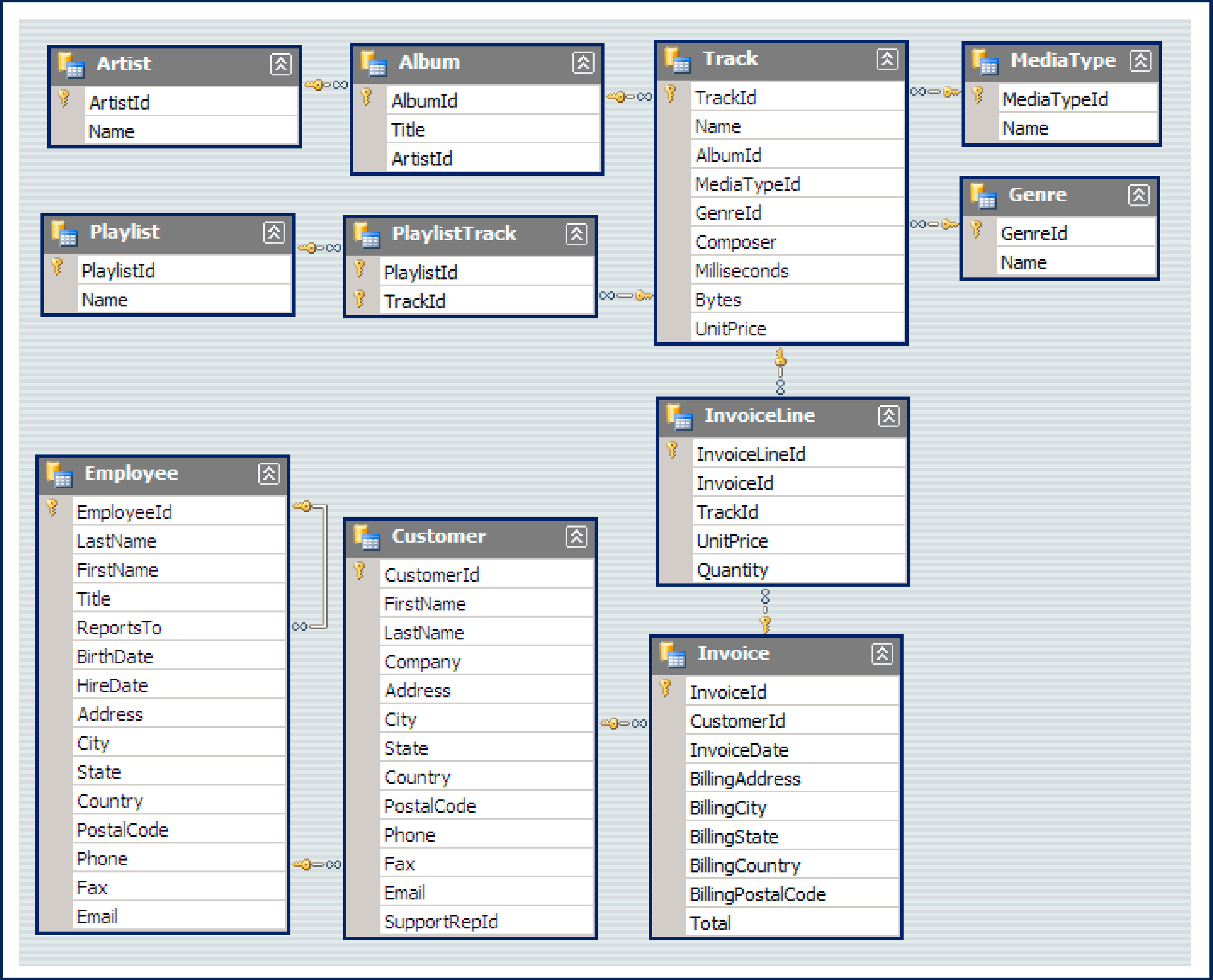
MUSIC STORE ANALYSIS USING SQL

BY ARYAN MATHUR

SCHEMA



Artist
- ArtistId
- Name

Album
- AlbumId
- Title
- ArtistId

Track
- TrackId
- Name
- AlbumId
- MediaTypeId
- GenreId
- Composer
- Milliseconds
- Bytes
- UnitPrice

MediaType
- MediaTypeId
- Name

Genre
- GenreId
- Name

Playlist
- PlaylistId
- Name

PlaylistTrack
- PlaylistId
- TrackId

InvoiceLine
- InvoiceLineId
- InvoiceId
- TrackId
- UnitPrice
- Quantity

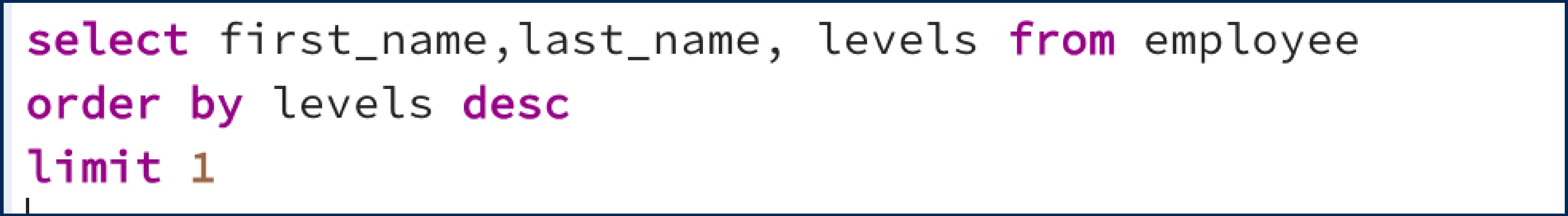
Employee
- EmployeeId
- LastName
- FirstName
- Title
- ReportsTo
- BirthDate
- HireDate
- Address
- City
- State
- Country
- PostalCode
- Phone
- Fax
- Email

Customer
- CustomerId
- FirstName
- LastName
- Company
- Address
- City
- State
- Country
- PostalCode
- Phone
- Fax
- Email
- SupportRepId

Invoice
- InvoiceId
- CustomerId
- InvoiceDate
- BillingAddress
- BillingCity
- BillingState
- BillingCountry
- BillingPostalCode
- Total

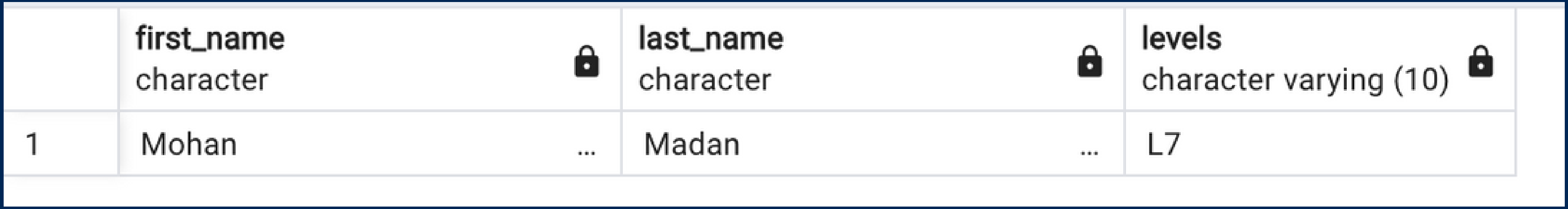
Q1: WHO IS THE MOST SENIOR MOST EMPLOYEE BASED ON JOB TITLE?

SOLUTION



```
select first_name,last_name, levels from employee
order by levels desc
limit 1
```

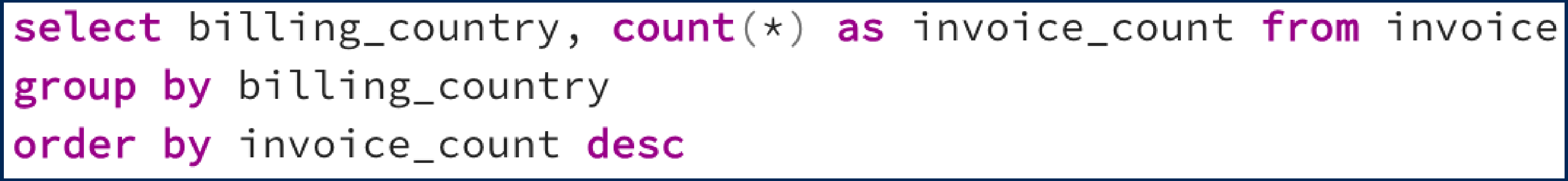
OUTPUT



	first_name	last_name	levels
	character	character	character varying (10)
1	Mohan	Madan	L7

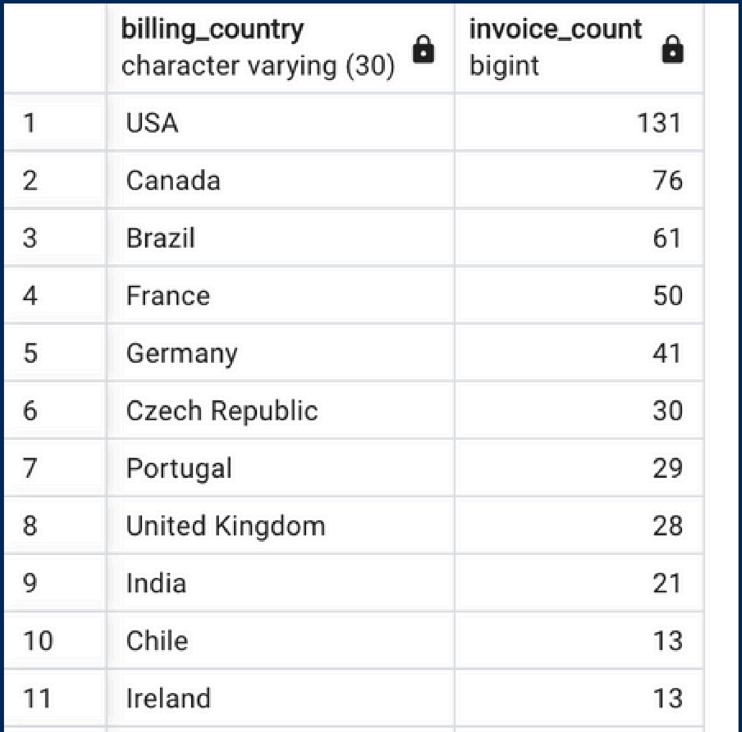
Q2: WHICH COUNTRIES HAVE THE MOST INVOICES?

SOLUTION



```
select billing_country, count(*) as invoice_count from invoice
group by billing_country
order by invoice_count desc
```

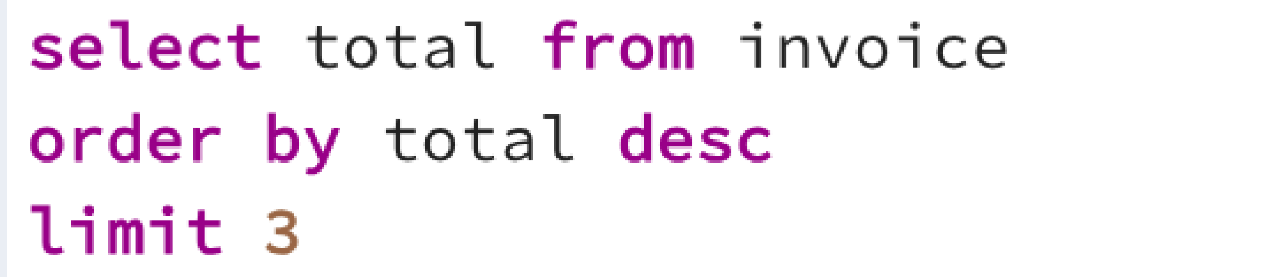
OUTPUT



	billing_country character varying (30)	invoice_count bigint
1	USA	131
2	Canada	76
3	Brazil	61
4	France	50
5	Germany	41
6	Czech Republic	30
7	Portugal	29
8	United Kingdom	28
9	India	21
10	Chile	13
11	Ireland	13

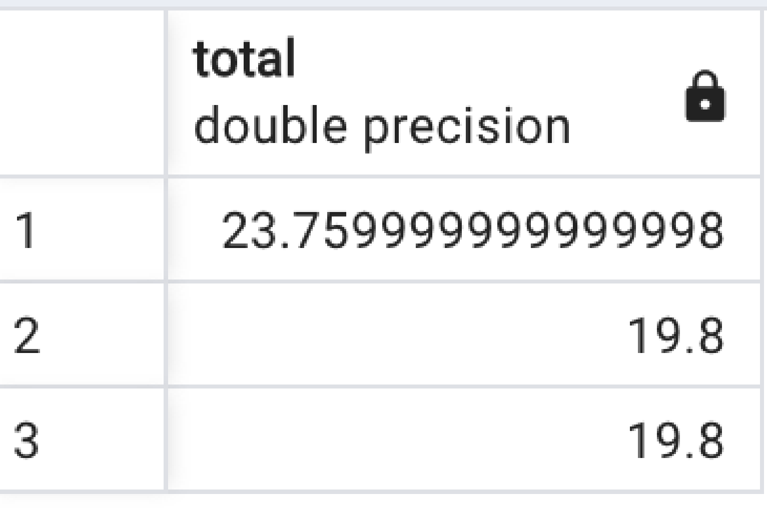
Q3: WHAT ARE TOP 3 VALUES OF TOTAL INVOICES

SOLUTION



```
select total from invoice
order by total desc
limit 3
```

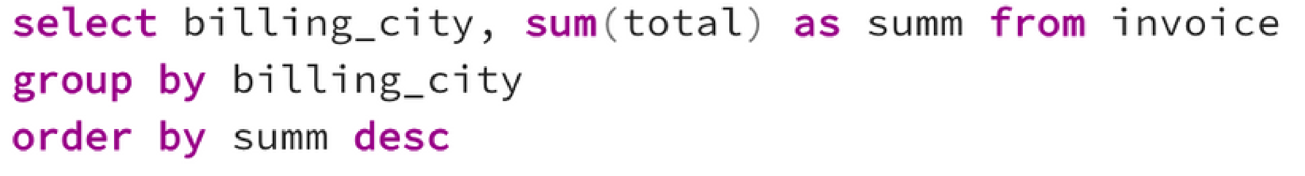
OUTPUT



	total double precision 🔒
1	23.759999999999998
2	19.8
3	19.8

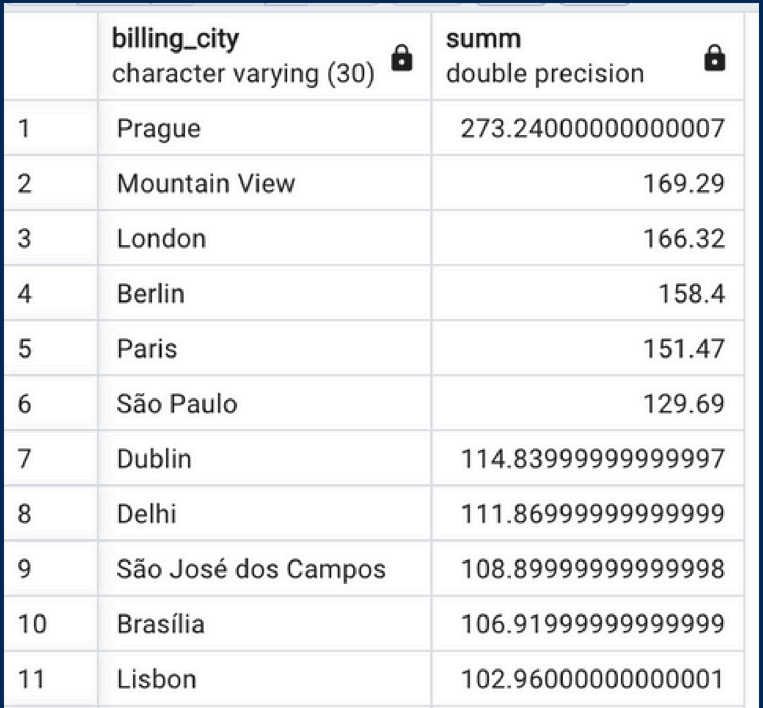
Q4: WHICH CITY HAS THE BEST CUSTOMERS? WE WOULD LIKE TO THROW A PROMOTIONAL MUSIC FESTIVAL IN THE CITY WE MADE THE MOST MONEY. WRITE A QUERY THAT RETURNS ONE CITY THAT HAS THE HIGHEST SUM OF INVOICE TOTALS. RETURN BOTH THE CITY NAME & SUM OF ALL INVOICE TOTALS

SOLUTION



```
select billing_city, sum(total) as summ from invoice
group by billing_city
order by summ desc
```

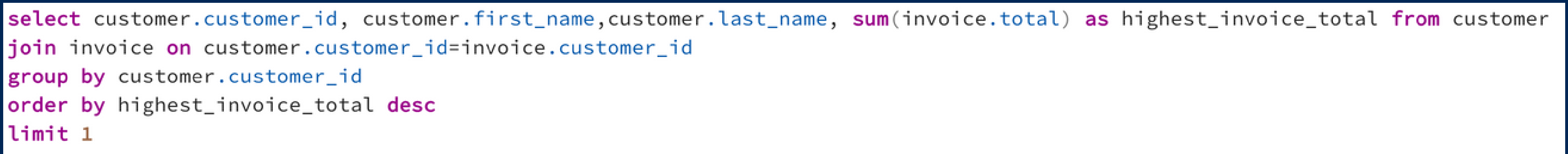
OUTPUT



	billing_city character varying (30)	summ double precision
1	Prague	273.24000000000007
2	Mountain View	169.29
3	London	166.32
4	Berlin	158.4
5	Paris	151.47
6	São Paulo	129.69
7	Dublin	114.83999999999997
8	Delhi	111.86999999999999
9	São José dos Campos	108.89999999999998
10	Brasília	106.91999999999999
11	Lisbon	102.96000000000001

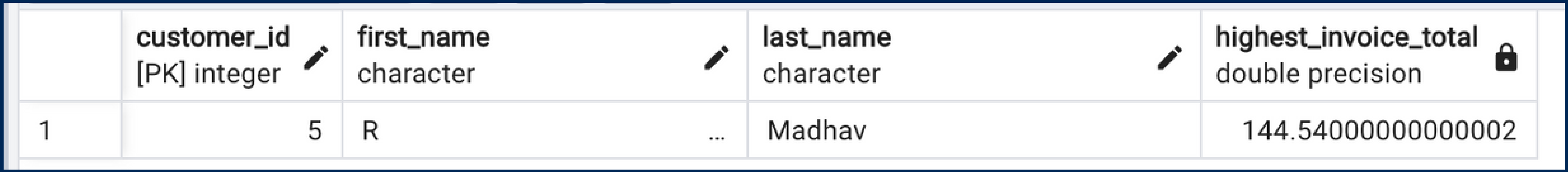
Q5: WHO IS THE BEST CUSTOMER? THE CUSTOMER WHO HAS SPENT THE MOST MONEY WILL BE DECLARED THE BEST CUSTOMER. WRITE A QUERY THAT RETURNS THE PERSON WHO HAS SPENT THE MOST MONEY

SOLUTION



```
select customer.customer_id, customer.first_name,customer.last_name, sum(invoice.total) as highest_invoice_total from customer
join invoice on customer.customer_id=invoice.customer_id
group by customer.customer_id
order by highest_invoice_total desc
limit 1
```

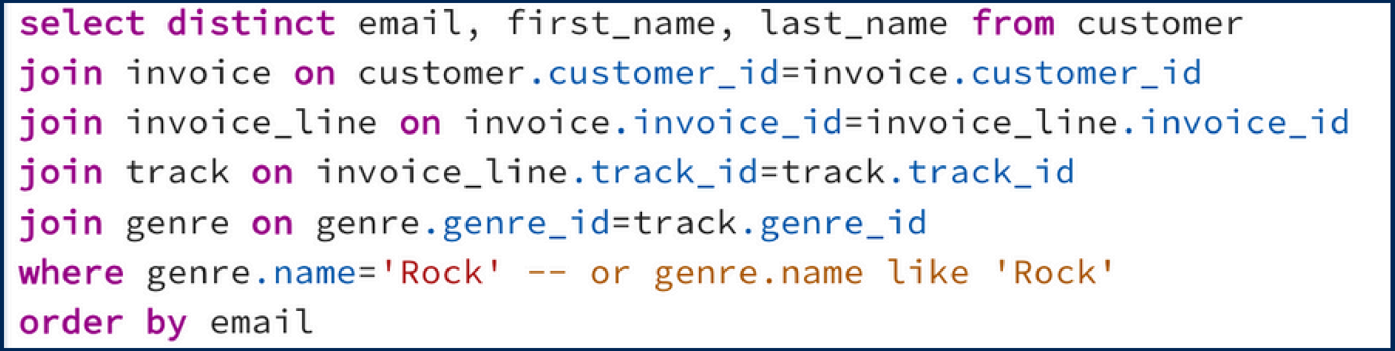
OUTPUT



	customer_id [PK] integer	first_name character	last_name character	highest_invoice_total double precision
1	5	R ...	Madhav	144.54000000000002

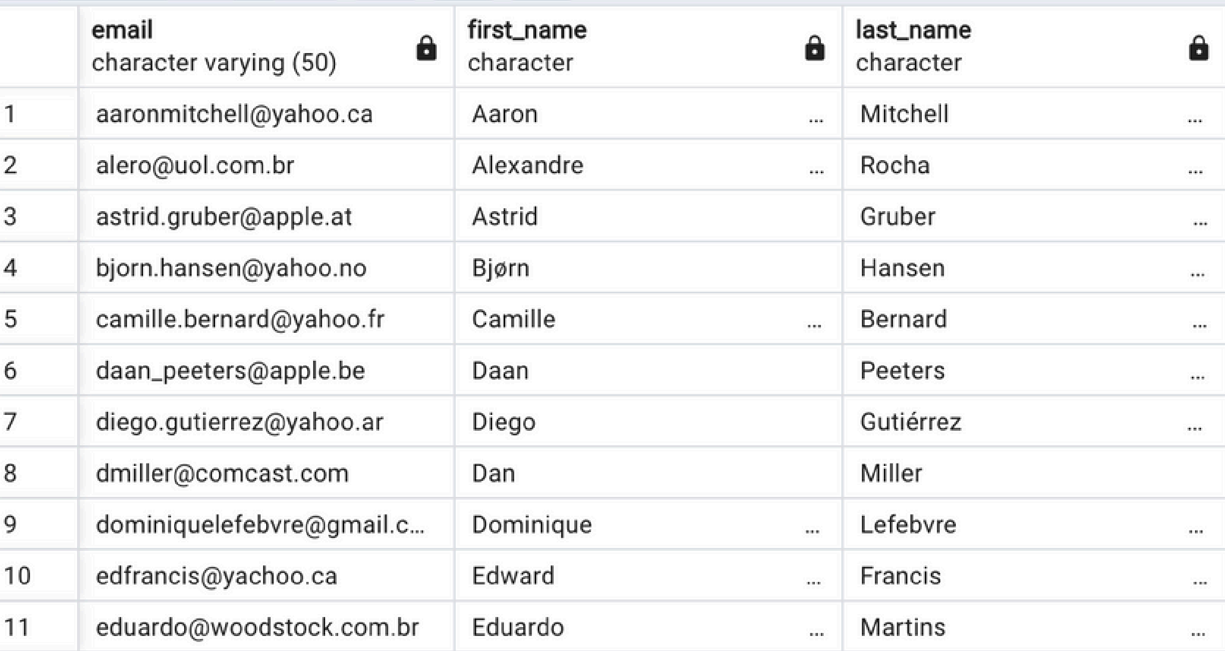
Q6: WRITE QUERY TO RETURN THE EMAIL, FIRST NAME, LAST NAME, & GENRE OF ALL ROCK MUSIC LISTENERS. RETURN YOUR LIST ORDERED ALPHABETICALLY BY EMAIL STARTING WITH 'A'

SOLUTION



```sql
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
join track on invoice_line.track_id=track.track_id
join genre on genre.genre_id=track.genre_id
where genre.name='Rock' -- or genre.name like 'Rock'
order by email
```

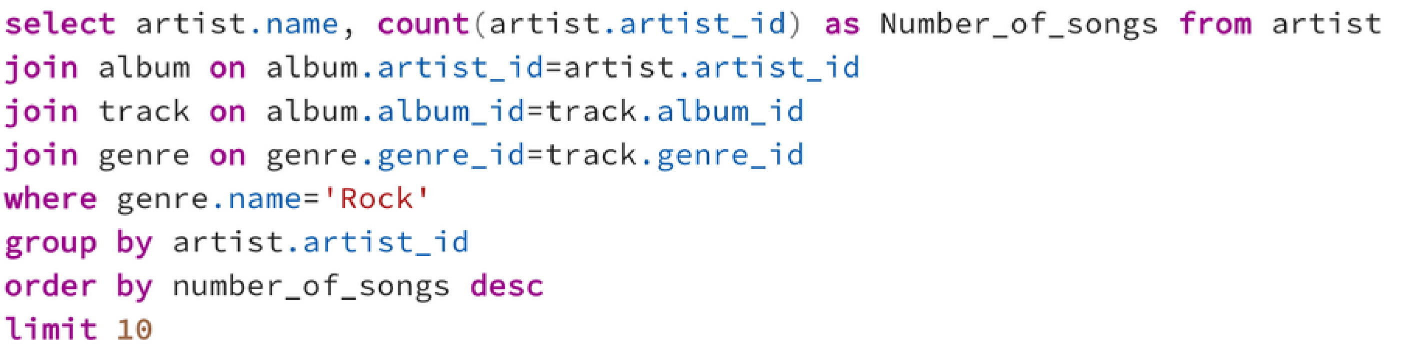
OUTPUT



	email character varying (50)	first_name character	last_name character
1	aaronmitchell@yahoo.ca	Aaron	Mitchell
2	alero@uol.com.br	Alexandre	Rocha
3	astrid.gruber@apple.at	Astrid	Gruber
4	bjorn.hansen@yahoo.no	Bjørn	Hansen
5	camille.bernard@yahoo.fr	Camille	Bernard
6	daan_peeters@apple.be	Daan	Peeters
7	diego.gutierrez@yahoo.ar	Diego	Gutiérrez
8	dmiller@comcast.com	Dan	Miller
9	dominiquelefebvre@gmail.c...	Dominique	Lefebvre
10	edfrancis@yachoo.ca	Edward	Francis
11	eduardo@woodstock.com.br	Eduardo	Martins

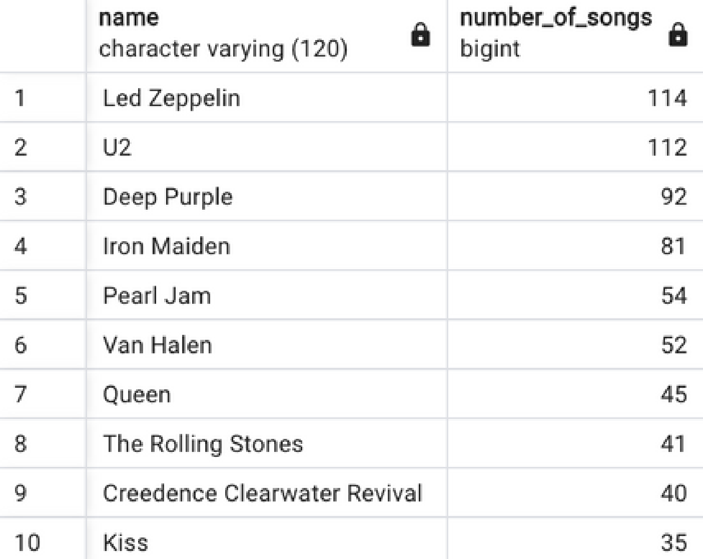
Q7: LET'S INVITE THE ARTISTS WHO HAVE WRITTEN THE MOST ROCK MUSIC IN OUR DATASET. WRITE A QUERY THAT RETURNS THE ARTIST NAME AND TOTAL TRACK COUNT OF THE TOP 10 ROCK BANDS

SOLUTION



```sql
select artist.name, count(artist.artist_id) as Number_of_songs from artist
join album on album.artist_id=artist.artist_id
join track on album.album_id=track.album_id
join genre on genre.genre_id=track.genre_id
where genre.name='Rock'
group by artist.artist_id
order by number_of_songs desc
limit 10
```

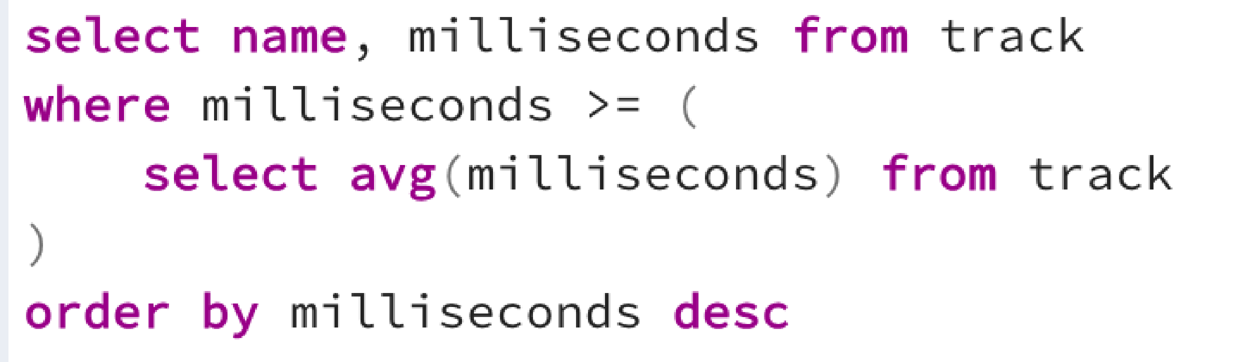
OUTPUT



	name character varying (120)	number_of_songs bigint
1	Led Zeppelin	114
2	U2	112
3	Deep Purple	92
4	Iron Maiden	81
5	Pearl Jam	54
6	Van Halen	52
7	Queen	45
8	The Rolling Stones	41
9	Creedence Clearwater Revival	40
10	Kiss	35

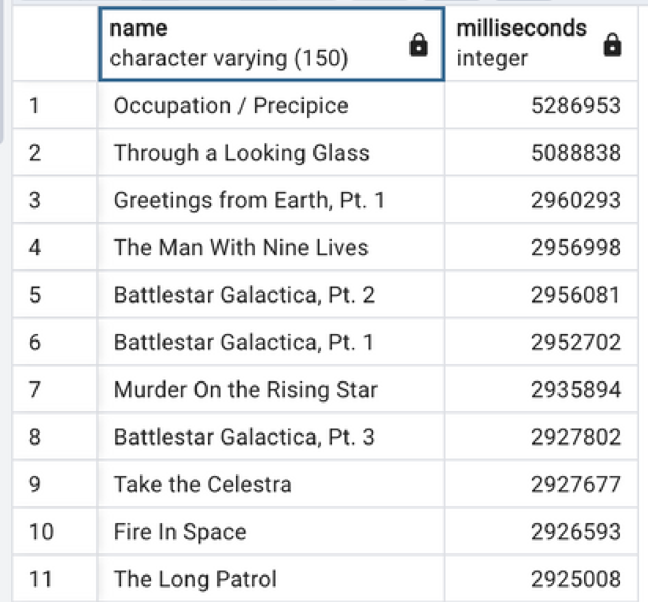
Q8: RETURN ALL THE TRACK NAMES THAT HAVE A SONG LENGTH LONGER THAN THE AVERAGE SONG LENGTH. RETURN THE NAME AND MILLISECONDS FOR EACH TRACK. ORDER BY THE SONG LENGTH WITH THE LONGEST SONGS LISTED FIRST

SOLUTION



```
select name, milliseconds from track
where milliseconds >= (
    select avg(milliseconds) from track
)
order by milliseconds desc
```

OUTPUT



	name character varying (150)	milliseconds integer
1	Occupation / Precipice	5286953
2	Through a Looking Glass	5088838
3	Greetings from Earth, Pt. 1	2960293
4	The Man With Nine Lives	2956998
5	Battlestar Galactica, Pt. 2	2956081
6	Battlestar Galactica, Pt. 1	2952702
7	Murder On the Rising Star	2935894
8	Battlestar Galactica, Pt. 3	2927802
9	Take the Celestra	2927677
10	Fire In Space	2926593
11	The Long Patrol	2925008

THANK YOU