Digital Music Store Analysis

PostgreSql

Overview

The Digital Music Store Analysis project is a comprehensive exploration of database management and data analysis skills applied to the digital music industry. It encompasses the design of a relational database schema tailored for a digital music store, the implementation of SQL queries to extract meaningful insights from the database, and the generation of reports and recommendations based on analytical findings.

Key Components:

Database Design

Data Import and Manipulation

SQL Queries and Analysis

Reporting and Visualization

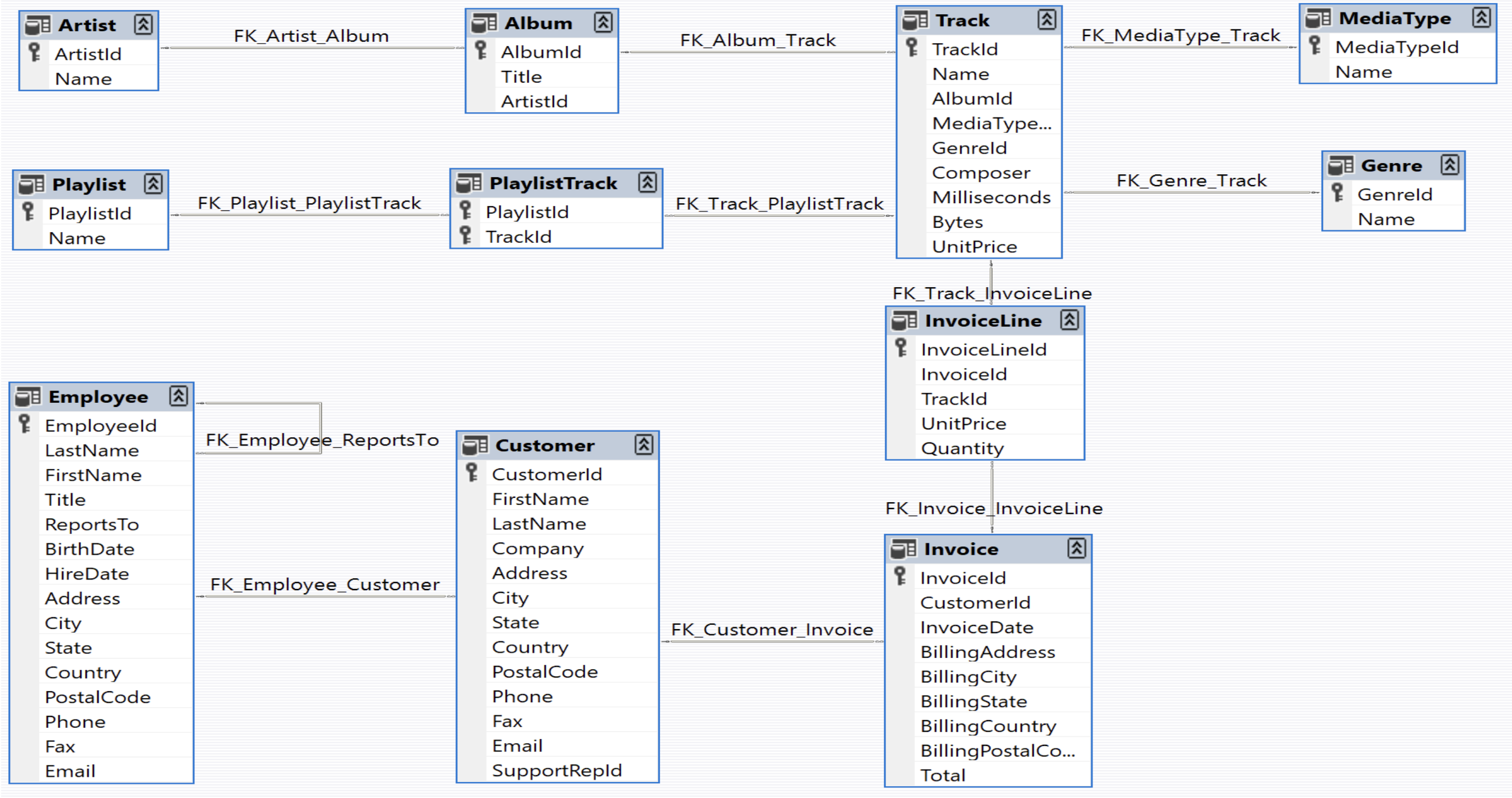
Skills Demonstrated:

- Database Design
- SQL Querying
- Data Import and Manipulation
- Data Analysis and Interpretation
- Report Generation and Presentation
- Critical Thinking and Problem-Solving in Business Contexts

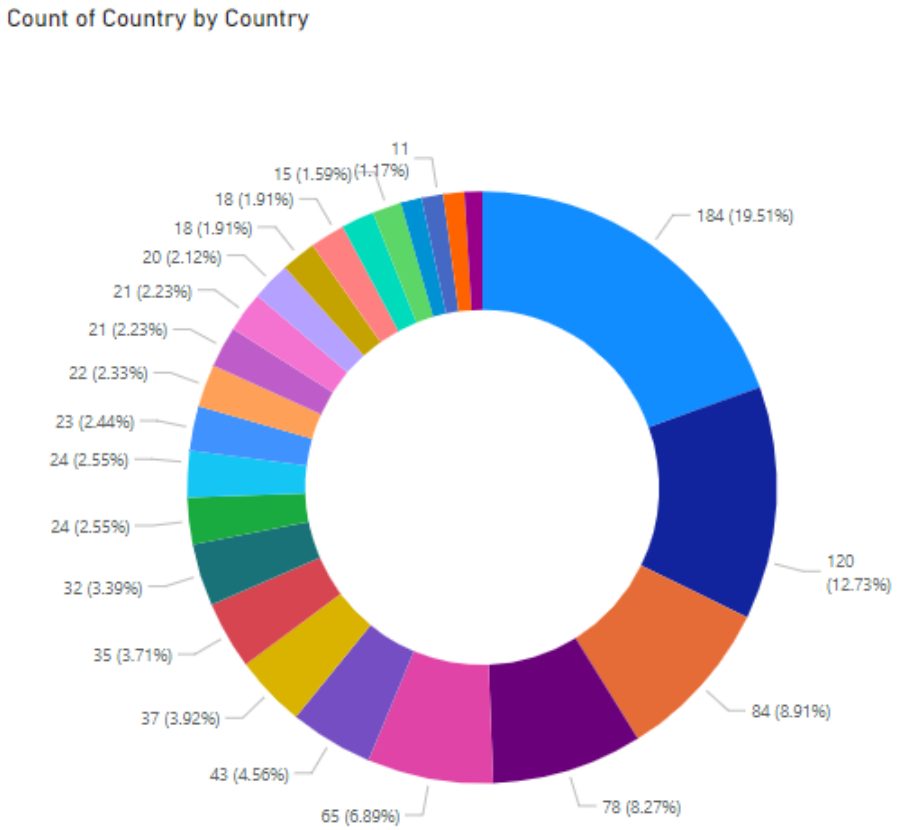
Outcome and Impact:

Through this project, proficiency in database management, SQL querying, data analysis, and potentially data visualization is demonstrated. The insights gained from the analysis contribute to informed decision-making within the digital music store environment, Identifying areas for improvement in sales strategies, inventory management, and customer engagement.

Schema

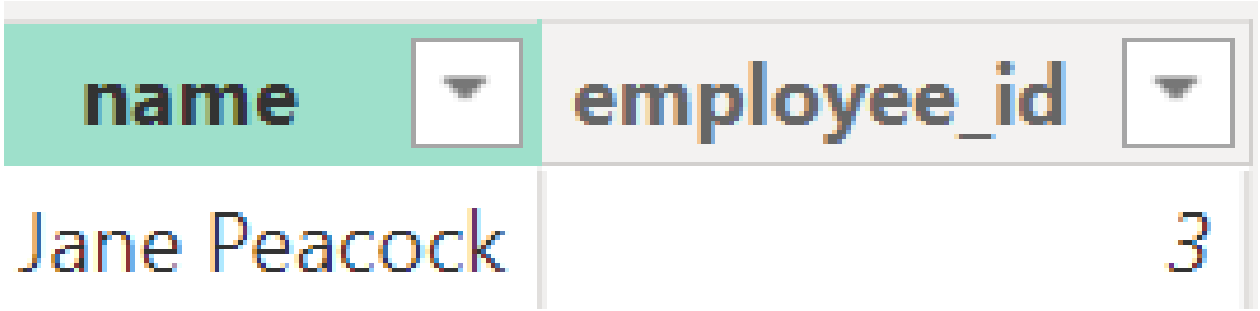

Artist
ArtistId
Name
FK_Artist_Album
Album
AlbumId
Title
ArtistId
FK_Album_Track
Track
TrackId
Name
AlbumId
MediaType...
GenreId
Composer
Milliseconds
Bytes
UnitPrice
FK_MediaType_Track
MediaType
MediaTypeId
Name
Playlist
PlaylistId
Name
FK_Playlist_PlaylistTrack
PlaylistTrack
PlaylistId
TrackId
FK_Track_PlaylistTrack
FK_Genre_Track
Genre
GenreId
Name
FK_Track_InvoiceLine
InvoiceLine
InvoiceLineId
InvoiceId
TrackId
UnitPrice
Quantity
Employee
EmployeeId
LastName
FirstName
Title
ReportsTo
BirthDate
HireDate
Address
City
State
Country
PostalCode
Phone
Fax
Email
FK_Employee_ReportsTo
FK_Employee_Customer
Customer
CustomerId
FirstName
LastName
Company
Address
City
State
Country
PostalCode
Phone
Fax
Email
SupportRepId
FK_Customer_Invoice
FK_Invoice_InvoiceLine
Invoice
InvoiceId
CustomerId
InvoiceDate
BillingAddress
BillingCity
BillingState
BillingCountry
BillingPostalCo...
Total

Query) Display name, email id, country of all listeners who love Jazz, Rock and Pop music.



Name	Count of Name	Genre_Name
AaronMitchell	2	Jazz
AaronMitchell	9	Rock
AlexandreRocha	11	Rock
AstridGruber	2	Jazz
AstridGruber	1	Pop
AstridGruber	15	Rock
BjørnHansen	17	Rock
CamilleBernard	2	Jazz
CamilleBernard	13	Rock
DaanPeeters	21	Rock
DanMiller	4	Jazz
DanMiller	10	Rock
DiegoGutiérrez	2	Jazz
DiegoGutiérrez	9	Rock
DominiqueLefebvre	6	Jazz
DominiqueLefebvre	17	Rock
EduardoMartins	29	Rock
EdwardFrancis	2	Jazz
EdwardFrancis	19	Rock
EllieSullivan	19	Rock
EmmaJones	8	Rock
EnriqueMuñoz	2	Jazz
EnriqueMuñoz	22	Rock
FernandaRamos	1	Pop
FernandaRamos	11	Rock
FrançoisTremblay	5	Jazz
FrançoisTremblay	4	Rock
FrankHarris	2	Jazz
Total	**943**	

Q) Find the employee who has supported the most no of customers.
Display the employee name and designation

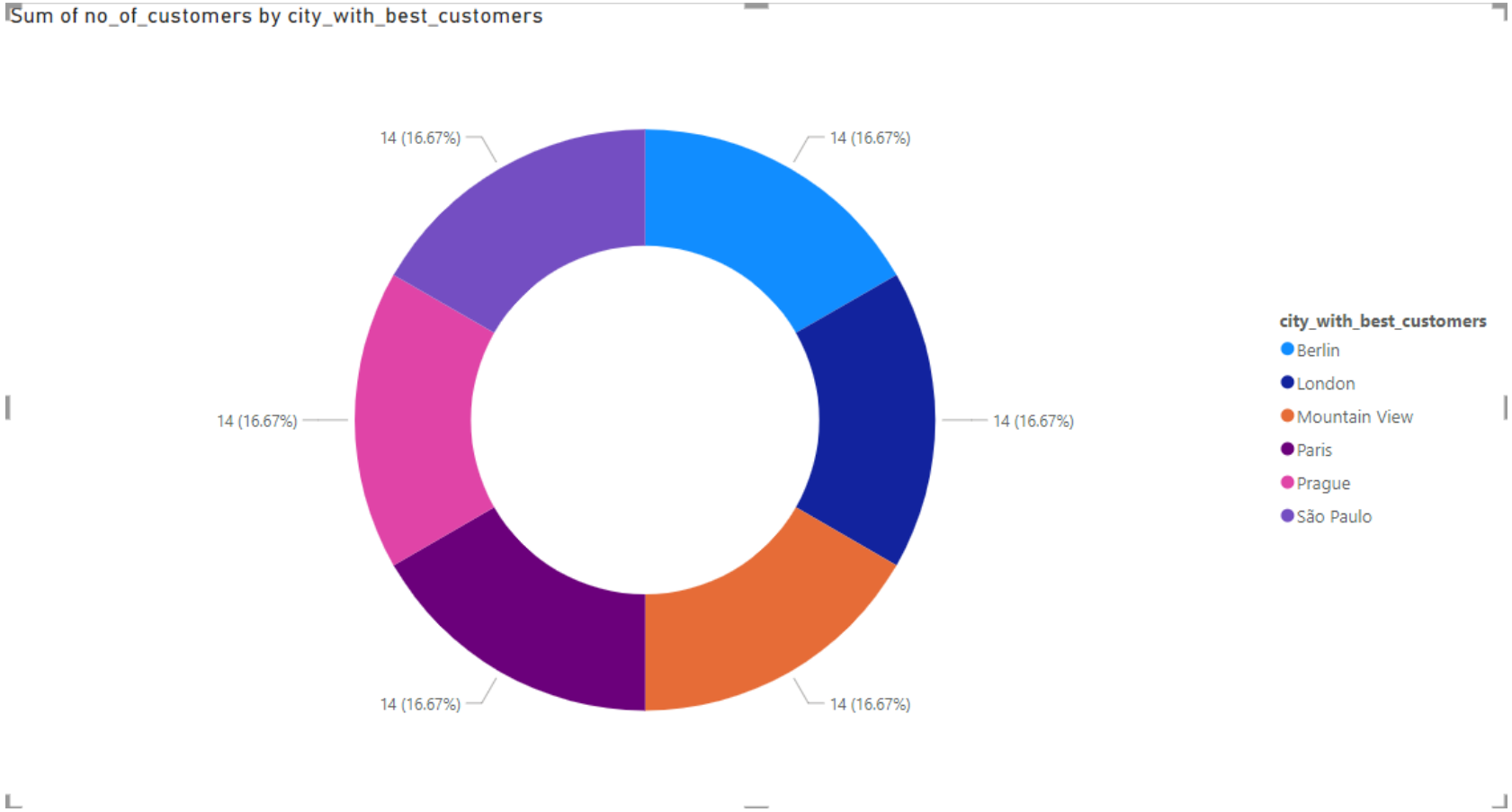


name	employee_id
Jane Peacock	3

Q) Find the artist who has contributed with the maximum no of songs
Display the artist name and the no of albums.

artist_name	no_of_songs
Iron Maiden	213

Q) Which city corresponds to the best customers?



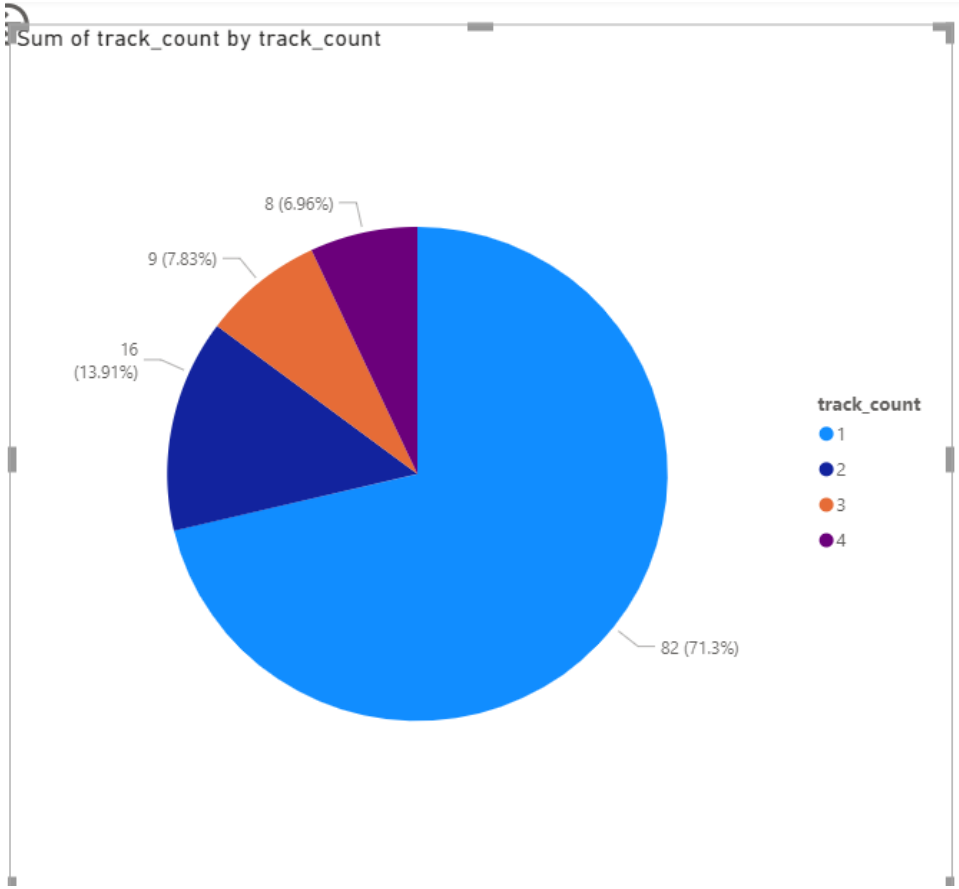
Q) Name the best customer (customer who spent the most money).

best_customer	customer_id	total_money_spent
Helena Holý	6	49.62

Q) Suppose you want to host a rock concert in a city and want to know which location should host it.

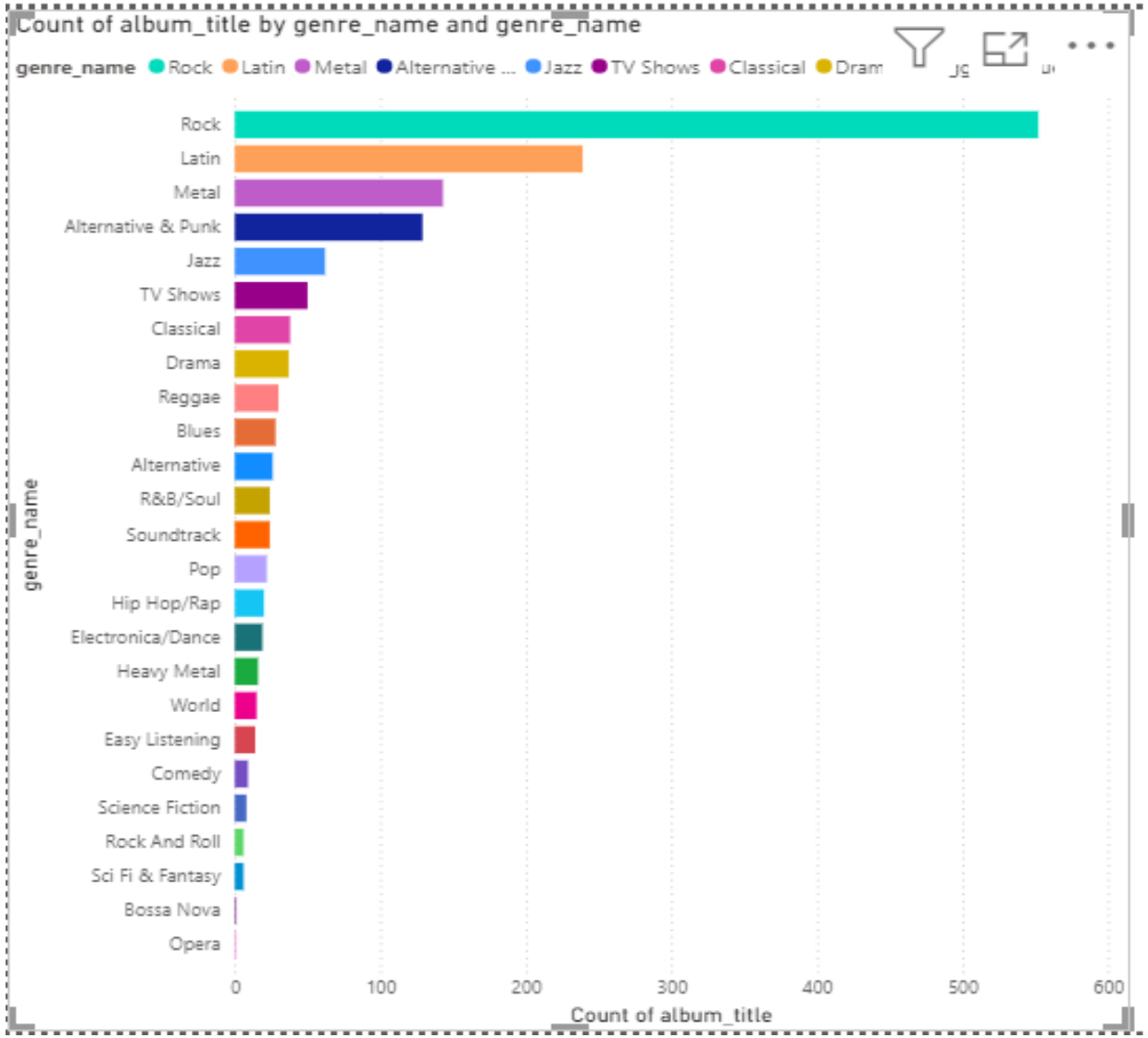
best_city_for_rock_concert	highest_no_of_customers
São Paulo	40

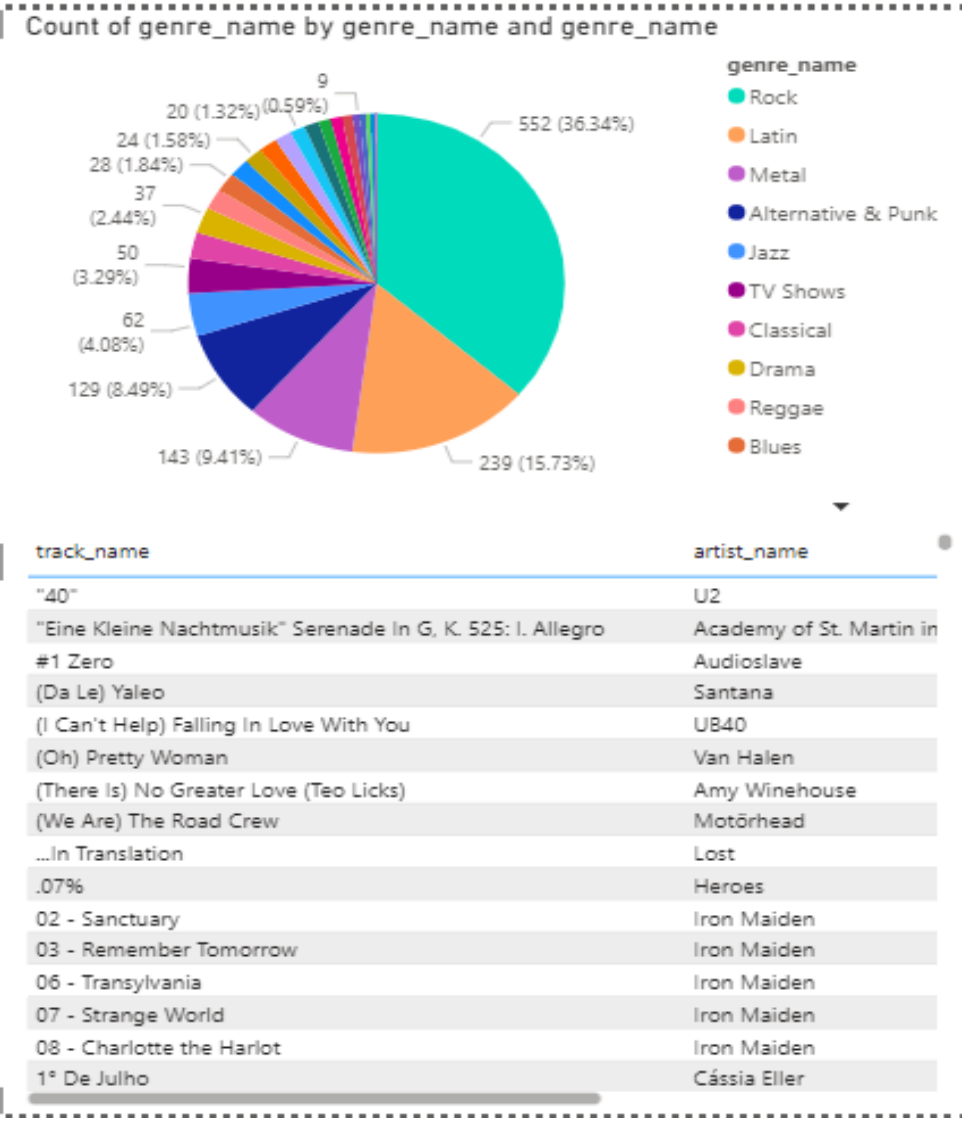
Q) Identify all the albums who have less then 5 track under them.



album_id	First title
2	Balls to the Wall
3	Restless and Wild
22	Sozinho Remix Ao Vivo
50	The Final Concerts (Disc 2)
87	Quanta Gente Veio ver--Bônus De Carnaval
138	The Song Remains The Same (Disc 2)
170	Bark at the Moon (Remastered)
171	Blizzard of Ozz
172	Diary of a Madman (Remastered)
173	No More Tears (Remastered)
226	Battlestar Galactica: The Story So Far
252	Un-Led-Ed
254	Aquaman
260	Cake: B-Sides and Rarities
262	Quiet Songs
263	Muso Ko
264	Realize
265	Every Kind of Light
266	Duos II
267	Worlds
268	The Best of Beethoven
272	Adorate Deum: Gregorian Chant from the Proper of the Mass
273	Allegri: Miserere
274	Pachelbel: Canon & Gigue
275	Vivaldi: The Four Seasons
276	Bach: Violin Concertos
277	Bach: Goldberg Variations
278	Bach: The Cello Suites
Total	**A Copland Celebration, Vol. I**

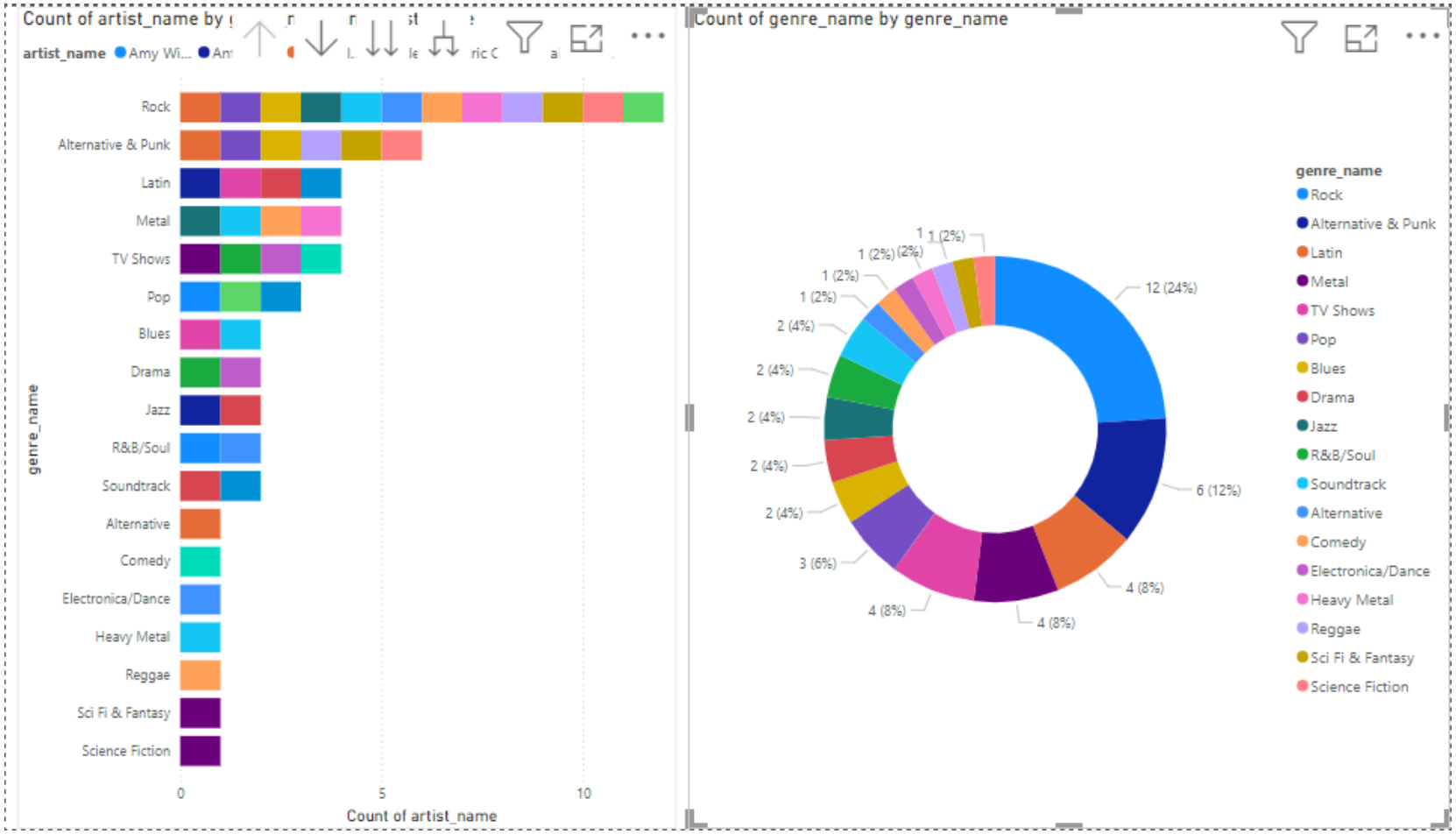
Q) Display the track, album, artist and the genre for all tracks which are not purchased.



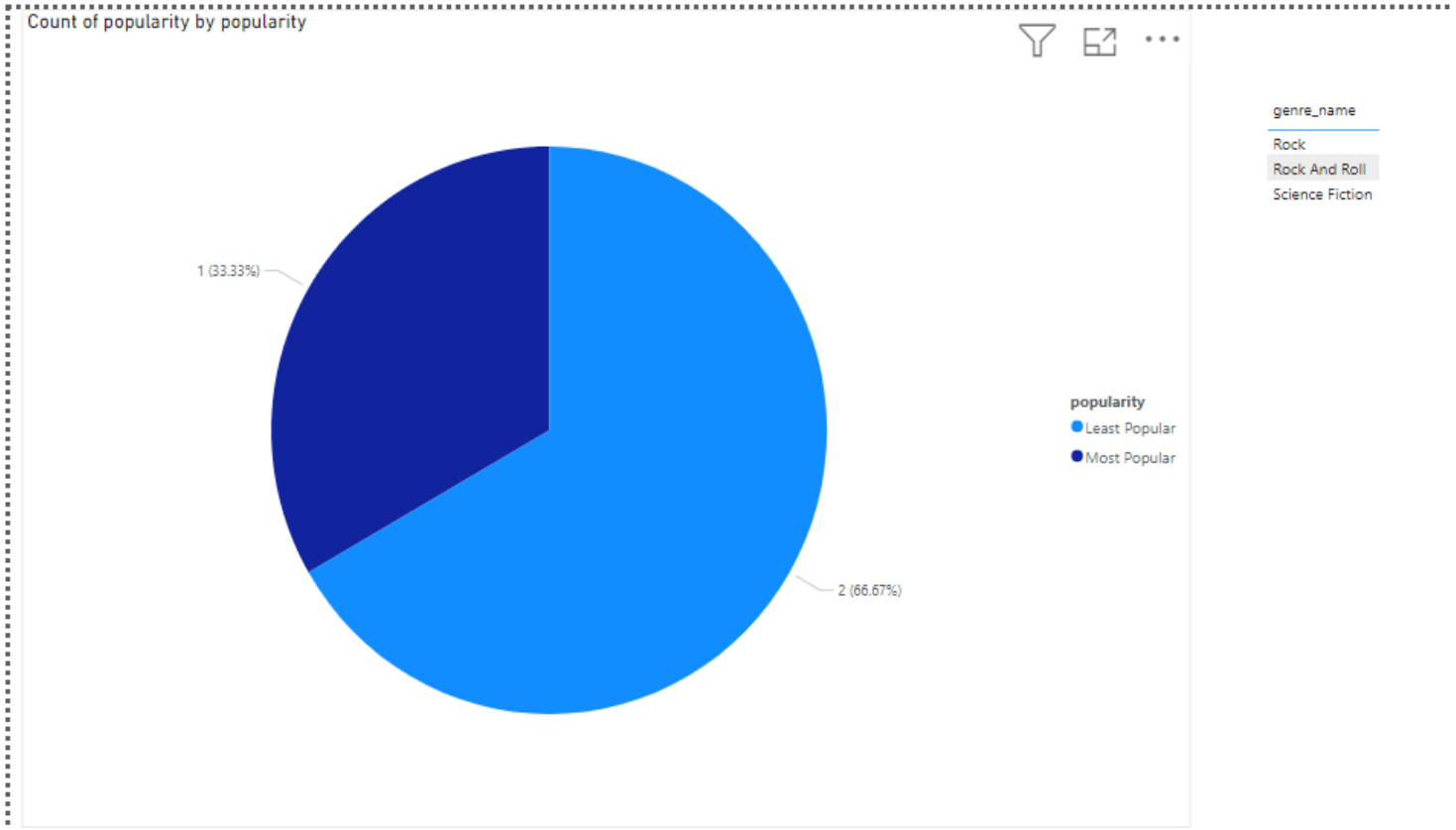


track_name	artist_name
"40"	U2
"Eine Kleine Nachtmusik" Serenade In G, K. 525: I. Allegro	Academy of St. Martin in
#1 Zero	Audioslave
(Da Le) Yaleo	Santana
(I Can't Help) Falling In Love With You	UB40
(Oh) Pretty Woman	Van Halen
(There Is) No Greater Love (Teo Licks)	Amy Winehouse
(We Are) The Road Crew	Motörhead
...In Translation	Lost
.07%	Heroes
02 - Sanctuary	Iron Maiden
03 - Remember Tomorrow	Iron Maiden
06 - Transylvania	Iron Maiden
07 - Strange World	Iron Maiden
08 - Charlotte the Harlot	Iron Maiden
1° De Julho	Cássia Eller

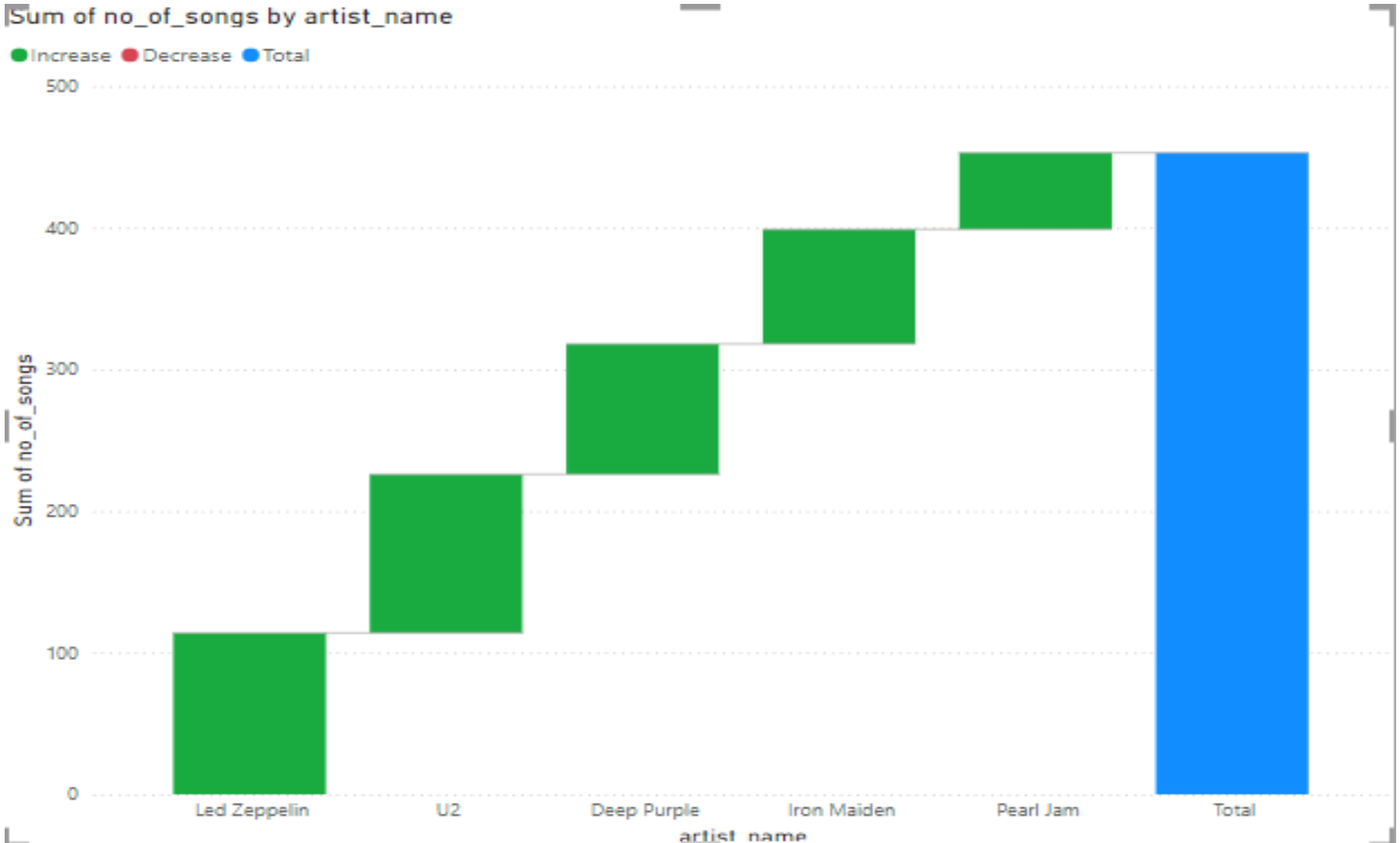
Q) Find artist who have performed in multiple genres. Diplay the aritst name and the genre.



Q) Which is the most popular and least popular genre? (Popularity is defined based on how many times it has been purchased.)



Q) Identify the 5 most popular artist for the most popular genre. Display the artist name along with the no of songs. (Popularity is defined based on how many songs an artist has performed in for the particular genre.)



Conclusion :

- Based on the analysis of the customers and sales in the PostgreSQL digital music store, it was observed that certain customer segments are more likely to make high-value purchases, indicating potential opportunities for targeted marketing or promotions. Additionally, sales performance may be influenced by factors such as the timing of promotional activities, customer acquisition channels, and product preferences. These insights can inform strategic decisions to optimize sales and customer engagement.