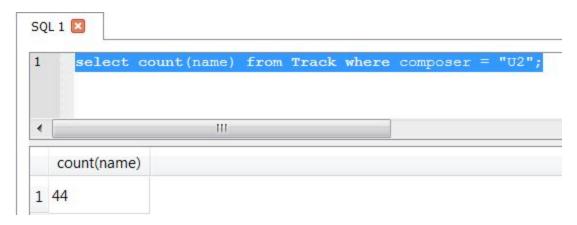
# 3. Quiz: Checking Setup

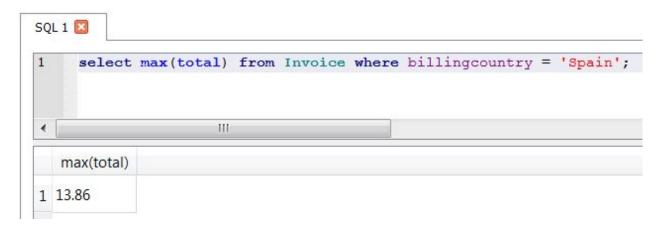
1) select count(name) from Track where composer = "U2";

Answer: 44



2) select max(total) from Invoice where billingcountry = 'Spain';

Answer: 13.86

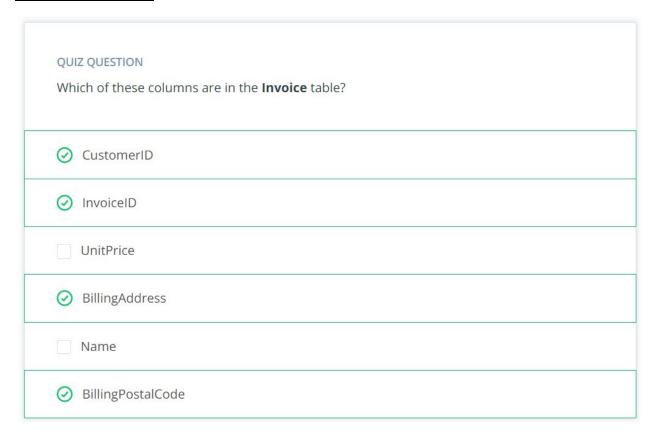


3) select title from employee where lastname = 'Johnson';

**Answer: Sales Support Agent** 



# 4: Quiz: Schema Match



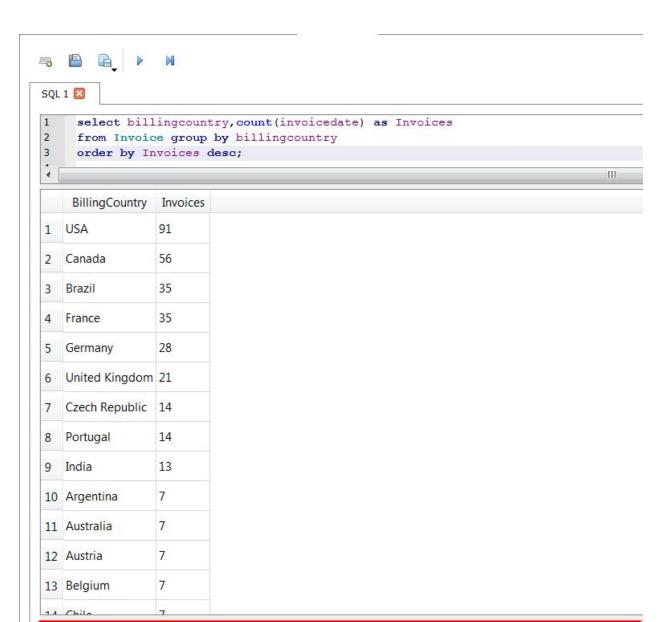


# 5. SQL: Question Set 1

Question 1: Which countries have the most Invoices?

# Answer:

select billingcountry,count(invoicedate) as Invoices from Invoice group by billingcountry order by Invoices desc;



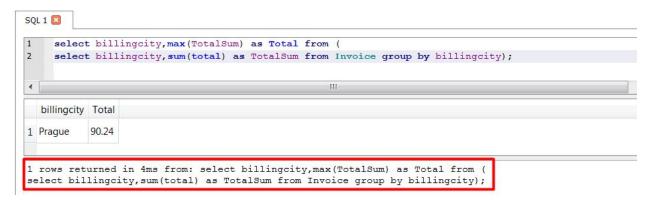
24 rows returned in 2ms from: select billingcountry,count(invoicedate) as Invoices from Invoice group by billingcountry order by Invoices desc;

# Question 2: Which city has the best customers?

#### Answer:

select billingcity, max(TotalSum) as Total from (

select billingcity, sum(total) as TotalSum from Invoice group by billingcity);

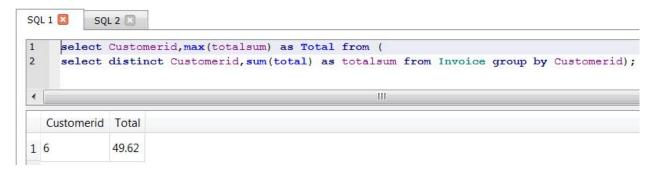


#### Question 3: Who is the best customer?

#### Answer:

select Customerid, max(totalsum) as Total from (

select distinct Customerid, sum(total) as totalsum from Invoice group by Customerid);



#### 6. SQL: Question Set 2

## **Question 1**

Use your query to return the email, first name, last name, and Genre of all Rock Music listeners. Return your list ordered alphabetically by email address starting with A.

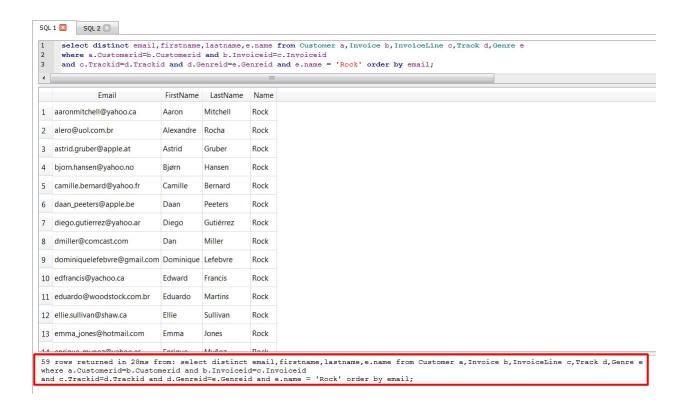
#### **Answer:**

select distinct email, firstname, lastname, e. name from Customer a, Invoice b, InvoiceLine c,

Track d, Genre e

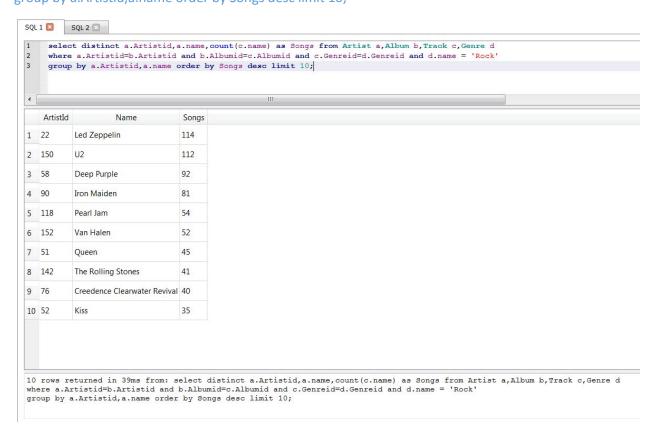
where a.Customerid=b.Customerid and b.Invoiceid=c.Invoiceid

and c.Trackid=d.Trackid and d.Genreid=e.Genreid and e.name = 'Rock' order by email;



# Question 2: Who is writing the rock music? Answer:

select distinct a.Artistid,a.name,count(c.name) as Songs from Artist a,Album b,Track c,Genre d where a.Artistid=b.Artistid and b.Albumid=c.Albumid and c.Genreid=d.Genreid and d.name = 'Rock' group by a.Artistid,a.name order by Songs desc limit 10;



#### **Question 3**

1) First, find which artist has earned the most according to the **InvoiceLines**? 2) Now use this artist to find which customer spent the most on this artist.

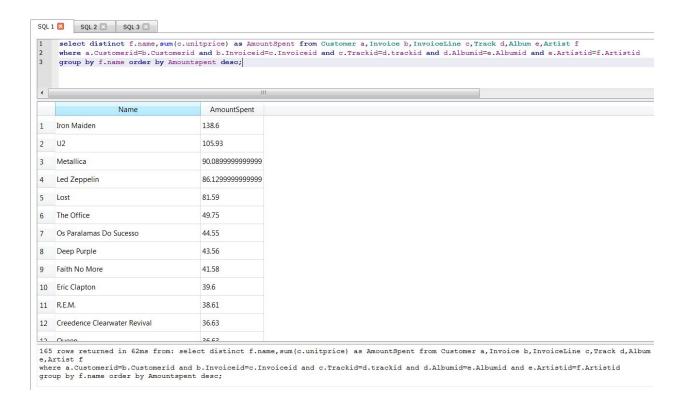
#### Note this question has 2 part.

For Part 1) First, find which artist has earned the most according to the InvoiceLines?

### **Answer:**

select distinct f.name,sum(c.unitprice) as AmountSpent from Customer a,Invoice b,InvoiceLine c,Track d,Album e,Artist f

where a.Customerid=b.Customerid and b.Invoiceid=c.Invoiceid and c.Trackid=d.trackid and d.Albumid=e.Albumid and e.Artistid=f.Artistid group by f.name order by Amountspent desc;



#### For Part 2

2) Now use this artist to find which customer spent the most on this artist.

#### **Answer:**

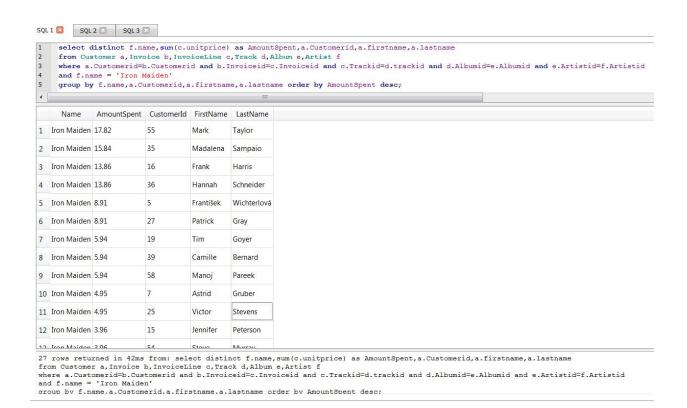
select distinct f.name,sum(c.unitprice) as AmountSpent,a.Customerid,a.firstname,a.lastname

from Customer a, Invoice b, InvoiceLine c, Track d, Album e, Artist f

where a.Customerid=b.Customerid and b.Invoiceid=c.Invoiceid and c.Trackid=d.trackid and d.Albumid=e.Albumid and e.Artistid=f.Artistid

and f.name = 'Iron Maiden'

group by f.name,a.Customerid,a.firstname,a.lastname order by AmountSpent desc;



#### 7. (Advanced) SQL: Question Set 3

# Question 1

#### **Answer:**

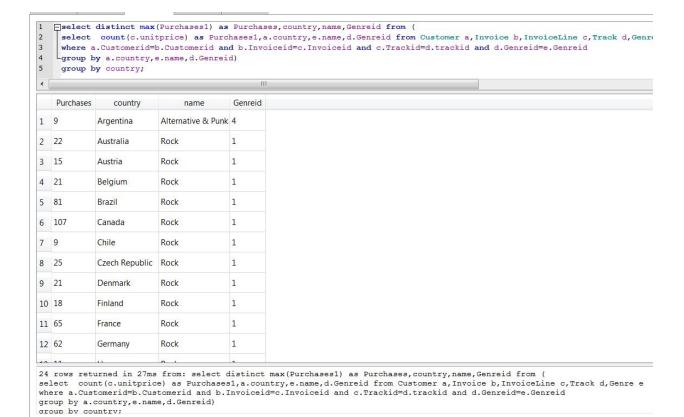
select distinct max(Purchases1) as Purchases,country,name,Genreid from (

select count(c.unitprice) as Purchases1,a.country,e.name,d.Genreid from Customer a,Invoice b,InvoiceLine c,Track d,Genre e

where a.Customerid=b.Customerid and b.Invoiceid=c.Invoiceid and c.Trackid=d.trackid and d.Genreid=e.Genreid

group by a.country, e.name, d.Genreid)

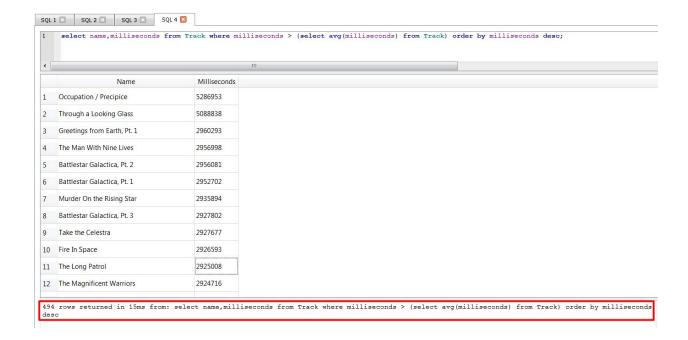
group by country;



# **Question 2**

#### **Answer:**

select name,milliseconds from Track where milliseconds > (select avg(milliseconds) from Track) order by milliseconds desc;



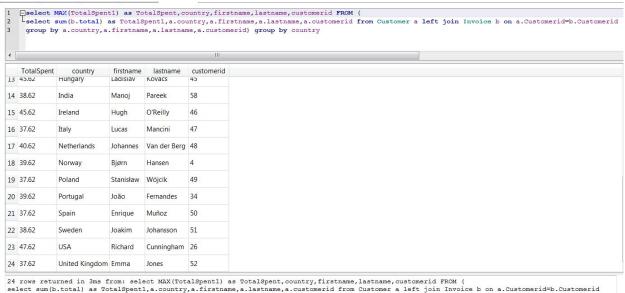
# **Question 3**

#### **Answer:**

select MAX(TotalSpent1) as TotalSpent,country,firstname,lastname,customerid FROM (

select sum(b.total) as TotalSpent1,a.country,a.firstname,a.lastname,a.customerid from Customer a left join Invoice b on a.Customerid=b.Customerid

group by a.country, a.firstname, a.lastname, a.customerid) group by country;



24 rows returned in 3ms from: select MAX(TotalSpent1) as TotalSpent,country,firstname,lastname,customerid FROM (
select sum(b.total) as TotalSpent1,a.country,a.firstname,a.lastname,a.customerid from Customer a left join Invoice b on a.Customerid=b.Customerid
group by a.country,a.firstname,a.lastname,a.customerid) group by country