

Querying The Chinook Music Database

By Frederick Zoreta

A Simple Insight Using Simple Tools: Excel & SQLite

A Fundamental SQL & Excel Analysis

01

INVOICES PER
NATION

02

ANNUAL
REVENUE

03

TOP REVENUE
ARTISTS

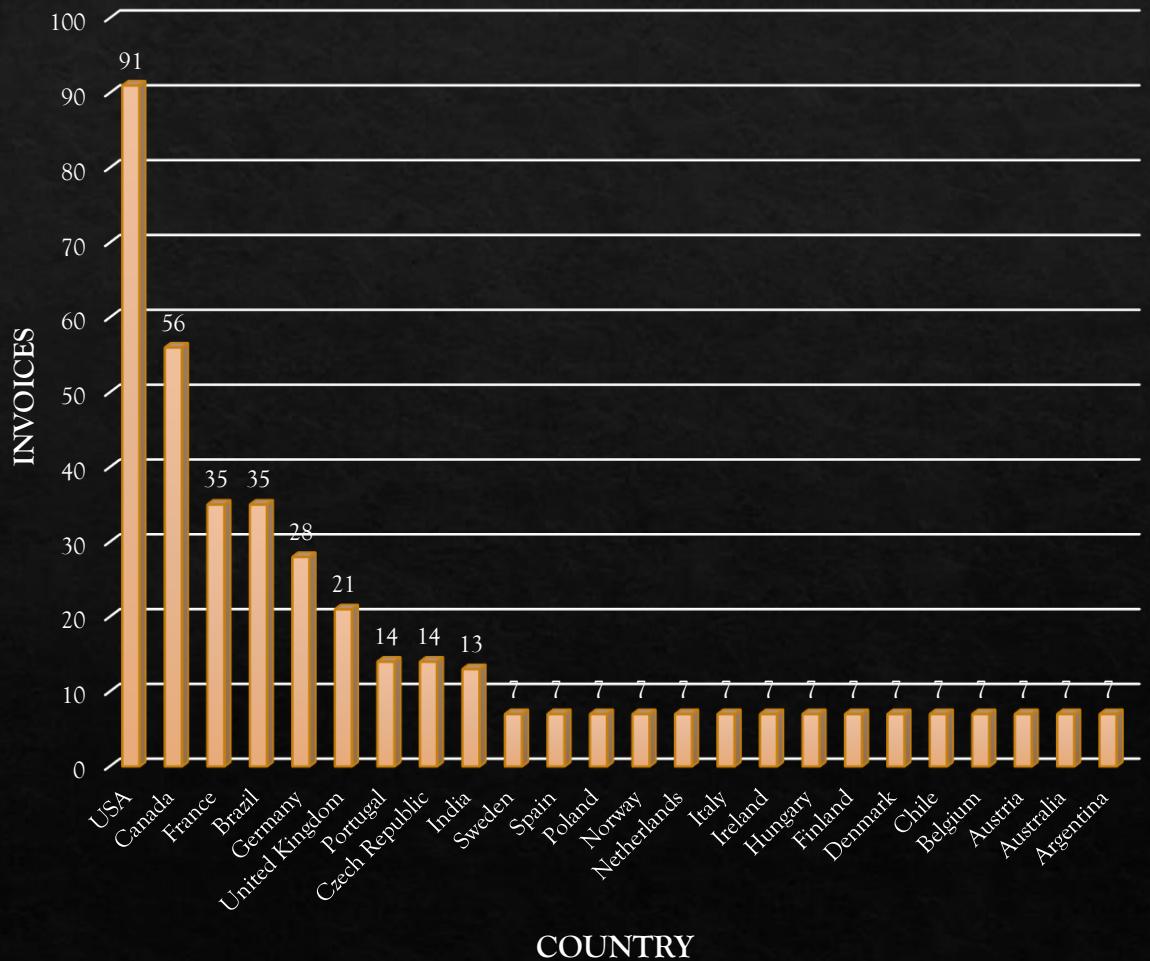
**04 TOP 10
GENRE

The Number of Invoices Per Nation

❖ Raw Tabular Form :

COUNTRY	INVOICES
USA	91
Canada	56
France	35
Brazil	35
Germany	28
United Kingdom	21
Portugal	14
Czech Republic	14
India	13
Sweden	7
Spain	7
Poland	7
Norway	7
Netherlands	7
Italy	7
Ireland	7
Hungary	7
Finland	7
Denmark	7
Chile	7
Belgium	7
Austria	7
Australia	7
Argentina	7

INVOICES per COUNTRY



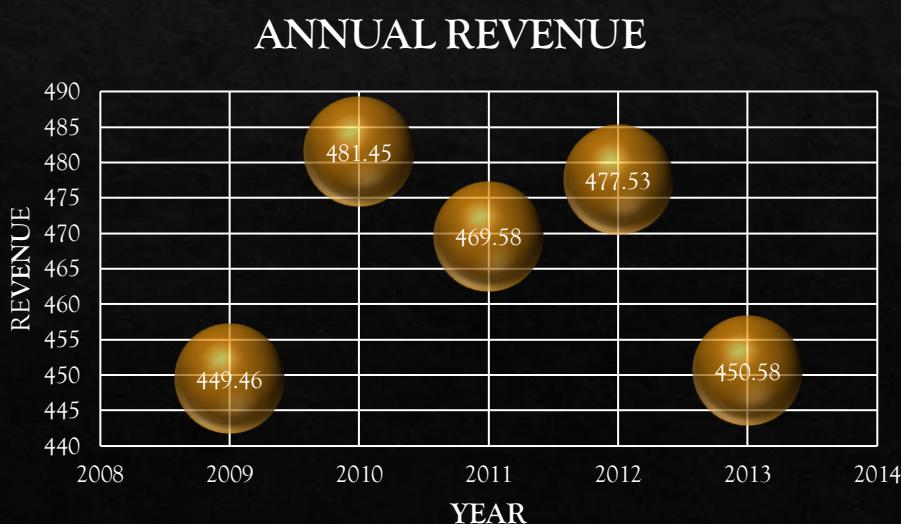
Explaining Table 1: The Number of Invoices Per Country

- ❖ Both the table and the bar graph from the previous slide shows the nations that have the maximum number of invoices on the tables *Invoices* & *BillingCountry*. It was placed in such a manner that shows the highest on the leftmost; which is U.S.A.
- ❖ This insight was derived by the S.Q.L. code below:
 - ❖ Select Customer.Country, COUNT(Invoice.InvoiceID) Number_Of_Invoice
 - ❖ FROM Invoice
 - ❖ JOIN Customer ON Invoice.CustomerID = Customer.CustomerID
 - ❖ GROUP BY Country
 - ❖ ORDER BY Number_of_Invoice DESC;

The Annual || Yearly Revenue

❖ Raw Tabular Form :

YEAR	ANNUAL REVENUE
2010	481.45
2012	477.53
2011	469.58
2013	450.58
2009	449.46



Explaining Table 2 : The Annual Revenue

- ❖ Both the bubble chart and bar chart convey the exact same message as the tabular form: All the annual revenues from 2009 until the year 2013. It clearly shows that the year 2010 had the highest revenue.
- ❖ This insight was derived by using the S.Q.L. query below:
- ❖

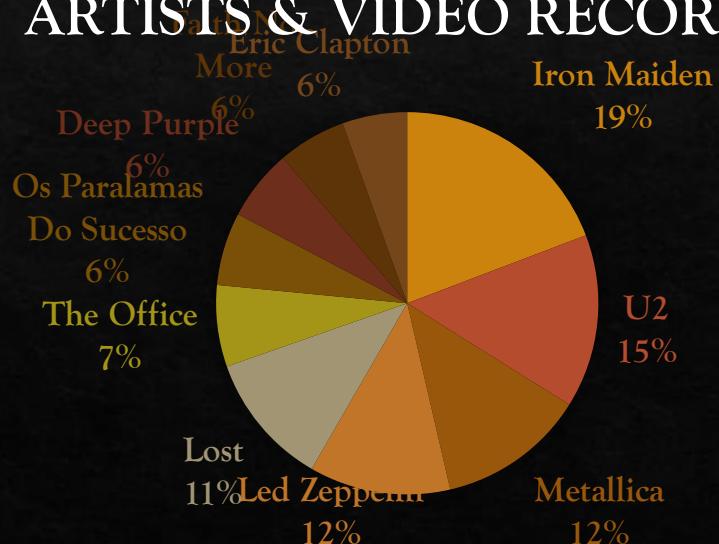
```
SELECT strftime('%Y', InvoiceDate) as year, SUM(InvoiceLine.UnitPrice) as Revenue
FROM Invoice
join InvoiceLine
On Invoice.InvoiceId = InvoiceLine.InvoiceId
GROUP BY 1
ORDER BY 2 DESC;
```

High Revenue Artists on TOP

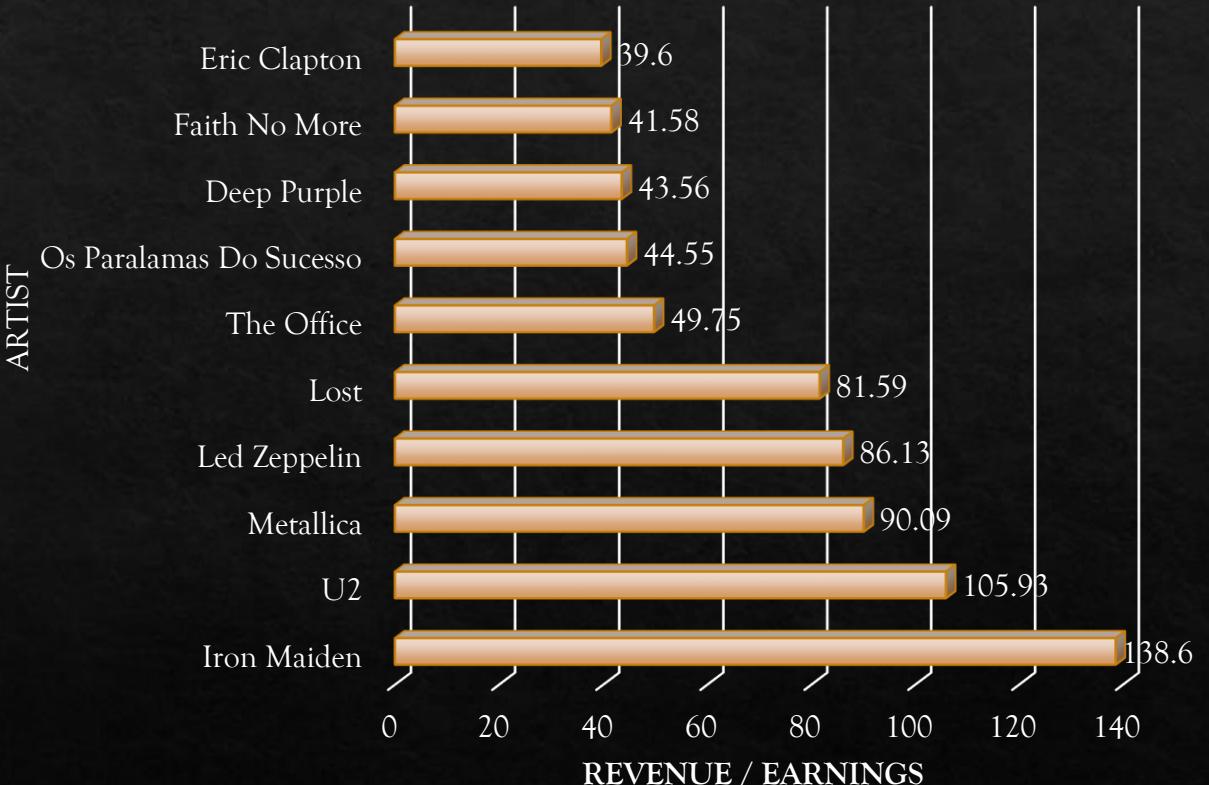
❖ Raw Tabular Form

ARTIST	REVENUE
Iron Maiden	138.6
U2	105.93
Metallica	90.09
Led Zeppelin	86.13
Lost	81.59
The Office	49.75
Os Paralamas Do Sucesso	44.55
Deep Purple	43.56
Faith No More	41.58
Eric Clapton	39.6

REVENUE/ EARNINGS PER ARTISTS & VIDEO RECORDS



REVENUE/ EARNINGS per ARTISTS & Video Records



Explaining Table 3: TOP Earning Artists

- ❖ A simple insight: It is really quite noticeable that sometimes, using a different chart could either mean good or bad as far as visually explaining on what the data is.
- ❖ From the 2 charts from the prior slide, the bar chart explains more clearly that Heavy Metal / rock band Iron Maiden was the highest earner with 138.6 Million, while 'good o'l slow hand aka Eric Clapton' was the least with 39.6 Million.
- ❖ These insights were derived using the S.Q.L. query below:
- ❖

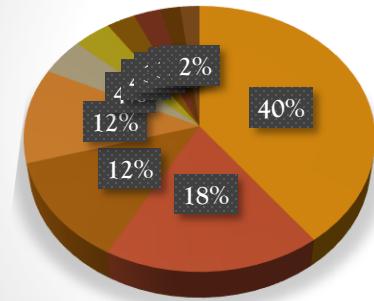
```
SELECT Artist.Name, SUM(InvoiceLine.UnitPrice) as SUM_OF_Unit_Price
from InvoiceLine
JOIN Track ON Track.TrackId = InvoiceLine.TrackId
JOIN Album ON Album.AlbumId = Track.AlbumId
JOIN Artist ON Artist.ArtistId = Album.ArtistId
GROUP BY Artist.Name
ORDER BY SUM_OF_Unit_Price desc
limit 10;
```

The Top 10 Genres

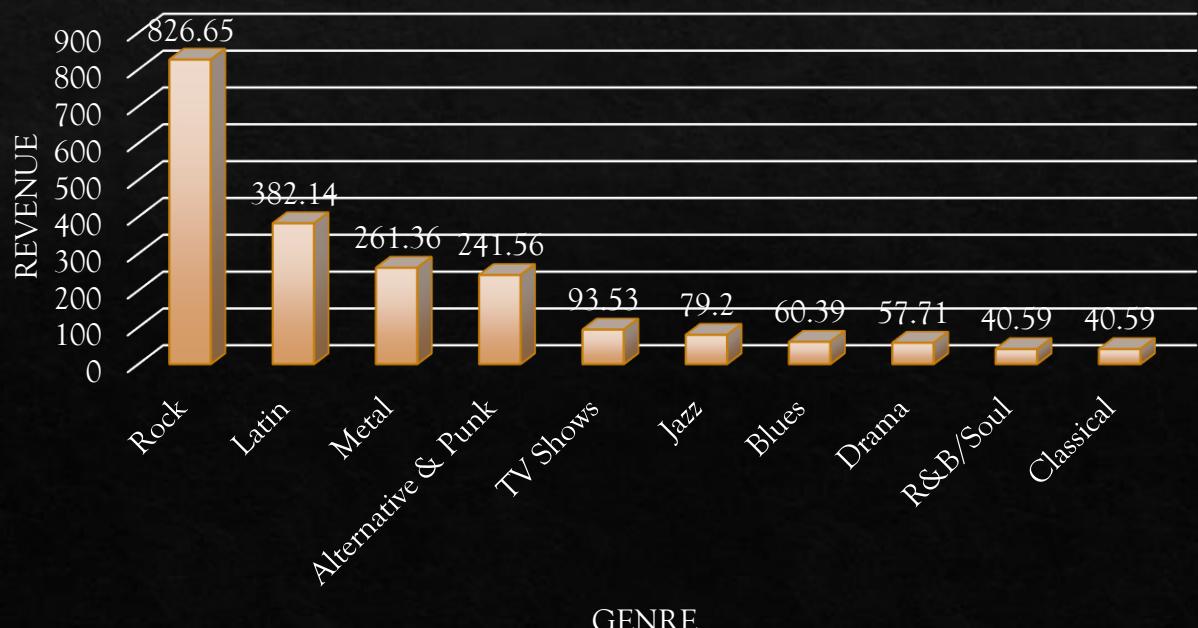
❖ Raw Tabular Form :

GENRE	REVENUE
Rock	826.65
Latin	382.14
Metal	261.36
Alternative & Punk	241.56
TV Shows	93.53
Jazz	79.2
Blues	60.39
Drama	57.71
R&B/Soul	40.59
Classical	40.59

REVENUE per GENRE



REVENUE per GENRE



Explaining Table 4: Top 10 Genres

- ❖ Both the bar chart and the pie chart would easily state that the highest paid were the ‘ROCKERS’. (Thank heavens it wasn’t rap. I do love MC Hammer & Vanilla Ice though. And I really think Eminem & Nelly were cool). Ok, getting serious now, rock genre has the highest revenue with 826.65 . It is quite interesting to note that Latin music (I do dance salsa and bachata so I love Latin) is 2nd, but is very far with only 382.14. Both R&B Soul and Classical music were tied at the bottom with 40.59
- ❖ These insights were derived using the S.Q.L. query below:
- ❖ select Genre.Name as Genre, sum(InvoiceLine.UnitPrice) as Revenue
- ❖ FROM Genre
- ❖ JOIN Track
- ❖ ON Track.GenreId = Genre.GenreId
- ❖ join InvoiceLine
- ❖ ON InvoiceLine.TrackId = Track.TrackId
- ❖ group by Genre.Name
- ❖ order by Revenue desc
- ❖ limit 10;

< Over-All Summary: From CSV to SQL to CSV to DataViz >

- ❖ It is quite interesting to note that structured numerical data usually comes in the form of .xls and/or .csv. We then import it to either a SQL or NoSQL (approximately 92% of the time its SQL). From SQL, we do analyze with either complex or simple SQL statements, then we download again as CSV.
- ❖ Afterwards we either visualize them straight via excel/google sheets or we can go further and use Tableau, Power BI, Google Data Studio, Sisense or Flourish Studio.
- ❖ That's all for now.

APPENDIX - SQL Scripts

- ❖ SELECT Customer.Country, COUNT(Invoice.InvoiceId) AS Number_Of_Invoice
 - ❖ FROM Invoice
 - ❖ JOIN Customer ON Invoice.CustomerID = Customer.CustomerID
 - ❖ GROUP BY Country
 - ❖ order BY Number_Of_Invoice DESC;
-
- ❖ **The Number Of Invoices Per Country

The TOP 10 Genres

```
❖ select Genre.Name as Genre, sum(InvoiceLine.UnitPrice) as Revenue  
❖ FROM Genre  
❖ JOIN Track  
❖ ON Track.GenreId = Genre.GenreId  
❖ join InvoiceLine  
❖ ON InvoiceLine.TrackId = Track.TrackId  
❖ group by Genre.Name  
❖ order by Revenue desc  
❖ limit 10;
```

Highest Earning Artists

```
❖ SELECT Artist.Name, SUM(InvoiceLine.UnitPrice) as SUM_OF_Unit_Price  
❖ from InvoiceLine  
❖ JOIN Track ON Track.TrackId = InvoiceLine.TrackId  
❖ JOIN Album ON Album.AlbumId = Track.AlbumId  
❖ JOIN Artist ON Artist.ArtistId = Album.ArtistId  
❖ GROUP BY Artist.Name  
❖ ORDER BY SUM_OF_Unit_Price desc  
❖ limit 10;
```

Revenues Per Year

- ❖ SELECT strftime('%Y', InvoiceDate) as year, SUM(InvoiceLine.UnitPrice) as Revenue
- ❖ FROM Invoice
- ❖ join InvoiceLine
- ❖ On Invoice.InvoiceId = InvoiceLine.InvoiceId
- ❖ GROUP BY 1
- ❖ ORDER BY 2 DESC;