DBM1

Music database

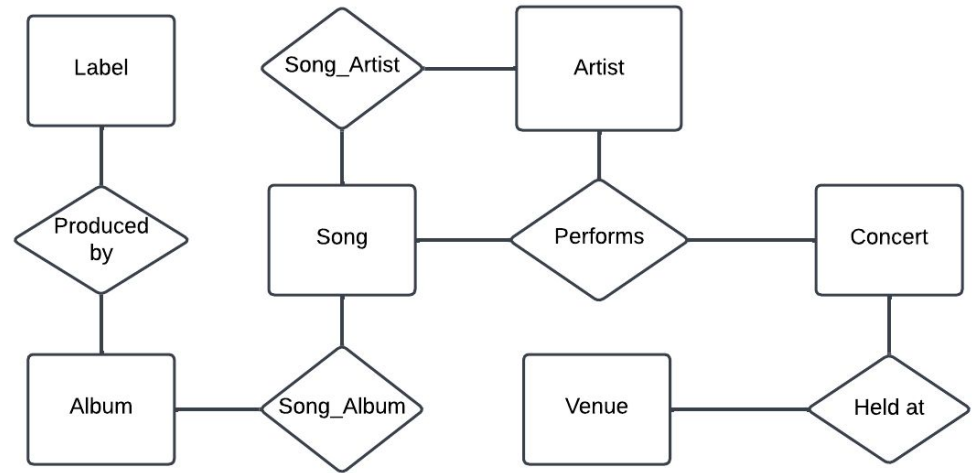Ibrahim Tancredi, Oluwateniola Dania,

Linking songs and performers to concerts

Linking songs to albums and labels

Artist is either bands or solo performers

- Credited artist

Every song in at least one album

Dataset

ChatGPT

"Can you give me information on radiohead with the values ArtistName, country, NoMembers, yearStarted, yearEnded year ended can be 0 if they're still active"

-> csv files

->database (python)

Queries

```python
def show_most_concert(request):
    query='''
        SELECT c.ConcertName, COUNT(DISTINCT csa.ArtistID) AS ArtistCount
        FROM artist_app_concert c
        JOIN artist_app_concertsongartist csa ON c.ConcertID = csa.ConcertID
        GROUP BY c.ConcertID
        ORDER BY ArtistCount DESC
        LIMIT 1;
    '''
    cursor.execute(query)
    concert = cursor.fetchone()
    query2=f"""
        SELECT DISTINCT ArtistName
        FROM artist_app_concert c
        JOIN artist_app_concertsongartist csa ON c.ConcertID = csa.ConcertID
        JOIN artist_app_artist a ON a.ArtistID = csa.ArtistID
        WHERE c.ConcertName = '{concert[0]}';
    """
    cursor.execute(query2)
    artists = cursor.fetchall()

    artists = [Artist.objects.get(ArtistName=artist[0]) for artist in artists]
    return render(request, "most_played_concert.html", {'concert': concert, 'artists': artists})
```

"Which concert has had the most artists?"

"Which artist have done the most performances at concerts?"

```python
def show_artist_with_most_performances(request):

    query='''
        SELECT a.ArtistID, a.ArtistName, COUNT(csa.SongID) as SongsPlayed
        FROM artist_app_concertsongartist csa
        JOIN artist_app_artist a on a.ArtistID = csa.ArtistID
        Group By a.ArtistID, a.ArtistName
        ORDER BY SongsPlayed DESC
        LIMIT 1;
    '''
    cursor.execute(query)
    artist = cursor.fetchone()


    return render(request, 'most_performances.html', {'artist':artist})
```

$\pi A.ArtistID,A.ArtistName,SongsPlayed(\rho 1(\tau SongsPlayedDESC(\gamma A.ArtistID,A.ArtistName,COUNT(CSA.SongID)\rightarrow SongsPlayed(\sigma CSA.ArtistID=A.ArtistID(CSA\bowtie A)))))$