

# REPORT

## Netflix TV Shows and Movies Dataset

### INTRODUCTION

The Netflix dataset from Kaggle, titled "**Netflix Movies and TV Shows**", contains a collection of information about movies and TV shows available on Netflix as of 2021. It provides insights into various attributes of the content. The name of the movie or TV show. The director of the film or show (if applicable). The main actors involved in the production. The country where the movie or TV show was produced. The date the content was added to Netflix. The year the content was originally released. The content rating (e.g., PG, TV-MA). The length of the content (for movies) or the number of seasons (for TV shows). The genre(s) of the movie or TV show. A brief synopsis of the content.

### Dataset overview:

- ❖ The dataset contains the following columns,
  - Show\_id
  - Type
  - Title
  - Director
  - Cast
  - Country
  - Date\_added
  - Release\_year
  - Rating
  - Duration
  - Listed\_in
  - Description
- ❖ The dataset contains 8807 rows and 12 columns.
- ❖ The following column has null values,

Columns	Count of Null values
Director	2634
Cast	825
Date_added	831
Release_year	10
Rating	4
Duration	3

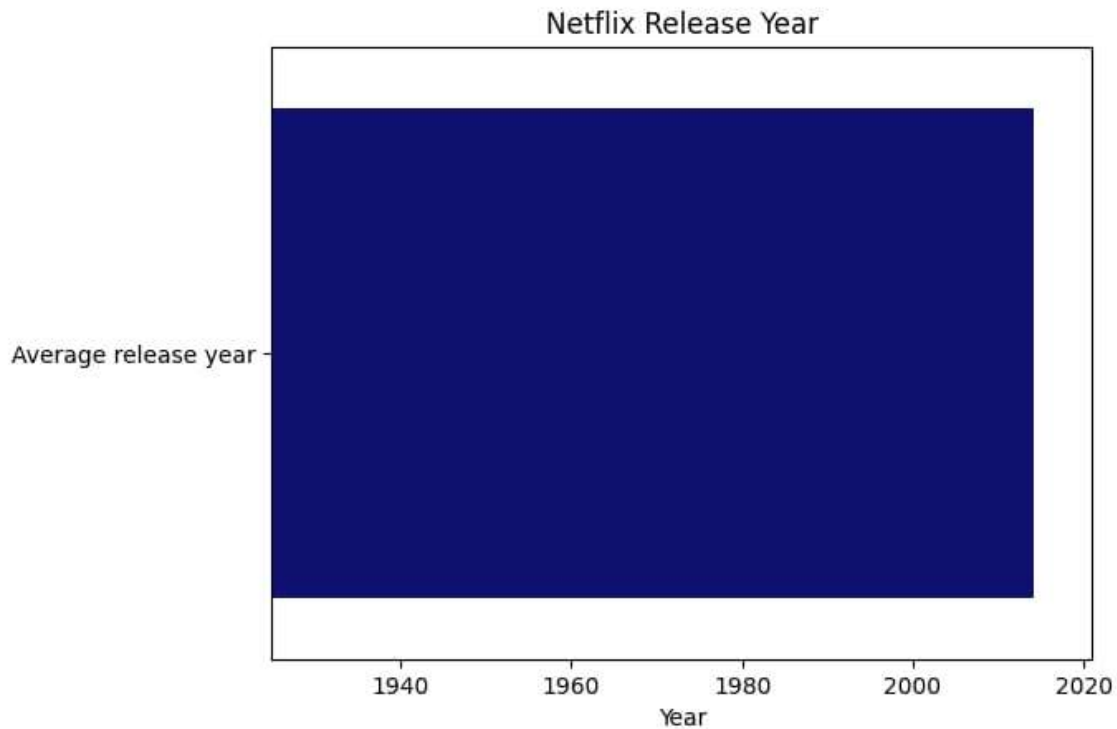
### Data cleaning and processing:

- **Handling Missing Values:** Missing values in columns like director, cast, and country were handled by replacing them with appropriate default values ( "Unknown" for director and cast, "Not mentioned" for country).
- **Column Renaming:** The listed\_in column was renamed to genre for easier analysis.

- **Filling Null Values:** Missing values in the rating column were filled with "TV-MA" (a common rating), and missing country values were replaced with "United States".

## Visualization:

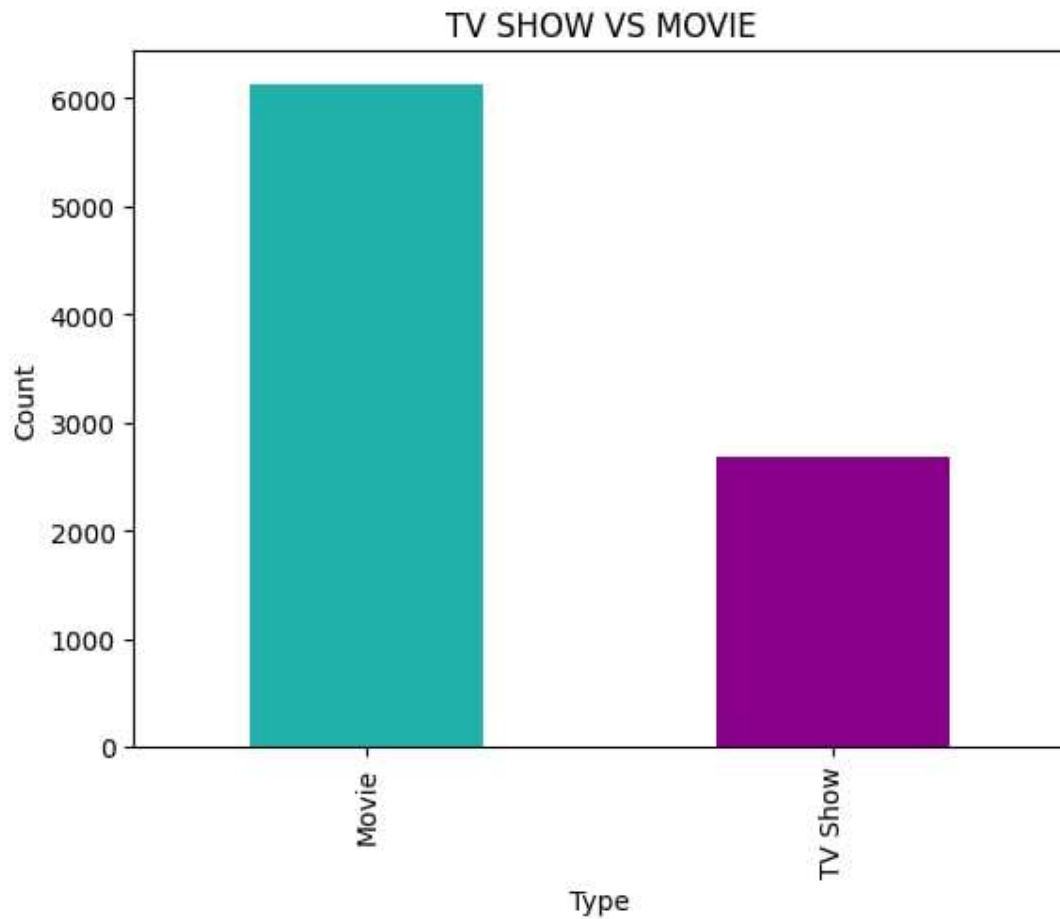
1. Calculating Mean of release\_year and show it using barh plot (Put title: Netflix release year)



The bar plot produced displays a single bar, representing the average release year of all the movies and TV shows available on Netflix.

This average release year will give insight into the general time period of the content on Netflix. A higher value would indicate that most of the content is recent, while a lower value would suggest that older titles make up a significant portion of the catalog.

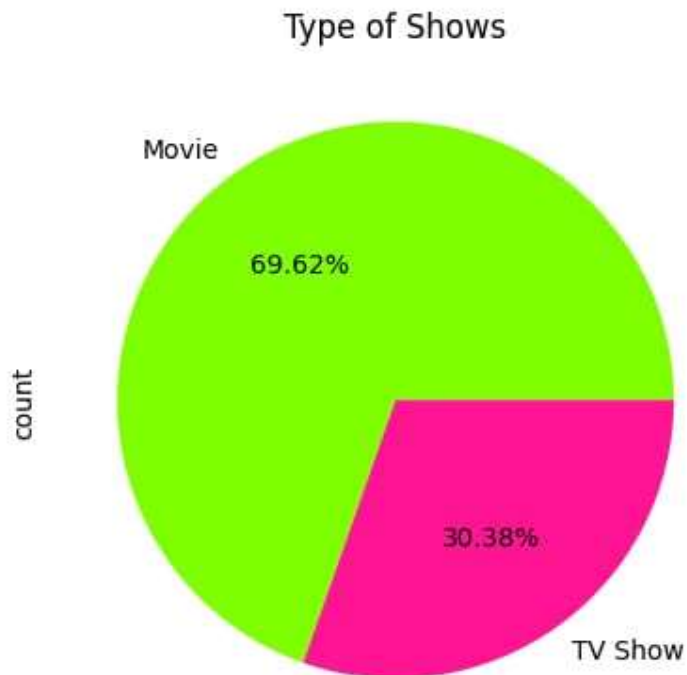
## 2. TV SHOW VS MOVIE on Netflix (Bar Chart):



This chart shows the count of TV shows and Movie released on Netflix. The movies released were 6131 movies whereas TV shows released were 2676 shows. From this can understand that, Netflix has more movies than the TV Shows.

This is useful for content strategy analysis, helps to understand users preferences and even comparison can be made with other streaming platforms.

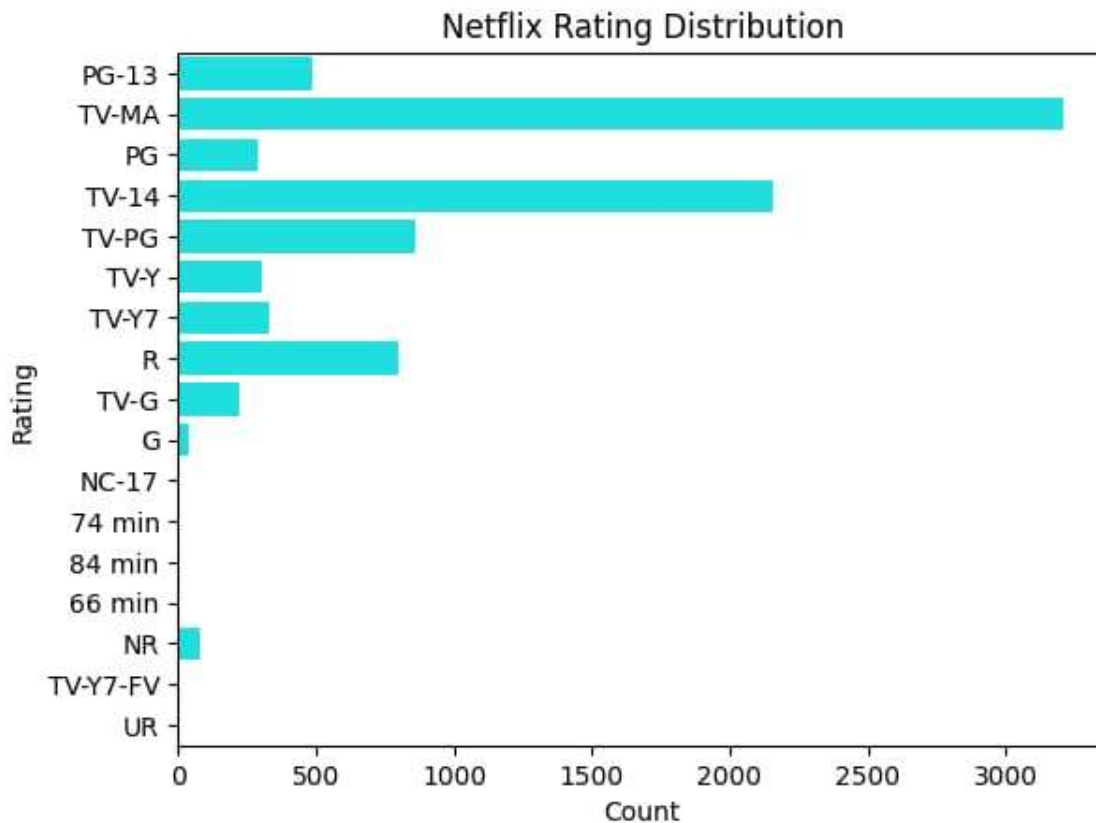
### 3. Type of shows percentage on Netflix using Pie Chart:



This pie chart used to see the proportion of TV shows vs. movies in a different way. It is particularly useful for stakeholders in content strategy, marketing, or competitive analysis, offering a quick snapshot of the content landscape.

A larger slice for Movies would shows that Netflix focuses more on films than the TV Show.

#### 4. Show Netflix Rating distribution, visualized by a Count Plot:

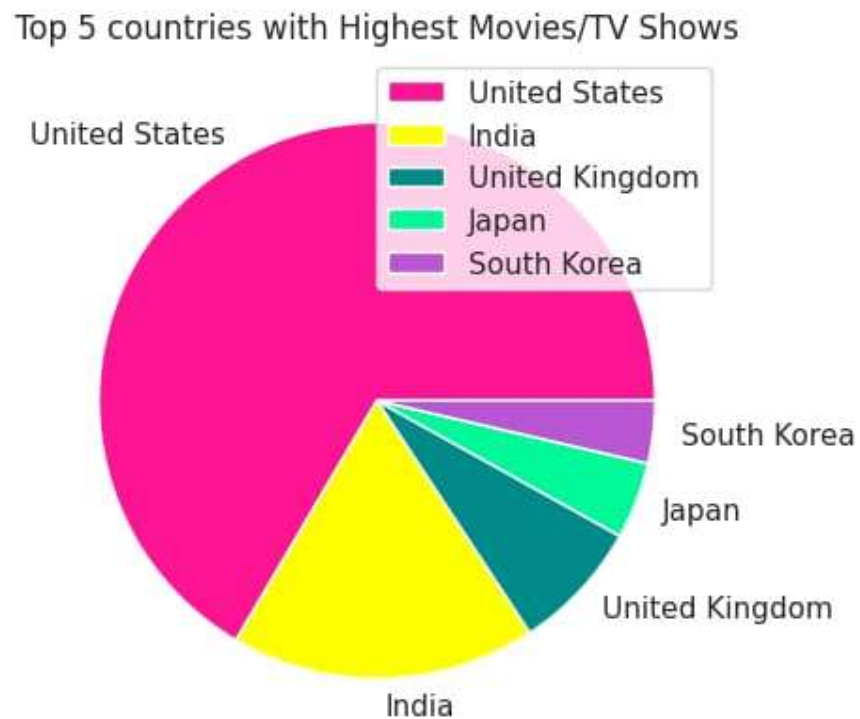


The count plot displays bars representing the count of titles for each rating on Netflix. Each bar corresponds to a specific rating (e.g., TV-MA, PG-13, R, etc.), with the height of the bar indicating the number of titles associated with that rating.

The plot visually illustrates the distribution of ratings, allowing for easy comparison between different rating categories. Analyzing how many titles fall into various rating categories, which can inform content strategy and marketing efforts.

Here the count for TV-MA is significantly higher than other ratings, it shows that Netflix offers a substantial amount of mature content.

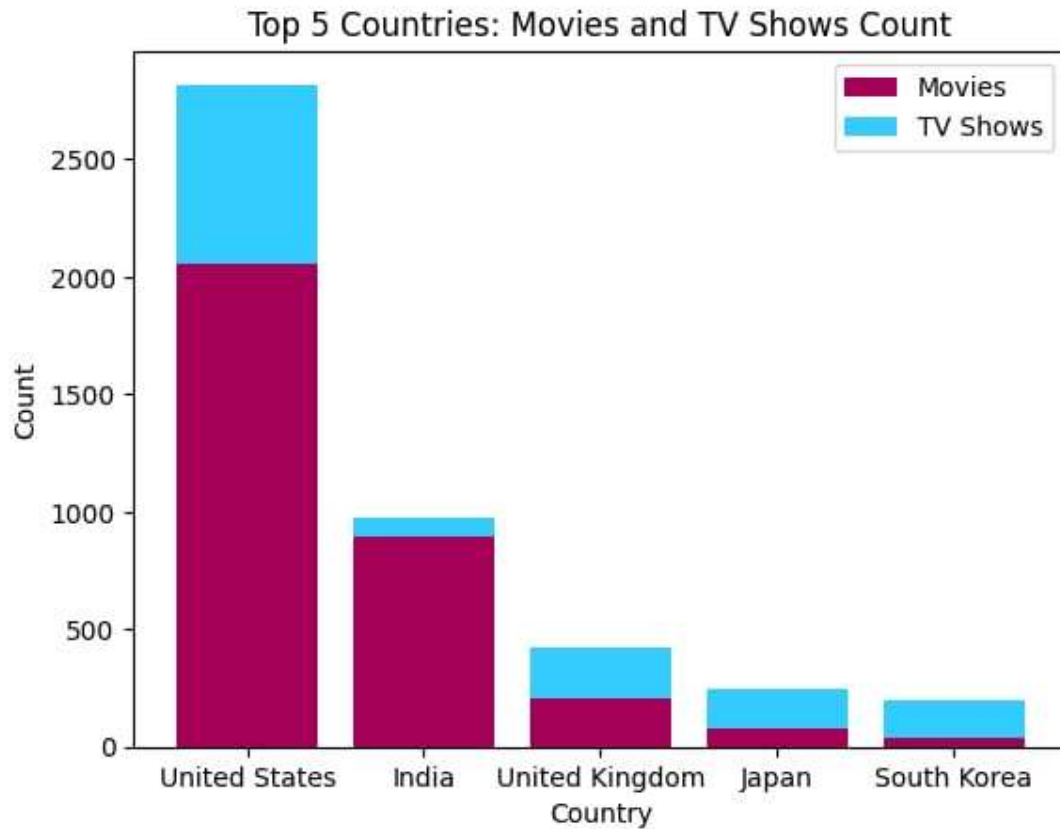
5. Show the Top 5 countries with Highest Movies/ TV shows, visualised by Pie chart:



This pie chart displays top 5 countries with the highest movies and tv shows. United States and India are in the top countries with highest movies and TV shows. Netflix has invested heavily in Indian content, both in films and original TV shows, which has made India a significant contributor. The United States holds the largest share of content, which is expected due to its prominent position in the global entertainment industry.

This analysis underscores the global diversity of Netflix content, with contributions from across different regions. The remaining countries, though smaller in contribution, still play a prominent role in Netflix's global content.

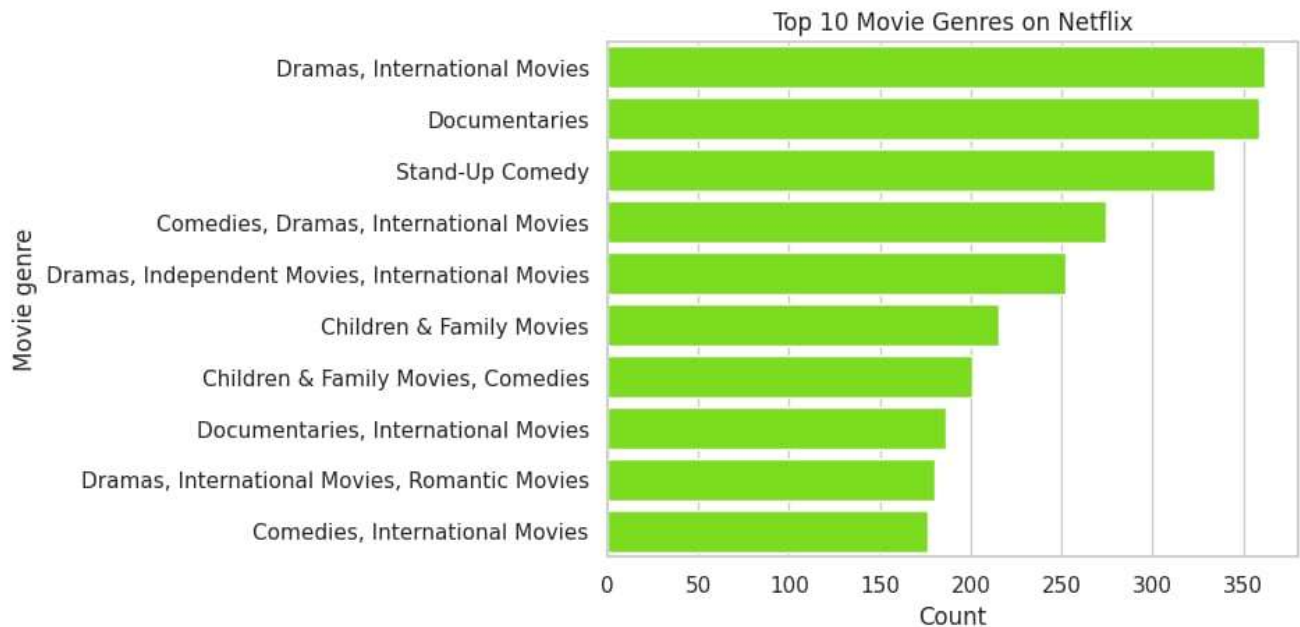
6. Show the Top 5 Netflix country distribution separated by type of release (i.e. Movies, TV Shows), visualizing via Bar Graph:



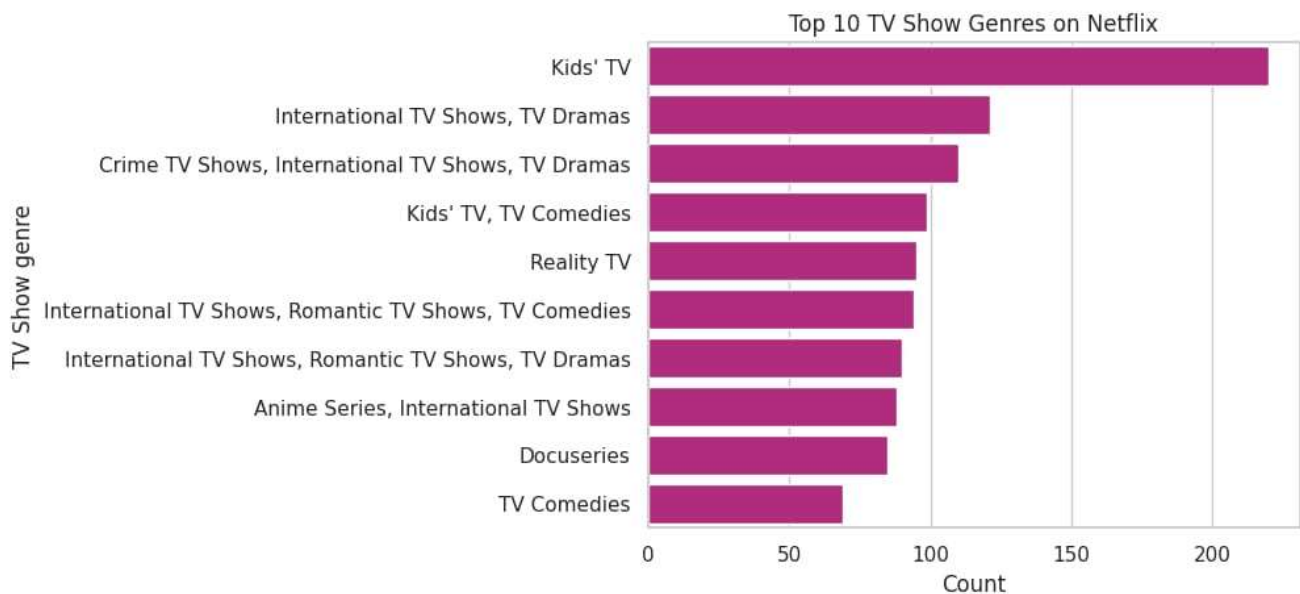
This chart highlights the United States leading role in entertainment production, with India also showing a strong presence, particularly in movies. The United Kingdom, Japan and South Korea have a more balanced production but with lower overall counts.

## 7. Show the Top 10 genres movies and also TV shows:

These charts offer insight into the types of content Netflix prioritizes, reflecting both global appeal and a growing interest in non-fiction, international, and diverse genres across movies and TV shows.



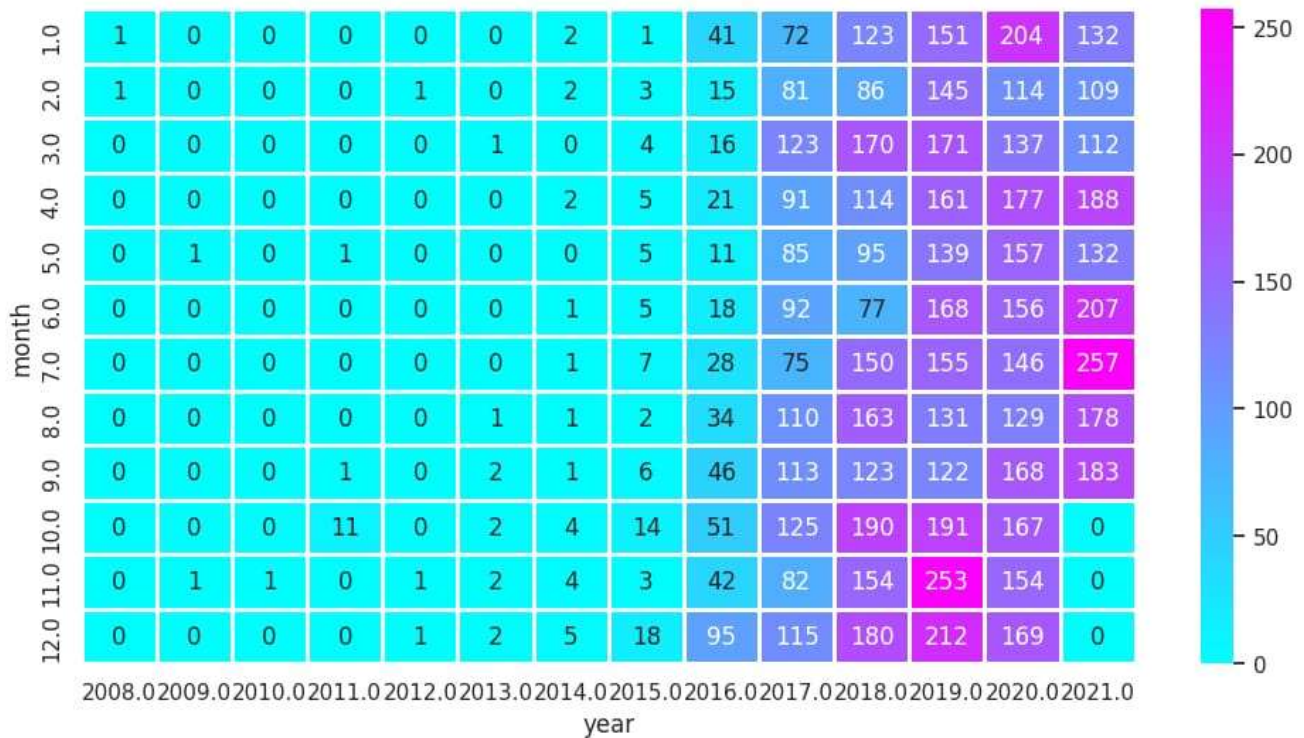
It provides a visual representation of the most prevalent movie genres available on Netflix. Dramas, International movies have the highest count, indicating a significant number of movies that fall into both drama and international categories.



It displays a visual representation of the most prevalent TV Shows genres. Kids' TV rank among the top genres, reflecting Netflix's focus on catering to younger audiences which is a significant segment of the market.



8. When is the best to time to release a Movie/TV shows? Show it using heatmap:



The heatmap visualizes the distribution of Netflix content (both movies and TV shows) added across different months and years. It shows how many titles were added to Netflix in each month over multiple years. The heatmap provides insight into seasonal trends in Netflix's content release schedule. November have more content due to the holiday season when streaming services see a spike in viewership. Similarly, July (summer months) could see more releases targeted at vacation periods.

## Conclusion:

The exploratory data analysis (EDA) of Netflix's dataset reveals key insights into the platform's content strategy. Netflix has seen consistent growth in content releases, with certain months, being peak periods for adding new titles, especially during the holiday season. Movies and TV shows are almost evenly distributed, with drama, comedy, and action dominating movies, while international TV shows and docuseries are popular in the TV segment. The United States, India, and the UK are the top content producers, reflecting Netflix's global appeal and focus on diverse, international content. This analysis gives a comprehensive view of the Netflix content distribution, trends, and strategies.