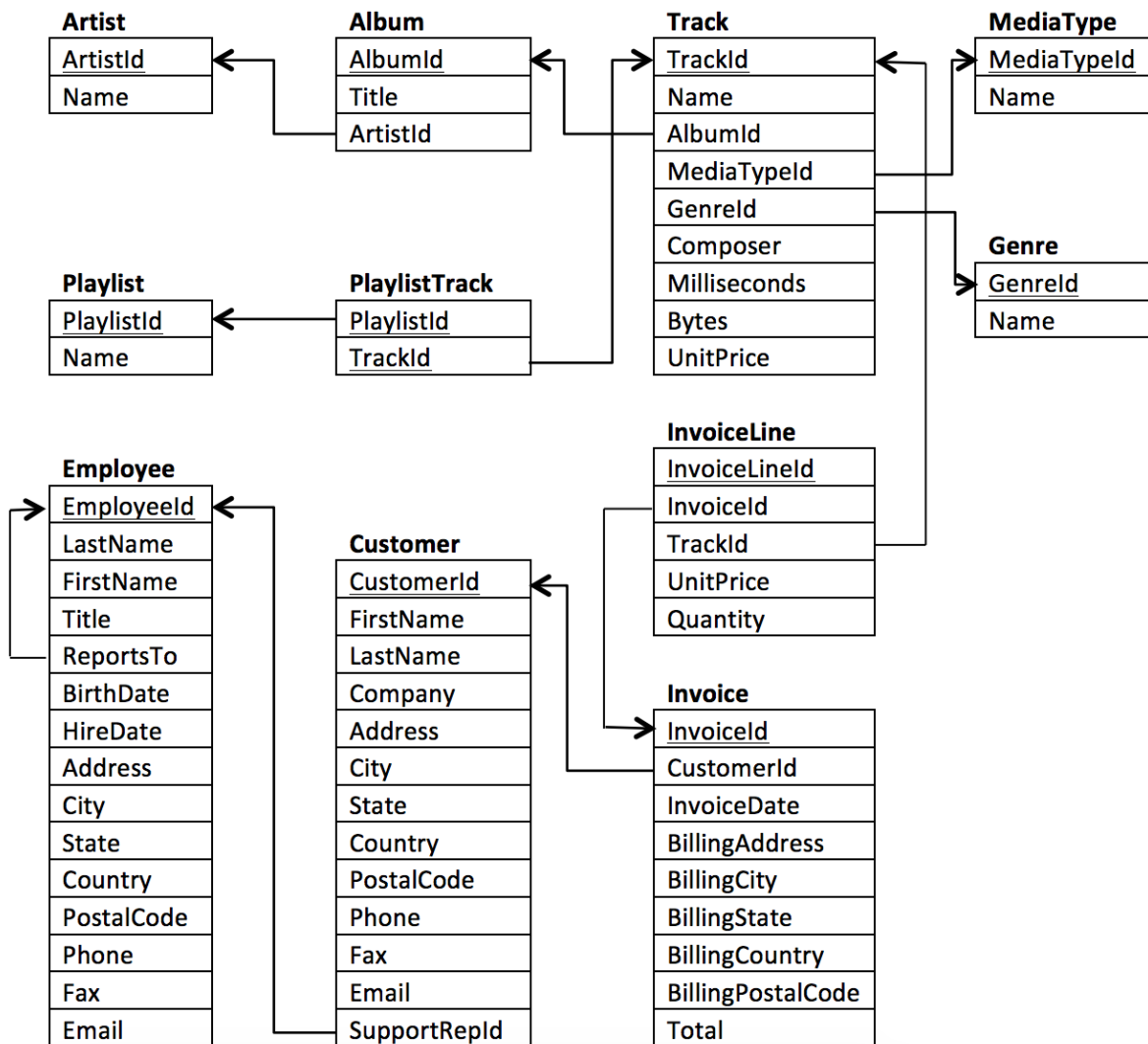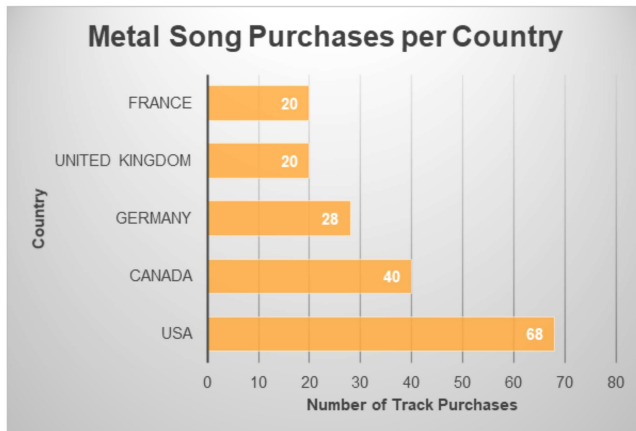# SQL Project: Query a Digital Music Store Database

Introduction

In this project, I used SQLite (DB Browser) to query the Chinook Database, which holds information about a music store. The database includes information about the store media, customers, employees, and invoices. I used four queries to investigate different questions about how the company might optimize business practices. The schema for the Chinook Database is provided below.

Artist
ArtistId
Name

Album
AlbumId
Title
ArtistId

Track
TrackId
Name
AlbumId
MediaTypeId
GenreId
Composer
Milliseconds
Bytes
UnitPrice

MediaType
MediaTypeId
Name

Genre
GenreId
Name

Playlist
PlaylistId
Name

PlaylistTrack
PlaylistId
TrackId

InvoiceLine
InvoiceLineId
InvoiceId
TrackId
UnitPrice
Quantity

Employee
EmployeeId
LastName
FirstName
Title
ReportsTo
BirthDate
HireDate
Address
City
State
Country
PostalCode
Phone
Fax
Email

Customer
CustomerId
FirstName
LastName
Company
Address
City
State
Country
PostalCode
Phone
Fax
Email
SupportRepId

Invoice
InvoiceId
CustomerId
InvoiceDate
BillingAddress
BillingCity
BillingState
BillingCountry
BillingPostalCode
Total

```
SELECT c.Country, COUNT(InvoiceLineId) "Metal Track Purchases"
FROM Customer c
JOIN Invoice i
ON c.CustomerId = i.CustomerId
JOIN InvoiceLine il
ON i.InvoiceId = il.InvoiceId
JOIN Track t
ON t.TrackId = il.TrackId
JOIN Genre g
ON g.GenreId = t.GenreId
WHERE g.Name = "Metal" OR g.Name = "Heavy Metal"
GROUP BY 1
ORDER BY 2 DESC
LIMIT 5;
```

Which artists have the shortest tracks in the Chinook database?

Artists' Shortest Song Lengths
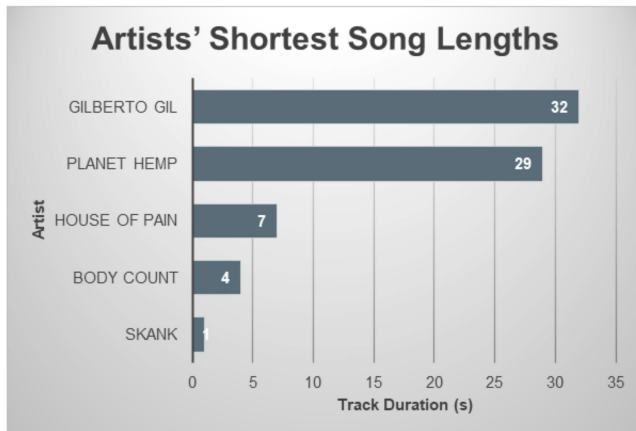
Skank has the shortest track length, at just over 1 second. The five artists with the shortest tracks in the database all have songs under 35 seconds.

```
SELECT a.Name "Artist", MIN(t.Milliseconds)/1000 "Duration (s)"
FROM Track t
JOIN Album al
ON al.AlbumId = t.AlbumId
JOIN Artist a
ON a.ArtistId = al.ArtistId
GROUP BY 1
ORDER BY 2
LIMIT 5;
```

Which artists have the most albums within the Chinook Database?

Number of Albums per Artist
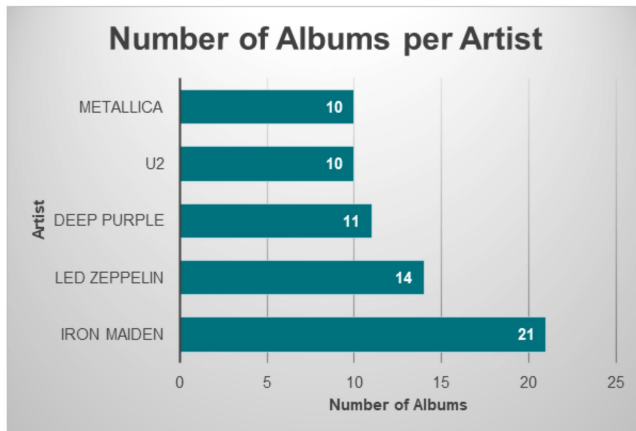
Iron Maiden has the most albums in the database, with 21 albums. It has 1.5x the number of the artist with the second-most highest number (Led Zeppelin), and at least double the number compared to the rest of the artists in the database.

```
SELECT a.Name "Artist", COUNT(AlbumId) "Number of Albums"
FROM Artist a
JOIN Album al
ON a.ArtistId = al.ArtistId
GROUP BY 1
ORDER BY 2 DESC
LIMIT 5;
```

Spending of Brazillian Customers at Music Store

Amount Spent (USD)

Goncalves, Luis	Martins, Eduardo	Rocha, Alexandre	Almeida, Roberto	Ramos, Fernanda
39.62	37.62	37.62	37.62	37.62

Customer Name

The 5 customers from Brazil have spent roughly the same amount at the music store. All are in the upper $30s range, with 4 of them being the same at $37.62

```
SELECT c.FirstName, c.LastName, SUM(il.Quantity * il.UnitPrice) "USD Spent"
FROM InvoiceLine il
JOIN Invoice i
ON i.InvoiceId = il.InvoiceId
JOIN Customer c
ON c.CustomerId = i.CustomerId
WHERE c.Country = "Brazil"
GROUP BY c.CustomerId
ORDER BY 3 DESC;
```