Answering Business Questions using SQL

This project aims to analyze and answer key business questions about a fictional music record store called klook Music Players Inc (KMP)

Data set

Database :: music store database

Please download the .sql file from the link mentioned here and restore the database into your postgreSQL editor / pgAdmin

https://drive.google.com/drive/1J9XBNPqE2FmEjzm5iryQU-EJPQLDrroZ?export=download

This database includes tables on invoice information, track, album, artist and genre data, and employee and customer information related to the a music store's sales

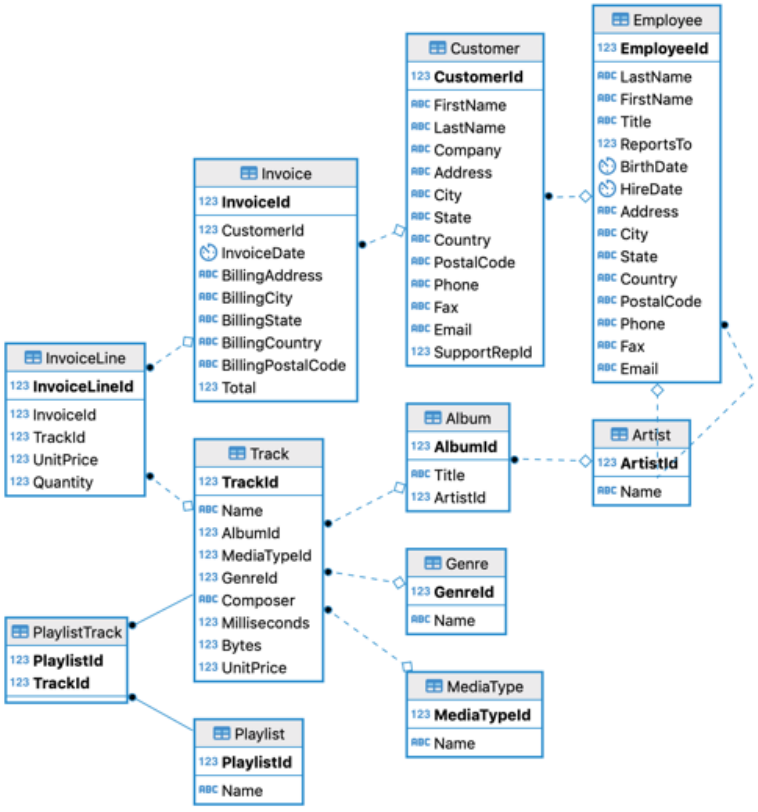
There are 11 tables in the music store database.

- **employee** table stores employees 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 has data related to customers, customers name company , email id, phone their service representative for any query resolution etc.
- **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. You can check on total sales or billing related analysis here
- **artist** table stores artists data. It is a simple table that contains only the artist id and name of the music artists.
- **album** table stores data about a list of tracks. Each album belongs to one artist. However, one artist may have multiple albums.
- **media_type** table stores media types such as MPEG audio and AAC audio files.
- **genre** table stores music types such as rock, jazz, metal,classical etc.
- **track** table stores the data of songs, each of the tracks 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 playlist_track table is used to reflect this relationship.

Schema

You can refer the below schema to understand the various relationships and keys



Concepts Covered

CONCAT, WITH,SUBQUERY, SELF JOIN, AVERAGE, AGGREGATION GROUP BY,CASE WHEN , CASTING , HAVING, INNER AND LEFT JOINS

Business Questions

1. Order of employees by date they joined? Name the person who joined recently **[Beginners]**
2. Who is the oldest employee in the firm? **[Beginners]**
3. What is the average duration of songs in minutes? **[Beginners]**

4. Who is the customer that has spent the most on music for each country? **[Intermediate]**
5. Which artist has the longest songs? **[Beginners]**
6. Find the total dollar amount of sales assigned to each sales support agent within the company **[Intermediate]**
7. Write a SQL query to prepare the following summary - (country,customers count, total sales amount, average order value and customer lifetime value **[Pro]**

country	customers	total_sales	average_order	customer_lifetime_value
USA	13	1040.49	7.942672	80.037692
Canada	8	535.59	7.047237	66.948750
Brazil	5	427.68	7.011148	85.536000
France	5	389.07	7.781400	77.814000
Germany	4	334.62	8.161463	83.655000
Czech Republic	2	273.24	9.108000	136.620000
United Kingdom	3	245.52	8.768571	81.840000
Portugal	2	185.13	6.383793	92.565000
India	2	183.15	8.721429	91.575000
other	15	1094.94	7.445071	72.996000

   a.
   b. Customer lifetime value CLTV : Customer lifetime value is the total worth to a business of a customer over the whole period of their relationship, here you can use total sales per customers in their whole lifespan of buying tracks from the KLOOK store
8. Which genres sell the most tracks in the USA, return the following table- Top 10 genres, tracks sold and their percentage contribution in the market.**[Intermediate]**

genre	tracks_sold	percentage
Rock	561	0.533777
Alternative & Punk	130	0.123692
Metal	124	0.117983
R&B/Soul	53	0.050428
Blues	36	0.034253
Alternative	35	0.033302
Latin	22	0.020932
Pop	22	0.020932
Hip Hop/Rap	20	0.019029
Jazz	14	0.013321