Database Case Study Summary: Movie Production and Ratings Analysis

Overview: The database contains information on movies, genres, directors, ratings, actors, and production companies. The analysis aims to provide insights into movie production, ratings, and key contributors.

Key Queries and Insights:

1. **Missing Data:**
    - Identified columns with null values in the Movie table, providing a foundation for data quality assessment.
2. **Genre Analysis:**
    - Determined the genre with the highest number of movies produced overall: 'Drama.'
    - Explored the count of movies belonging to only one genre.
3. **Duration by Genre:**
    - Calculated the average duration of movies in each genre, allowing for informed decisions on the next project's duration.
4. **Genre Ranking:**
    - Determined the rank of the 'Thriller' genre among all genres based on the number of movies produced.
5. **Ratings Table Analysis:**
    - Explored the minimum and maximum values in each column of the Ratings table, ensuring data integrity.
6. **Top Movies by Rating:**
    - Identified the top 10 movies based on average rating, crucial for understanding audience preferences.
7. **Median Rating Analysis:**
    - Summarized the Ratings table based on movie counts by median ratings, revealing popular rating ranges.
8. **Hit Production House:**
    - Found the production house that produced the most hit movies (average rating > 8).
9. **March 2017 Movie Analysis:**
    - Counted movies in each genre released in the USA during March 2017 with more than 1,000 votes.
10. **Genre and Rating Analysis:**

- Identified movies of each genre starting with 'The' and having an average rating > 8.

11. **Median Rating in 2018-2019:**
    - Explored movies released between April 2018 and April 2019 with a median rating of 8.
12. **German vs. Italian Movies:**
    - Compared the total number of votes for German and Italian movies, revealing German movies received more votes.
13. **Names Table Analysis:**
    - Explored null values in the Names table, understanding data completeness.
14. **Top Directors and Actors:**
    - Found top directors in the top three genres with movies having an average rating > 8.
    - Identified top two actors and top two production houses globally.
15. **Indian Movie Analysis:**
    - Ranked actors and actresses in Indian movies based on average ratings, considering at least five movies for actors and three for actresses.
16. **Thriller Movie Classification:**
    - Classified thriller movies into categories based on average ratings.
17. **Genre-wise Running Total and Moving Average:**
    - Calculated genre-wise running total and moving average of the average movie duration.
18. **Top Movies of Each Year:**
    - Listed the five highest-grossing movies of each year in the top three genres.
19. **Multilingual Hit Production Houses:**
    - Identified the top two production houses producing the highest number of hits among multilingual movies.
20. **Top Actresses in Drama Genre:**
    - Ranked the top 3 actresses based on the number of Super Hit movies (average rating > 8) in the drama genre.
21. **Top Directors Details:**
    - Detailed information for the top 9 directors based on the number of movies, including inter-movie duration, ratings, votes, and total duration.

Conclusion: The database case study provided comprehensive insights into movie production, ratings, and key contributors. The analysis informs strategic decisions for movie production, genre focus, and collaboration with actors, directors, and production houses.