Microsoft PowerBI

- Chinook Database
  - MySQL
  - SQL Server
  - Oracle
  - PostgreSQL

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Assignment

Create & run query for each database – place SQL queries in Word document & paste query results into an individual worksheet in an Excel spreadsheet

1. Total sales $
2. Total sales $ by country – ranked (or at least sorted largest to smallest)
3. Total sales $ by country, state & city
4. Total sales $ by customer (a person with last name & first name) – ranked (or at least sorted largest to smallest)
5. Total sales $ by artist – ranked (or at least sorted largest to smallest)
6. Total sales $ by albums
7. Total sales $ by sales person (employee)
8. Total tracks bought and total revenue $ by media type
9. Total sales $ by genre
10. Total sales $ by company

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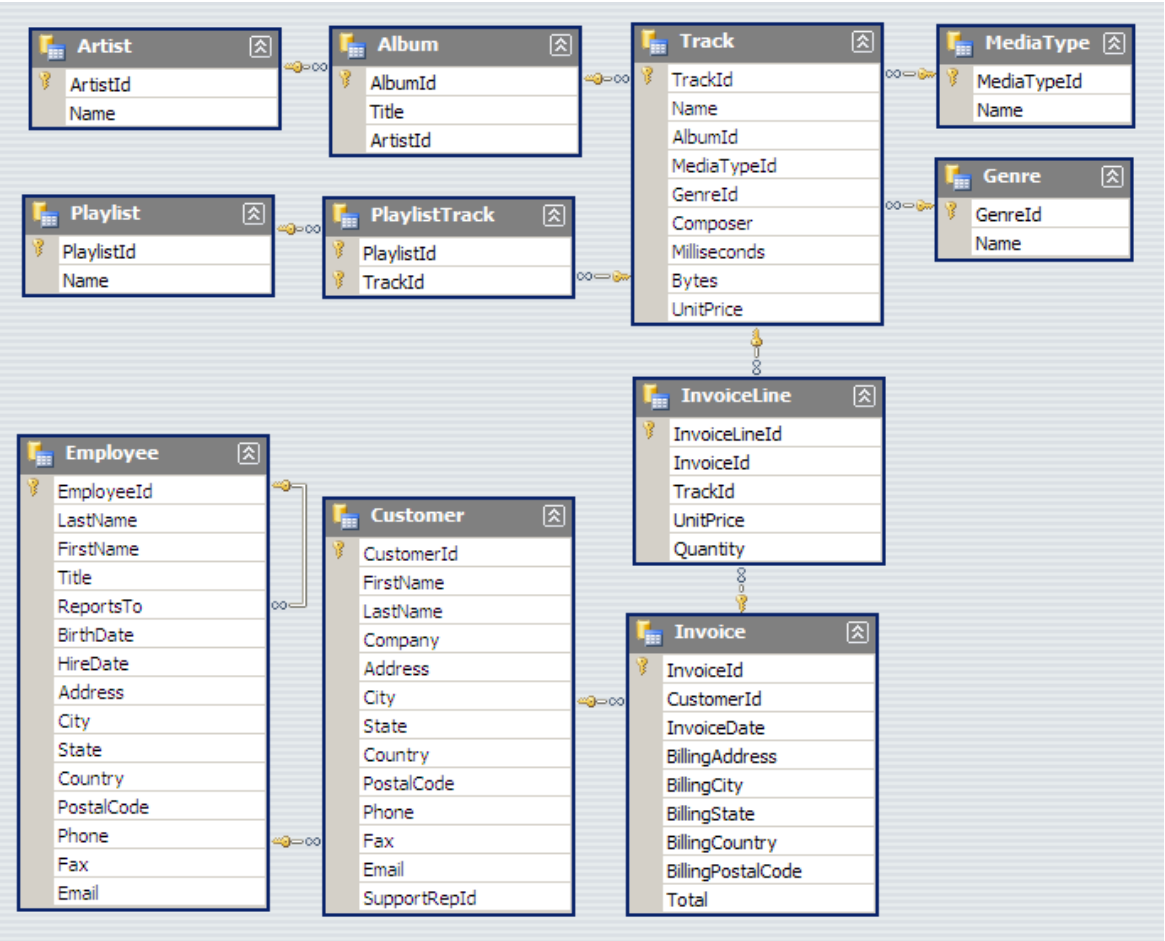
Chinook Database



The Chinook data model represents a digital media store, including tables for artists, albums, media tracks, invoices and customers.

Chinook data model is an ER Model.

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Chinook Database

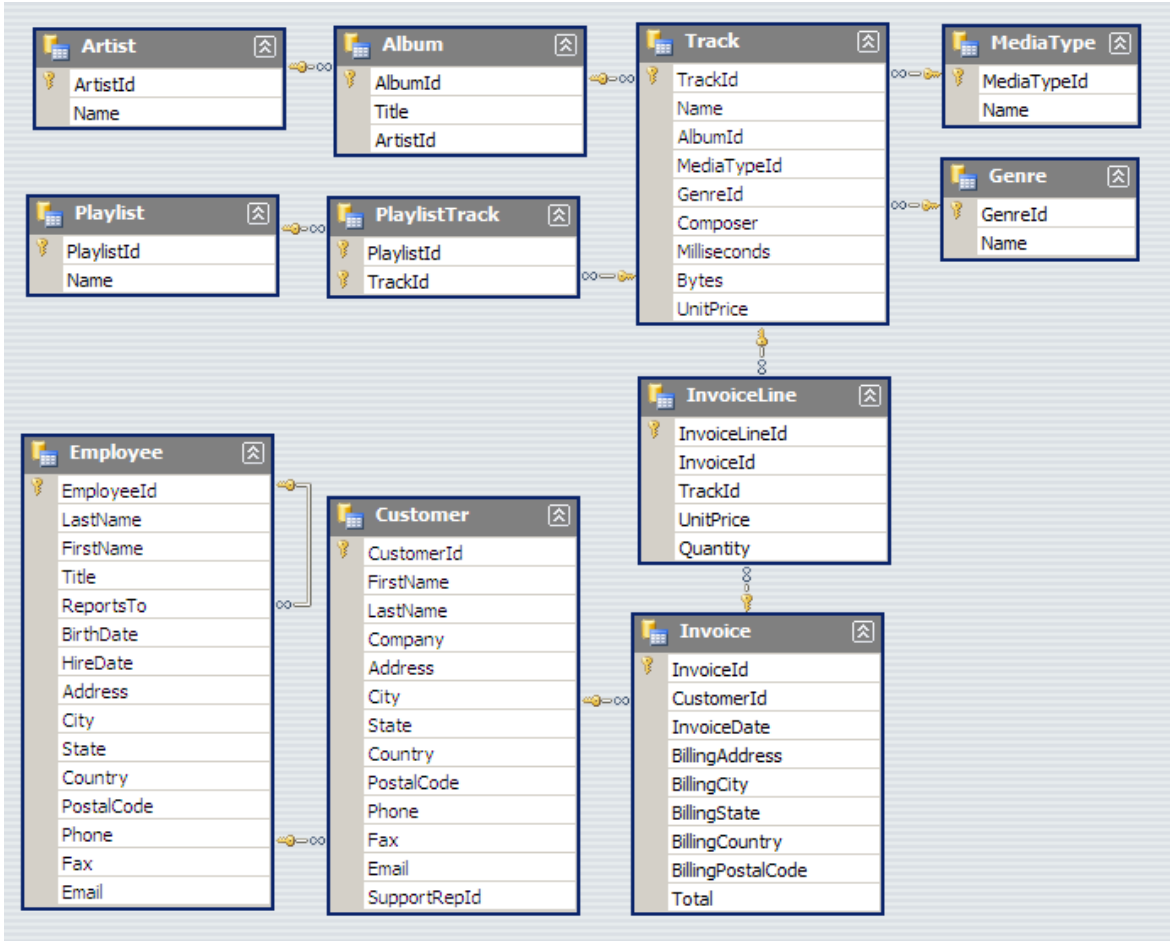

Table Name	Row
Album	347
Artist	275
Customer	59
Employee	8
Genre	25
Invoice	412
InvoiceLine	2,240
MediaType	5
Playlist	18
PlaylistTrack	8,715
Track	3,503

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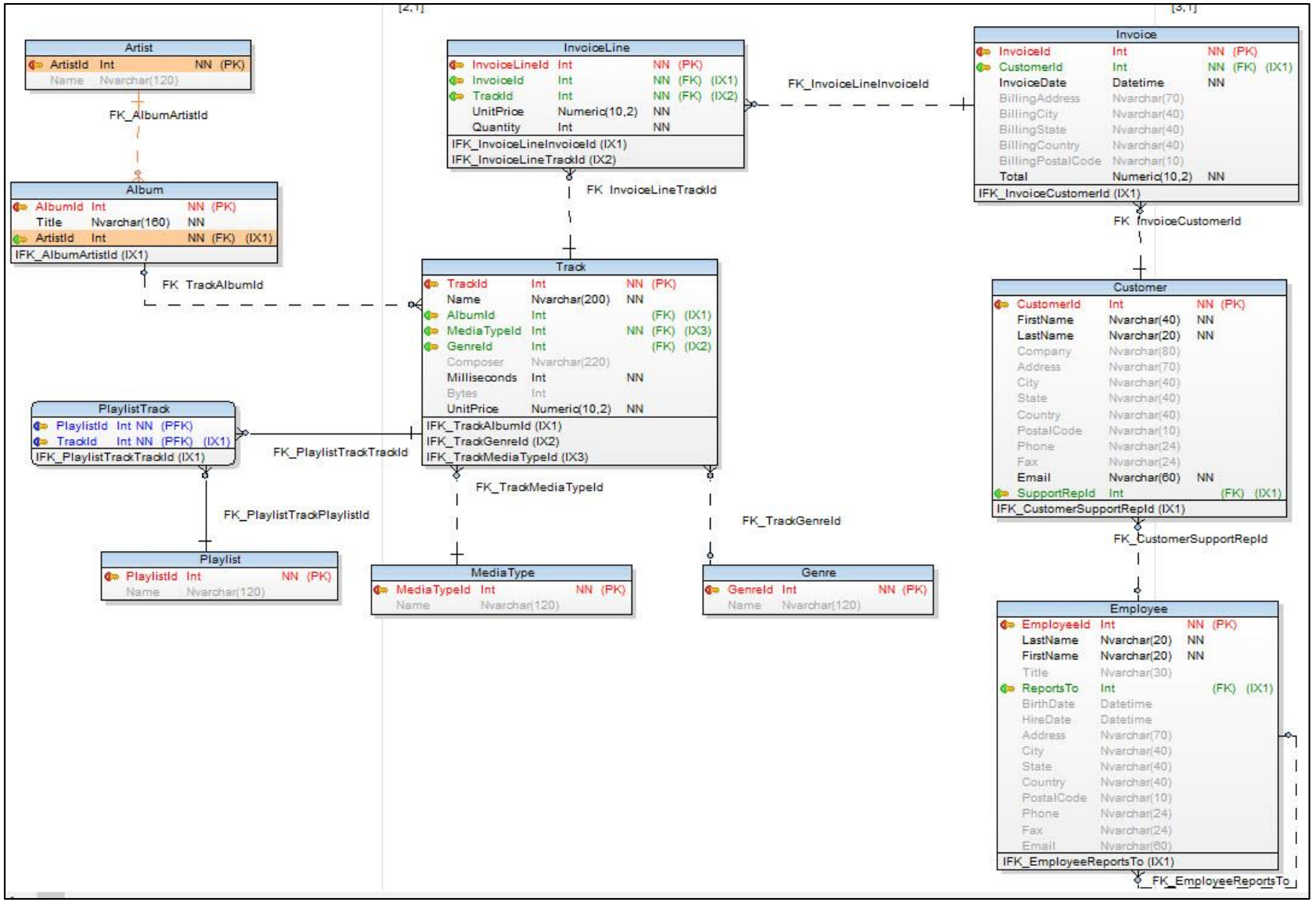
Chinook Database



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A few DAX commands

- CustomerName = CONCATENATE(Customer[LastName],CONCATENATE(" ,",Customer[FirstName]))
- EmployeeName = CONCATENATE(Employee[LastName],CONCATENATE(", ",Employee[FirstName]))
- YearsEmployed = DATEDIFF(Employee[HireDate],NOW(),YEAR)
- Sales = InvoiceLine[Quantity] * InvoiceLine[UnitPrice]

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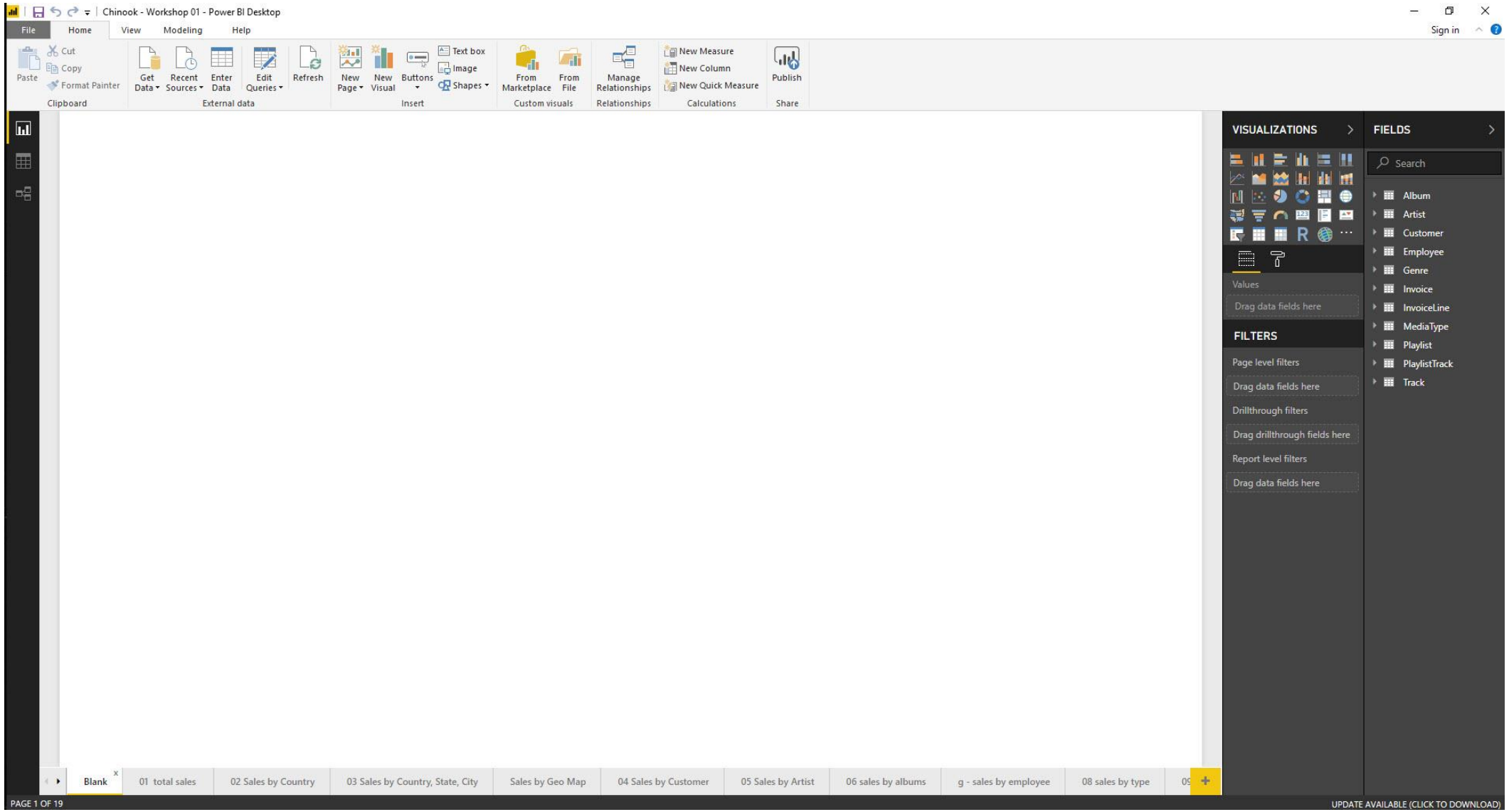
Microsoft PowerBI



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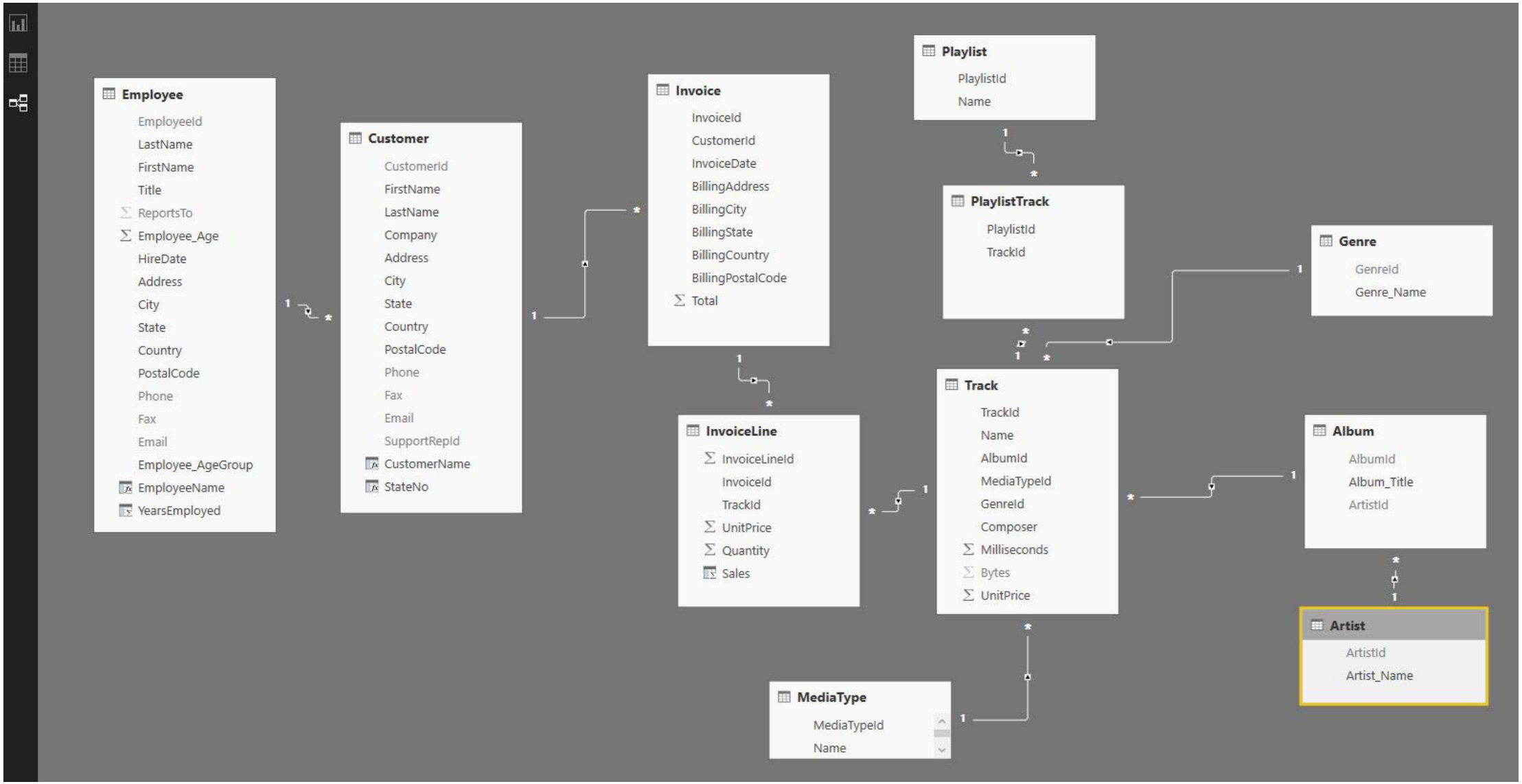
Chinook - Data Model



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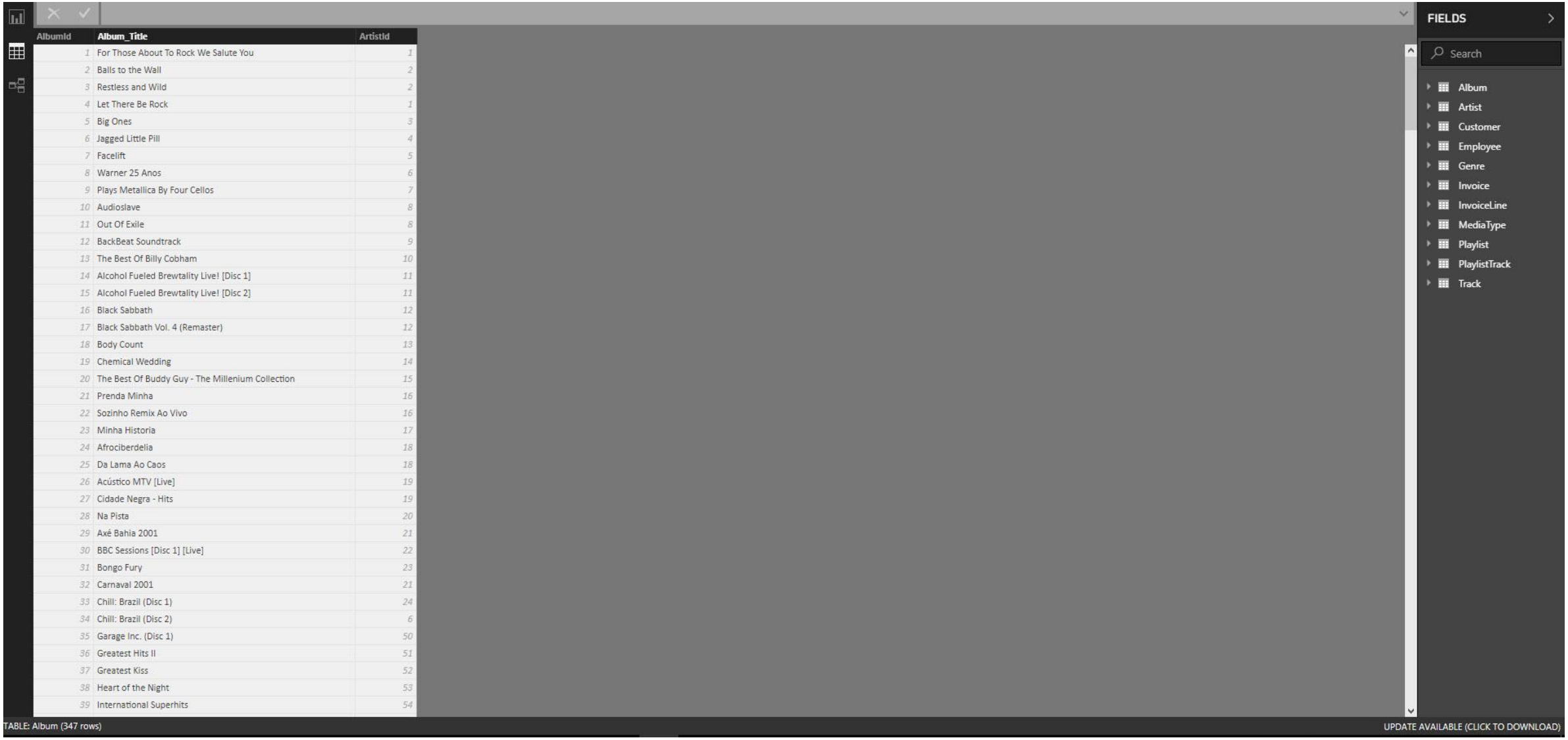
Chinook - Data Tables



AlbumId	Album_Title	ArtistId
1	For Those About To Rock We Salute You	1
2	Balls to the Wall	2
3	Restless and Wild	2
4	Let There Be Rock	1
5	Big Ones	3
6	Jagged Little Pill	4
7	Facelift	5
8	Warner 25 Anos	6
9	Plays Metallica By Four Cellos	7
10	Audioslave	8
11	Out Of Exile	8
12	BackBeat Soundtrack	9
13	The Best Of Billy Cobham	10
14	Alcohol Fueled Brewtality Live! [Disc 1]	11
15	Alcohol Fueled Brewtality Live! [Disc 2]	11
16	Black Sabbath	12
17	Black Sabbath Vol. 4 (Remaster)	12
18	Body Count	13
19	Chemical Wedding	14
20	The Best Of Buddy Guy - The Millenium Collection	15
21	Prenda Minha	16
22	Sozinho Remix Ao Vivo	16
23	Minha Historia	17
24	Afrociberdelia	18
25	Da Lama Ao Caos	18
26	Acústico MTV [Live]	19
27	Cidade Negra - Hits	19
28	Na Pista	20
29	Axé Bahia 2001	21
30	BBC Sessions [Disc 1] [Live]	22
31	Bongo Fury	23
32	Carnaval 2001	21
33	Chill: Brazil (Disc 1)	24
34	Chill: Brazil (Disc 2)	6
35	Garage Inc. (Disc 1)	50
36	Greatest Hits II	51
37	Greatest Kiss	52
38	Heart of the Night	53
39	International Superhits	54

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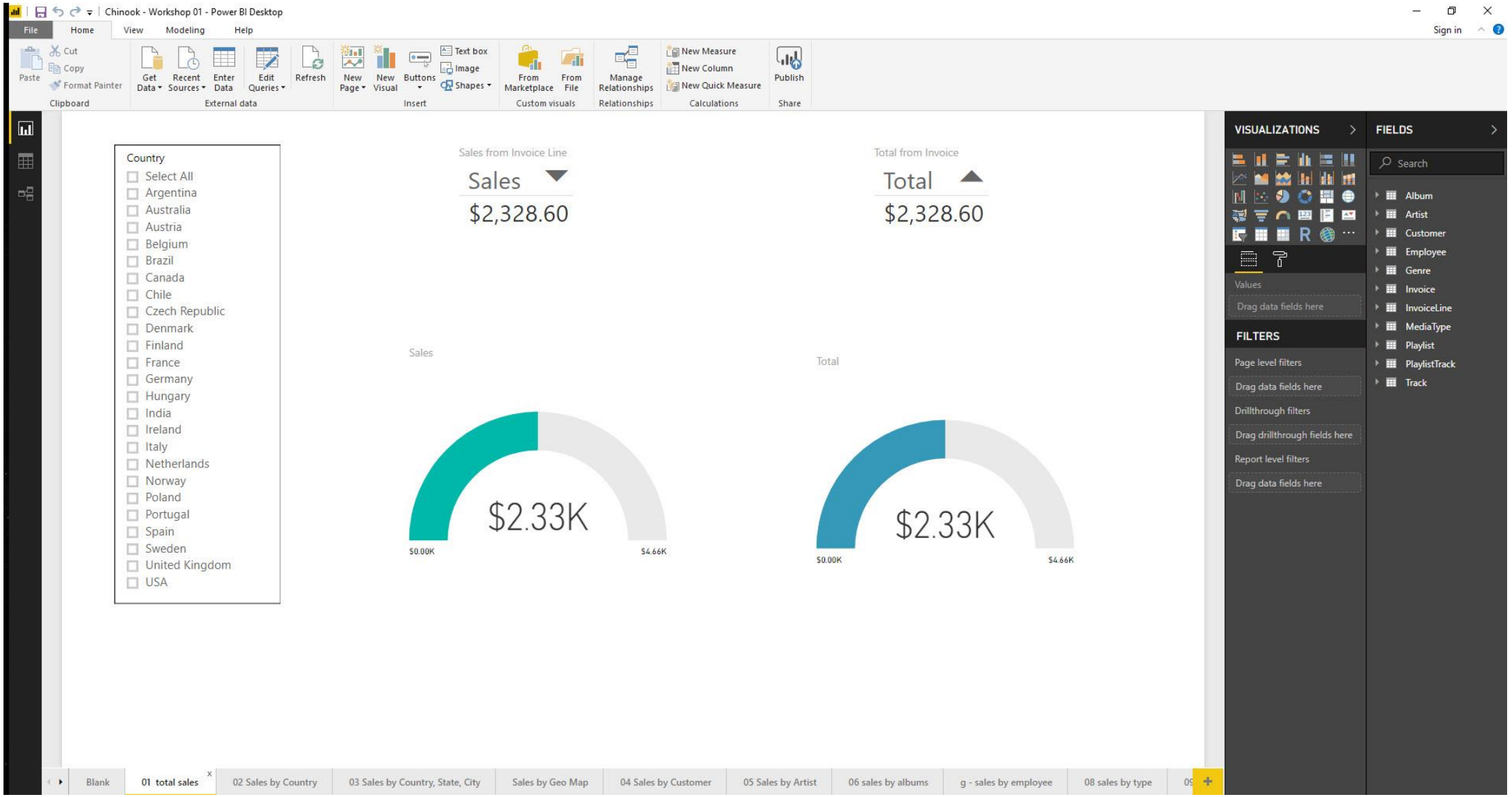
Chinook - Total sales



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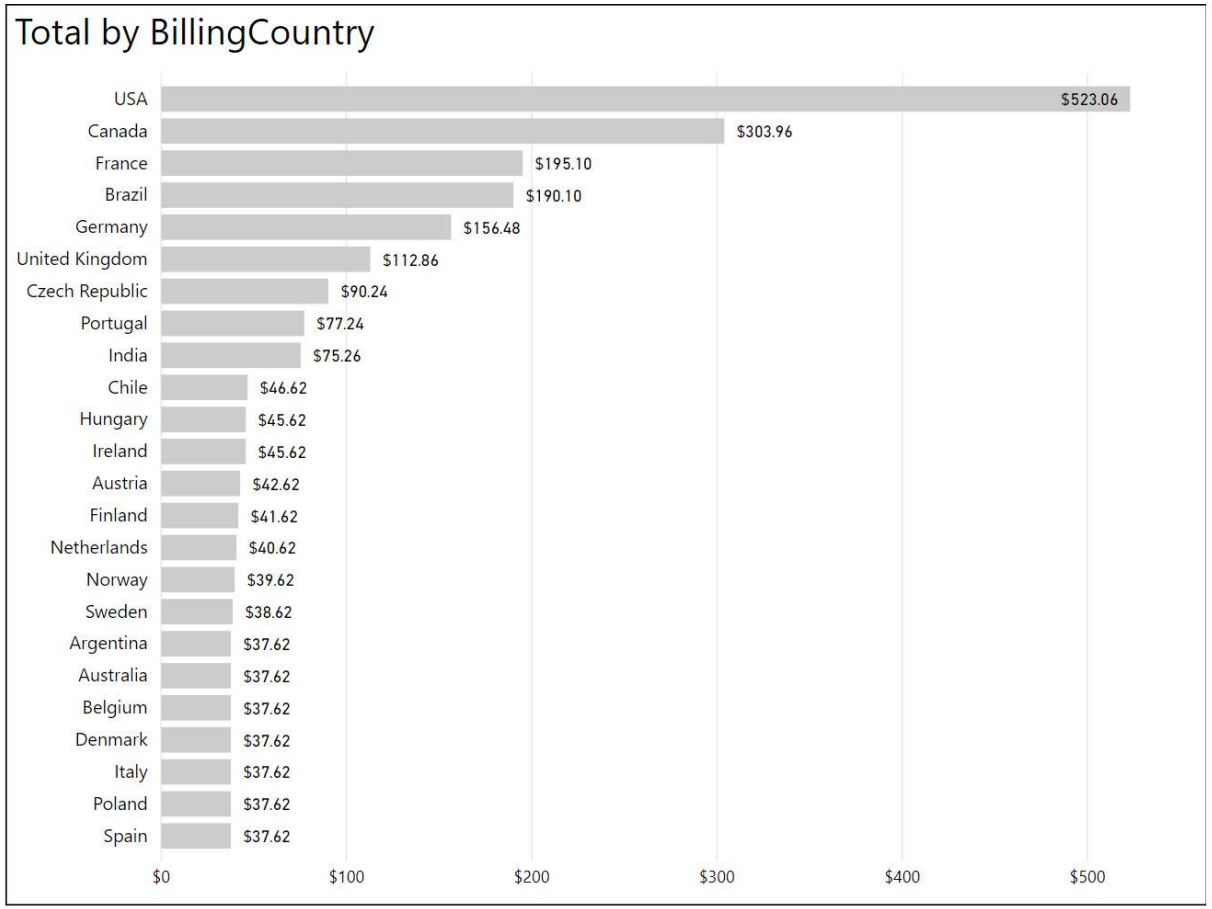
Chinook
Total sales by country – ranked

BillingCountry	Total
USA	$523.06
Canada	$303.96
France	$195.10
Brazil	$190.10
Germany	$156.48
United Kingdom	$112.86
Czech Republic	$90.24
Portugal	$77.24
India	$75.26
Chile	$46.62
Hungary	$45.62
Ireland	$45.62
Austria	$42.62
Finland	$41.62
Netherlands	$40.62
Norway	$39.62
Sweden	$38.62
Argentina	$37.62
Australia	$37.62
Belgium	$37.62
Denmark	$37.62
Italy	$37.62
Poland	$37.62
Spain	$37.62
Total	**$2,328.60**



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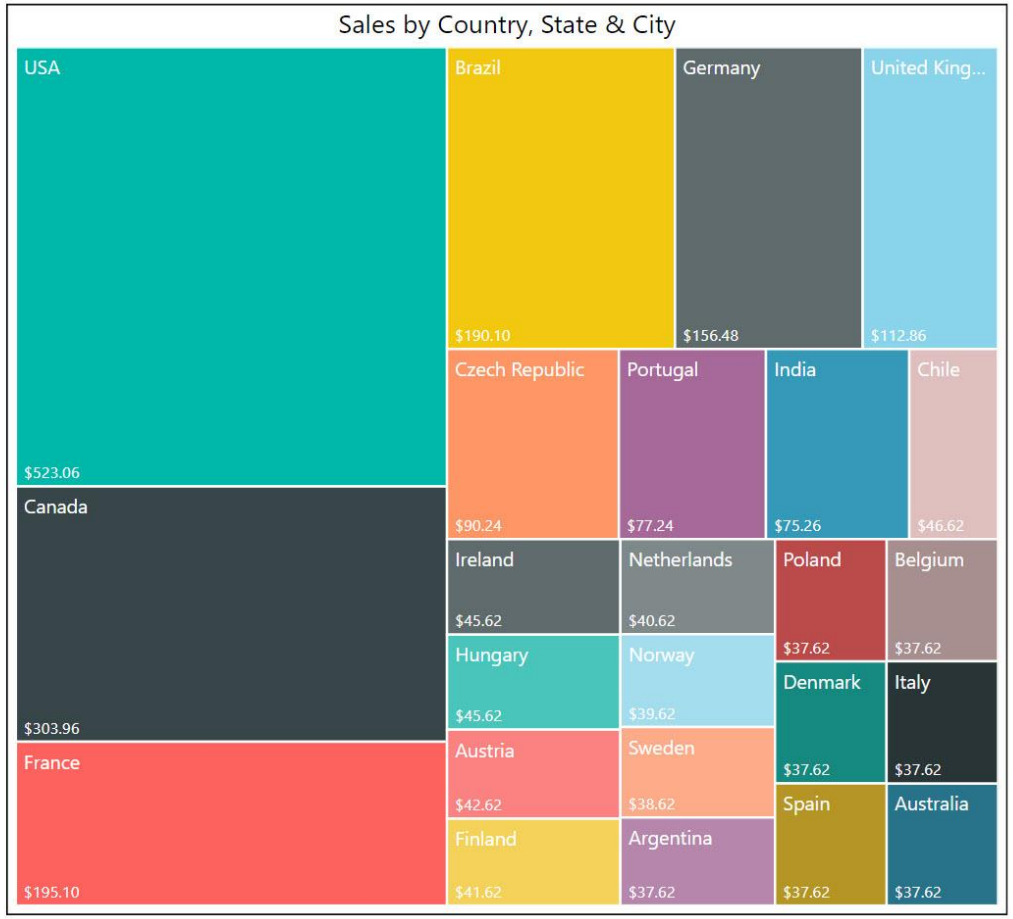
Chinook - Total sales by country, state & city

Sales by Country, State & City

Country	StateNo	City	Sales
Argentina	Buenos Aires	Buenos Aires	$37.62
		Total	**$37.62**
	Total		**$37.62**
Australia	NSW	Sidney	$37.62
		Total	**$37.62**
	Total		**$37.62**
Austria	Vienne	Vienne	$42.62
		Total	**$42.62**
	Total		**$42.62**
Belgium	Brussels	Brussels	$37.62
		Total	**$37.62**
	Total		**$37.62**
Brazil	DF	Brasília	$37.62
		Total	**$37.62**
	RJ	Rio de Janeiro	$37.62
		Total	**$37.62**
	SP	São José dos Campos	$39.62
		São Paulo	$75.24
		Total	**$114.86**
	Total		**$190.10**
Canada	AB	Edmonton	$37.62
		Total	**$37.62**
	BC	Vancouver	$38.62
		Total	**$38.62**
	MB	Winnipeg	$37.62
		Total	**$37.62**
	NS	Halifax	$37.62



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Chinook - Total sales by country, state & city
Treemap – use gradient hue

Sales by Country, State & City

Country	StateNo	City	Sales
Argentina	Buenos Aires	Buenos Aires	$37.62
		Total	**$37.62**
	Total		**$37.62**
Australia	NSW	Sidney	$37.62
		Total	**$37.62**
	Total		**$37.62**
Austria	Vienne	Vienne	$42.62
		Total	**$42.62**
	Total		**$42.62**
Belgium	Brussels	Brussels	$37.62
		Total	**$37.62**
	Total		**$37.62**
Brazil	DF	Brasília	$37.62
		Total	**$37.62**
	RJ	Rio de Janeiro	$37.62
		Total	**$37.62**
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		São Paulo	$75.24
		Total	**$114.86**
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		Total	**$37.62**
	BC	Vancouver	$38.62
		Total	**$38.62**
	MB	Winnipeg	$37.62
		Total	**$37.62**
	NS	Halifax	$37.62

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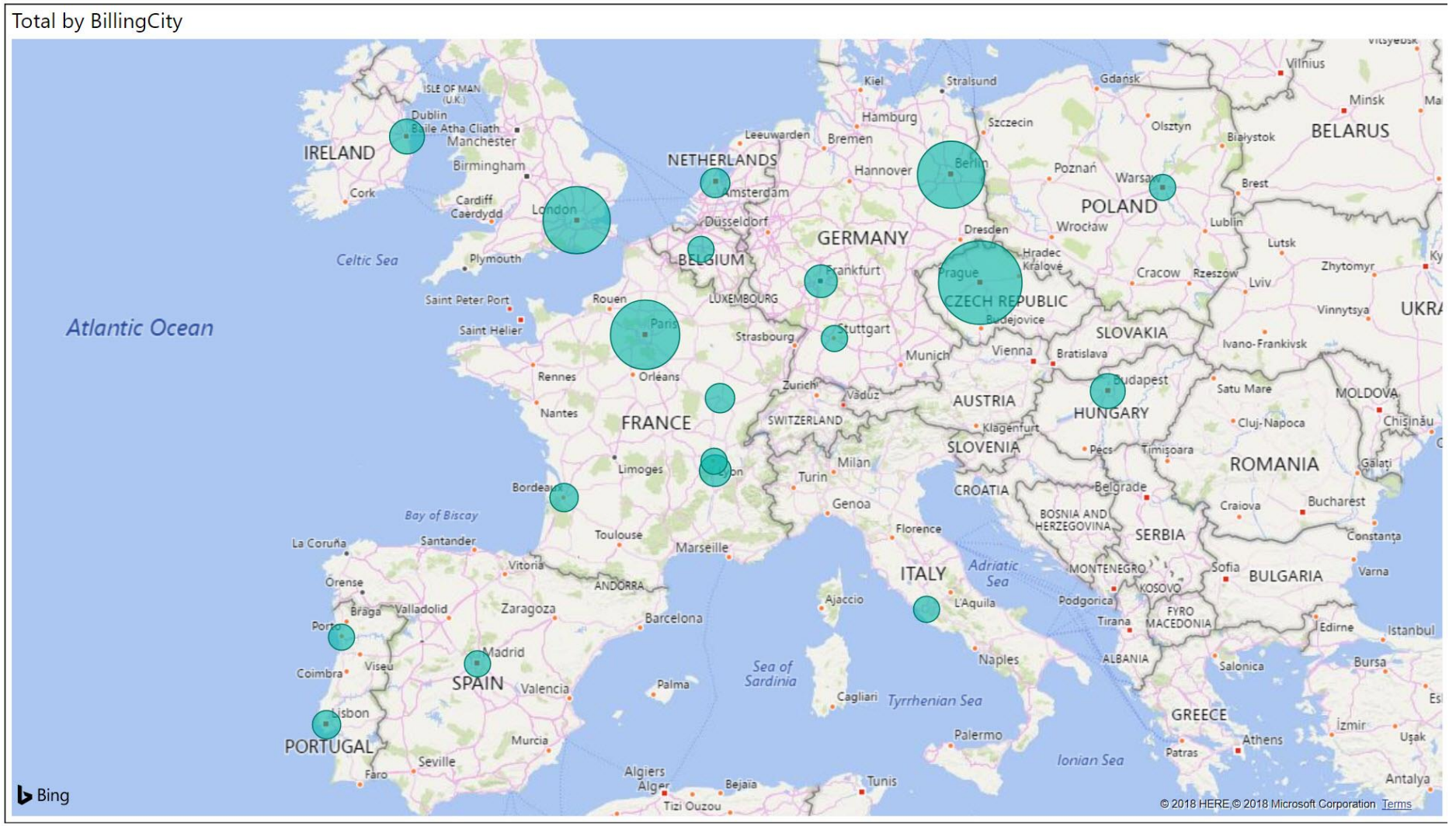
Chinook - Total sales by country, state & city
Map – Zoom to Europe



Sales by Geo Map | 04 Sales by Customer | 05 Sales by Artist | 06 sales by albums | g - sales by employee | 08 sales by type | 09 Sales by Genre | 10 Sales by Company | 11 Sales by Geo Map | Sales by Sales Person Age Group | Duplicate of Sales by different | 04 Sales by Customer Filtered | Treemap

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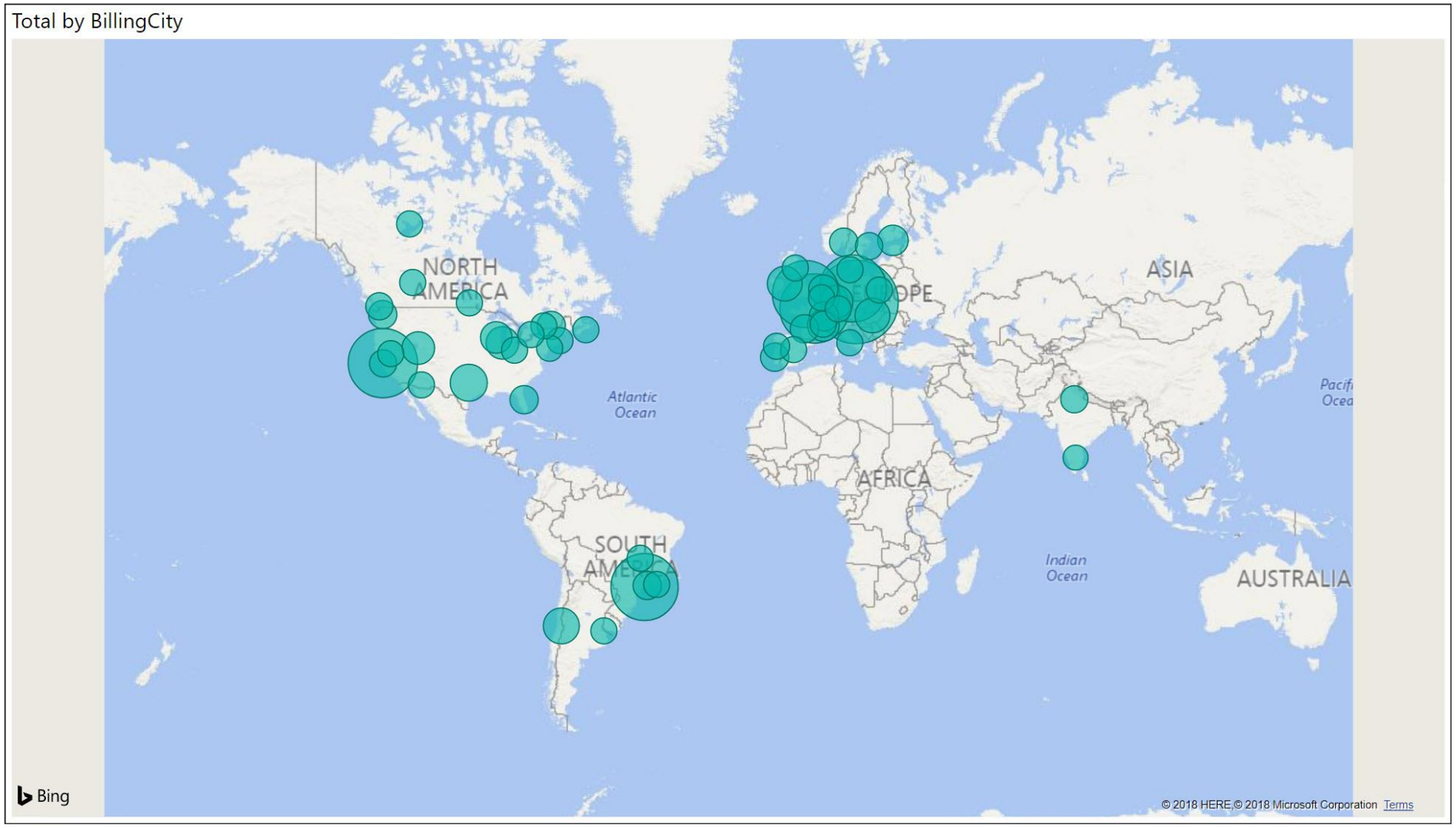
Chinook - Total sales by country, state & city Map



Sales by Geo Map | 04 Sales by Customer | 05 Sales by Artist | 06 sales by albums | g - sales by employee | 08 sales by type | 09 Sales by Genre | 10 Sales by Company | 11 Sales by Geo Map | Sales by Sales Person Age Group | Duplicate of Sales by different | 04 Sales by Customer Filtered | Treemap G

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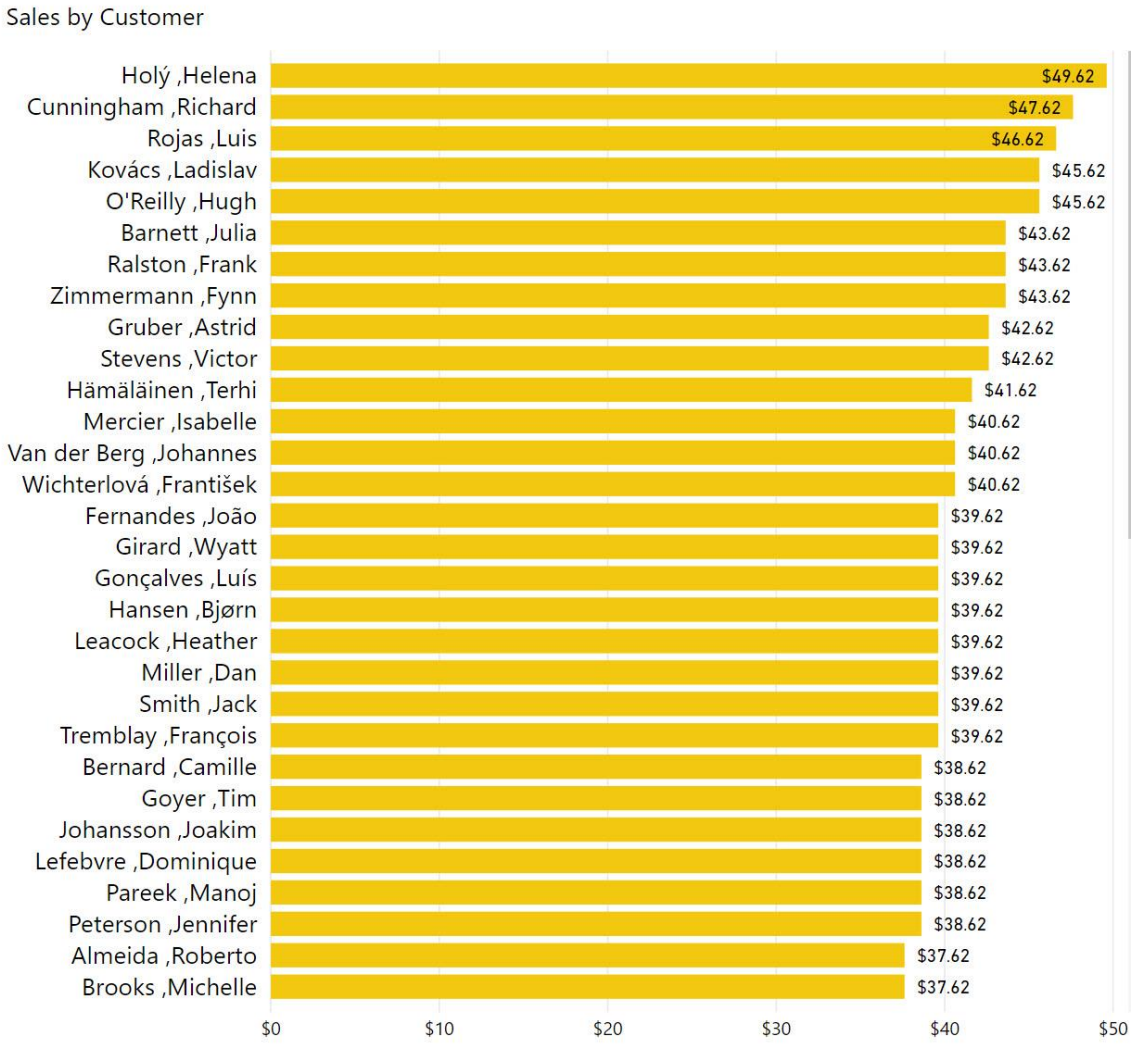
Chinook
Total sales by customer – ranked

Sales by Customer

CustomerName	Sales
Holý ,Helena	$49.62
Cunningham ,Richard	$47.62
Rojas ,Luis	$46.62
Kovács ,Ladislav	$45.62
O'Reilly ,Hugh	$45.62
Barnett ,Julia	$43.62
Ralston ,Frank	$43.62
Zimmermann ,Fynn	$43.62
Gruber ,Astrid	$42.62
Stevens ,Victor	$42.62
Hämäläinen ,Terhi	$41.62
Mercier ,Isabelle	$40.62
Van der Berg ,Johannes	$40.62
Wichterlová ,František	$40.62
Fernandes ,João	$39.62
Girard ,Wyatt	$39.62
Gonçalves ,Luís	$39.62
Hansen ,Bjørn	$39.62
Leacock ,Heather	$39.62
Miller ,Dan	$39.62
Smith ,Jack	$39.62
Tremblay ,François	$39.62
Bernard ,Camille	$38.62
Goyer ,Tim	$38.62
Johansson ,Joakim	$38.62
Lefebvre ,Dominique	$38.62
Total	**$2,328.60**



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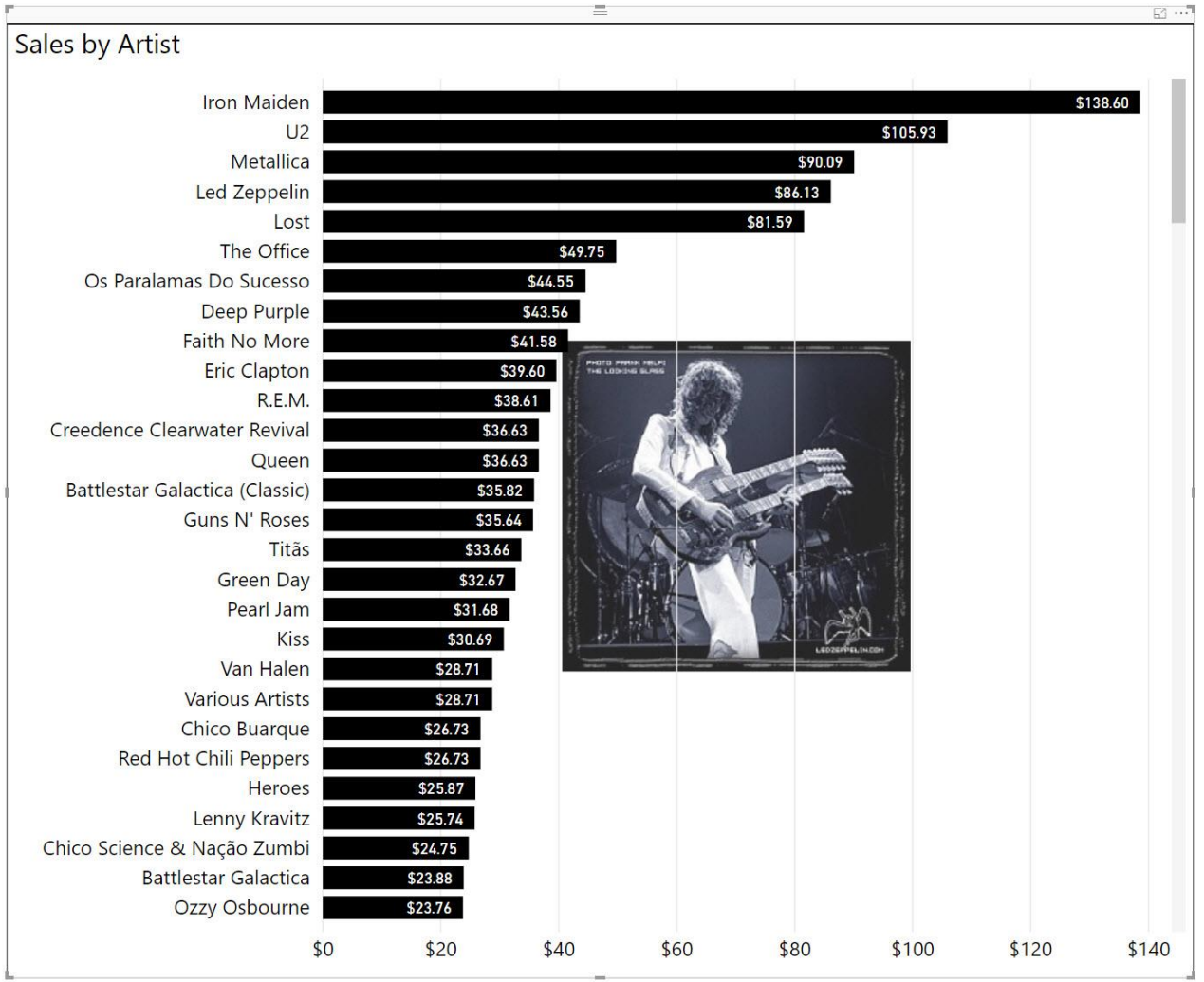
Chinook
Total sales by artist – ranked

Sales by Artist

Artist_Name	UnitPrice
Iron Maiden	$138.60
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	$39.60
R.E.M.	$38.61
Creedence Clearwater Revival	$36.63
Queen	$36.63
Battlestar Galactica (Classic)	$35.82
Guns N' Roses	$35.64
Titãs	$33.66
Green Day	$32.67
Pearl Jam	$31.68
Kiss	$30.69
Van Halen	$28.71
Various Artists	$28.71
Chico Buarque	$26.73
Red Hot Chili Peppers	$26.73
Heroes	$25.87
Total	**$2,328.60**



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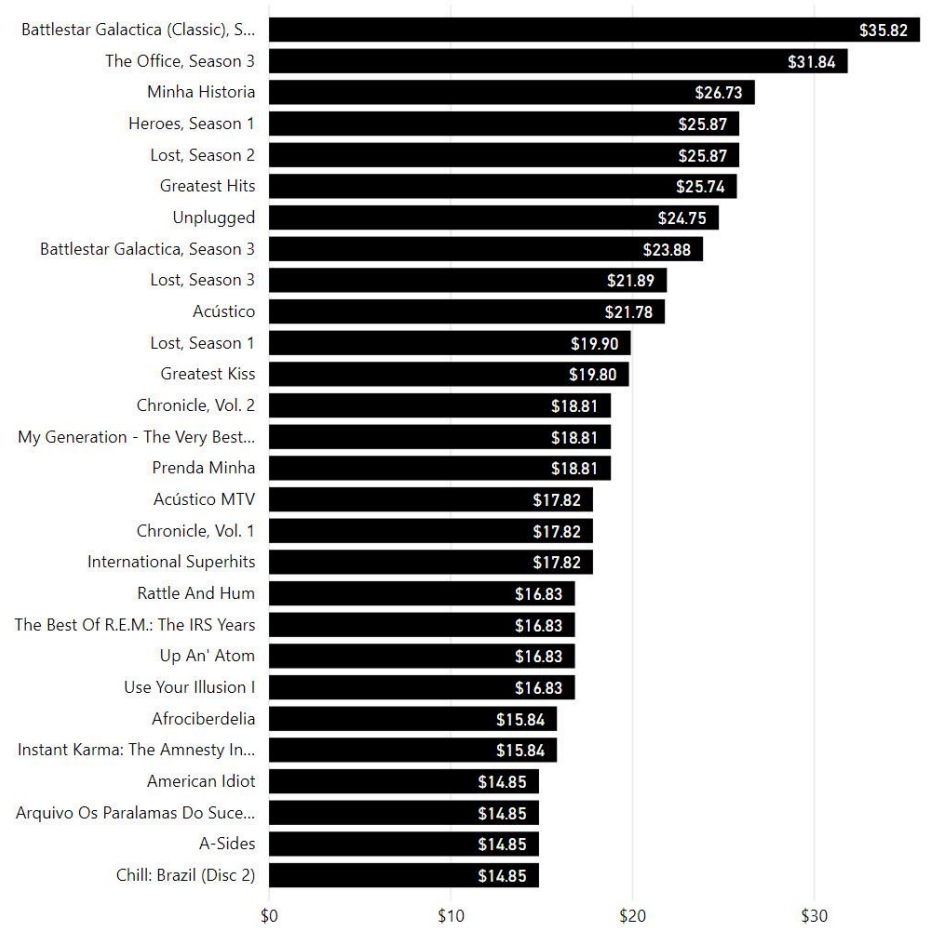
Chinook
Total sales by albums

Sales by Album

Album_Title	Sales
Battlestar Galactica (Classic), Season 1	$35.82
The Office, Season 3	$31.84
Minha Historia	$26.73
Heroes, Season 1	$25.87
Lost, Season 2	$25.87
Greatest Hits	$25.74
Unplugged	$24.75
Battlestar Galactica, Season 3	$23.88
Lost, Season 3	$21.89
Acústico	$21.78
Lost, Season 1	$19.90
Greatest Kiss	$19.80
Chronicle, Vol. 2	$18.81
My Generation - The Very Best Of The Who	$18.81
Prenda Minha	$18.81
Acústico MTV	$17.82
Chronicle, Vol. 1	$17.82
International Superhits	$17.82
Rattle And Hum	$16.83
The Best Of R.E.M.: The IRS Years	$16.83
Up An' Atom	$16.83
Use Your Illusion I	$16.83
Afrociberdelia	$15.84
Instant Karma: The Amnesty International Campaign to Save Darfur	$15.84
American Idiot	$14.85
Arquivo Os Paralamas Do Sucesso	$14.85
Total	**$2,328.60**

Sales by Album



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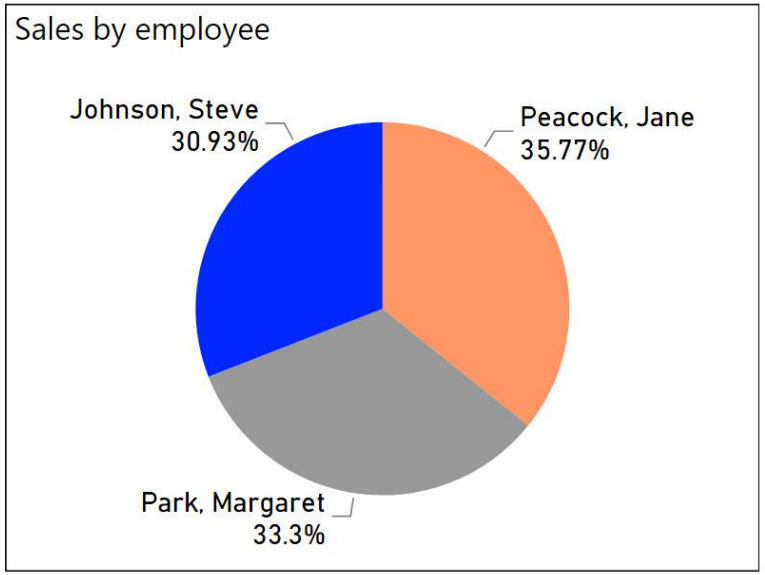
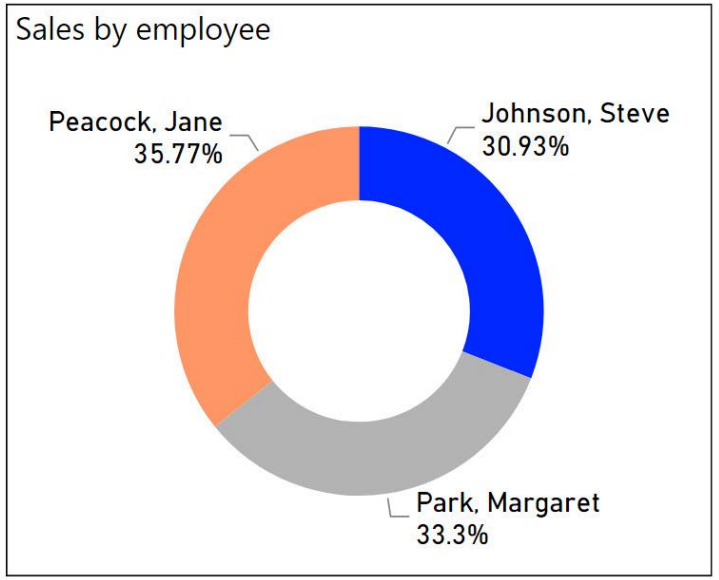
Chinook
Total sales by sales person (employee)





Sales by employee

EmployeeName	Sales	Quantity	Employee_AgeGroup
Peacock, Jane	$833.04	796	40-49
Park, Margaret	$775.40	760	50+
Johnson, Steve	$720.16	684	50+
Total	**$2,328.60**	**2,240**	

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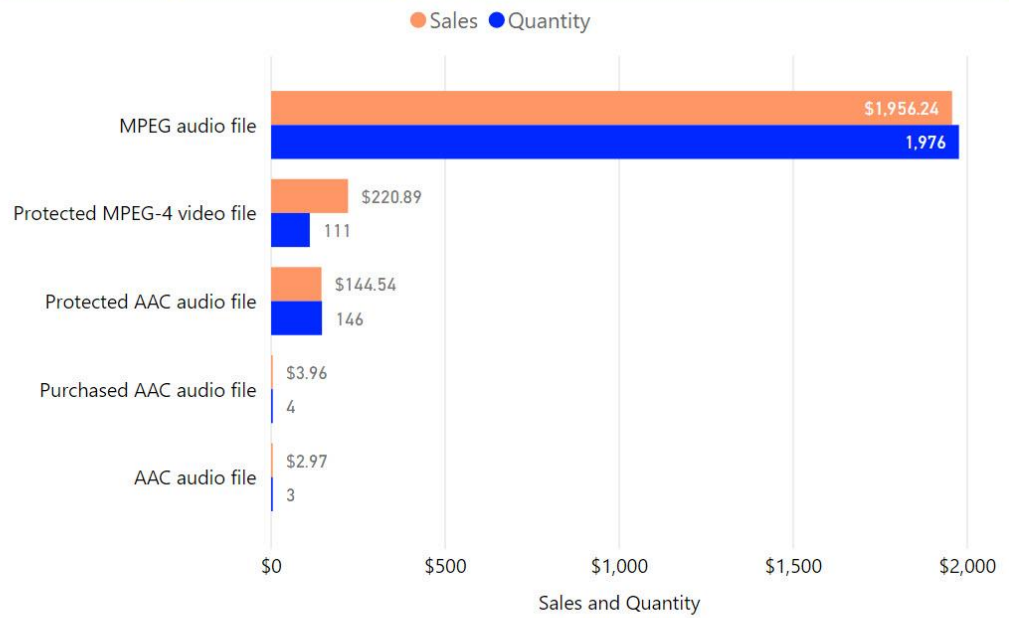
Chinook

Total tracks bought and total revenue by media type

Sales by Media Type

Name	Sales	Quantity
MPEG audio file	$1,956.24	1,976
Protected MPEG-4 video file	$220.89	111
Protected AAC audio file	$144.54	146
Purchased AAC audio file	$3.96	4
AAC audio file	$2.97	3
Total	**$2,328.60**	**2,240**

Sales by Media Type



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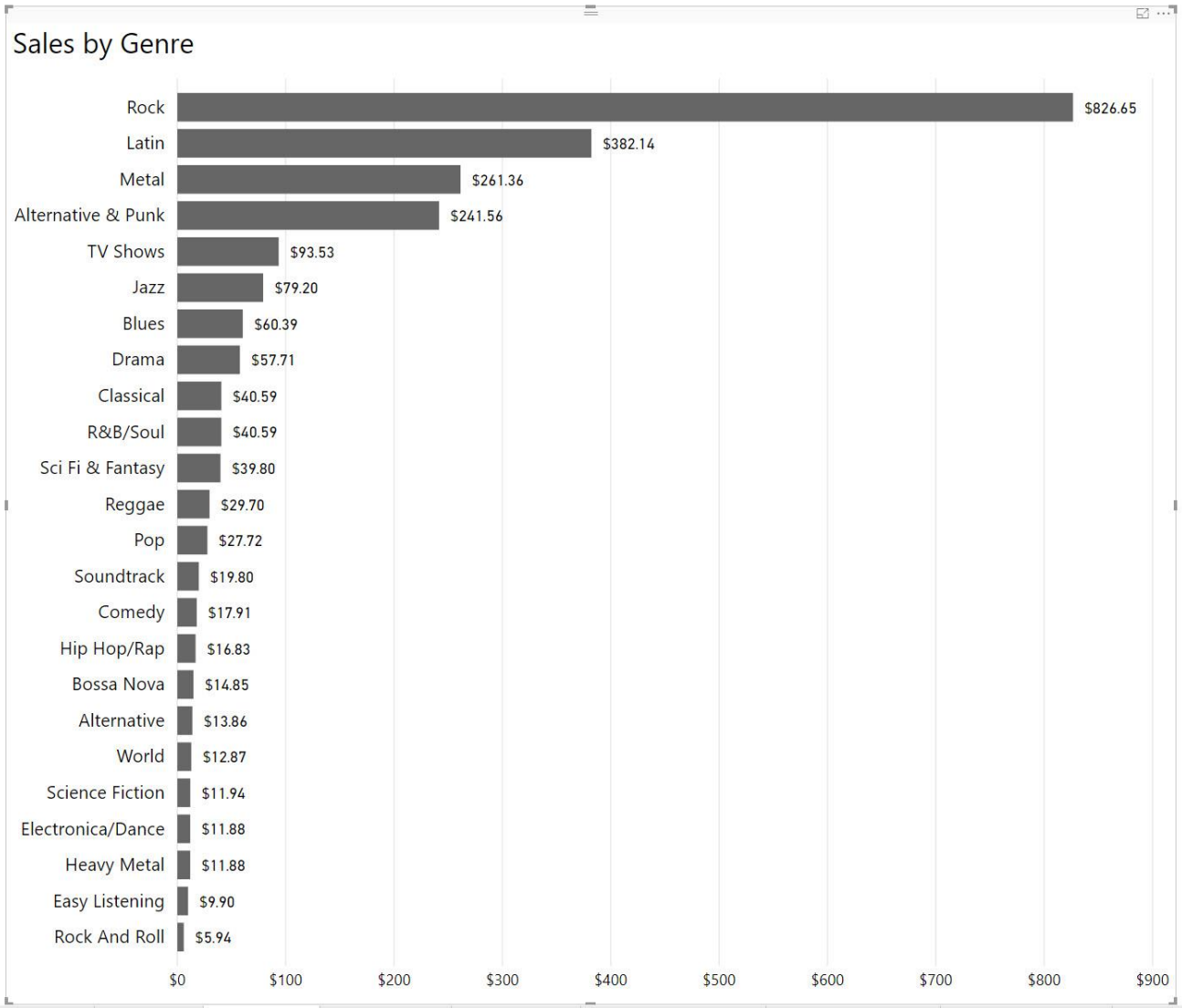
Chinook
Total Sales by Genre

Sales by Genre

Genre_Name	Sales
Rock	$826.65
Latin	$382.14
Metal	$261.36
Alternative & Punk	$241.56
TV Shows	$93.53
Jazz	$79.20
Blues	$60.39
Drama	$57.71
Classical	$40.59
R&B/Soul	$40.59
Sci Fi & Fantasy	$39.80
Reggae	$29.70
Pop	$27.72
Soundtrack	$19.80
Comedy	$17.91
Hip Hop/Rap	$16.83
Bossa Nova	$14.85
Alternative	$13.86
World	$12.87
Science Fiction	$11.94
Electronica/Dance	$11.88
Heavy Metal	$11.88
Easy Listening	$9.90
Rock And Roll	$5.94
Total	**$2,328.60**



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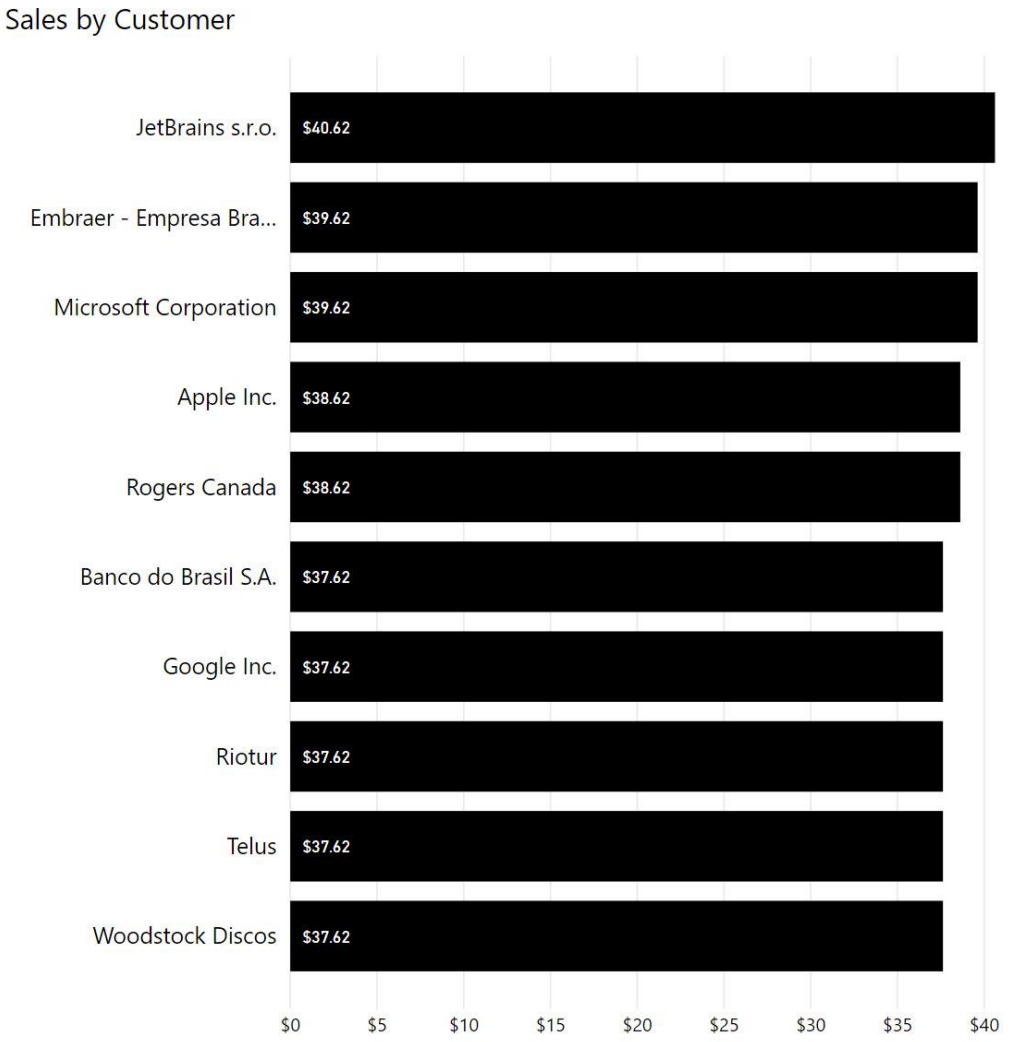
Chinook
Total sales by customer – ranked

Sales by Customer

Company	Sales
JetBrains s.r.o.	$40.62
Embraer - Empresa Brasileira de Aeronáutica S.A.	$39.62
Microsoft Corporation	$39.62
Apple Inc.	$38.62
Rogers Canada	$38.62
Banco do Brasil S.A.	$37.62
Google Inc.	$37.62
Riotur	$37.62
Telus	$37.62
Woodstock Discos	$37.62
Total	**$385.20**



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