Purpose of the assignment:

- Apply SQL to analyze the given data and give recommendations to RSVP Movies based on the insights.
- Gain of insights into analytics within the film industry domain using the industry's historical data.
- Hands on experience on how data is analyzed and recommend production company to plan a movie for the global audience in 2022.

Core Objective:

- RSVP Movies, an Indian film production company, has a successful track record of producing super-hit movies primarily for the Indian audience.
- They are now planning to release a movie targeting the global audience in 2022 and seek analytical insights to guide their decision-making process.
- As a data analyst and SQL expert, there is a need to analyze three years' (2017-2019) movie data and provide meaningful recommendations for their new project.
- Using SQL, focusing on different combinations of tables, require to extract insights that will assist RSVP Movies in their new project.

Primary Inputs to begin with:

- Given below 6 tables:
  1. **'movie'** contains all the information of a movie such as title, date published, country, language of the film and worldwide gross income.
  2. **'genre'** contains information about the movie genre.
  3. **'ratings'** contains information about average and median rating of the movies along with the total no. of votes obtained.
  4. **'names'** contains individual movie cast and crew personal demographic information.
  5. **'director_mapping'** contains information about director of each movie that has been released.
  6. **'role_mapping'** contains name details of actor and actresses.

Observations:

1. **Movie production has been declining year after year**, with 3,052 movies in 2017, followed by a 3.5% decline in 2018 and a significant 32% drop in 2019.
2. The trend indicates that **March is the month with the highest number of movie releases** (824), while **December has the fewest** (438).
3. **In 2019, 44.3% of movies were produced solely by India and the USA**.
4. The **drama genre had the highest contribution**, with 1,078 movies produced in 2019.
5. A total of 3,289 movies produced over three years belong to a single genre category.
6. On average, each genre category has a **movie runtime ranging from 90 to 115 minutes**.
7. Movie ratings vary from a minimum average of 1 to a maximum average of 10, **with 65% of movies falling between the ratings of 6 and 8**.
8. **"Kirket" and "Love in Kilnerry" are two movies with an average rating of 10**.
9. "Dream Warrior Pictures" and "National Theatre Live" are the **top two production houses** with the **highest number of hit movies**, having an average rating greater than 8.
10. **Between April 2018 and April 2019, 361 movies were produced with a median rating of 8.**
11. **German movies received 72.7% more votes than Italian movies.**
12. The top three directors who have **made the most movies in the drama, action, and comedy genres are "Anthony Russo", "James Mangold", and "Joe Russo".**
13. **"Mammootty" and "Mohanlal" are the top two actors** with an **average median rating of 8**.
14. **"Marvel Studios", "Twentieth Century Fox", and "Warner Bros." are the top three production houses** with the **highest number of votes**.
15. Among the available **Indian actors**, **"Vijay Sethupathi"** tops the list with an **average rating of 8.2** and has acted at least in 5 Indian movies.
16. **"Taapsee Pannu", "Kriti Sanon", "Divya Dutta", "Shraddha Kapoor", and "Kriti Kharbanda"** are the **top five Hindi actresses in India** who have appeared at least in 3 Indian movies, with **average ratings ranging from 7.74 to 4.80.**
17. Generally, "**thriller**" **movies** have **shown fewer hits and super hits, with the majority being considered as one-time watch**.
18. In **2019**, the **top-grossing movie** was **"Avengers: Endgame"** with **$2.79 billion** of **drama genre**, followed by **"Bohemian Rhapsody" (2018)** with a gross of **INR 0.9 billion** of drama genre, and finally **"The Fate of the Furious" (2017)** in the **thriller genre** with a gross of **$1.23 billion**.
19. **"Star Cinema" and "Twentieth Century Fox"** are the **top two production companies** that have **produced multilingual movies**.
20. **"Amanda Lawrence", "Denise Gough", and "Parvathy Thiruvothu"** are the **top three actresses** with the **greatest number of Super Hit movies in the drama genre**.
21. **"Steven Soderbergh", "Sam Liu", and "Sion Sono"** are the **top three directors** with the **highest average ratings** for their movies across all genres.

Recommendations to RSVP production house (Executive Summary):

1. To maximize gross revenue and face less competition from other movies, it is advisable to **release the new film in December**, considering historical trends which show this month has the lowest number of movie releases.
2. Since **India and the USA** are significant contributors to the film industry, it is essential to **target audiences** from these countries and involve **a mix of Indian and American technicians** in the film production process.
3. As the analysis suggests that the **Drama genre is widely accepted**, it would be beneficial to choose a movie that falls within this genre and has an **average runtime of 100-110 minutes**.
4. The following **production companies can serve as valuable references** for planning the new film and its production process:
   - "**Dream Warrior Pictures**" and "**National Theatre Live**" for **capturing the desired vibe and running style**, as these production companies have produced the highest number of hit movies.
   - "**Star Cinema**" and "**Twentieth Century Fox**" to **understand production standards, staffing of technicians, and maintenance during the movie shoot**, given their expertise in delivering multilingual movies.
5. Considering German dubbed language as an additional target audience, it is worthwhile to **release the movie with a German language option**.
6. **Collaborate** with either of the three **top renowned production companies as global partners** to gain additional global reach and exposure considering these companies received highest number of votes:
   - "**Marvel Studios" or "Twentieth Century Fox" or "Warner Bros."**
7. The following **casting combination** can help achieve quick and extensive reach among the global audience, leading to higher profits:
   - **Actor**: "Mammootty" or "Mohanlal"
   - **Actress**: "Amanda Lawrence," "Denise Gough," or "Parvathy Thiruvothu"
   - **Director**: "Anthony Russo," "James Mangold," or "Joe Russo"