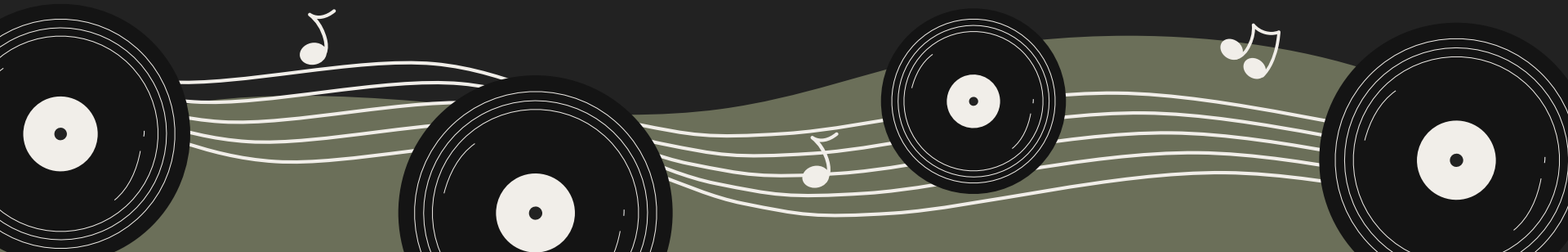



SQL Project

# Music Store Analysis

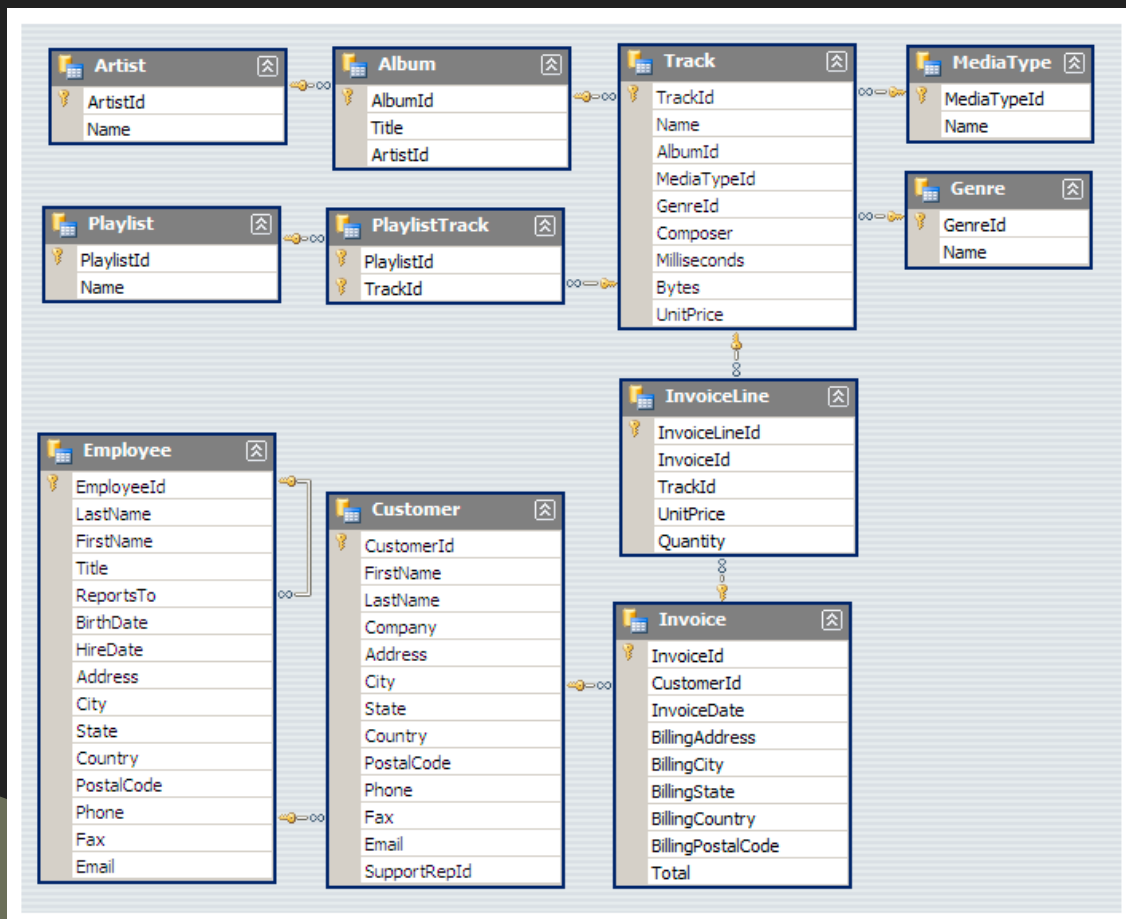
- Mangesh Raj



# Objective

- The project aims to analyze a digital music store database using SQL, providing stakeholders with valuable insights for decision-making.
  - Through SQL queries, it addresses questions regarding geographical growth, purchase power, revenue, genre performance, and music band popularity.
  - The analysis offers actionable recommendations to drive business growth and optimize performance.
- 

# Database Schema



# Level Of Queries



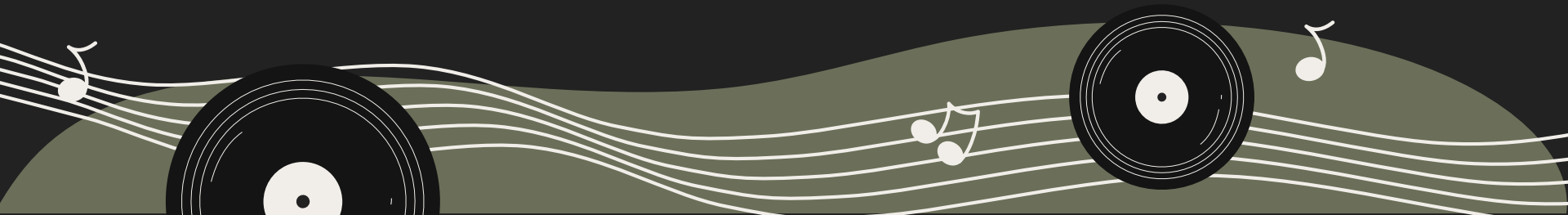
## EASY

Includes:  
Select , Group by ,  
Order By, Limit,  
Desc/ Asc



## MODERATE

Includes:  
Joins, Order by,  
Group by, Limits



# Easy

- Question : 1. Who is the senior most employee based on job title?

## Query

```
SELECT * FROM employee
ORDER BY levels DESC
limit 1
---answer to questio - mohan is senior most---
```

## Output

last_name character	first_name character	title character varying (50)
Madan	Mohan	Senior General Manager

- Answer : Senior General Manager Madan Mohan



# Easy

- Question :2. Which countries have the most Invoices?

## Query

```
SELECT COUNT(*) as C, billing_country
FROM invoice
GROUP BY billing_country
ORDER by C DESC
```

## Output

c	billing_country
bigint	character varying (30)
131	USA
76	Canada
61	Brazil
50	France
41	Germany
30	Czech Republic
29	Portugal
28	United Kingdom

- Answer : USA have the most invoices



# Easy

- Question :3. What are top values of total invoice and from which country?

## Query

```
SELECT total, billing_country from invoice
order by total desc
limit 3
```

## Output

total	billing_country
double precision	character varying (30)
23.759999999999998	France
19.8	Canada

- Answer : France with total sum of 23.7



# Easy

- Question :4. Which city has the best customers? We would like to throw a promotional Music Festival in the city we made the most money. Write a query that returns one city that has the highest sum of invoice totals. Return both the city name & sum of all invoice totals

- Query

```
SELECT sum(total) as city_total, billing_city
from invoice
group by billing_city
order by city_total desc
```

- Answer : From customers of from progue store made most of the money

- Output

city_total	billing_city
double precision	character varying (30)
273.240000000000007	Prague
169.29	Mountain View
166.32	London
158.4	Berlin
151.47	Paris
129.69	São Paulo
114.839999999999997	Dublin
111.869999999999999	Delhi





# Easy

- Question :5. Who is the best customer? The customer who has spent the most money will be declared the best customer. Write a query that returns the person who has spent the most money c

## Query

```
select customer.customer_id, customer.first_name, customer.last_name , sum(invoice.t
from invoice
join customer on invoice.customer_id = customer.customer_id
group by customer.customer_id
order by cust_total desc
limit 1
```

## Output

customer_id [PK] integer	first_name character	last_name character	cust_total double precision
5	R	Madhav	144.54000000000002

- Answer : madhav who had spent \$144.54 is the best customer



# Moderate

- Question :1. Write query to return the email, first name, last name, & Genre of all Rock Music listeners. Return your list ordered alphabetically by email starting with A

## Query

```
select DISTINCT email, first_name, last_name
FROM customer
JOIN invoice ON customer.customer_id = invoice.customer_id
JOIN invoice_line ON invoice_line.invoice_id = invoice.invoice_id
JOIN track ON track.track_id = invoice_line.track_id
JOIN genre ON genre.genre_id = track.genre_id
WHERE genre."name" LIKE 'Rock'
ORDER BY email
```

## Output

email	first_name	last_name
character varying (50)	character	character
aaronmitchell@yahoo.ca	Aaron	Mitchell
alero@uol.com.br	Alexandre	Rocha
astrid.gruber@apple.at	Astrid	Gruber
bjorn.hansen@yahoo.no	Bjørn	Hansen
camille.bernard@yahoo.fr	Camille	Bernard
daan_peeters@apple.be	Daan	Peeters
diego.gutierrez@yahoo.ar	Diego	Gutiérrez
dmiller@comcast.com	Dan	Miller

# Moderate

- Question : 2. Let's invite the artists who have written the most rock music in our dataset. Write a query that returns the Artist name and total track count of the top 10 rock bands

## Query

```
SELECT artist.artist_id, artist.name , count(artist.artist_id) as number_of_songs
FROM track
JOIN album ON album.album_id = track.album_id
JOIN artist ON artist.artist_id = album.artist_id
JOIN genre ON genre.genre_id = track.genre_id
WHERE genre.name LIKE 'Rock'
GROUP BY artist.artist_id
ORDER BY number_of_songs DESC
LIMIT 10
```

## Output

artist_id [PK] character varying (50)	name character varying (120)	number_of_songs bigint
22	Led Zeppelin	114
150	U2	112
58	Deep Purple	92
90	Iron Maiden	81
118	Pearl Jam	54
152	Van Halen	52
51	Queen	45
142	The Rolling Stones	41

# Moderate

- Question :3. Return all the track names that have a song length longer than the average song length. Return the Name and Milliseconds for each track. Order by the song length with the longest songs listed first

## Query

```
SELECT name, milliseconds
FROM track
WHERE milliseconds > (
  SELECT AVG(milliseconds) AS song_avg
  FROM track)
ORDER BY milliseconds DESC
```

## Output

name	milliseconds
character varying (150)	integer
Occupation / Precipice	5286953
Through a Looking Glass	5088838
Greetings from Earth, Pt. 1	2960293
The Man With Nine Lives	2956998
Battlestar Galactica, Pt. 2	2956081
Battlestar Galactica, Pt. 1	2952702
Murder On the Rising Star	2935894
Battlestar Galactica, Pt. 3	2927802

A stylized white violin is positioned on the left side of the image. From the body of the violin, several white musical staves with notes emerge, flowing across the bottom of the frame. The background is a solid dark grey.

# —Thankyou

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