# Netflix Dashboard using Power BI and SQL

## 1. Project Overview

The Netflix Dashboard project aims to analyze Netflix content data using SQL for backend data processing and Power BI for creating insightful visualizations. It helps understand the distribution of content by type, rating, and region, along with overall KPIs that summarize the data.

## 2. Data Source

Dataset: Netflix Titles Dataset (sourced from Kaggle)  
Tables Used:  
- netflix\_titles (main content data)  
- country\_region (country and region mapping)  
- ratings (for age-based classification)

## 3. Data Cleaning (in Power Query)

Performed data cleaning in Power BI Power Query:  
- Removed null or blank values from country, date\_added, and rating columns.  
- Extracted release\_year for time-based analysis.  
- Trimmed extra spaces in text columns.  
- Established relationships between netflix\_titles.country ↔ country\_region.country and netflix\_titles.rating ↔ ratings.rating.

## 4. DAX Measures (in Power BI)

The following optimized DAX measures were created in Power BI to calculate KPIs cleanly and effectively:

1. 1. Total Titles

Total Titles = DISTINCTCOUNT('netflix\_titles'[show\_id])

1. 2. Total Movies

Total Movies = CALCULATE([Total Titles], 'netflix\_titles'[type] = "Movie")

1. 3. Total TV Shows

Total TVShows = CALCULATE([Total Titles], 'netflix\_titles'[type] = "TV Show")

These DAX measures provide accurate counts for each category and are ideal for KPI cards in the dashboard.

## 5. Visualizations (Page 1: Dashboard Overview)

The main dashboard displays KPIs and visual charts that summarize Netflix content distribution.

🔹 KPI Cards  
- Total Titles, Total Movies, and Total TV Shows.  
- Example: 55 Movies, 45 TV Shows, Total 100 Titles.  
These KPIs quickly communicate the overall dataset summary.

🔹 Donut Chart  
- Values: Count of show\_id  
- Legend: type (Movie, TV Show)  
- Details: age\_group  
Insight: Shows how Netflix content varies by type and age category.

🔹 Bar Chart  
- Axis: rating  
- Values: Count of cast  
Insight: Displays the number of cast appearances across each rating, with TV-MA being the most common.

## 6. Visualizations (Page 2: Filters & Slicers)

Added interactive slicers to allow dynamic filtering and data exploration:  
- Country  
- Release Year  
- Type (Movie / TV Show)  
Users can filter charts in real-time to focus on specific years or regions.

## 7. Insights Summary

- TV-MA and TV-14 are the most common Netflix ratings.  
- The number of Movies slightly exceeds TV Shows.  
- The majority of titles originate from the United States and the United Kingdom.  
- A noticeable growth in Netflix titles after 2010 highlights platform expansion.

## 8. Conclusion

This project demonstrates an end-to-end data analytics workflow:  
- SQL for querying and preprocessing data.  
- Power BI for interactive dashboard creation.  
- Visual storytelling for business-ready insights.  
  
The final dashboard effectively presents Netflix content trends and can be showcased on GitHub or in a professional portfolio.