**Project Final - IMDb Movies**

The final project IMDB Movies’s goal is to analyze a dataset of IMDb movies to uncover trends and patterns in movie ratings, genres, directors, and film certificates.

**Tools Used For This Project:**

* Software: Jupyter Notebook, Python
* Python Packages: pandas, matplotlib, seaborn

**Questions Asked In Project:**

1. What are the top 10 highest rated old movies (before 1950)?
2. What are the top 10 highest rated recent movies (after 2000)?
3. Do movies in certain genres tend to receive higher ratings?
4. Are there any trends in movie ratings based on the year of release?
5. What's the correlation between movie runtime and ratings?
6. Who are the top 10 directors who have the highest average ratings for their movies?
7. What is the distribution of ratings among different film certificates, and is there a noticeable difference in ratings between different certificates?

**Insights Discovered IMDb Movies:**

* Classic films such as "The Godfather" and "The Shawshank Redemption" are among the top-rated old movies.
* Recent films like "The Dark Knight" and "The Lord of the Rings: The Return of the King" are among the top-rated newest movies.
* Movie ratings have generally increased over time, indicating a potential improvement in film quality or changing audience tastes.
* Movies rated PG-13 tend to have higher average ratings compared to other film certificates.
* There is a slight positive correlation between movie runtime and ratings, suggesting that longer movies may be perceived more positively.
* Directors like Christopher Nolan and Quentin Tarantino have consistently high average ratings for their movies.
* There is a tendency for movies with longer runtimes to have slightly higher ratings, but the relationship is not very strong, weak positive correlation between the runtime and ratings.

**Recommendations:** This is based on the analysis:

* Consider producing movies in genres like Western, Crime, Fantasy, and Mystery, as they have shown a tendency to receive higher ratings.
* Pay attention to changing trends over the decades and adapt storytelling and production styles to align with current audience preferences.
* While longer movies tend to receive slightly higher ratings, focus on creating engaging content regardless of runtime to ensure audience satisfaction.
* Study the works of top rated directors to understand their approaches to filmmaking, or Collaborate with experienced directors with a track record of delivering high-quality films to enhance the chances of success.
* Explore the potential of producing films under 'G', 'A', 'TV-14', 'Unrated', and '16' certificates, as they are associated with higher average ratings and possibly greater audience acceptance.

**Future Work:**

* I want to analyze the relationship between movie gross and ratings since it can provide insight to determine if the ratings also influence its gross worth.
* I want to Investigate the relationship between runtime and year to determine if movies in recent times are longer on average in comparison to recent movies.
* I want to Investigate the impact of actors/actresses (star1, star2, star3) on ratings, it can give me insight on how they impact the success of a movie.
* I want to investigate the relationship between certificate and runtime more to determine if certain certificate movies tend to run longer or less compared to others.