Music Store Data Analysis Outcomes:

**/\* Let's find the country with the most invoices. \*/**

**Query:**

Select billing\_country, count(invoice\_id) as no\_of\_invoices

From invoice

Group by billing\_country

Order by 2 desc;

**Answer: - USA, no of invoices:- 131**

**/\* Top 3 values of total invoice \*/**

**Query:**

Select total From invoice

Order by total desc

limit 3;

**Answer: 23.76, 19.8 and 19.8**

**/\* The company would like to throw a promotional Music Festival, in the city**

**that made them the most money. So now we find the city that has the highest sum of invoice totals\*/**

**Query:**

Select billing\_city,

sum(total) as invoice\_total

from invoice

Group by billing\_city

Order by 2 desc

Limit 1;

/\* Finding the customer that has spent the most amount in the music store. \*/

Select c.customer\_id,

c.first\_name,

c.last\_name,

sum(i.total) as amount\_spent

From invoice i

Join customer c

On i.customer\_id = c.customer\_id

Group by c.customer\_id, c.first\_name, c.last\_name

Order by amount\_spent desc;

**Answer: City with highest invoice totals: Prague; invoice\_total: $274.24**

**/\* Finding the customer that has spent the most amount in the music store. \*/**

Select c.customer\_id,

c.first\_name,

c.last\_name,

sum(i.total) as amount\_spent

From invoice i

Join customer c

On i.customer\_id = c.customer\_id

Group by c.customer\_id, c.first\_name, c.last\_name

Order by amount\_spent desc;

**Answer: Customer name: FrantiÅ¡ek WichterlovÃ, Amount spent: $144.54**

**/\* Now, We'll find all the Rock music listeners among the customers.**

**Let's put them in a list in an alphabetical order\*/**

**Query:**

Select distinct c.email, c.first\_name, c.last\_name, g.name as genre

From customer c

Join invoice i

on c.customer\_id = i.customer\_id

Join invoice\_line il

on i.invoice\_id = il.invoice\_id

Join track t

on il.track\_id = t.track\_id

Join genre g

on t.genre\_id = g.genre\_id

Where g.name = 'Rock'

Order by c.email;

**Answer:**

| **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 |

**10 top rows are displayed, rest can be accessed by running the attached query file.**

**/\* The company wants to invite the artists who have written the most rock music in our dataset. Let's identify the top 10 rock band artists along with their total track count \*/**

**Query:**

Select a.artist\_id as Artist\_id, a.name as Top\_10\_Rock\_Artists, count(t.track\_id) as total\_track\_count

From track t

Join album ab

on t.album\_id = ab.album\_id

Join artist a

on ab.artist\_id = a.artist\_id

Join genre g

on t.genre\_id = g.genre\_id

Where g.name = 'Rock'

Group by 1

Order by 3 desc

limit 10;

**Answer:**

| **Artist Id** | **Top down Rock Artist** | **Total track count** |
| --- | --- | --- |
| 1 | AC/DC | 18 |
| 3 | Aerosmith | 15 |
| 8 | Audioslave | 14 |
| 22 | Led Zeppelin | 14 |
| 4 | Alanis Morissette | 13 |
| 5 | Alice In Chains | 12 |
| 23 | Frank Zappa & Captain Beefheart | 9 |
| 2 | Accept | 4 |

**/\* Now let's find the songs that are longer than average song lengths in our list. We'll find the song name along with its length in milliseconds and order them from longest to shortest. \*/**

**Query:**

Select name as Track\_name, milliseconds as Song\_length

From track

Where milliseconds > (

Select Avg(milliseconds)

from track)

Order by 2 desc;

**Answer:**

**Average length: 251177.74**

**Longer songs:**

| **Song name** | **Song Length (Medium)** |
| --- | --- |
| How Many More Times | 711836 |
| Advance Romance | 677694 |
| Sleeping Village | 644571 |
| You Shook Me(2) | 619467 |
| Talkin' 'Bout Women Obviously | 589531 |
| Stratus | 582086 |
| No More Tears | 555075 |
| The Alchemist | 509413 |
| Wheels Of Confusion / The Straightener | 494524 |
| Book Of Thel | 494393 |

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**/\*Now we'll find out how much each customer spent on the top artist.**

**We'll identify customer name, artist name and total spent \*/**

**Query:**

with

best\_selling\_artist as (

select a.artist\_id,

a.name as artist\_name,

sum(vl.unit\_price\*vl.quantity) as Total\_Sales

from invoice\_line vl

join track t on vl.track\_id = t.track\_id

join album al on al.album\_id = t.album\_id

join artist a on a.artist\_id = al.artist\_id

group by 1,2

order by 3 desc

limit 1

)

select c.customer\_id, c.first\_name, c.last\_name, bsa.artist\_name, sum(il.unit\_price \* il.quantity) as amount\_spent

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 tr on tr.track\_id = il.track\_id

join album alb on alb.album\_id = tr.album\_id

join best\_selling\_artist as bsa on bsa.artist\_id = alb.artist\_id

group by 1,2,3,4

order by 5 desc ;

**Answer:**

| **Customer Id** | **First Name** | **Last Name** | **Artist Name** | **Amount spent** |
| --- | --- | --- | --- | --- |
| 54 | Steve | Murray | AC/DC | 17.82 |
| 53 | Phil | Hughes | AC/DC | 10.89 |
| 21 | Kathy | Chase | AC/DC | 10.89 |
| 49 | StanisÅ‚aw | WÃ³jcik | AC/DC | 9.9 |
| 1 | LuÃ­s | GonÃ§alves | AC/DC | 7.92 |
| 24 | Frank | Ralston | AC/DC | 7.92 |
| 31 | Martha | Silk | AC/DC | 3.96 |
| 44 | Terhi | HÃ¤mÃ¤lÃ¤inen | AC/DC | 2.97 |
| 42 | Wyatt | Girard | AC/DC | 2.97 |
| 38 | Niklas | SchrÃ¶der | AC/DC | 2.97 |

**10 top rows are displayed, rest can be accessed by running the attached query file.**

**/\* 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.** \*/

**Query:**

with most\_popular\_genre as (

select count(il.quantity) as store\_purchases, c.country, g.name as popular\_genre, g.genre\_id,

row\_number() over(partition by c.country order by count(il.quantity) desc )as rowno

from invoice\_line il

join invoice i on i.invoice\_id = il.invoice\_id

join customer c on i.customer\_id = c.customer\_id

join track t on t.track\_id = il.track\_id

join genre g on g.genre\_id = t.genre\_id

group by 2, 3, 4

order by 2 asc, 1 desc

)

select \* from most\_popular\_genre where rowno <=1 ;

**Answer:**

| **Store Purchases** | **Country** | **Popular genre** |
| --- | --- | --- |
| 1 | Argentina | Rock |
| 18 | Australia | Rock |
| 6 | Austria | Rock |
| 5 | Belgium | Rock |
| 26 | Brazil | Rock |
| 57 | Canada | Rock |
| 7 | Chile | Rock |
| 14 | Czech Republic | Rock |
| 6 | Denmark | Rock |
| 6 | Finland | Rock |

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**/\* A query that determines the customer that has spent the most on music for each country. This will return the country along with the top customer and how much they spent.\*/**

**Query:**

with customer\_country as (

select c.customer\_id , c.first\_name, c.last\_name , i.billing\_country, sum(i.total) as total\_spent,

row\_number() over(partition by i.billing\_country order by sum(i.total) desc ) as rowno

from invoice i

join customer c on c.customer\_id= i.customer\_id

group by 1,2,3,4

order by 4 asc, 5 desc )

select \* from customer\_country where rowno <=1 ;

**Answer:**

| **Customer Id** | **First Name** | **Last Name** | **Billing Country** | **Total spent** |
| --- | --- | --- | --- | --- |
| 56 | Diego | GutiÃ©rrez | Argentina | 39.6 |
| 55 | Mark | Taylor | Australia | 81.18 |
| 7 | Astrid | Gruber | Austria | 69.3 |
| 8 | Daan | Peeters | Belgium | 60.38999999999999 |
| 1 | LuÃ­s | GonÃ§alves | Brazil | 108.89999999999998 |
| 3 | FranÃ§ois | Tremblay | Canada | 99.99 |
| 57 | Luis | Rojas | Chile | 97.02000000000001 |
| 5 | FrantiÅ¡ek | WichterlovÃ¡ | Czech Republic | 144.54000000000002 |
| 9 | Kara | Nielsen | Denmark | 37.61999999999999 |
| 44 | Terhi | HÃ¤mÃ¤lÃ¤inen | Finland | 79.2 |

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