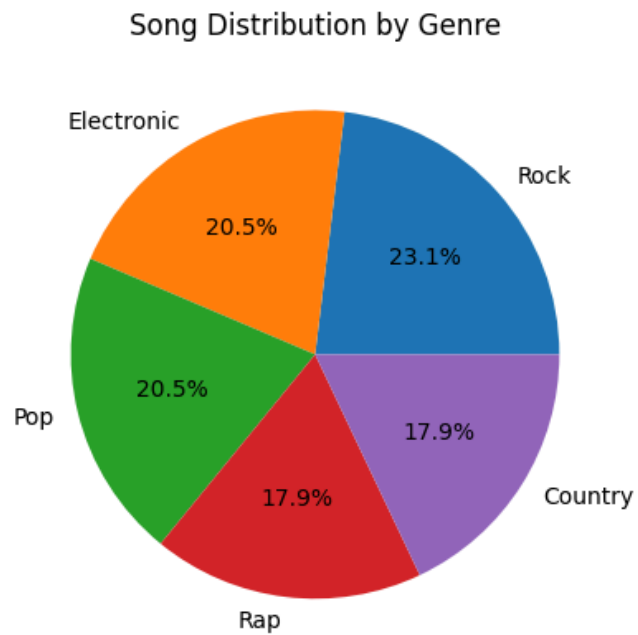# Data Visualizations

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1. Pie Chart

```
SELECT g.genre_name,
COUNT(s.song_id) AS song_count
FROM
genres g
JOIN
songs s ON g.genre_id = s.genre_id
GROUP BY
G.genre_name
ORDER BY
song_count DESC;
```
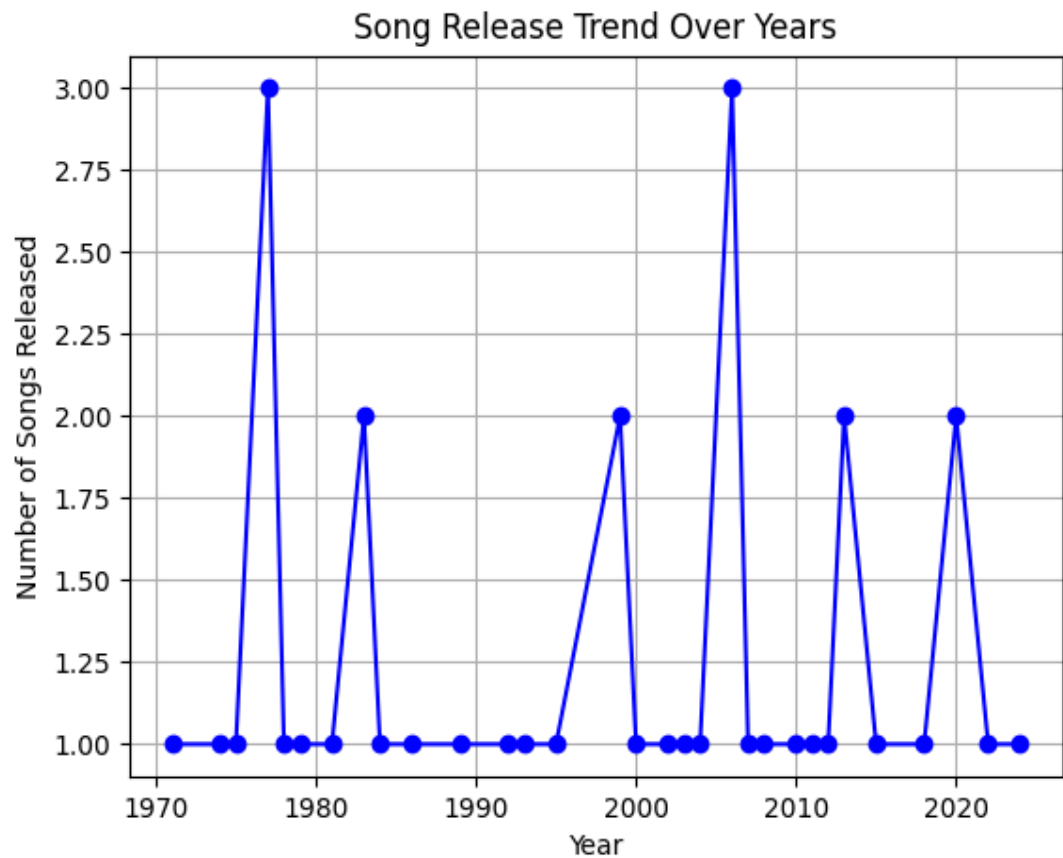
Song Distribution by Genre

Pie chart : Helps understand the most dominant genres.

a. **Rock** is the most popular genre, constituting **23.1%** of the total songs.
b. **Electronic** and **Pop** each account for **20.5%** of the total songs.
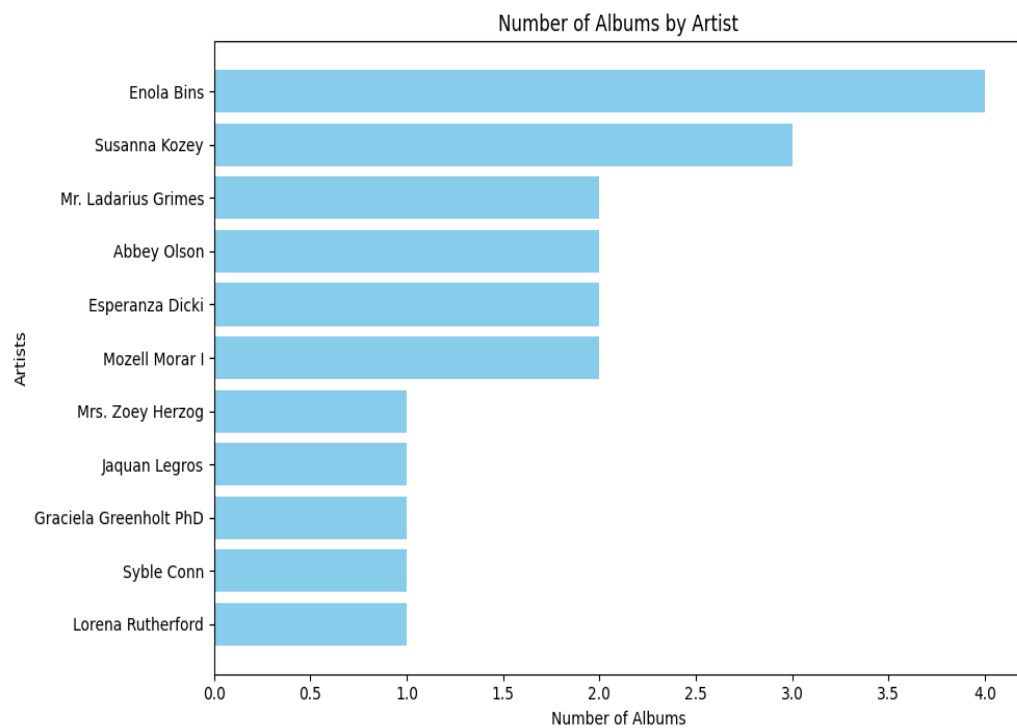c. **Country** and **Rap** are slightly less common, both making up **17.9%** of the songs.

2.
```sql
SELECT
    YEAR(s.release_date) AS release_year,
    COUNT(s.song_id) AS song_count
    FROM
    songs s
    GROUP BY
      YEAR(s.release_date)
      ORDER BY
        release_year;
```


Song Release Trend Over Years

Line chart : Highlights peaks in song releases during specific years.

- The x-axis represents the year, and the y-axis shows the number of songs released.
- For example, peaks can be observed in the late 1970s, early 2000s, and 2010s, indicating bursts of music production during these times.

3.
```
SELECT
    artist_name,
    COUNT(album_id) AS AlbumCount
FROM
    Artist a
JOIN
    Album al
ON
    a.artist_id = al.artist_id
GROUP BY
    artist_name
ORDER BY
    AlbumCount DESC;
```


Number of Albums by Artist

Bar chart : Reveals prolific artists and their contributions.

- The x-axis represents the number of albums, while the y-axis lists the artists.
- **Enola Bins** has the highest number of albums, followed by **Susanna Kozey**.
- Artists like **Lorena Rutherford** and **Syble Conn** have comparatively fewer albums.