Digital Music Store Analysis

1) Who is the senior most employee based on job title?

```
Select * From employee
Order by levels desc
limit 1;
```

employee_id	last_name	first_name	title	reports_to	levels	birthdate	hire_date	address
9	Madan	Mohan	Senior General Manager	1	L7	1961-01-26	2016-01-14	1008 Vrinda Ave MT

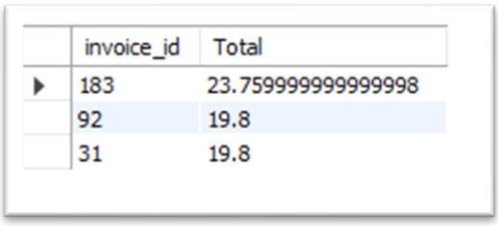
2) Which countries have the most Invoices?

```
select billing_country,
        count(invoice_id) as Count
From invoice
Group by 1
order by Count desc;
```

billing_country	Count
USA	131
Canada	76
Brazil	61
France	50
Germany	41
Czech Republic	30
Portugal	29
United Kingdom	28
India	21
Ireland	13
Chile	13
Finland	11
Spain	11
Poland	10
Denmark	10
Australia	10
Hungary	10
Sweden	10
Netherlands	10
Norway	9
Italy	9
Austria	9

3) What are top 3 values of total invoice?

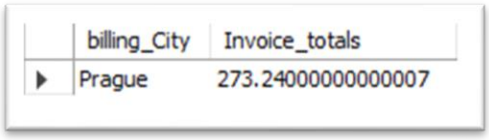
```
select invoice_id,
        Total
From invoice
order by Total desc
limit 3;
```



invoice_id	Total
183	23.759999999999998
92	19.8
31	19.8

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.

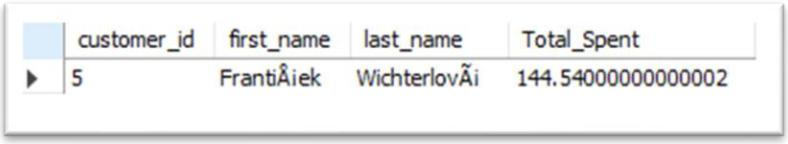
```
Select billing_City,
        sum(total) as Invoice_totals
From invoice
Group by 1
order by 2 desc
limit 1;
```



billing_City	Invoice_totals
Prague	273.24000000000007

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.

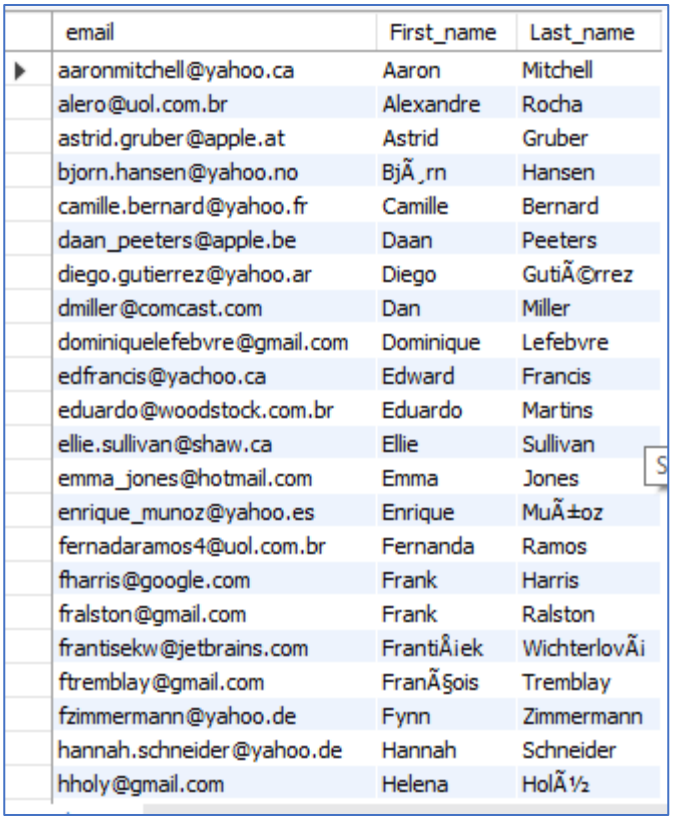
```
Select T2.customer_id,
        T2.first_name,
        T2.last_name,
        sum(T1.Total) as Total_Spent
From invoice as T1 Inner Join Customer as T2 Using(Customer_id)
group by 1,2,3
order by 4 desc
limit 1;
```



customer_id	first_name	last_name	Total_Spent
5	FrantiÅiek	WichterlovÃi	144.54000000000002

6) 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

```
Select distinct(T1.email), T1.First_name, T1.Last_name
From customer as T1 Inner Join invoice as T2 Using(customer_id)
                    Inner Join invoice_line as T3 Using(invoice_id)
                    Inner Join track as T4 Using(track_id)
                    Inner Join genre as T5 Using(genre_id)
Where T5.name="Rock"
order by T1.Email;
```



email	First_name	Last_name
aaronmitchell@yahoo.ca	Aaron	Mitchell
alero@uol.com.br	Alexandre	Rocha
astrid.gruber@apple.at	Astrid	Gruber
bjorn.hansen@yahoo.no	BjÃ¸rn	Hansen
camille.bernard@yahoo.fr	Camille	Bernard
daan_peeters@apple.be	Daan	Peeters
diego.gutierrez@yahoo.ar	Diego	GutiÃ©rrez
dmiller@comcast.com	Dan	Miller
dominiquelefebvre@gmail.com	Dominique	Lefebvre
edfrancis@yachoo.ca	Edward	Francis
eduardo@woodstock.com.br	Eduardo	Martins
ellie.sullivan@shaw.ca	Ellie	Sullivan
emma_jones@hotmail.com	Emma	Jones
enrique_munoz@yahoo.es	Enrique	MuÃ±oz
fernadaramos4@uol.com.br	Fernanda	Ramos
fharris@google.com	Frank	Harris
fralston@gmail.com	Frank	Ralston
frantisekw@jetbrains.com	FrantiÅ¡ek	WichterlovÃ¡
ftremblay@gmail.com	FranÃ§ois	Tremblay
fzimmermann@yahoo.de	Fynn	Zimmermann
hannah.schneider@yahoo.de	Hannah	Schneider
hholy@gmail.com	Helena	HolÃ½

7) 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

```
Select T1.artist_ID,
        T1.name,
       Count(*) as "Total Track"
From Artist as T1 Inner join album as T2 Using(artist_Id)
                    Inner join track as T3 Using(album_id)
          Inner join genre as T4 Using(genre_id)
Where T4.name like "Rock"
Group by 1,2
order by 3 desc limit 10;
```

	artist_ID	name	Total Track
▶	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

8) Return all the track_id that have a song length longer than the average song length. Return the track_id and Milliseconds for each track. Order by the song length with the longest songs listed first

```
Select track_id,
        milliseconds
From track
where milliseconds > (Select avg(milliseconds) from track)
order by 2 desc;
```

	track_id	milliseconds
▶	2820	5286953
	3224	5088838
	3244	2960293
	3242	2956998
	3227	2956081
	3226	2952702
	3243	2935894
	3228	2927802
	3248	2927677
	3239	2926593
	3232	2925008
	3235	2924716
	3237	2924507
	3234	2924341
	3249	2924007
	3247	2923548
	3241	2923381
	3238	2923298
	3240	2922630
	3229	2922547
	3246	2922088
	3231	2920045

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

```
With Project as
(
        Select T1.artist_id,T1.name,sum(T4.quantity*T4.unit_price) as Total_Spent
    From artist as T1 Inner Join album as T2 Using(artist_id)
                                        Inner Join track as T3 Using(album_id)
                                        Inner Join invoice_line as T4 Using(track_id)
        Group by 1,2
    order by 3 desc
    limit 1
)

Select
T1.customer_id,T1.first_name,T1.Last_name,T6.name,sum(T3.quantity*T3.unit_price) as Total_Spent
From Customer as T1 Inner Join Invoice as T2 Using(customer_id)
                                        Inner Join invoice_line as T3 Using(Invoice_Id)
                                        Inner Join track as T4 Using(track_id)
                Inner Join album as T5 Using(Album_Id)
                Inner Join Project as T6 Using(artist_id)
Group by 1,2,3,4
Order by 5 desc;
```

customer_id	first_name	Last_name	name	Total_Spent
46	Hugh	O'Reilly	Queen	27.72
38	Niklas	SchrÃ¶der	Queen	18.81
3	FranÃ§ois	Tremblay	Queen	17.82
34	JoÃ£o	Fernandes	Queen	16.83
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	FrantiÅ¡ek	WichterlovÃ¡	Queen	3.96
23	John	Gordon	Queen	2.97
31	Martha	Silk	Queen	2.97
54	Steve	Murray	Queen	2.97
8	Daan	Peeters	Queen	1.98
48	Johannes	Van der Berg	Queen	1.98
52	Emma	Jones	Queen	1.98
16	Frank	Harris	Queen	1.98
24	Frank	Ralston	Queen	1.98
11	Alexandre	Rocha	Queen	1.98
1	LuÃ-s	GonÃ§alves	Queen	1.98
35	Madalena	Sampaio	Queen	1.98
49	StanisÅ‚aw	WÃ³jcik	Queen	1.98

Result 10

10) We want to find out the most popular music Genre for each country. We determine the most popular genre as the genre with the highest amount of purchases. Write a query that returns each country along with the top Genre. For countries where the maximum number of purchases is shared return all Genres.

```
Select Country,name,Total
From  (Select Country,name,
        Total,dense_rank() Over(partition by Country order by Total desc) as Rankk
        From (Select T1.billing_country as
              Country,T4.genre_id,T4.name,Count(T1.invoice_id) as Total
             From invoice as T1 Inner Join invoice_line as T2 Using(invoice_id)
                                Inner Join track as T3 Using(track_id)
```

```
Inner Join genre as T4 Using(genre_id)
Group by 1,2
Order by 4 desc) as Project) as Final
Where Rankk=1;
```

Country	name	Total
Argentina	Alternative & Punk	17
Australia	Rock	34
Austria	Rock	40
Belgium	Rock	26
Brazil	Rock	205
Canada	Rock	333
Chile	Rock	61
Czech Republic	Rock	143
Denmark	Rock	24
Finland	Rock	46
France	Rock	211
Germany	Rock	194
Hungary	Rock	44
India	Rock	102
Ireland	Rock	72
Italy	Rock	35
Netherlands	Rock	33
Norway	Rock	40
Poland	Rock	40
Portugal	Rock	108
Spain	Rock	46
Sweden	Rock	60

11) Write a query that determines the customer that has spent the most on music for each country. Write a query that returns the country along with the top customer and how much they spent. For countries where the top amount spent is shared, provide all customers who spent this amount.

```
With CTE as
(
Select T1.first_name,
        T1.last_name,
    T1.country,
    Sum(T2.Total) as Total
From customer as T1 Inner Join Invoice as T2 Using(Customer_ID)
Group by 1,2,3
)

Select country,  first_name, last_name,Total
From(
            Select  first_name,last_name, country,Total, Dense_rank()
over(partition by country order by Total desc) as Rankk
            From CTE
      ) as Projectt
Where Rankk=1;
```

country	first_name	last_name	Total
Argentina	Diego	GutiÃ©rrez	39.6
Australia	Mark	Taylor	81.18
Austria	Astrid	Gruber	69.3
Belgium	Daan	Peeters	60.39
Brazil	LuÃ-s	GonÃ§alves	108.9
Canada	FranÃ§ois	Tremblay	99.99
Chile	Luis	Rojas	97.02
Czech Republic	FrantiÅ¡ek	WichterlovÃ¡	144.54
Denmark	Kara	Nielsen	37.62
Finland	Terhi	HÃ¤mÃ¤lÃ¤inen	79.2
France	Wyatt	Girard	99.99
Germany	Fynn	Zimmermann	94.05
Hungary	Ladislav	KovÃ¡cs	78.21
India	Manoj	Pareek	111.87
Ireland	Hugh	O'Reilly	114.84
Italy	Lucas	Mancini	50.49
Netherlands	Johannes	Van der Berg	65.34
Norway	BjÃ¸rn	Hansen	72.27
Poland	StanisÅ‚aw	WÃ³jcik	76.23
Portugal	JoÃ£o	Fernandes	102.96
Spain	Enrique	MuÃ±oz	98.01
Sweden	Joakim	Johansson	75.24