

Netflix Movies & TV Shows – Exploratory Data Analysis (EDA)

Prepared by: Deepa Nayak

GitHub: <https://github.com/Deepanayaktangodu>



Project Overview

This project explores Netflix's global content catalog using the Netflix Titles Dataset. The goal is to extract meaningful insights by analyzing patterns in content type, genres, release years, ratings, and country-wise contributions.

◆ Dataset Summary

- Total Records: 8,807
- Total Columns: 12

Key Features: title, type, director, cast, country, date_added, release_year, rating, duration, listed_in, description

◆ Data Cleaning Actions

Filled missing values in:

- director → “Unknown”
- cast → “Not Mentioned”
- country → “Unknown”
- rating and duration → Mode

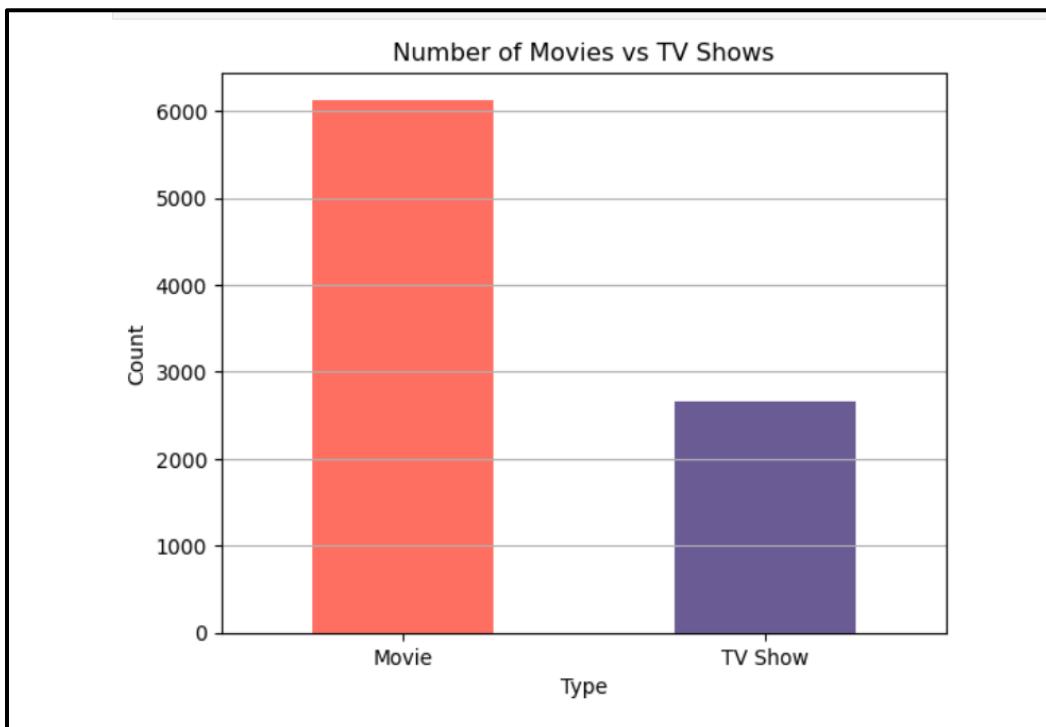
- Removed 10 rows with missing date_added
- Converted date_added to datetime
- Created new columns: year_added and month_added
- Split multi-value fields like listed_in and country

🔍 Key Insights & Visuals

1 Movies vs TV Shows

- **Movies:** 6,200+
- **TV Shows:** 2,400+

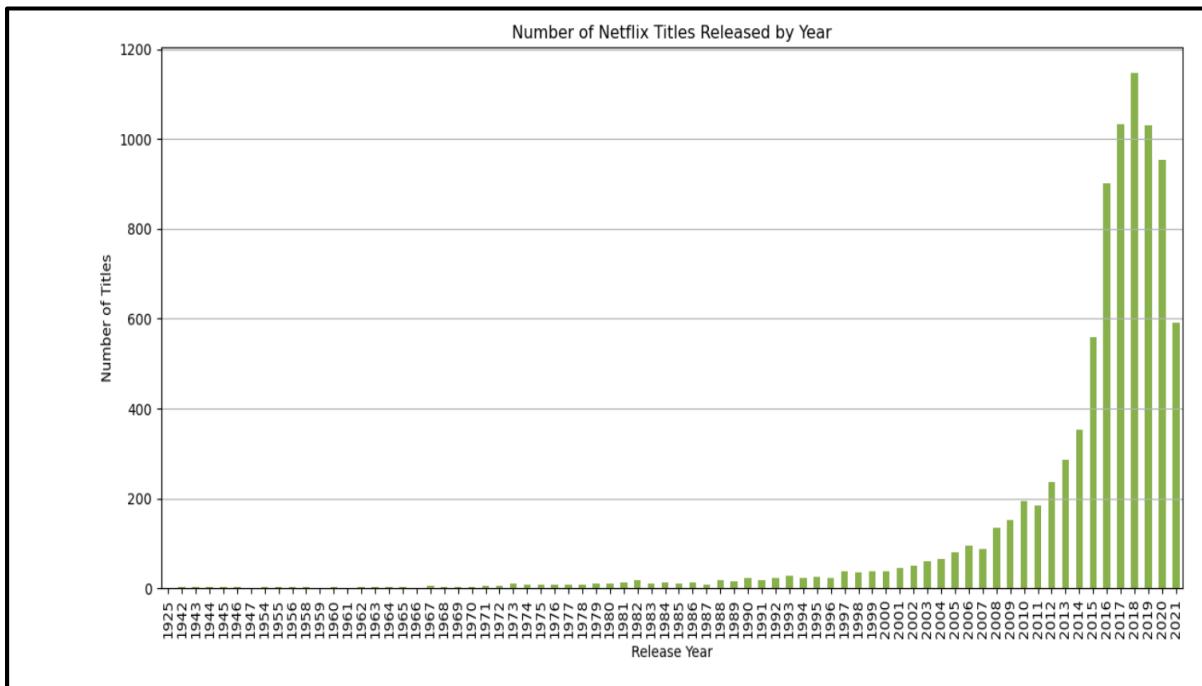
📌 Movies dominate Netflix's content — over 2x the number of TV Shows.



2 Release Year Trends

- Steady growth from 2010
- Spike after 2015
- **2019** was the peak year with over 2,000 titles released
- Drop seen in 2020–2021 due to the pandemic

📍 Content spikes after 2015 with a peak in 2019. Drop in 2020-21 due to COVID.



3 Top Countries by Content Volume

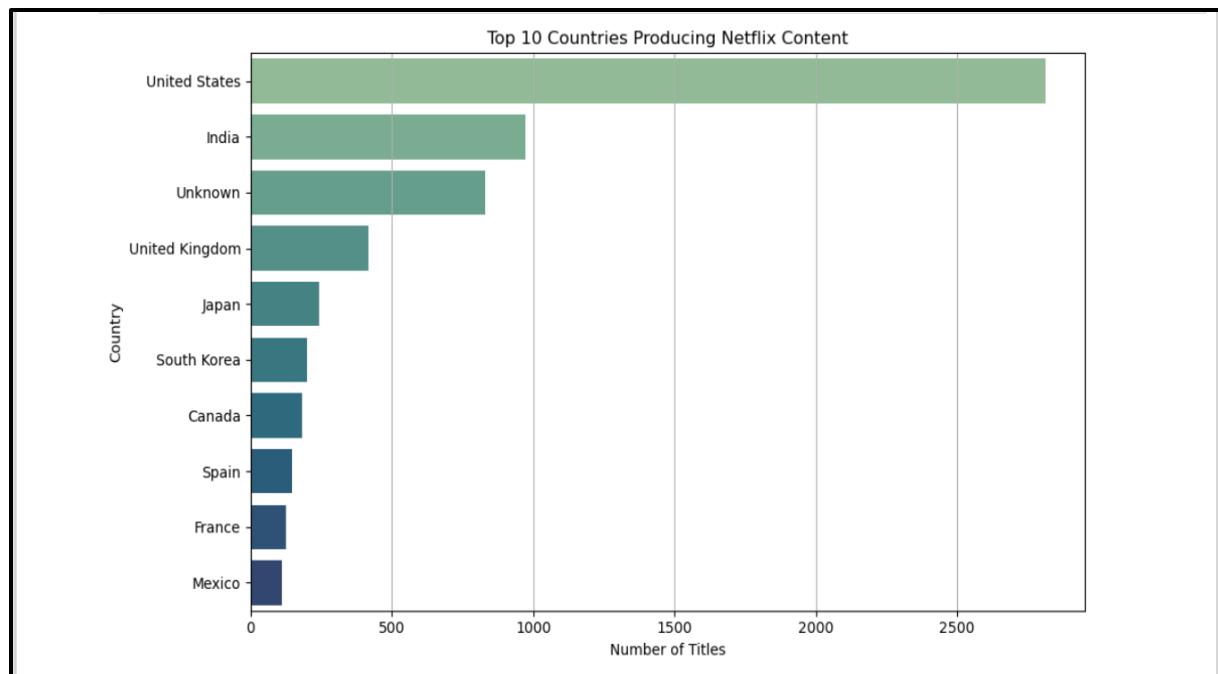
Rank	Country	Dominant Content
1	United States	TV Shows & Movies
2	India	Movies

Rank Country Dominant Content

3 United Kingdom Balanced

4 Japan/South Korea TV Shows (Anime/K-Drama)

👉 US leads in both Movies and TV Shows. India, UK, Korea contributes significantly.



4 Most Frequent Ratings

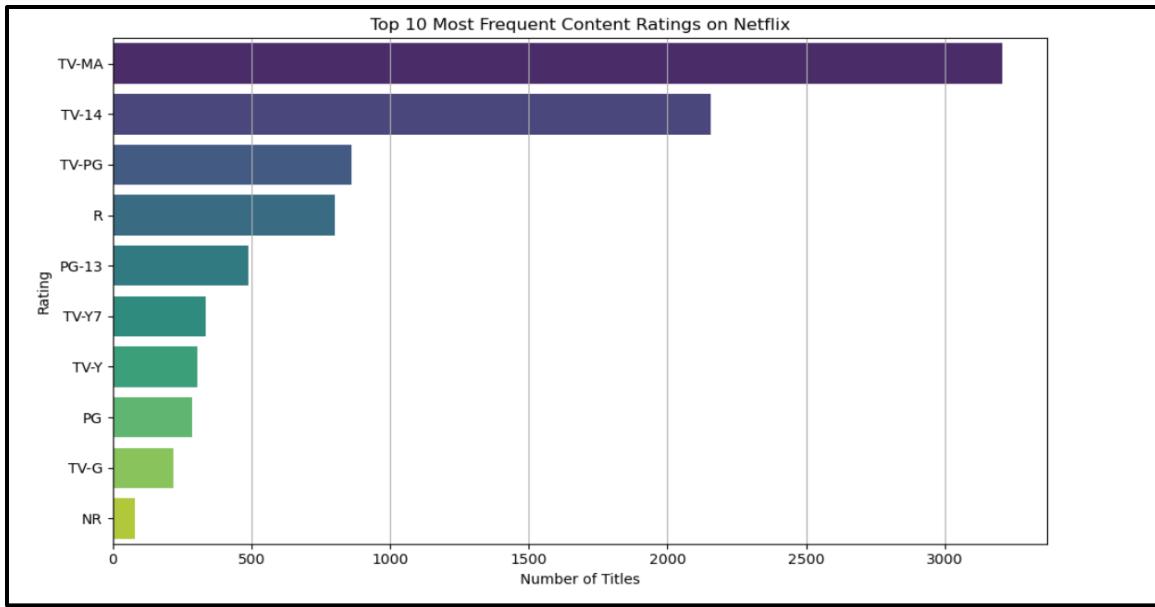
Rating Description Dominates In

TV-MA Mature Audiences TV Shows

TV-14 Teens 14+ TV Shows

PG-13/R Teens/Adults Movies

👉 TV-MA (mature) is most common. Movies prefer PG-13 and R.

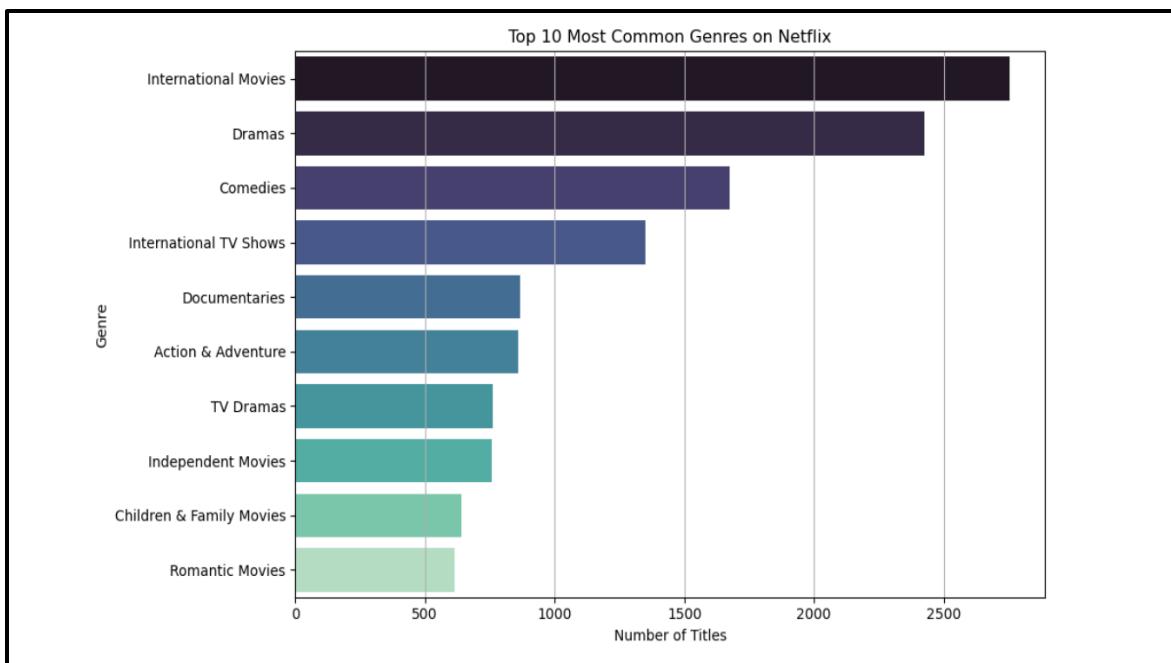


5 Genre Analysis

Top genres include:

- 🎭 Dramas
- 😂 Comedies
- 🎥 Documentaries
- 🌎 International Shows

👉 TV Shows dominate in categories like “International Dramas” and “TV Dramas” while movies dominate in “Romantic”, “Action”, and “Comedy” genres.



6 Time-Based Trends

Year Titles Added

2016 ~450

2017 ~1,150

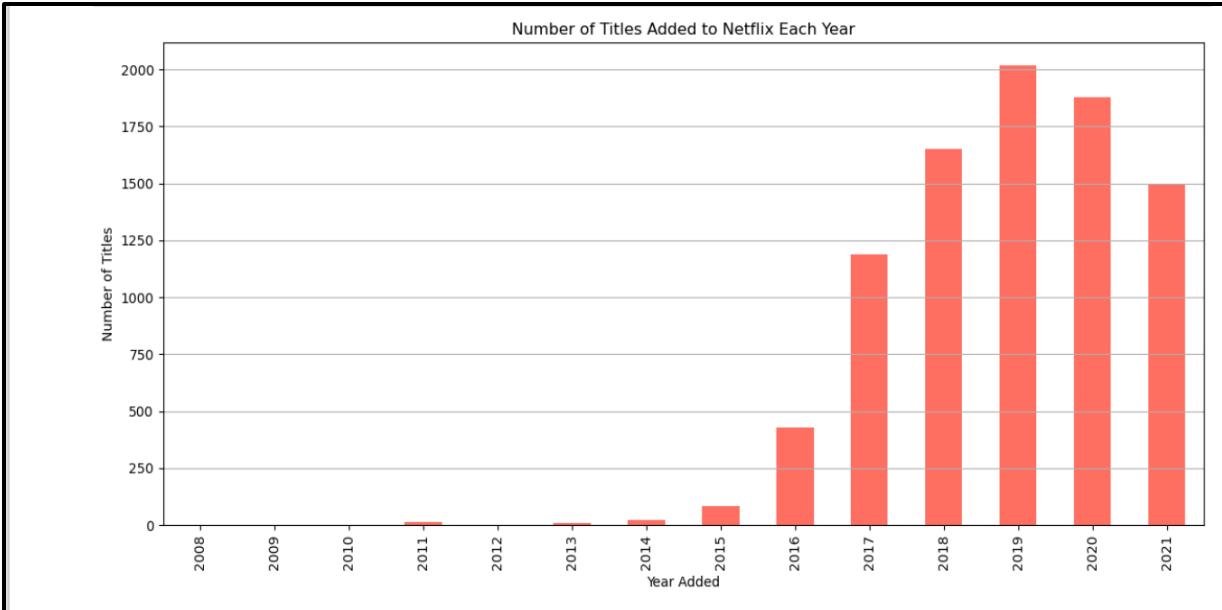
2018 ~1,600

2019 ~2,030 

2020 ~1,850

2021 ~1,500

 *Netflix rapidly expanded from 2016–2019, with a notable dip post-2020.*



✓ Conclusion

Netflix's content strategy reflects a strong emphasis on mature, diverse, and global storytelling. It showcases growing regional representation and steady expansion post-2016.

🛠 Tools Used

- Language: Python
- Libraries: Pandas, NumPy, Matplotlib, Seaborn
- Platform: Jupyter Notebook
- Dataset: <https://www.kaggle.com/datasets/shivamb/netflix-shows>