Project Documentation

Netflix Movies & TV Shows Analysis

1. Project Overview

This project analyses Netflix Movies and TV Shows data using Excel, Power Query, and Power BI to identify trends in content distribution, genres, ratings, and global availability. The goal of this project is to transform raw data into meaningful insights through interactive visualizations and dashboards.

2. Tools Used

- Microsoft Excel
- Power Query
- Power BI Desktop

3. Dataset

- **Source:** Public Netflix dataset (https://www.data4ecology.org/)

- **Data contains:**

  - Title
  - Content Type (Movie / TV Show)
  - Genre
  - Country
  - Release Year
  - Rating
  - Duration
  - Date Added

4. Steps Followed

Excel:

- Assigned appropriate data types to all columns based on their content.
- Removed unnecessary columns such as *Sl.No* and deleted empty rows.
- Trimmed and cleaned text fields to ensure consistent formatting.
- Corrected a small number of records where data entries were misaligned in the source file.
- Standardized categorical fields such as listed_in and duration units.
- Split the duration column into *duration value* and *duration type* for better analysis.
- Handled missing values using appropriate strategies:
  - Replaced missing text fields (director, cast, country) with *"Information Not Available"*.
  - Replaced missing ratings with *"NR"*.

o   Left missing date and year values as null since they could not be reliably inferred from the source data.

- Checked for duplicate records using **show_id** and confirmed no duplicates existed.
- Converted **show_id** data type to text since it is an identifier and not used in calculations.

Power BI:

- Imported the cleaned dataset into Power BI.
- Verified and adjusted data types for accurate analysis.
- Created a **reference table (Netflix_Country)** from the country column to properly analyze multi-country entries.
- Established relationships between the main dataset and the country reference table for improved filtering and reporting.
- Built interactive visualizations such as bar charts, line charts, and pie charts.
- Added slicers to enable dynamic filtering by year, genre, and content type.
- Applied formatting and layout enhancements for better dashboard presentation.
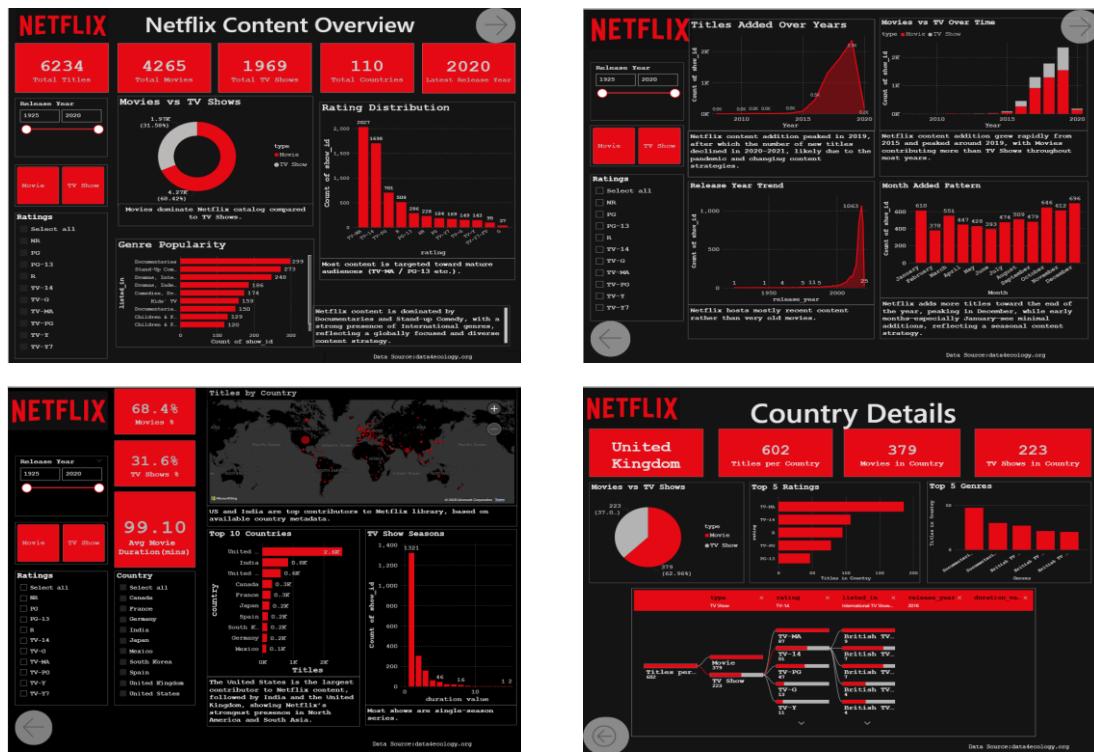
5. Key Insights

- Movies make up the majority of content available on Netflix compared to TV Shows.
- There was a significant increase in content additions after 2015.
- Most Netflix content belongs to a few dominant genres.
- The United States contributes the highest number of titles.
- TV Shows generally have higher maturity ratings compared to Movies.

6. Screenshots

Excel:

Raw Data	Cleaned Data

show_id	type	title	director	cast	country	date_add	release_ye	rating	durati
1 81145628	Movie	Norm of tl	Richard Fi	Alan Marr	United Sta	Septembe	2019	TV-PG	90 min
2 80117401	Movie	Jandino: Whatever it	Jandino A	United Kin	Septembe	2016	TV-MA	94 min
3 70234439	TV Show	Transformers Prime	Peter Cull	United Sta	Septembe	2013	TV-Y7-FV	1 Seas
4 80058654	TV Show	Transformers: Robot	Will Friedl	United Sta	Septembe	2016	TV-Y7	1 Seas
5 80125979	Movie	#realityhig	Fernando	Nesta Coo	United Sta	Septembe	2017	TV-14	99 min
6 80163890	TV Show	Apaches		Alberto Ar	Spain	Septembe	2016	TV-MA	1 Seas
7 70304989	Movie	Automata	Gabe Ibá	Antonio B	Bulgaria, L	Septembe	2014	R	110 mi
8 80164077	Movie	Fabrizio C	Rodrigo T	Fabrizio C	Chile	Septembe	2017	TV-MA	60 min
9 80117902	TV Show	Fire Chasers			United Sta	Septembe	2017	TV-MA	1 Seas
10 70304990	Movie	Good Peo	Henrik Ru	James Fra	United Sta	Septembe	2014	R	90 min
11 80169755	Movie	Joaquí-n	José© Mi	Joaquí-n Reyes	Septembe	2017	TV-MA	78 min
12 70299204	Movie	Kidnappin	Daniel Alf	Jim Sturge	Netherlan	Septembe	2015	R	95 min
13 80182480	Movie	Krish Trish and Baltit	Damandeep Singh B	Septembe	2009	TV-Y7	58 min
14 80182483	Movie	Krish Trish	Munjal Sh	Damandeep Singh B	Septembe	2013	TV-Y7	62 min
15 80182596	Movie	Krish Trish	Munjal Sh	Damandeep Singh B	Septembe	2016	TV-Y	65 min
16 80182482	Movie	Krish Trish	Tilak Shett	Damandeep Singh B	Septembe	2012	TV-Y7	61 min
17 80182597	Movie	Krish Trish	Tilak Shett	Rishi Gambhir, Smita	Septembe	2017	TV-Y7	65 min
18 80182481	Movie	Krish Trish and Baltit	Damandeep Singh B	Septembe	2010	TV-Y7	58 min
19 80182621	Movie	Krish Trish	Munjal Sh	Damandeep Singh B	Septembe	2013	TV-Y7	60 min
20 80057969	Movie	Love		Gaspar Nc	Karl Glusn	France, Be	Septembe	2015	NR	135 mi
21 80060297	Movie	Manhatta	Tom O'Bri	Tom O'Bri	United Sta	Septembe	2014	TV-14	98 min
22 80046728	Movie	Moonwall	Antoine Bi	Ron Perlm	France, Be	Septembe	2015	R	96 min
23 80046727	Movie	Rolling Pa	Mitch Dickman	United Sta	Septembe	2015	TV-MA	79 min

show_id	type	title	director
81145628	Movie	Norm Of The North: King Sized Adventure	Richard Finn, Tim Maltby
80117401	Movie	Jandino: Whatever It Takes	Information Not Available
70234439	TV Show	Transformers Prime	Information Not Available
80058654	TV Show	Transformers: Robots In Disguise	Information Not Available
80125979	Movie	#Realityhigh	Fernando Lebrija
80163890	TV Show	Apaches	Information Not Available
70304989	Movie	Automata	Gabe Ibáñez
80164077	Movie	Fabrizio Copano: Solo Pienso En Mi	Rodrigo Toro, Francisco Schultz
80117902	TV Show	Fire Chasers	Information Not Available
70304990	Movie	Good People	Henrik Ruben Genz
80169755	Movie	Joaquin Reyes: Una Y No Más	José Miguel Contreras
70299204	Movie	Kidnapping Mr. Heineken	Daniel Alfredson
80182480	Movie	Krish Trish And Baltboy	Information Not Available
80182483	Movie	Krish Trish And Baltboy: Battle Of Wits	Munjal Shroff, Tilak Shetty
80182596	Movie	Krish Trish And Baltboy: Best Friends Forever	Munjal Shroff, Tilak Shetty
80182482	Movie	Krish Trish And Baltboy: Comics Of India	Tilak Shetty
80182597	Movie	Krish Trish And Baltboy: Oversmartness Never Pays	Tilak Shetty
80182481	Movie	Krish Trish And Baltboy: Part Ii	Information Not Available
80182621	Movie	Krish Trish And Baltboy: The Greatest Trick	Munjal Shroff, Tilak Shetty
80057969	Movie	Love	Gaspar Noé
80060297	Movie	Manhattan Romance	Tom O'Brien
80046728	Movie	Moonwalkers	Antoine Bardou-Jacquet
80046727	Movie	Rolling Paper	Mitch Dickman

Power BI:

7. Files Included

- Netflix_Movies_and_TV_Shows.csv – Original uncleaned dataset
- Netflix_Movies_and_TV_Shows_Cleaned.xlsx – Cleaned dataset.
- Netflix_Movies_and_TV_Shows_Report.pbix – Power BI dashboard file.
- README.docx – Project documentation.

8. How to Use

- Open the Excel file to view the cleaned dataset.
- Open the .pbix file using Power BI Desktop to explore the interactive dashboard.
- Use slicers to filter data by year, type, genre, and country.