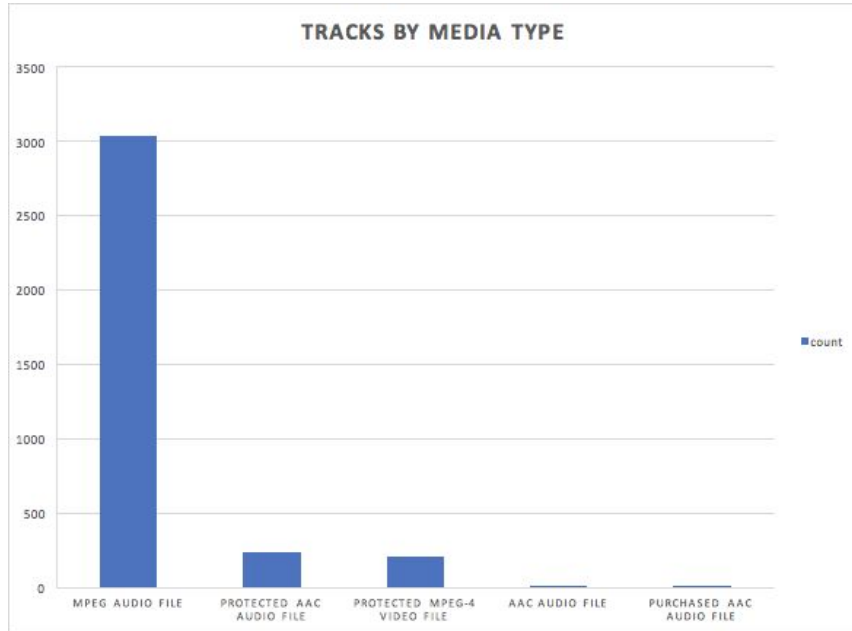


DFND P3

Query a Music Store Database

Saifeldin Ahmed

Count Tracks by Media Type

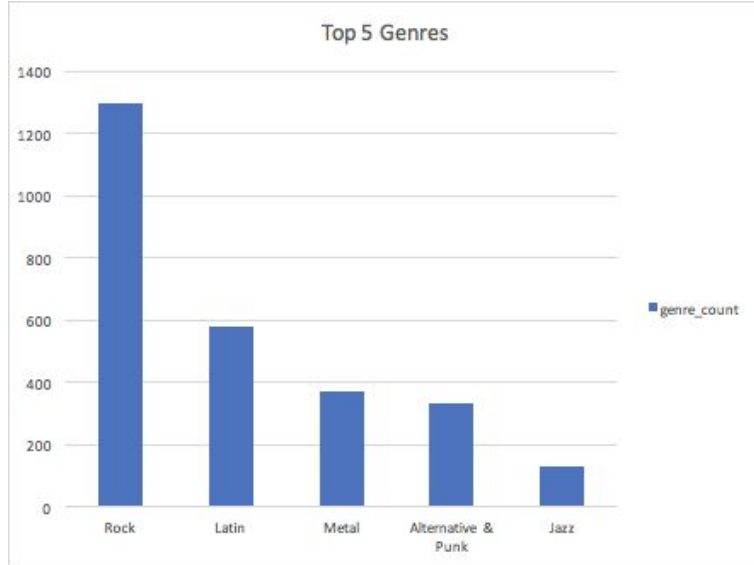


The vast majority of tracks are of **MPEG Audio File** type.

Purchased AAC Audio Files comprise the minority in the Database

```
1 SELECT MediaType.Name, COUNT(*) AS count
2 FROM Track JOIN MediaType ON (Track.MediaTypeId = MediaType.MediaTypeId)
3 GROUP BY MediaType.MediaTypeId
4 ORDER BY count DESC;
```

Top 5 Genres

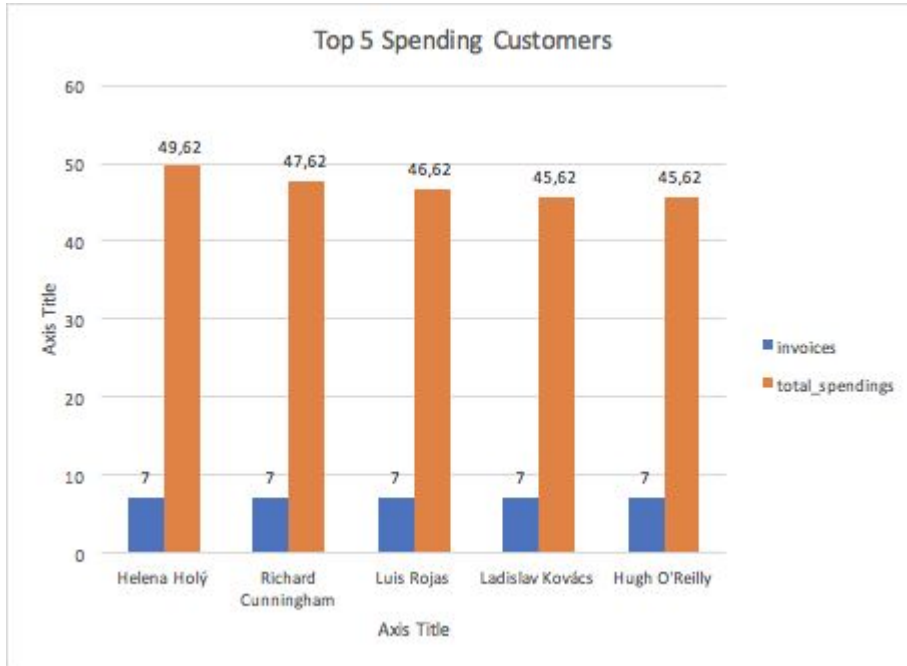


The Top 5 Genres in all the tracks are:

1. Rock
2. Latin
3. Metal
4. Alternative and Punk
5. Jazz

```
1 SELECT Genre.Name, COUNT(*) AS genre_count
2 FROM Track JOIN Genre ON (Track.GenreId = Genre.GenreId)
3 GROUP BY Genre.GenreId
4 ORDER BY genre_count DESC
5 LIMIT 5;
```

Top 5 Spending Customers



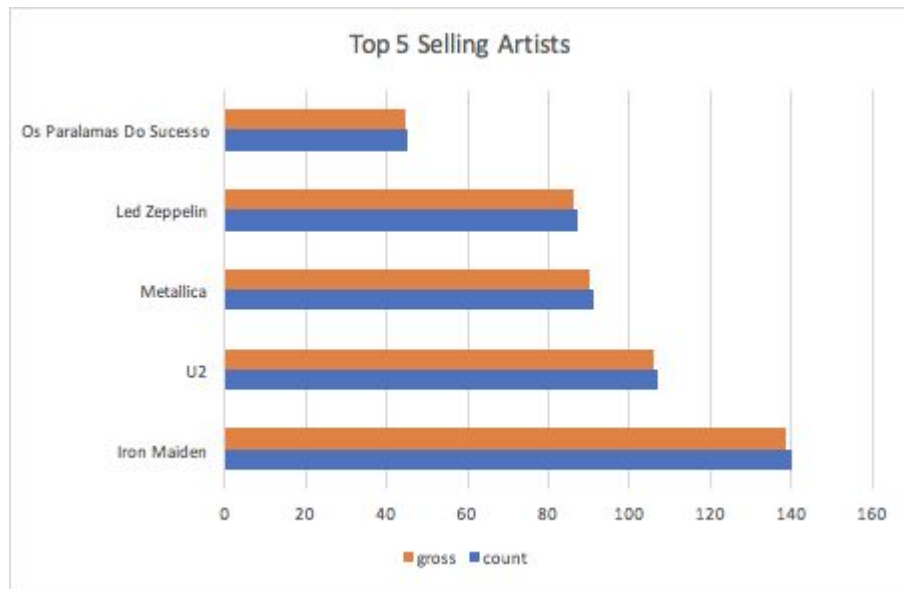
The Top 5 Spending Customers each made 7 Orders (i.e have 7 invoices)

Their names are:

1. Helena Holy
2. Richard Cunningham
3. Luis Rojas
4. Ladislav Kovács
5. Hugh O'Reilly

```
1 SELECT FirstName || ' ' || LastName AS full_name,  
2         COUNT(InvoiceId) as invoices,  
3         SUM(Total) AS total_spending  
4 FROM Customer JOIN Invoice ON (Customer.CustomerId = Invoice.CustomerId)  
5 GROUP BY Customer.CustomerId  
6 ORDER BY total_spending DESC  
7 LIMIT 5
```

Top 5 Best Selling Artists

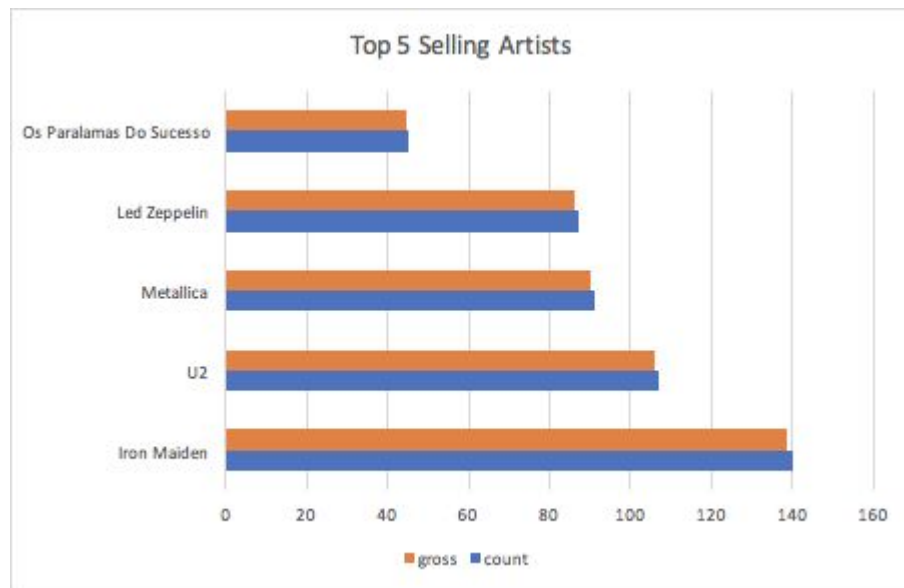


The best selling artist was **Iron Maiden** who sold **140** tracks grossing **\$138.6**

They are narrowly followed by **U2** who sold **107** tracks and grossed **\$105.93**

```
1 SELECT Artist.Name, COUNT(*) AS count, SUM(InvoiceLine.Quantity * InvoiceLine.UnitPrice) AS gross
2 FROM InvoiceLine JOIN Track ON (Track.TrackId = InvoiceLine.TrackId)
3 JOIN Album ON (Track.AlbumId = Album.AlbumId)
4 JOIN Artist ON (Album.ArtistId = Artist.ArtistId)
5 GROUP BY Artist.ArtistId
6 ORDER BY 2 DESC
7 LIMIT 5;
```

Top 5 Best Selling Artists

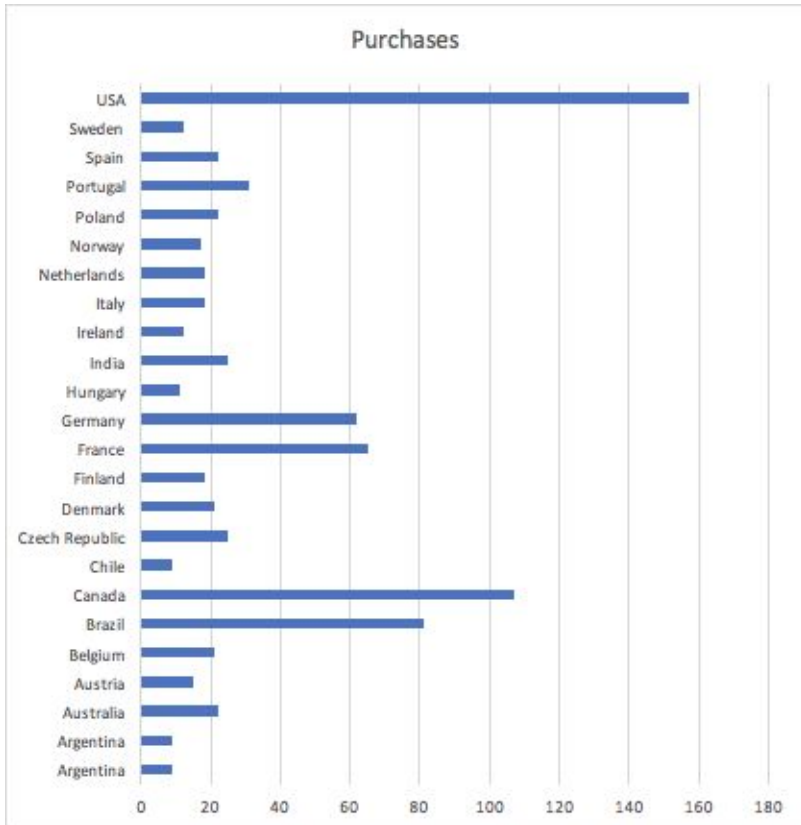


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2 FROM InvoiceLine JOIN Track ON (Track.TrackId = InvoiceLine.TrackId)
3 JOIN Album ON (Track.AlbumId = Album.AlbumId)
4 JOIN Artist ON (Album.ArtistId = Artist.ArtistId)
5 GROUP BY Artist.ArtistId
6 ORDER BY 2 DESC
7 LIMIT 5;
```

Most Popular Genre per Country



The most popular Genre in most countries is Rock.

It is tied with Alternative Rock & Punk in Argentina.

Sweden is the only country where Latin is the top genre.

```
1 WITH country_genres AS (  
2   SELECT COUNT(*) as Purchases, Customer.Country, Genre.Name, Genre.GenreId  
3   FROM Invoice JOIN InvoiceLine ON (Invoice.InvoiceId = InvoiceLine.InvoiceId)  
4   JOIN Customer ON (Customer.CustomerId = Invoice.CustomerId)  
5   JOIN Track ON (Track.TrackId = InvoiceLine.TrackId)  
6   JOIN Genre ON (Track.GenreId = Genre.GenreId)  
7   GROUP BY Customer.Country, Genre.GenreId  
8 )  
9  
10 SELECT *  
11 FROM country_genres AS cg  
12 WHERE cg.Purchases =  
      (SELECT MAX(Purchases) FROM country_genres AS cg2 WHERE cg2.Country = cg2.Country)
```