

MUSIC STORE

By Tarushika Sharma

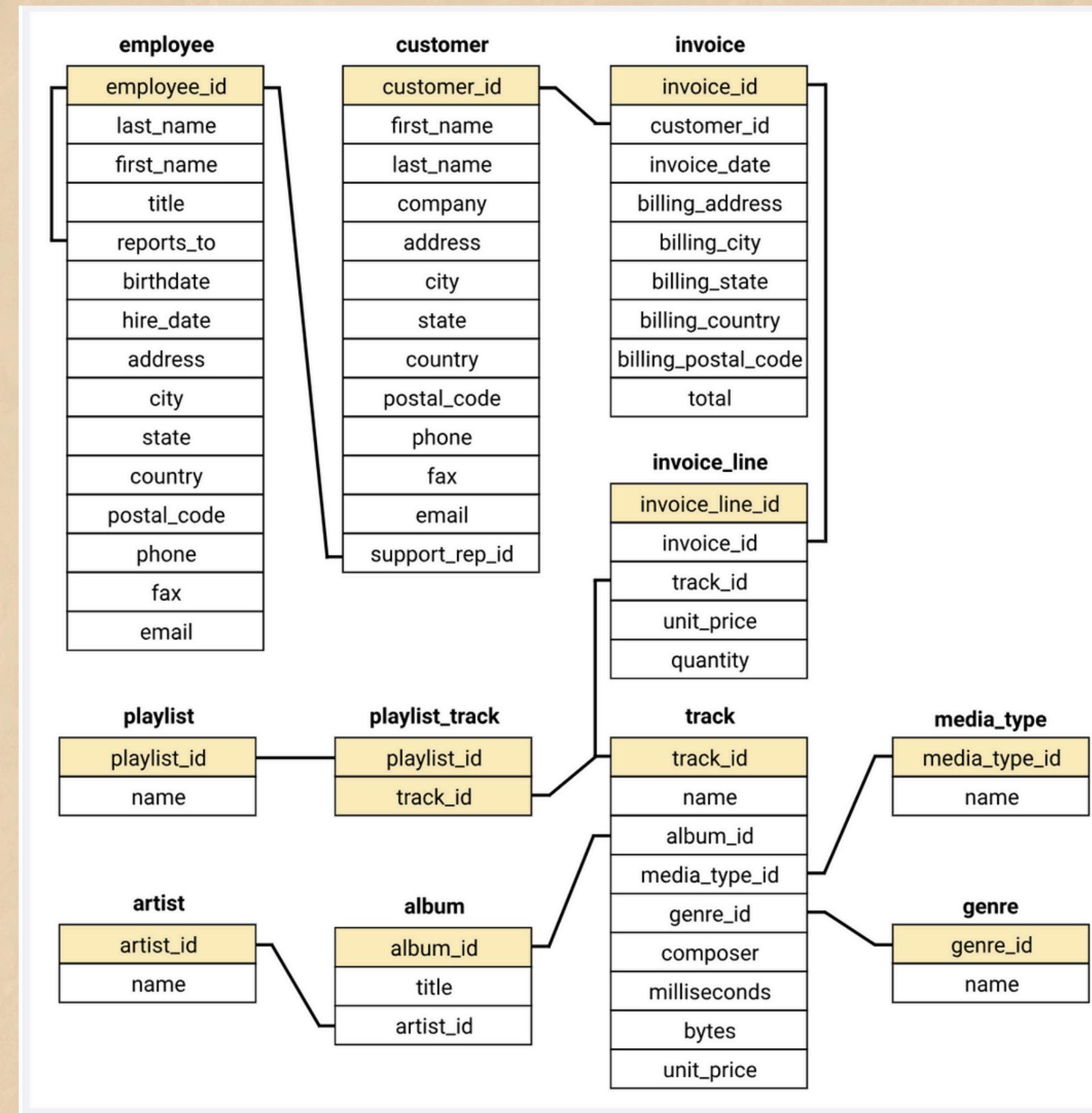


INTRODUCTION

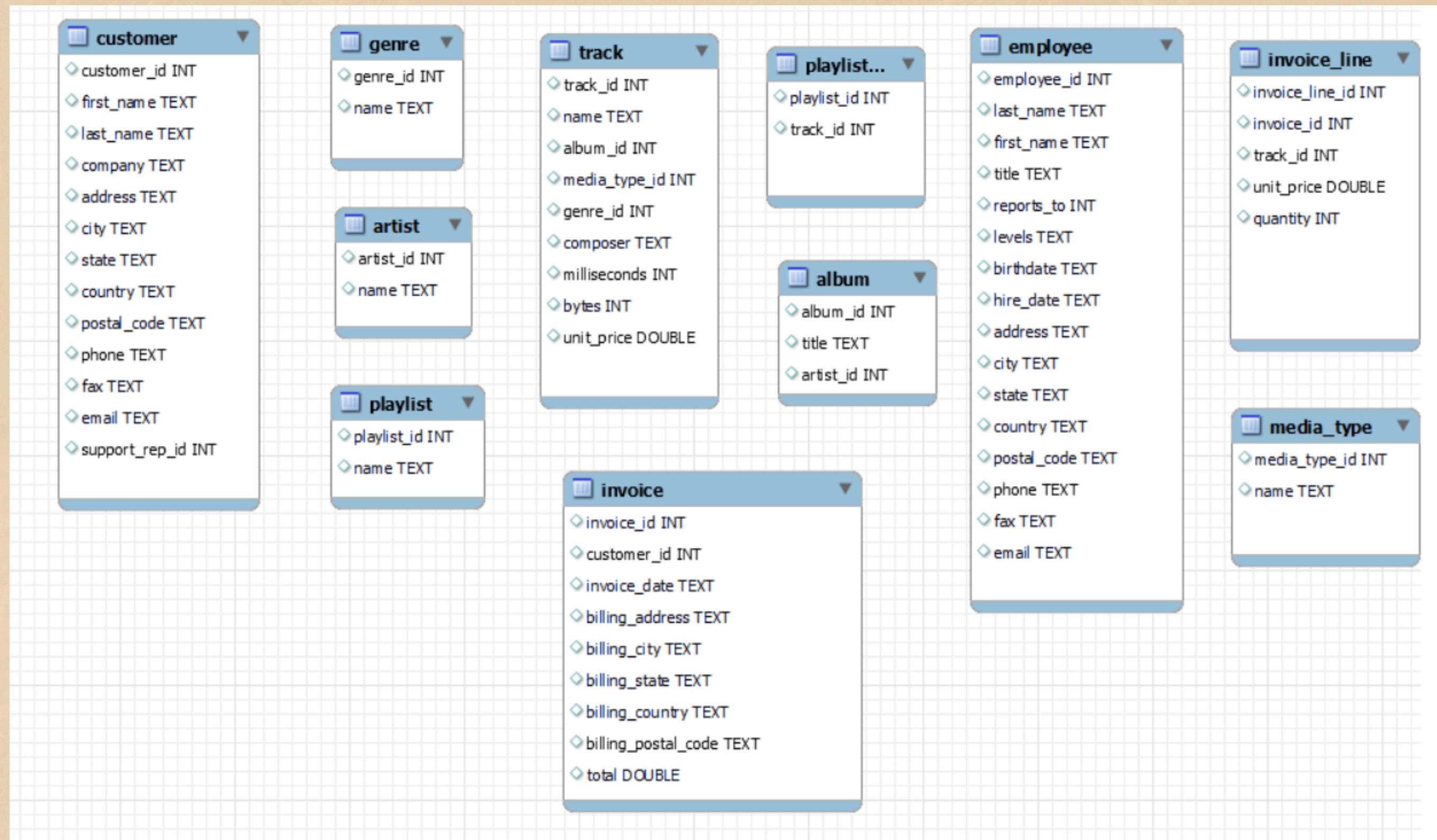
HELLO, I AM TARUSHIKA SHARMA, ON THIS PROJECT I HAVE UTILISED SQL QUERIES TO SOLVE THE QUESTIONS WHICH IS RELATED TO MUSIC STORE AND ALSO HAVE USE REVERSE ENGINEERING.



SCHEMA DAIGRAM



REVERSE ENGINEERING



ER-DAIGRAM



Write a query to return the email, name and genre of all rock music listeners. Return list order alphabetically by email starting with A.

```
select DISTINCT email,first_name,last_name  
from customer  
join invoice on customer.customer_id=invoice.customer_id  
join invoice_line on invoice.invoice_id=invoice_line.invoice_id  
where track_id in(  
    select track_id from track  
    join genre on track.genre_id=genre.genre_id  
    where genre.name like 'Rock'  
)  
order by email;
```

OUTPUT-

email character varying (50)	first_name character	last_name character
aaronmitchell@yahoo.ca	Aaron	Mitchell
alerol@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





Write a query to return the artist name and total track count of the top 10 rock bands

```
select artist.artist_id,artist.name,count(artist.artist_id)as t  
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='Rock'  
group by artist.artist_id  
order by t desc  
limit 10
```

OUTPUT-

artist_id [PK] character varying (50)	name character varying (120)	t 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
76	Creedence Clearwater Revival	40
52	Kiss	35





Return the name and milliseconds of each track, order by the song length with the longest songs listed first.

```
select name,milliseconds  
from track  
where milliseconds > (  
    select avg(milliseconds) as avg_track_length  
    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
Take the Celestra	2927677
Fire In Space	2926593
The Long Patrol	2925008
The Magnificent Warriors	2924716





Find how much amount spent by each customer on artists? Write a query to return customer name, artist name and total spent

QUERY-

```
with common_table_exp as(
    select artist.artist_id as artist_id,artist.name as artist_name,
    sum(invoice_line.unit_price*invoice_line.quantity) as total_sales
    from invoice_line
    join track on track.track_id=invoice_line.track_id
    join album on album.album_id=track.album_id
    join artist on artist.artist_id=album.artist_id
    group by artist.artist_id
    order by total_sales desc
    limit 1
)
select c.customer_id,c.first_name,c.last_name,cte.artist_name,
sum(il.unit_price*il.quantity) as amount_spend
from invoice i
join customer c on c.customer_id = i.customer_id
join invoice_line il on il.invoice_id = i.invoice_id
join track t on t.track_id = il.track_id
join album alb on alb.album_id=t.album_id
join common_table_exp cte on cte.artist_id = alb.artist_id
group by 1,2,3,4
order by 5 desc;
```





OUTPUT-

customer_id	first_name	last_name	artist_name	amount_spend
integer	character	character	character varying (120)	double precision
46	Hugh	O'Reilly	Queen	27.71999999999985
38	Niklas	Schröder	Queen	18.81
3	François	Tremblay	Queen	17.82
34	João	Fernandes	Queen	16.83000000000002
53	Phil	Hughes	Queen	11.88
41	Marc	Dubois	Queen	11.88
47	Lucas	Mancini	Queen	10.89
33	Ellie	Sullivan	Queen	10.89
20	Dan	Miller	Queen	3.96
5	R	Madhav	Queen	3.96
23	John	Gordon	Queen	2.96999999999998
54	Steve	Murray	Queen	2.96999999999998
31	Martha	Silk	Queen	2.96999999999998
16	Frank	Harris	Queen	1.98
17	Jack	Smith	Queen	1.98
24	Frank	Ralston	Queen	1.98
30	Edward	Francis	Queen	1.98
35	Madalena	Sampaio	Queen	1.98
36	Hannah	Schneider	Queen	1.98
11	Alexandre	Rocha	Queen	1.98
8	Daan	Peeters	Queen	1.98

In this query, I have utilized the concept of CTE(Common Table Expressions). It is a tool of SQL and it is use to simplify coding and help to clean data

