INT275

PROJECT REPORT
(Project Semester January-April 2025)

Netflix Content Analysis Dashboard

Submitted by

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B.Tech CSE

Course Code: INT275

Lovely Professional University, Phagwara

CERTIFICATE

This is to certify that Amal Krishna T N bearing Registration no. 12308618 has completed INT275 project titled, “Netflix Content Analysis Dashboard” under my guidance and supervision. To the best of my knowledge, the present work is the result of his original development, effort and study.

Signature and Name of the Supervisor

School of Computer Applications Lovely
Professional University Phagwara,
Punjab.

Date: 12-04-2025

DECLARATION

I, Amal Krishna T N, student of B.Tech CSE under CSE Discipline at, Lovely Professional University, Punjab, hereby declare that all the information furnished in this project report is based on my own intensive work and is genuine.

Date: 12-04-2025

Signature
Registration No. 12308618

Name of the student
Amal Krishna T N

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1. Introduction

The entertainment industry has witnessed a digital revolution, with platforms like Netflix leading the way in providing streaming services to a global audience. This project analyzes Netflix content using an Excel-based dashboard to uncover key trends related to content type, duration, production countries, genres, and the contribution of directors and actors.

2. Source of Dataset

The dataset used in this project was obtained from Kaggle (https://www.kaggle.com/datasets), under the title 'Netflix Movies and TV Shows'. The dataset includes information such as title, director, cast, country, date added, release year, rating, duration, and genre.

3. Dataset Preprocessing

Data preprocessing is one of the most critical steps in any data analytics project, as it ensures the dataset is clean, consistent, and ready for meaningful analysis. For this project, the Netflix dataset was initially raw and required multiple stages of preprocessing to make it suitable for dashboard creation and analysis in Microsoft Excel.

1. Handling Missing Values

Several columns such as director, cast, and country contained missing entries. These were handled as follows:

- Director & Cast: Entries with missing values were replaced with "Unknown" to prevent analytical errors during pivot aggregation.
- Country: Rows with missing country values were labeled "Unspecified", allowing them to be grouped rather than excluded.
- Other Fields: Columns like date_added had some missing values which were either filled where possible or excluded during time-series analysis.

2. Standardizing Data Formats

- The date_added field had inconsistent formats. These were standardized to a proper date format, and new columns for year_added and month_added were derived.
- The duration field had separate units for Movies (minutes) and TV Shows (seasons). This was split into two columns: duration_value and duration_unit.
- Text values were trimmed and cleaned for consistent formatting (e.g., removing leading/trailing whitespaces).

3. Feature Engineering

To enhance the analysis:

- The listed_in column was split to extract the primary genre, which helped in genre-level grouping.
- New categorical columns were created for analysis such as:
    - content_decade from release_year
    - is_tv_show as a binary column (1 for TV Show, 0 for Movie)

4. Analysis on Dataset

i. General Description

The Netflix dataset consists of thousands of entries for movies and TV shows released between 1925 and 2021. Each entry provides metadata like duration, genre, cast, and country, allowing for a detailed breakdown of content trends and viewer preferences.

ii. Specific Requirements

The main objectives of the analysis were:
- Identify the most featured actors and directors
- Understand duration distributions of Movies vs TV Shows
- Track content trends over time by genre
- Analyze regional production dominance (e.g., USA, India) **iii. Analysis Results**

The analysis revealed the following:
- Most featured actor: Anupam Kher
- Most contributing director: Rajiv Chilaka
- Content peaked around 2018–2020
- Dominant production countries: United States and India
- Most common genres: Documentaries, Dramas, Comedies
- TV Shows typically have season-based duration, while Movies show time in minutes **iv.**

Visualization

The Excel dashboard includes several pivot charts and visuals showing:
- Top 10 actors and directors by count
- Year-wise content release trend
- Genre distribution for Movies and TV Shows
- Country-wise production share
- Duration comparison by content type

5. Conclusion

This project successfully demonstrates how Excel dashboards can offer meaningful insights from streaming content datasets. It highlights viewer trends, content distribution patterns, and industry shifts, giving stakeholders an overview of Netflix's global content strategy.

6. Future Scope

Further analysis can integrate additional data sources like user ratings, reviews, and global viewership stats to offer a deeper perspective. Developing interactive dashboards using tools like Power BI or Tableau could provide greater interactivity and real-time analytics.

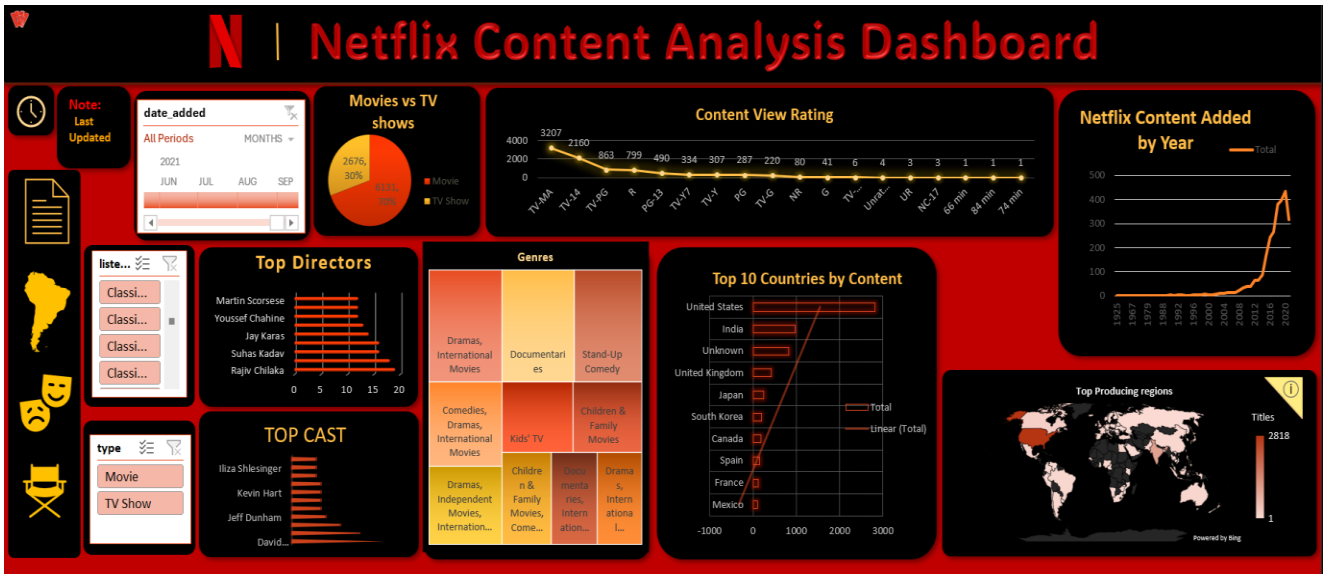
7. References

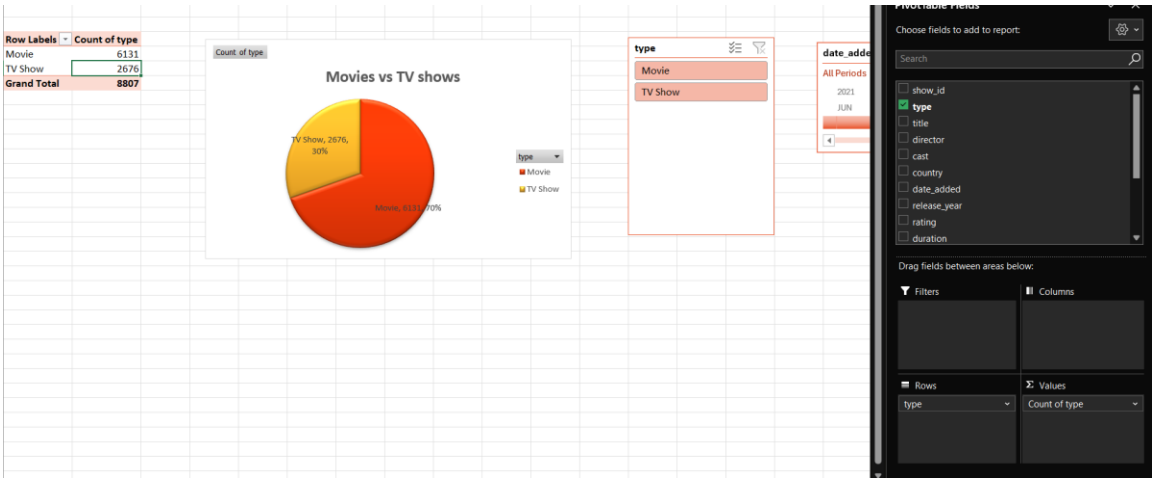
[1] Netflix Movies and TV Shows Dataset. Kaggle. https://www.kaggle.com/datasets/muhammadtahir194/netflix-movies-and-tv-showsdataset

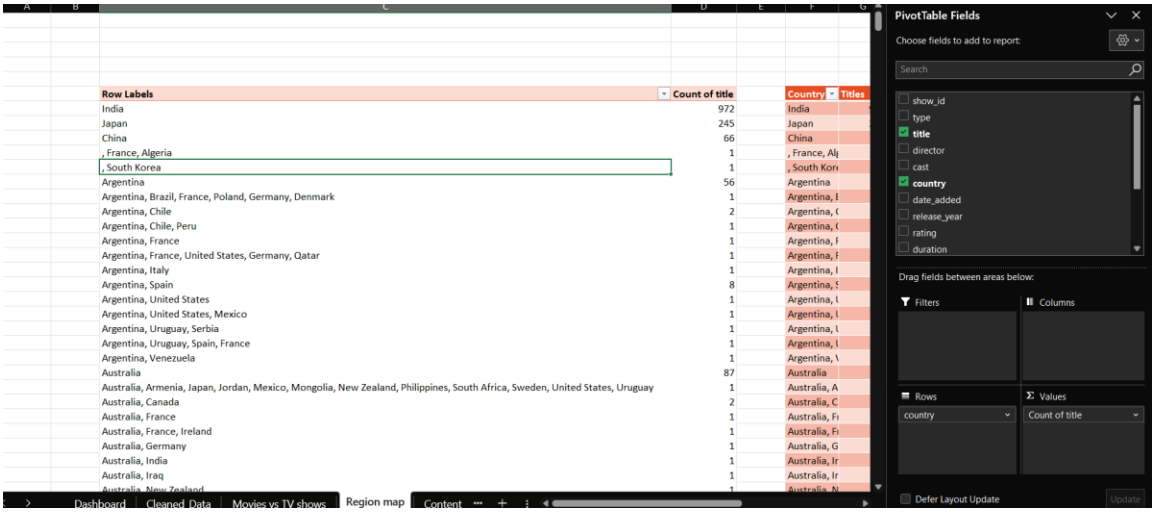
[2] Microsoft Excel Documentation. https://support.microsoft.com/excel

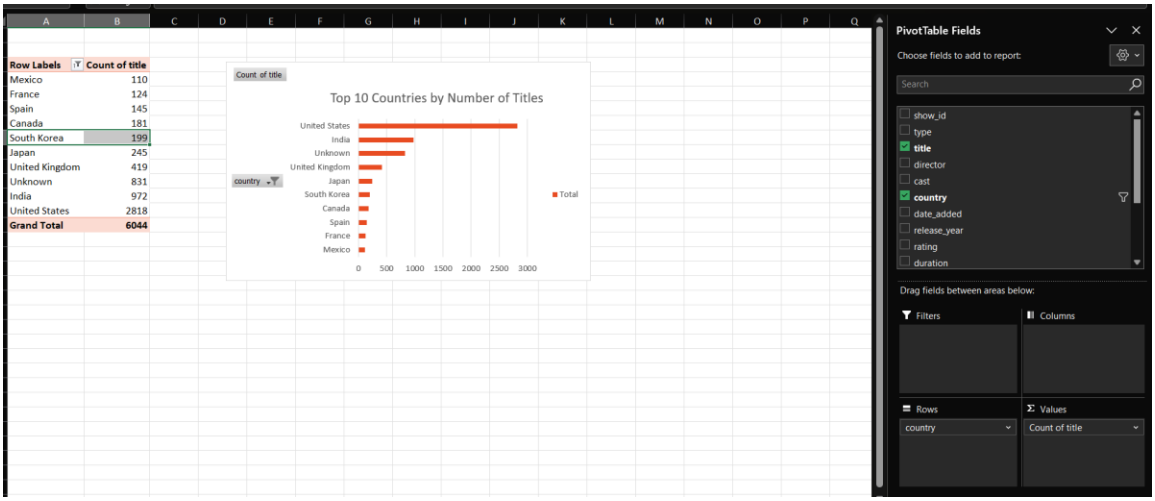
[3] Data Visualization with Excel. https://excelchamps.com/blog/excel-dashboards

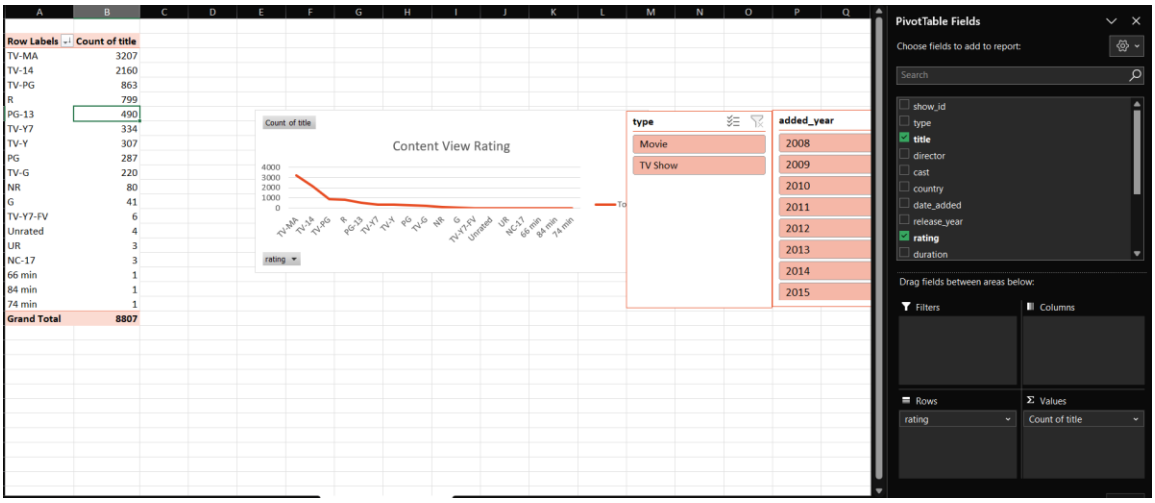
Screenshots:

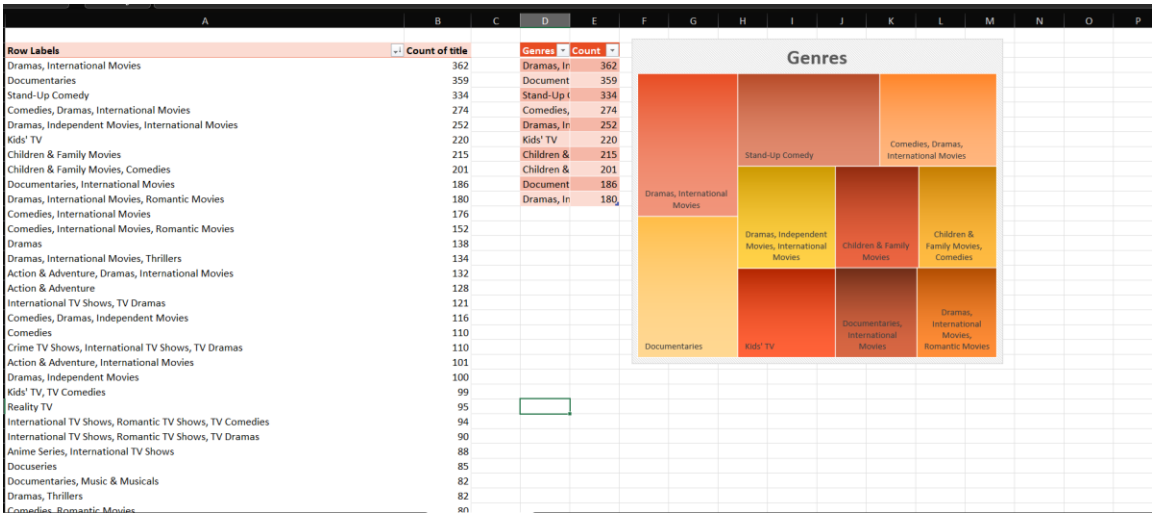



Row Labels
Count of type
Movie
6131
TV Show
2676
Grand Total
8807
Count of type
Movies vs TV shows
TV Show, 2676, 30%
Movie, 6131, 70%
type
Movie
TV Show
type
Movie
TV Show
Choose fields to add to report:
Search
show_id
type
title
director
cast
country
date_added
release_year
rating
duration
Drag fields between areas below:
Filters
Columns
Rows
type
Values
Count of type

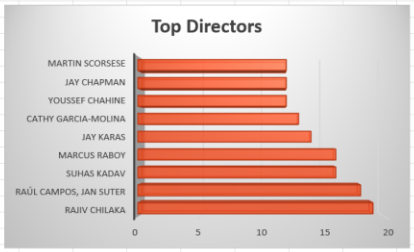

Row Labels
Count of title
India
972
Japan
245
China
66
, France, Algeria
1
, South Korea
1
Argentina
56
Argentina, Brazil, France, Poland, Germany, Denmark
1
Argentina, Chile
2
Argentina, Chile, Peru
1
Argentina, France
1
Argentina, France, United States, Germany, Qatar
1
Argentina, Italy
1
Argentina, Spain
8
Argentina, United States
1
Argentina, United States, Mexico
1
Argentina, Uruguay, Serbia
1
Argentina, Uruguay, Spain, France
1
Argentina, Venezuela
1
Australia
87
Australia, Armenia, Japan, Jordan, Mexico, Mongolia, New Zealand, Philippines, South Africa, Sweden, United States, Uruguay
1
Australia, Canada
2
Australia, France
1
Australia, France, Ireland
1
Australia, Germany
1
Australia, India
1
Australia, Iraq
1
Country
Titles
India
Japan
China
Argentina
Australia
Dashboard
Cleaned Data
Movies vs TV shows
Region map
Content
PivotTable Fields
Choose fields to add to report:
Search
show_id
type
title
director
cast
country
date_added
release_year
rating
duration
Drag fields between areas below:
Filters
Columns
Rows
country
Values
Count of title
Defer Layout Update
Update


Row Labels
Count of title
Mexico
110
France
124
Spain
145
Canada
181
South Korea
199
Japan
245
United Kingdom
419
Unknown
831
India
972
United States
2818
Grand Total
6044
Count of title
Top 10 Countries by Number of Titles
United States
India
Unknown
United Kingdom
Japan
South Korea
Canada
Spain
France
Mexico
country
Total
0
500
1000
1500
2000
2500
3000
PivotTable Fields
Choose fields to add to report:
Search
show_id
type
title
director
cast
country
date_added
release_year
rating
duration
Drag fields between areas below:
Filters
Columns
Rows
country
Values
Count of title


Row Labels
Count of title
TV-MA 3207
TV-14 2160
TV-PG 863
R 799
PG-13 490
TV-Y7 334
TV-Y 307
PG 287
TV-G 220
NR 80
G 41
TV-Y7-FV 6
Unrated 4
UR 3
NC-17 3
66 min 1
84 min 1
74 min 1
Grand Total 8807
Content View Rating
PivotTable Fields
Choose fields to add to report:
Search
show_id
type
title
director
cast
country
date_added
release_year
rating
duration
Drag fields between areas below:
Filters
Columns
Rows
rating
Values
Count of title
type
Movie
TV Show
added_year
2008
2009
2010
2011
2012
2013
2014
2015


Row Labels
Count of title
Dramas, International Movies 362
Documentaries 359
Stand-Up Comedy 334
Comedies, Dramas, International Movies 274
Dramas, Independent Movies, International Movies 252
Kids' TV 220
Children & Family Movies 215
Children & Family Movies, Comedies 201
Documentaries, International Movies 186
Dramas, International Movies, Romantic Movies 180
Comedies, International Movies 176
Comedies, International Movies, Romantic Movies 152
Dramas 138
Dramas, International Movies, Thrillers 134
Action & Adventure, Dramas, International Movies 132
Action & Adventure 128
International TV Shows, TV Dramas 121
Comedies, Dramas, Independent Movies 116
Comedies 110
Crime TV Shows, International TV Shows, TV Dramas 110
Action & Adventure, International Movies 101
Dramas, Independent Movies 100
Kids' TV, TV Comedies 99
Reality TV 95
International TV Shows, Romantic TV Shows, TV Comedies 94
International TV Shows, Romantic TV Shows, TV Dramas 90
Anime Series, International TV Shows 88
Docuseries 85
Documentaries, Music & Musicals 82
Dramas, Thrillers 82
Genres
Count
Genres
Stand-Up Comedy
Comedies, Dramas, International Movies
Dramas, International Movies
Dramas, Independent Movies, International Movies
Children & Family Movies
Children & Family Movies, Comedies
Documentaries
Kids' TV
Documentaries, International Movies
Dramas, International Movies, Romantic Movies

Row Labels	Count of title
(blank)	2634
Rajiv Chilaka	19
Raúl Campos, Jan Suter	18
Suhas Kadav	16
Marcus Raboy	16
Jay Karas	14
Cathy Garcia-Molina	13
Youssef Chahine	12
Jay Chapman	12
Martin Scorsese	12
Grand Total	**2766**



Directors	no of movies
Rajiv Chilaka	19
Raúl Campo	18
Suhas Kadav	16
Marcus Rabo	16
Jay Karas	14
Cathy Garcia	13
Youssef Cha	12
Jay Chapma	12
Martin Scors	12