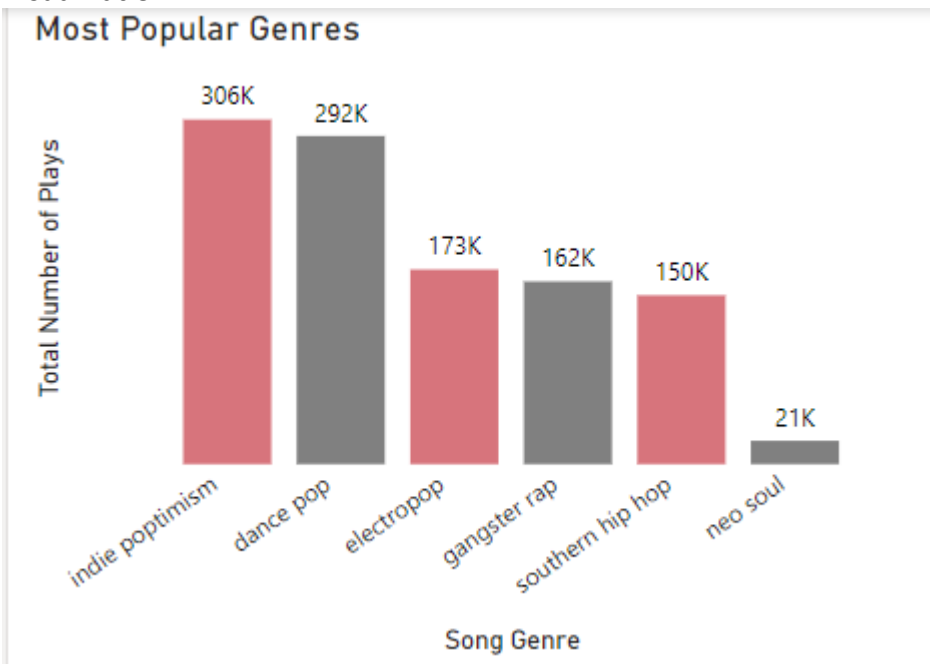
1.1 Most Popular Genres

```
SELECT song_genre, SUM(number_of_plays) AS number_of_plays
FROM song
GROUP BY song_genre
ORDER BY SUM(number_of_plays) DESC;
```

Output :

Result Grid			Filter Rows:
	song_genre	number_of_plays	
▶	indie pop	306458	
	dance pop	291848	
	electropop	173119	
	gangster rap	162457	
	southern hip hop	150171	
	neo soul	20803	

Visualization:



Insight:

At 306458, indie popoptimism had the highest Total Number of Plays and was 1,373.14% higher than neo soul, which had the lowest Total Number of Plays at 20803. Indie popoptimism accounted for 27.74% of Total Number of Plays. Across all 6 Song Genre, Total Number of Plays ranged from 20803 to 306458.

1.2 Top 5 Most Popular Albums

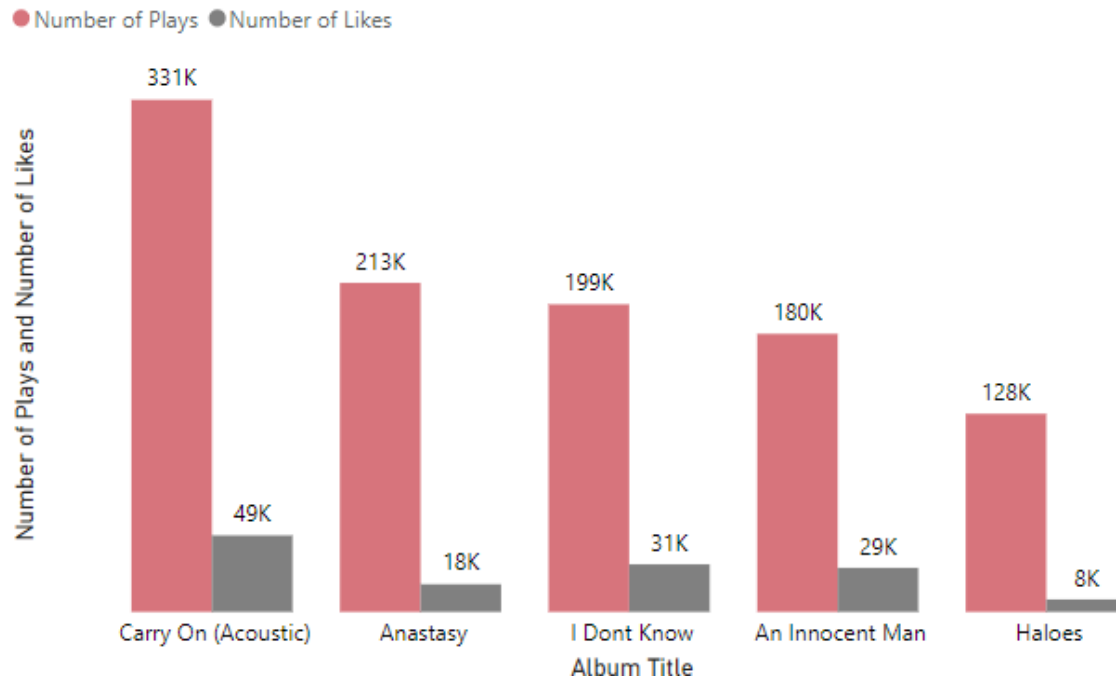
```
SELECT al.album_title, SUM(number_of_plays) AS number_of_plays, SUM(number_of_likes) AS
number_of_likes
FROM album al, song s, composition cm
WHERE al.album_id = cm.album_id
AND cm.song_id = s.song_id
GROUP BY al.album_title
ORDER BY SUM(number_of_plays) DESC, SUM(number_of_likes) DESC
LIMIT 5;
```

Output:

	album_title	number_of_plays	number_of_likes
▶	Carry On (Acoustic)	331393	49498
	Anastasy	212920	17896
	I Dont Know	199034	30791
	An Innocent Man	179952	28502
	Haloes	128215	8062

Visualization:

Top 5 Most Popular Albums



Insight:

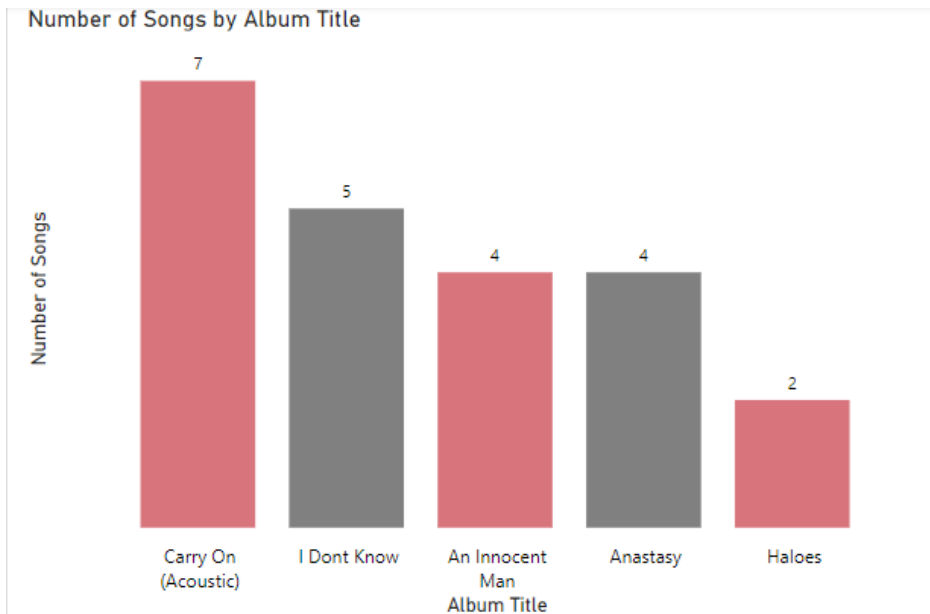
At 331393, Carry On (Acoustic) had the highest Number of Plays and was 158.47% higher than Haloes, which had the lowest Number of Plays at 128215. Number of Plays and total Number of Likes are positively correlated with each other. Carry On (Acoustic) accounted for 31.52% of Number of Plays. Number of Plays and Number of Likes diverged the most when the Album Title was Carry On (Acoustic), when Number of Plays were 281895 higher than Number of Likes.

1.3 Number of Songs by Album

```
SELECT al.album_id, al.album_title, al.record_company, al.release_date, COUNT(cm.song_id)
AS number_of_songs
FROM album al, composition cm
WHERE al.album_id = cm.album_id
GROUP BY al.album_id, al.album_title, al.record_company, al.release_date
ORDER BY COUNT(cm.song_id) DESC
LIMIT 5;
```

Output:

Result Grid					
Filter Rows:		Export:		Wrap Cell Content:	
	album_id	album_title	record_company	release_date	number_of_songs
▶	68psFr57W11XOyGdB2lOzk	Carry On (Acoustic)	Death Row	2022-02-17	7
	1rfUwzULy9A6KPJPAMRW8G	I Dont Know	Lime Records	2021-05-14	5
	25GI0Cqs9E26ztzNevJpQU	Anastasy	Sony	2021-03-18	4
	3R3x4zIabsvpD3yxqLaUpc	An Innocent Man	Universal	2021-02-05	4
	4OkA09FvGYrV1cwJghn0BW	Halo	Sony	2022-06-20	2

Visualization:**Insight:**

At 7, Carry On (Acoustic) had the highest Number of Songs and was 250.00% higher than Halo, which had the lowest Number of Songs at 2. Carry On (Acoustic) had the highest Number of Songs at 7, followed by I Dont Know and An Innocent Man. Halo had the lowest Number of Songs at 2. Carry On (Acoustic) accounted for 31.82% of Number of Songs. Across all 5 Album Title, Number of Songs ranged from 2 to 7.

1.4 Albums Released During Last 3 Years From Current/Today's Date

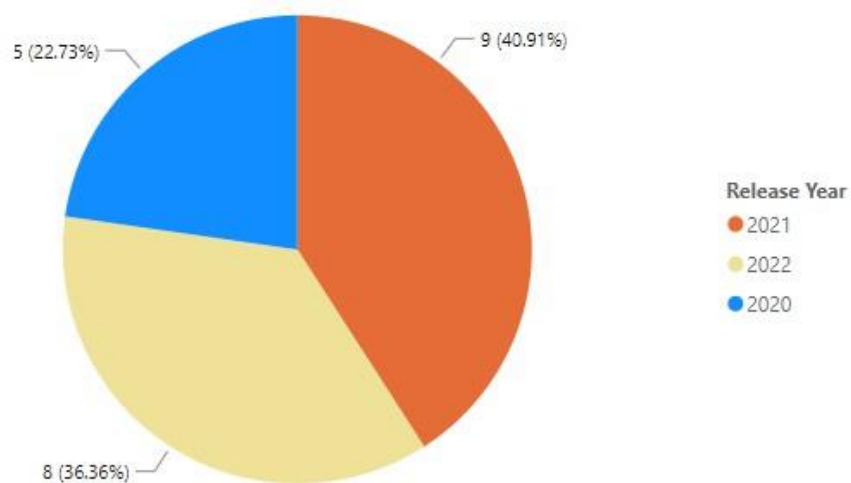
```
SELECT YEAR(release_date) AS release_year, COUNT(album_id) AS number_of_albums
FROM album
WHERE release_date BETWEEN (DATE_SUB(CURDATE(), INTERVAL 3 YEAR)) AND CURDATE()
GROUP BY YEAR(release_date)
ORDER BY YEAR(release_date);
```

Output:

Result Grid			Filter Rows:
	release_year	number_of_albums	
▶	2020	5	
	2021	9	
	2022	8	

Visualization:

Albums Released During Last 3 Years From Current/Today's Date

**Insight:**

2021 had the highest Number of Albums at 9, followed by 2022 at 8 and 2020 at 5. 2021 accounted for 40.91% of Number of Albums.

1.5 Artist With Top 5 Highest Number of Compositions (Includes Albums & Songs)

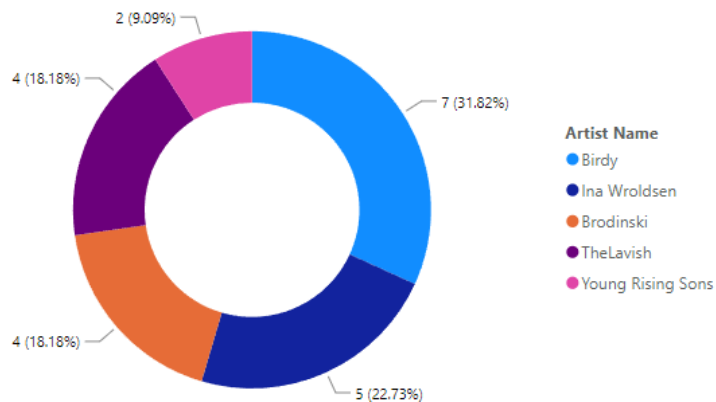
```
SELECT ar.artist_id, ar.artist_name, ar.artist_country, COUNT(cm.composition_id) AS
number_of_compositions
FROM artist ar, composition cm
WHERE ar.artist_id = cm.artist_id
GROUP BY ar.artist_id, ar.artist_name, ar.artist_country
ORDER BY COUNT(cm.composition_id) DESC
LIMIT 5;
```

Output:

Result Grid				
Filter Rows:		Export:  Wrap Cell Content: 		
	artist_id	artist_name	artist_country	number_of_compositions
▶	7mp3ILyl8RaBLr6zzhPyWD	Birdy	Spain	7
	7lvxWMH0C3Bj8b8JLkh9EN	Ina Wroldsen	USA	5
	7LeQ55Z5jPBB0ggYJtAiYO	Brodinski	USA	4
	7LP4Es66zdY7CyjepqmvAg	TheLavish	France	4
	7kQkmyoHCEqwe7QwDbkSXM	Young Rising Sons	USA	2

Visualization:

Artist With top 5 Highest Number of Compositions

**Insight:**

Birdy had the highest Number of Compositions at 7, followed by Ina Wroldsen and Brodinski. Young Rising Sons had the lowest Number of Compositions at 2. Birdy accounted for 31.82% of Number of Compositions.

1.6 Top 10 Artist With Highest Number of Followers

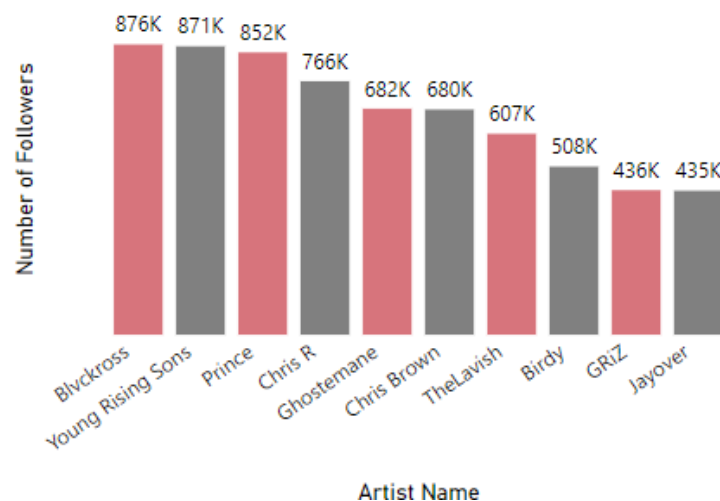
```
SELECT ar.artist_id, ar.artist_name, ar.artist_country, ar.number_of_followers
FROM artist ar,
(SELECT artist_id, MAX(number_of_followers) FROM artist GROUP BY artist_id) af
WHERE ar.artist_id = af.artist_id
ORDER BY ar.number_of_followers DESC
LIMIT 10;
```

Output:

Result Grid				
		Filter Rows:		Export:  Wrap Cell Content: 
	artist_id	artist_name	artist_country	number_of_followers
▶	7m9j9N42SLMCuALFwC6tD4	Blvckross	Spain	876398
	7kQkmyoHCEqwe7QwDbkSXM	Young Rising Sons	USA	870729
	7M2t0mMSjLJSweu8BwrY2R	Prince	France	852231
	7m1oRKYiZCfuKXRMWgefWR	Chris R	Germany	765504
	7LYMT7ZaJC6KaKaXod9qNq	Ghostemane	England	682482
	7Po7aUbqNz5qmcAn9Oj3F	Chris Brown	France	679942
	7LP4Es66zdY7CyjepqmvAg	TheLavish	France	606691
	7mp3ILyl8RaBLr6zzhPyWD	Birdy	Spain	507589
	7xw3IBFL1tzODZr3KFHa8	GRiZ	Belgium	436339
	7PaEd1BqOycaFRo05WIwK	Jayover	USA	434690

Visualization:

Top 10 Artist With Highest Number of Followers



Insight:

At 876398, Blvckcross had the highest Number of Followers and was 101.61% higher than Jayover, which had the lowest Number of Followers at 434690. Blvckcross accounted for 13.06% of Number of Followers. Across all 10 Artist Name, Number of Followers ranged from 434690 to 876398.

1.7 Top 10 Most Liked Songs

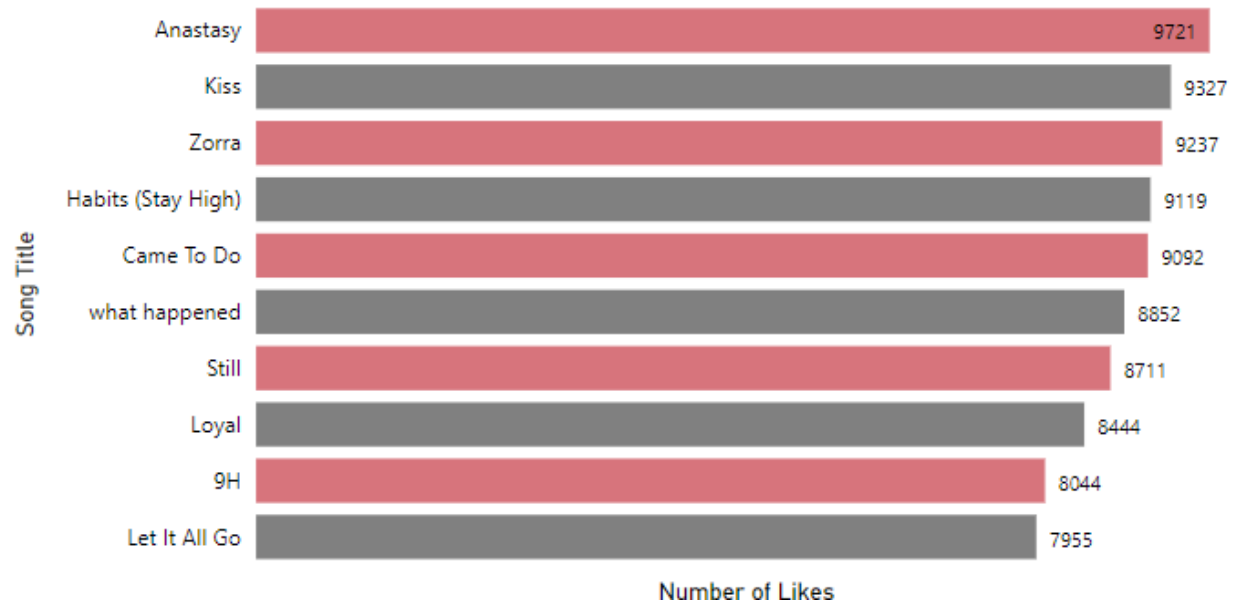
```
SELECT song_id, song_title, song_language, song_genre, number_of_likes
FROM song
ORDER BY number_of_likes DESC
LIMIT 10;
```

Output:

<div> <div>Result Grid</div> <div> <div>Filter Rows:</div> <div></div> </div> <div> <div>Edit:</div> <div></div> </div> <div>Export/Import:</div> <div> <div></div> <div></div> </div> <div>Wrap C</div> </div>					
	song_id	song_title	song_language	song_genre	number_of_likes
▶	2oIc3yUshnfNpy4NjJFAWO	Anastasy	English	dance pop	9721
	62LJFaYihsdVrrkgUOJC05	Kiss	Spanish	electropop	9327
	0OP1RzrglC008kj79Httv3	Zorra	Spanish	dance pop	9237
	18AJRdgUoO9EYn11N7xzaT	Habits (Stay High)	English	electropop	9119
	4B0tKXJguUl5YqW5wDcjNe	Came To Do	Spanish	southern hip hop	9092
	5VlYmXVnGycwv2eaDpyS5Q	what happened	English	dance pop	8852
	39nlQ3RFgkNMugzPjPWn2v	Still	Spanish	southern hip hop	8711
	7kqcudBGM74MXVoYMaoWkC	Loyal	French	indie poptimism	8444
	0RURdPb5FeKDxrl26KSUV1	9H	English	gangster rap	8044
	70K0ezmzYEZeQoSazMyP7o	Let It All Go	Spanish	indie poptimism	7955

Visualization:

Top 10 Most Liked Songs



Insight:

At 9721, Anastasy had the highest Number of Likes and was 22.20% higher than Let It All Go, which had the lowest Number of Likes at 7955. Anastasy accounted for 10.98% of Number of Likes. Across all 10 Song Title, Number of Likes ranged from 7955 to 9721.

1.8 Song Genre That Contains The Word "Pop" (case-insensitive)

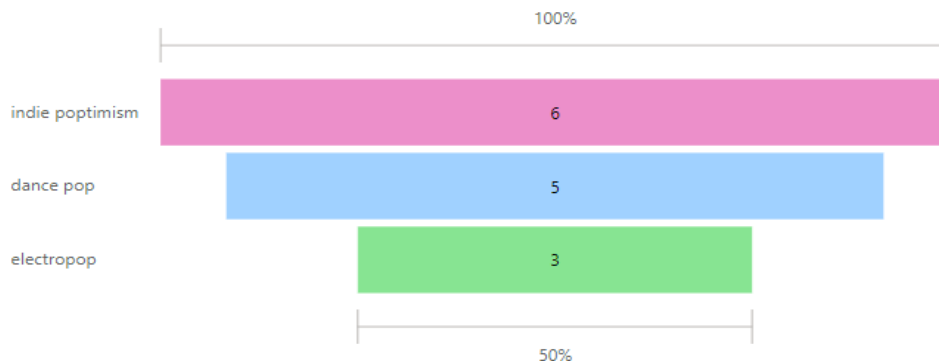
```
SELECT song_genre, COUNT(song_id) AS number_of_songs
FROM song
WHERE lower(song_genre) LIKE '%pop%'
GROUP BY song_genre;
```

Output:

Result Grid			Filter Rows:
	song_genre	number_of_songs	
▶	indie pop	6	
	dance pop	5	
	electropop	3	

Visualization:

Song Genres That Contains Word "Pop"

**Insight:**

indie poptimism had the highest Number of Songs at 6, followed by dance pop at 5 and electropop at 3. indie poptimism accounted for 42.86% of Number of Songs.

1.9 Average of Songs Runtime by Genre in English Language

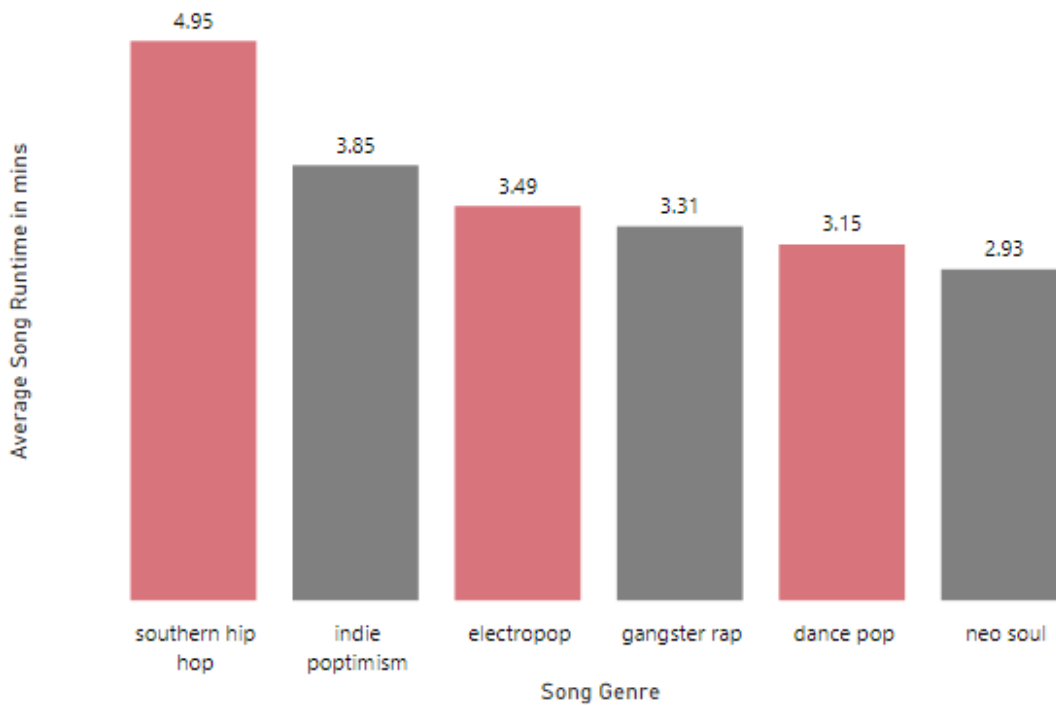
```
SELECT song_language, song_genre, ROUND(AVG(song_runtime/60000),2) AS
avg_song_runtime_mins
FROM song
WHERE song_language = 'English'
GROUP BY song_genre
ORDER BY song_genre;
```

Output:

Result Grid			
		Filter Rows:	
		Export:	
	song_language	song_genre	avg_song_runtime_mins
▶	English	dance pop	3.15
	English	electropop	3.49
	English	gangster rap	3.31
	English	indie poptimism	3.85
	English	neo soul	2.93
	English	southern hip hop	4.95

Visualization:

Average Song Runtime in mins by Song Genre for English Language

**Insight:**

At 4.95, southern hip hop had the highest Average Song Runtime in mins and was 68.94% higher than neo soul, which had the lowest Average Song Runtime in mins at 2.93. Across all 6 Song Genres, Average Song Runtime in mins ranged from 2.93 to 4.95.

1.10 Users With Downloaded Playlists

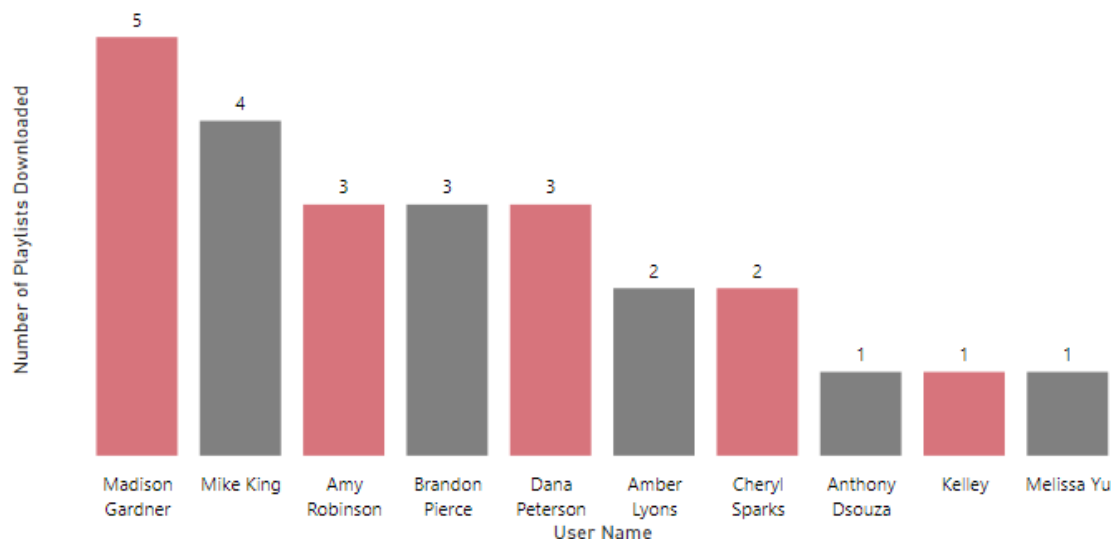
```
SELECT us.user_id, us.user_name, us.user_gender, us.user_country, COUNT(up.playlist_id) AS
number_of_playlists
FROM user us, user_playlist up
WHERE us.user_id = up.user_id
GROUP BY us.user_id, us.user_name, us.user_gender, us.user_country
AND up.downloaded_flag = 'Y'
ORDER BY number_of_playlists DESC;
```

Output:

Result Grid					
Filter Rows:					
Export:					
Wrap Cell Content:					
	user_id	user_name	user_gender	user_country	number_of_playlists
▶	ALdSEltor	Madison Gardner	Male	USA	5
	iNkELmYR	Mike King	Male	Italy	4
	coNmArdi	Brandon Pierce	Male	Italy	3
	jOHMAtenC	Amy Robinson	Male	Sri Lanka	3
	PeSpReByP	Dana Peterson	Female	USA	3
	angEYErC	Amber Lyons	Female	Spain	2
	endishoNC	Cheryl Sparks	Male	India	2
	EtHABiFY	Kelley	Female	France	1
	FRucoNm	Anthony Dsouza	Male	USA	1
	SioNjOYA	Melissa Yu	Female	South Korea	1

Visualization:

Number of Playlists Downloaded by User

**Insight:**

Number of Playlists Downloaded was highest for Madison Gardner at 5, followed by Mike King and Brandon Pierce. Madison Gardner accounted for 20.00% of Number of Playlists Downloaded. Across all 10 Users, Number of Playlists Downloaded ranged from 1 to 5.

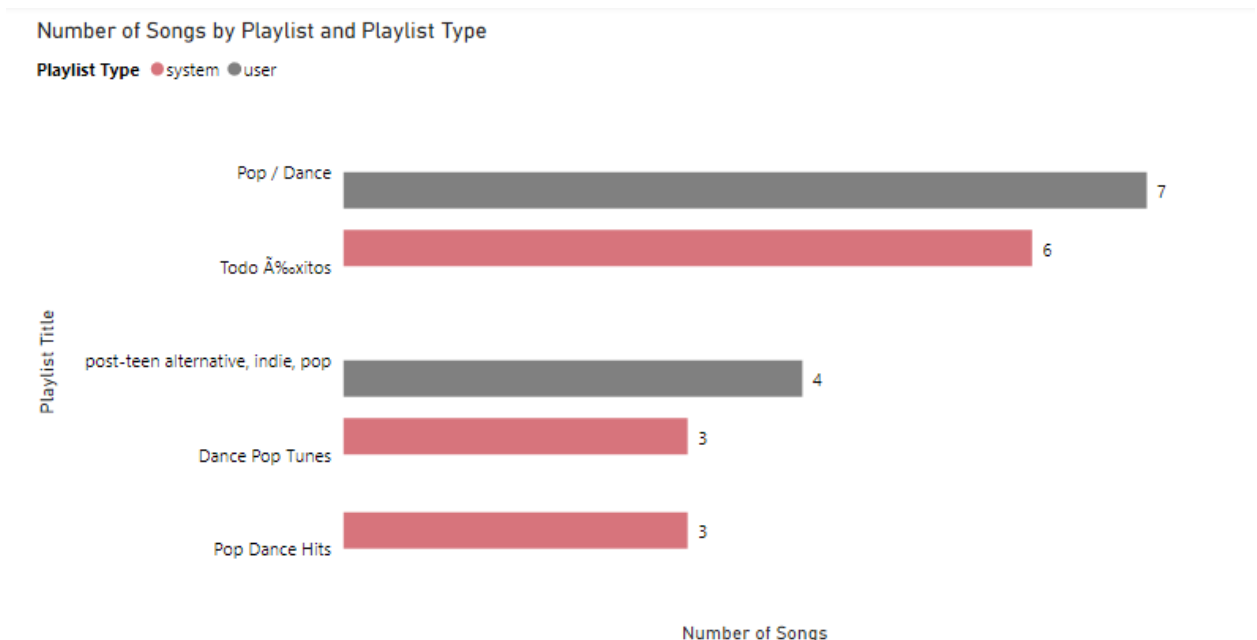
1.11 Number of Songs by Playlist and Playlist Type

```
SELECT pl.playlist_id, pl.playlist_type, pl.playlist_title, COUNT(ps.song_id) AS number_of_songs
FROM playlist pl, playlist_song ps
WHERE pl.playlist_id = ps.playlist_id
GROUP BY pl.playlist_id, pl.playlist_type, pl.playlist_title
ORDER BY COUNT(ps.song_id) DESC
LIMIT 5;
```

Output:

Result Grid Filter Rows: <input type="text"/> Export: Wrap Cell Content:				
	playlist_id	playlist_type	playlist_title	number_of_songs
▶	2ji5tRQVfnhaX1w9FhmSzk	user	Pop / Dance	7
	4SdfG4cPG3skmTiQLozZGh	system	Todo Ã%oxitos	6
	7eERKCKgNKCCx5GYdeMIZf	user	post-teen alternative, indie, pop	4
	1y42gwI5cuwjBslPyQNfqb	system	Dance Pop Tunes	3
	6mXh8CUBMBsBUu88a4eAQV	system	Pop Dance Hits	3

Visualization:





Insight:

Total Number of Songs was higher for system (12) than user (11). Pop / Dance in Playlist Type made up 30.43% of Number of Songs. Average Number of Songs was higher for user (5.50) than system (4).

1.12 Most Popular Music Streaming Service Plans

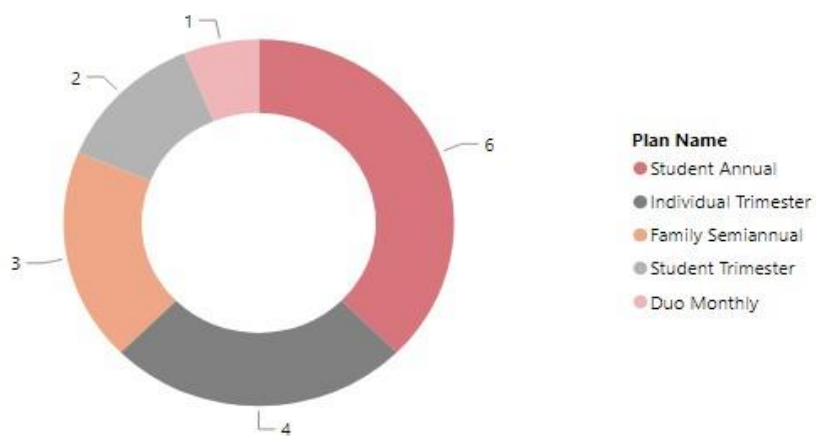
```
SELECT pl.plan_id, pl.plan_title, pl.plan_duration, COUNT(sb.subscription_id) AS
number_of_subscriptions
FROM plan pl, subscription sb
WHERE pl.plan_id = sb.plan_id
GROUP BY pl.plan_id, pl.plan_title, pl.plan_duration
ORDER BY COUNT(sb.subscription_id) DESC
LIMIT 5;
```

Output:

Result Grid  Filter Rows: <input type="text"/> Export:  Wrap Cell Cc				
	plan_id	plan_title	plan_duration	number_of_subscriptions
▶	747850	Student Annual	12	6
	747843	Individual Trimester	9	4
	747841	Family Semiannual	6	3
	747846	Student Trimester	9	2
	747832	Duo Monthly	1	1

Visualization:

Popularity of Music Streaming Service Plans



Student Annual accounted for 37.50% of Number of Subscriptions.




Insight:

Student Annual Plan accounted for the most Number of Subscriptions at 37.50% followed by Individual Trimester at 25%. Duo Monthly Plan accounts for the least Number of Subscriptions at 6.25%.

1.13 Payment Channel Popularity Based on Subscriptions

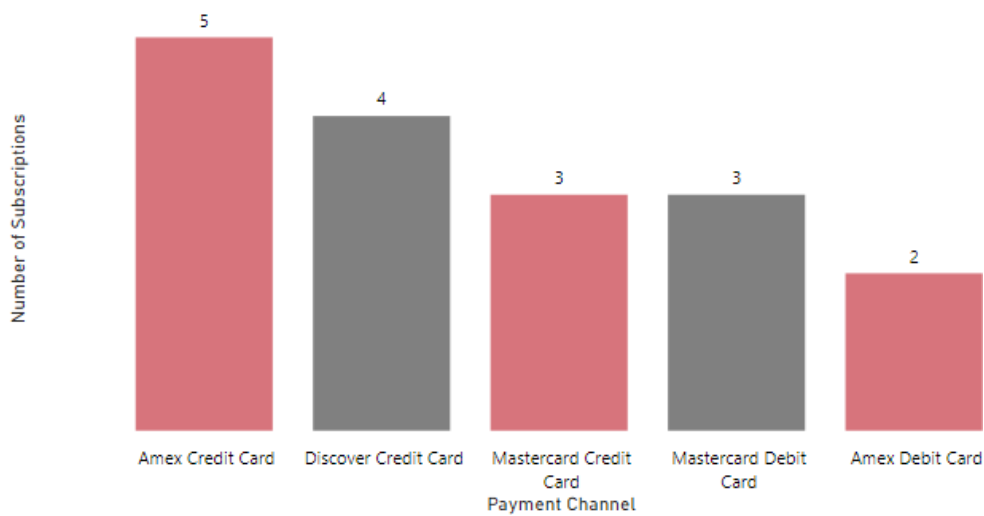
```
SELECT pc.payment_channel_id, pc.payment_channel_title, sb.number_of_subscriptions
FROM payment_channel pc,
(SELECT payment_channel_id, COUNT(subscription_id) AS number_of_subscriptions
FROM subscription GROUP BY payment_channel_id) sb
WHERE pc.payment_channel_id = sb.payment_channel_id
ORDER BY sb.number_of_subscriptions DESC
LIMIT 5;
```

Output:

Result Grid   Filter Rows: <input type="text"/> Export:  Wrap Cell C			
	payment_channel_id	payment_channel_title	number_of_subscriptions
▶	2089085	Amex Credit Card	5
	2089087	Discover Credit Card	4
	2089083	Mastercard Credit Card	3
	2089084	Mastercard Debit Card	3
	2089086	Amex Debit Card	2

Visualization:

Payment Channel Popularity Based on Subscriptions



Insight:

At 5, Amex Credit Card had the highest Number of Subscriptions and was 150.00% higher than Amex Debit Card, which had the lowest Number of Subscriptions at 2. Amex Credit Card had the highest Number of Subscriptions at 5, followed by Discover Credit Card and Mastercard Credit Card. Amex Credit Card accounted for 29.41% of Number of Subscriptions. Across all 5 Payment Channel, Number of Subscriptions ranged from 2 to 5.

1.14 Music Streaming Service User's Without an Active Subscription Plan by Gender

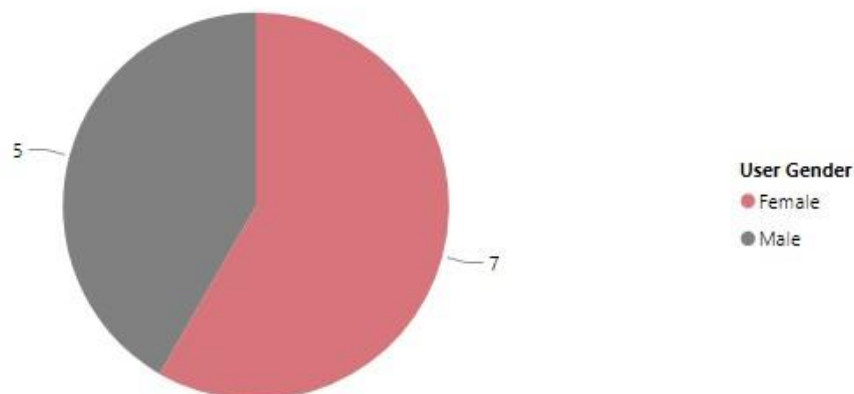
```
SELECT us.user_gender, COUNT(sb.subscription_id) AS number_of_subscriptions
FROM user us, subscription sb
WHERE us.user_id = sb.user_id
AND sb.subscription_status = 'Active'
AND us.user_id NOT IN
(SELECT user_id FROM user WHERE user_type = 'Guest')
GROUP BY us.user_gender;
```

Output:

Result Grid			Filter Rows:
	user_gender	number_of_subscriptions	
▶	Male	5	
	Female	7	

Visualization:

Music Streaming Service Users Without an Active Subscription Plan



Insight:

Number of Subscriptions for Female (7) was higher than Male (5). Female accounted for 58.33% of Number of Subscriptions.

1.15 Music Streaming Service Plan(s) With Zero Subscriptions

```
SELECT pl.plan_id, pl.plan_title, pl.plan_duration
FROM plan pl LEFT OUTER JOIN subscription sb
ON pl.plan_id = sb.plan_id
GROUP BY pl.plan_id, pl.plan_title, pl.plan_duration
HAVING COUNT(sb.subscription_id) = 0;
```

Output:

Result Grid		Filter Rows:	
	plan_id	plan_title	plan_duration
▶	747831	Individual Monthly	1
	747833	Family Monthly	1
	747834	Student Monthly	1
	747835	Individual Quarterly	3
	747836	Duo Quarterly	3
	747839	Individual Semiannual	6
	747840	Duo Semiannual	6
	747844	Duo Trimester	9
	747845	Family Trimester	9
	747848	Duo Annual	12
	747849	Family Annual	12

5. Database Views

1.1 user_subscriptions

-- View showing user subscriptions, plan details and payment methods

```
CREATE VIEW user_subscriptions AS
SELECT us.user_name, us.user_gender, us.user_country,
sb.start_date, sb.end_date, sb.subscription_status,
pl.plan_title, pl.plan_duration, CONCAT('$', pl.plan_amount) as plan_charges,
pc.payment_channel_title AS payment_method
FROM user us, plan pl, payment_channel pc, subscription sb
WHERE us.user_id = sb.user_id
AND pl.plan_id = sb.plan_id
AND pc.payment_channel_id = sb.payment_channel_id;
```

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' tree with 'group_project' expanded, showing tables like 'album', 'artist', 'composition', 'payment_channel', 'plan', 'playlist', 'playlist_song', 'song', 'subscription', 'user', 'user_playlist', and views like 'user_subscriptions'. The main editor shows the SQL script for creating the view. The bottom 'Output' pane shows the execution results.

Table: album

Columns:

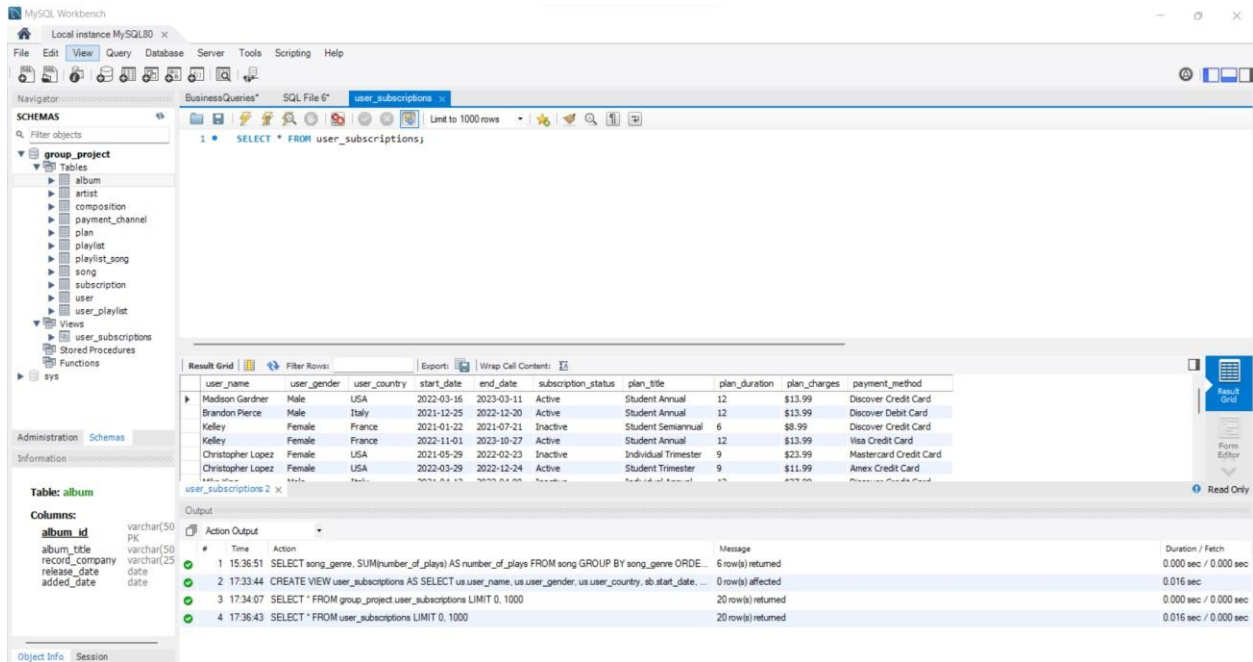
Column Name	Data Type
album_id	varchar(50) PK
album_title	varchar(50)
record_company	varchar(25)
release_date	date
added_date	date

Output:

#	Time	Action	Message
1	15:36:51	SELECT song_genre, SUM(number_of_plays) AS number_of_plays FROM song GROUP BY song_genre ORDE...	6 row(s) returned
2	17:33:44	CREATE VIEW user_subscriptions AS SELECT us.user_name, us.user_gender, us.user_country, sb.start_date, ...	0 row(s) affected
3	17:34:07	SELECT * FROM group_project.user_subscriptions LIMIT 0, 1000	20 row(s) returned

-- Display data from view - user_subscriptions

```
SELECT * FROM user_subscriptions;
```



1.2 artists_compilation

-- View showing artists compilation for albums and songs

```
CREATE VIEW artists_compilation AS
SELECT ar.artist_name, ar.artist_country, ar.number_of_followers,
al.album_title, al.release_date,
sn.song_title, sn.song_runtime, sn.song_language, sn.song_genre, sn.number_of_plays,
sn.number_of_likes
FROM artist ar, album al, song sn, composition cm
WHERE ar.artist_id = cm.artist_id
AND al.album_id = cm.album_id
AND sn.song_id = cm.song_id;
```

MySQL Workbench interface showing the creation of the `artists_compilation` view. The SQL editor contains the following query:

```

1  -- View showing artists compilation for albums and songs
2
3  CREATE VIEW artists_compilation AS
4  SELECT ar.artist_name, ar.artist_country, ar.number_of_followers,
5         al.album_title, al.release_date,
6         sn.song_runtime, sn.song_language, sn.song_genre, sn.number_of_plays, sn.number_of_likes
7  FROM artist ar, album al, song sn, composition cm
8  WHERE ar.artist_id = cm.artist_id
9        AND al.album_id = cm.album_id
10       AND sn.song_id = cm.song_id;
11

```

The output window shows the execution results:

#	Time	Action	Message	Duration / Fetch
1	15:36:51	SELECT song_genre, SUM(number_of_plays) AS number_of_plays FROM song GROUP BY song_genre ORDER BY...	6 row(s) returned	0.000 sec / 0.000 sec
2	17:33:44	CREATE VIEW user_subscriptions AS SELECT us.user_name, us.user_gender, us.user_country, us.start_date, ...	0 row(s) affected	0.016 sec
3	17:34:07	SELECT * FROM group_project.user_subscriptions LIMIT 0, 1000	20 row(s) returned	0.000 sec / 0.000 sec
4	17:36:43	SELECT * FROM user_subscriptions LIMIT 0, 1000	20 row(s) returned	0.016 sec / 0.000 sec
5	17:37:35	CREATE VIEW artists_compilation AS SELECT ar.artist_name, ar.artist_country, ar.number_of_followers, albu...	0 row(s) affected	0.000 sec

-- Display data from view - artists_compilation

SELECT * FROM artists_compilation;

MySQL Workbench interface showing the data from the `artists_compilation` view. The SQL editor contains the query:

```

1  SELECT * FROM artists_compilation;

```

The output window shows the execution results:

#	Time	Action	Message	Duration / Fetch
1	15:36:51	SELECT song_genre, SUM(number_of_plays) AS number_of_plays FROM song GROUP BY song_genre ORDER BY...	6 row(s) returned	0.000 sec / 0.000 sec
2	17:33:44	CREATE VIEW user_subscriptions AS SELECT us.user_name, us.user_gender, us.user_country, us.start_date, ...	0 row(s) affected	0.016 sec
3	17:34:07	SELECT * FROM group_project.user_subscriptions LIMIT 0, 1000	20 row(s) returned	0.000 sec / 0.000 sec
4	17:36:43	SELECT * FROM user_subscriptions LIMIT 0, 1000	20 row(s) returned	0.016 sec / 0.000 sec
5	17:37:35	CREATE VIEW artists_compilation AS SELECT ar.artist_name, ar.artist_country, ar.number_of_followers, albu...	0 row(s) affected	0.000 sec
6	17:39:20	SELECT * FROM artists_compilation LIMIT 0, 1000	23 row(s) returned	0.000 sec / 0.000 sec

The Result Grid shows the following data:

artist_name	artist_country	number_of_followers	album_title	release_date	song_title	song_runtime	song_language	song_genre	number_of_plays	number_of_likes
Ina Wroldsen	USA	348020	I Dont Know	2021-05-14	Blackhawk	168856	English	gangster rap	46100	3526
Blvdross	Spain	876398	what happened	2021-04-16	Wow, I am Not Crazy	196763	Spanish	inde poptrism	53342	6650
Birdy	Spain	507989	Carry On (Acoustic)	2022-02-17	Carry On - Acoustic	207880	Spanish	inde poptrism	44491	3751
Birdy	Spain	507989	Carry On (Acoustic)	2022-02-17	Zorra	186120	Spanish	dance pop	70098	9237
Ina Wroldsen	USA	348020	I Dont Know	2021-05-14	9H	194325	English	gangster rap	21376	8044
Brodinski	USA	114168	An Innocent Man	2021-02-05	Habits (Stay High)	209160	English	electropop	45998	9119

6. References

For reference and project purposes sample data has been inferred from the below repository.

https://github.com/rfordatascience/tidytuesday/blob/master/data/2020/2020-01-21/spotify_songs.csv