

Task-3: Exploratory Data Analysis (EDA) on Netflix Streaming Dataset


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Objective

To conduct an **Exploratory Data Analysis (EDA)** on the **Netflix Movies and TV Shows Dataset** from Kaggle. The purpose is to uncover hidden patterns, visualize relationships, and summarize insights about Netflix’s global content strategy through a visually engaging and data-driven approach.


Tools & Platforms Used

Tool/Library	Purpose
Python	Data analysis and scripting
Pandas	Data cleaning and manipulation
NumPy	Numerical computations
Matplotlib & Seaborn	Data visualization and trend analysis

 Icon Placeholder – Tech Tools

1. Introduction


Netflix, the world’s leading streaming platform, offers a vast collection of movies and TV shows across multiple genres and countries. This analysis explores the dataset to identify **content trends, genre preferences, audience ratings, and global distribution**, providing a clear picture of Netflix’s evolution and diversity.

 Icon Placeholder – Film Reel

2. Dataset Summary


Source: Kaggle – Netflix Movies and TV Shows Dataset
Total Records: ~8,800 entries

Feature	Description
show_id	Unique identifier for each title
type	Movie or TV Show
title	Name of the content
director, cast	Key contributors
country	Country of origin
release_year	Year of release
rating	Content rating (e.g., TV-MA, PG-13)
duration	Duration in minutes or number of seasons
listed_in	Genre/category

 Icon Placeholder – Dataset Overview


3. Data Cleaning & Preparation


- Removed missing values in director, cast, and country columns.
- Standardized text formats for uniformity.
- Extracted year and duration information for analysis.
- Created new columns for grouping (e.g., main_genre, content_type).

 Icon Placeholder – Data Processing

4. Patterns Observed

- **Content Type:** Movies dominate with ~70%, while TV shows make up ~30%.
- **Release Trend:** Rapid growth after 2015, peaking around 2019.
- **Ratings:** Majority of titles are **TV-MA** and **TV-14**, targeting mature audiences.
- **Duration:** Most movies range between 90–120 minutes.

 Graph Placeholder – Bar Chart: Movies vs TV Shows)

 Graph Placeholder – Line Chart: Content Growth Over Years)

5. Genre & Ratings Insights

- **Top Genres:** Dramas, Comedies, and Documentaries dominate the platform.
- **Family/Kids Content:** Comparatively limited.
- **Ratings Breakdown:**
 - TV-MA: 35%
 - TV-14: 25%

- PG/PG-13: 15%
- Others: 25%

(🎬 Graph Placeholder – Horizontal Bar Chart: Top Genres)

(🍌 Graph Placeholder – Pie Chart: Ratings Distribution)

6. Global Distribution

- **Top Contributing Countries:** United States, India, United Kingdom, and Canada.
- **Regional Highlights:**
 - The **US** dominates both movies and TV shows.
 - **India** shows strong growth in regional and Bollywood content.
 - **Europe** contributes significantly to documentaries and dramas.

(🌍 World Map Placeholder – Neon Blue Highlights for Top Countries)

7. Key Observations

- Netflix's content library expanded rapidly post-2015.
- The platform emphasizes **mature-rated** and **diverse genres**.
- **Dramas and comedies** dominate across all regions.
- The **US** remains the largest content producer, but **international contributions** are steadily increasing.

(📈 Growth Trend Visual Placeholder – Neon Gradient Line Graph)

8. Conclusion

The EDA reveals Netflix's strategic evolution toward **global diversity, mature storytelling, and original productions**. The platform's growth reflects the worldwide shift toward digital streaming, with a strong emphasis on **regional representation** and **genre variety**.

Netflix continues to redefine entertainment by blending **data-driven insights** with **creative storytelling**, making it a global leader in the streaming industry.

🎨 Design & Aesthetic Notes (for Canva Presentation)

- **Theme:** Tech • Youth • Modern
- **Color Palette:** Neon Blue • Black • White
- **Typography:** Bold Sans-serif for titles, clean geometric fonts for body text
- **Visual Style:**
 - Use **modern geometric shapes** and **gradient overlays**
 - **High-contrast titles** with glowing neon accents
 - Include **icons** for each section (film reel, chart, globe, etc.)
 - Add **graph placeholders** and **world map visuals** for storytelling impact

(💡 *Design Tip: Use neon blue gradients on black backgrounds for a futuristic, tech-inspired aesthetic.*)