

# Data Modeling & Power BI

- Chinook Database
  - (On Azure or Local)
    - MySQL
    - SQL Server
    - PostgreSQL
- Tools
  - SQL
  - Microsoft Power BI



# Chinook Database Github

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lerocha Updating .gitignore e7e6d5f on Feb 19, 2022 134 commits

.nuget	Removing NuGet packages and setting them to download on build	10 years ago
ChinookDatabase.Test	<a href="#">Setting version number to 1.4</a>	10 years ago
ChinookDatabase	Removing sdf files	last year
NuGet	Updating nuget package to use SQL Server Compact version 4.0.8876.1	8 years ago
packages	Adding DB2 .NET Data Provider binary since it is not available in NuGet	10 years ago
.gitignore	Updating .gitignore	last year
ChinookDatabase.sln	Removing NuGet packages and setting them to download on build	10 years ago
LICENSE.md	Update LICENSE.md	5 years ago
README.md	updating readme file with new sql scripts location	5 years ago

README.md

### Chinook Database

Chinook is a sample database available for SQL Server, Oracle, MySQL, etc. It can be created by running a single SQL script. Chinook database is an alternative to the Northwind database, being ideal for demos and testing ORM tools targeting single and multiple database servers.

#### Supported Database Servers

- MySQL
- SQL Server
- SQL Server Compact
- SQLite
- PostgreSQL
- Oracle
- DB2

#### Data Model

The Chinook data model represents a digital media store, including tables for artists, albums, media tracks, invoices and customers.

#### Sample Data

Media related data was created using real data from an iTunes Library. It is possible for you to use your own iTunes

About

Sample database for SQL Server, Oracle, MySQL, PostgreSQL, SQLite, DB2

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Packages

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Contributors 2

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Languages

C# 98.1%

Batchfile 1.9%

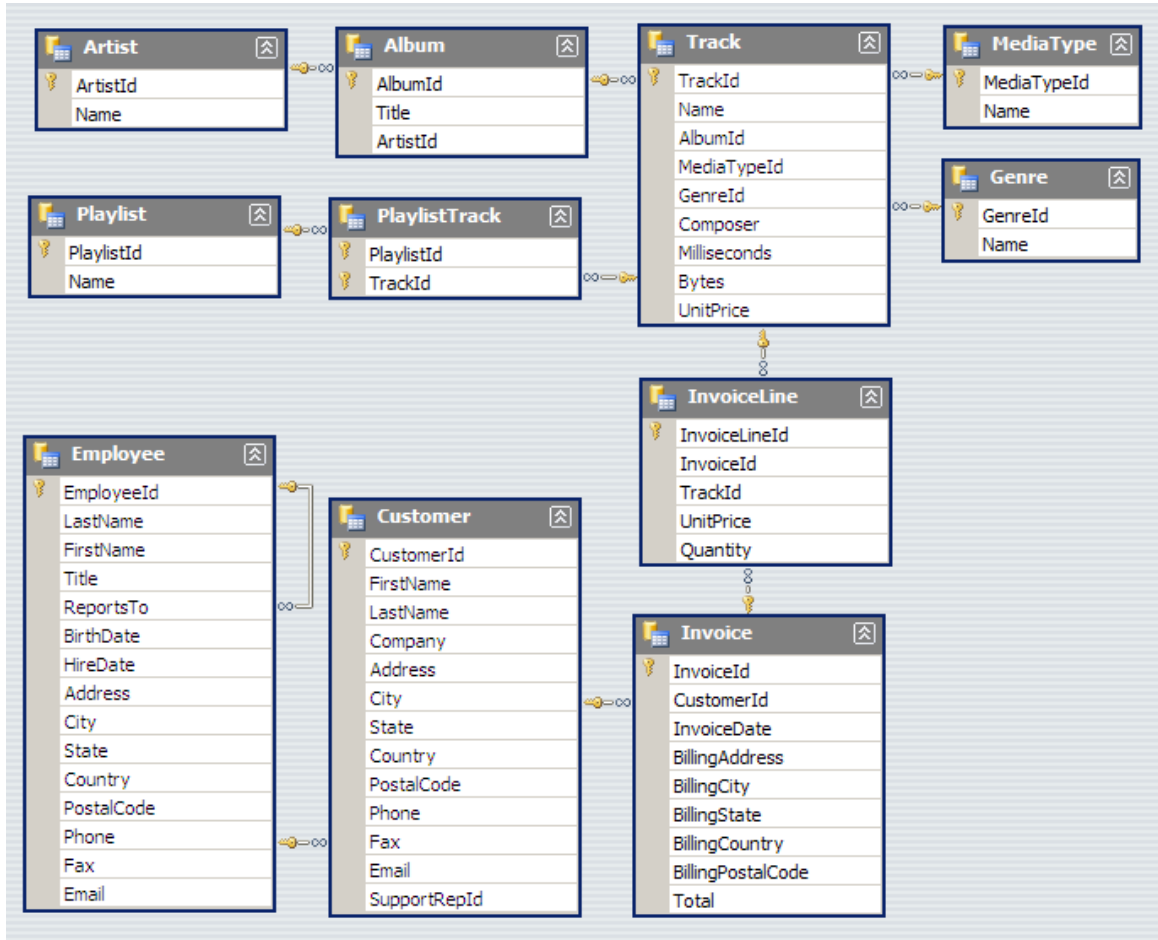
OneDrive Search Current folder

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My files > damg7370\_2023\_01\_spring > Data - Chinook

Name	Modified	Modified By	File size	Sharing
archive Azure_Chinook_MySql_AutoIncrementPKs.sql	January 8	Sherman, Richard	1.52 MB	Shared
Azure_Chinook_AzureSQL_AutoIncrementPKs.sql	January 8	Sherman, Richard	3.28 MB	Shared
Azure_Chinook_MySql_AutoIncrementPKs.sql	January 8	Sherman, Richard	1.52 MB	Shared
Azure_Chinook_PostgreSql.sql	January 8	Sherman, Richard	1.78 MB	Shared
Chinook_MySql_AutoIncrementPKs.sql	January 8	Sherman, Richard	1.66 MB	Shared
Chinook_Orade WITH DB ALREADY CREATED.sql	January 8	Sherman, Richard	1.64 MB	Shared
Chinook_Orade.sql	January 8	Sherman, Richard	1.64 MB	Shared
Chinook_PostgreSql.sql	January 8	Sherman, Richard	1.78 MB	Shared
Chinook_SqlServer_AutoIncrementPKs.sql	January 8	Sherman, Richard	3.50 MB	Shared
Chinook_SqlServer_to_chinook_schema.sql	January 8	Sherman, Richard	3.86 MB	Shared

# Chinook Database



Chinook data model represents a digital media store, including tables for artists, albums, media tracks, invoices and customers.

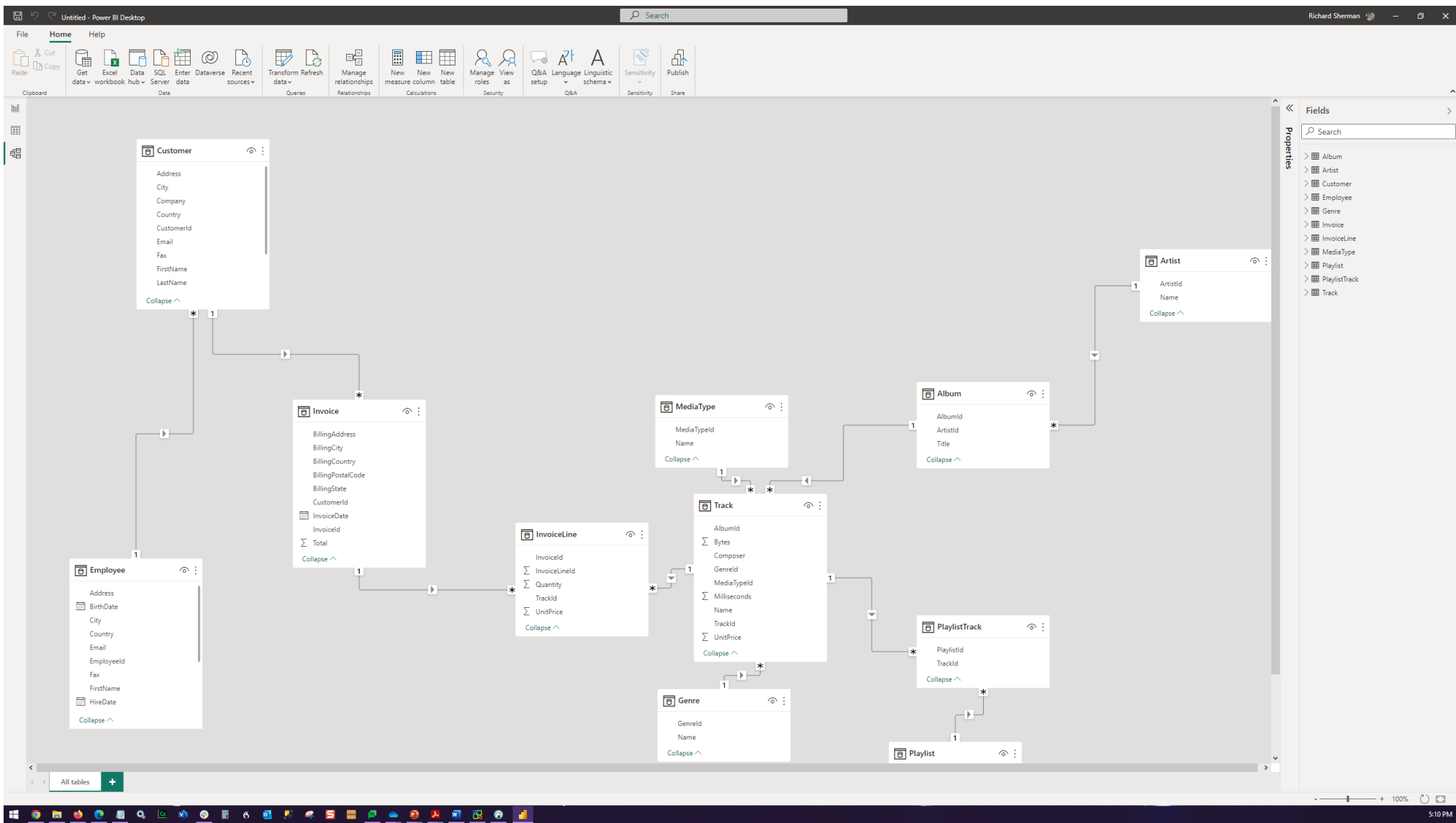
Chinook data model is an Entity-Relationship (ER) Model.

TableName	Table Rows
Album	347
Artist	275
Customer	59
Employee	8
Genre	25
Invoice	412
InvoiceLine	2,240
Media Type	5
Playlist	18
PlaylistTrack	8,715
Track	3,503

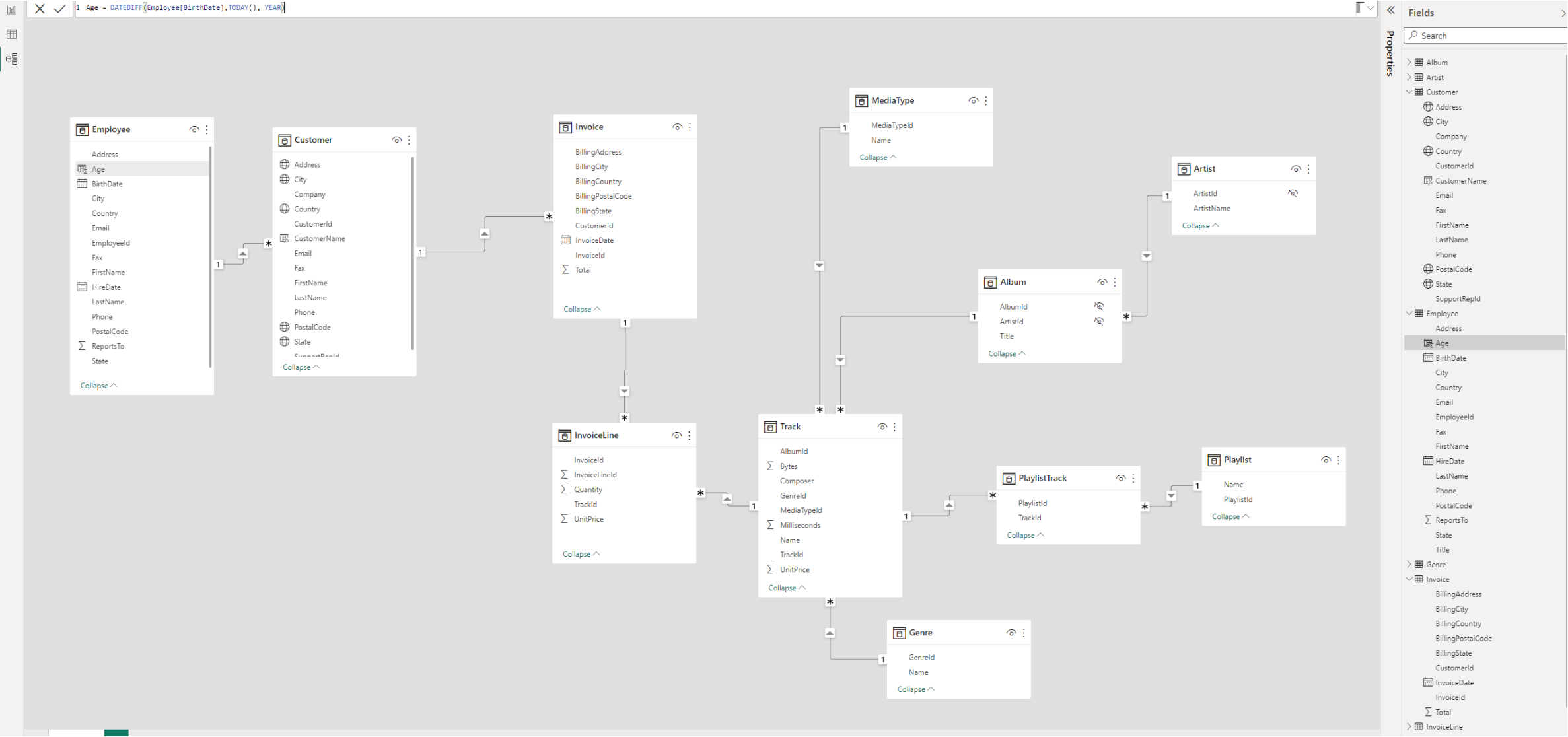
# Chinook Database: Tables

- **Employee** table stores employee data such as employee id, last name, first name, etc. It also has a field named ReportsTo to specify who reports to whom.
- **Customer** table stores customers data.
- **Invoice & InvoiceLine** tables: these two tables store invoice data. The invoices table stores invoice header data and the invoice\_items table stores the invoice line items data.
- **Artist** table stores artists data. It is a simple table that contains only the artist id and name.
- **Album** table stores data about a list of tracks. Each album belongs to one artist. However, one artist may have multiple albums.
- **MediaType** table stores media types such as MPEG audio and AAC audio files.
- **Genre** table stores **music types** such as rock, jazz, metal, etc.
- **Track** table stores the data of **songs**. Each track belongs to one album.
- **Playlist & Playlist Track** tables: playlists table store data about playlists. Each playlist contains a list of tracks. Each track may belong to multiple playlists. The relationship between the playlists table and tracks table is many-to-many. The PlaylistTrack table is used to reflect this relationship.

# Power BI



# Power BI





# Assignment Microsoft Power BI

- A. Answer SQL Queries (vary databases used for queries: Azure SQL, MySQL, PostgreSQL)
- B. Create Data Visualizations in Microsoft Power BI (you choose database):
- C. Questions:
  - 1. Total sales
  - 2. Total sales by country – ranked
  - 3. Total sales by country, state & city
  - 4. Total sales by customer – ranked
  - 5. Total sales by artist – ranked
  - 6. Total sales by albums
  - 7. Total sales by salesperson (employee)
  - 8. Total tracks bought and total revenue by media type
  - 9. Total Sales by Customer
  - 10. Total Sales by Genre