NETFLIX DASHBOARD

A MINI PROJECT REPORT

IN

BUSINESS ANALYTICS

Submitted by

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Submitted to

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Declaration

I, **Dixit Guleria**, a student of Master in Computer Application, session 2023-2025, at University Institute of Computing, Chandigarh University, hereby declare that the work presented in this project titled "**Netflix Dashboard**" is my original work, conducted under the guidance and supervision of **Mr. Sanjay Kumar Aggarwal**.

I confirm that this project is the result of my own research and efforts, and it has not been submitted previously for any other degree or diploma. I have appropriately acknowledged all the sources of information and support received throughout this work. The content presented in this project reflects my understanding and knowledge acquired through dedicated academic effort.

This project is an accurate representation of my commitment and hard work, and I declare that the data presented is authentic and accurate to the best of my knowledge.

Signature

(Head of Department, MCA)

Signature

(Supervisor, MCA)

Acknowledgment

I would like to express my deepest gratitude to **Mr. Sanjay Kumar Aggarwal**, my project supervisor at the University Institute of Computing, Chandigarh University, for his invaluable guidance, support, and encouragement throughout the development of this project titled "Netflix Dashboard." His insights and constructive feedback have been instrumental in shaping the direction and success of this work.

I am also sincerely grateful to the other faculty members and mentors whose expertise and advice were essential in overcoming the technical challenges encountered during this project. Their support has played a significant role in its successful completion.

Additionally, I extend my heartfelt thanks to the University Institute of Computing at Chandigarh University for providing the necessary resources and facilities to carry out this project. The academic environment and continuous support have greatly contributed to my learning and professional growth.

Finally, I would like to thank my family and friends for their unwavering encouragement and patience throughout this journey. Their support has been a constant source of motivation and inspiration.

Abstract

This project focuses on the development and analysis of an interactive **Netflix Dashboard** to evaluate key performance indicators (KPIs) such as content performance, user engagement, and regional viewing preferences. In the age of digital streaming, platforms like Netflix generate vast amounts of data through user interactions. Analyzing this data provides valuable insights into user behavior, content popularity, and subscription trends, which can inform business strategies such as content acquisition, user retention, and market expansion.

The primary objective of this project is to create a visually compelling and data-driven dashboard using **Tableau** that allows users to explore and analyze Netflix's user and content metrics. To achieve this, data was sourced from publicly available Netflix-related datasets, which included information on user watch times, content categories (such as genres), and viewership data segmented by geographic region. The data underwent preprocessing to remove inconsistencies, handle missing values, and ensure proper formatting before it was loaded into Tableau for analysis.

Key performance indicators such as total watch time, top-watched content, peak viewing hours, and regional user engagement were identified and analyzed using various Tableau features. These KPIs help highlight user preferences, peak activity periods, and content

performance across different markets. The dashboard incorporates several visualizations, including bar charts for genre performance and geographic maps showing regional content preferences. Additionally, interactive filters were applied, enabling users to explore the data across different timeframes, regions, and content types.

The findings from this project revealed actionable insights for Netflix, such as the identification of the most popular genres globally, user engagement patterns during peak hours, and the performance of specific content in different regions. The analysis also highlights areas where Netflix can improve its content offerings and increase user retention, particularly through targeted marketing campaigns and localized content strategies for emerging markets.

This project demonstrates the importance of data visualization tools like Tableau in transforming raw data into meaningful business insights. By providing a clear and interactive view of Netflix's performance metrics, the dashboard enables data-driven decision-making that can enhance both content strategy and overall user satisfaction.

Introduction

Netflix, a global leader in the streaming industry, has revolutionized how audiences consume entertainment. With millions of subscribers spread across different regions, Netflix offers a wide variety of content, including movies, TV shows, and documentaries in multiple genres. The company's success is deeply rooted in its ability to understand viewer preferences, deliver personalized recommendations, and adapt to shifting content consumption trends. Behind this ability lies a vast reservoir of data, generated by every interaction its users make on the platform. As such, analyzing this data is critical to improving user engagement, enhancing content strategy, and maintaining Netflix's competitive edge in the digital streaming market.

In this project, the focus is on building a comprehensive **Netflix Dashboard** that visualizes key performance metrics (KPIs) related to user behavior and content performance. With the ever-growing user base and content library, it becomes essential for Netflix to track these metrics to maintain high levels of user satisfaction and retention. By providing a detailed analysis of user activity, popular genres, and regional viewing patterns, the

dashboard allows for actionable insights that can guide business decisions.

Relevance of the Project

As a Business Analyst, understanding and interpreting data to extract meaningful insights is paramount. For a platform like Netflix, where millions of data points are generated daily, visualizing this information in a way that is both comprehensible and actionable is critical. Through this project, a dashboard has been designed using Tableau, a leading data visualization tool, to analyze various aspects of Netflix's user engagement and content performance.

The dashboard provides an interactive interface that allows users to filter and view specific metrics, such as:

- The most popular content genres globally and regionally,
- User watch time and trends over different time periods,
- Regional preferences and growth trends in user subscriptions.

Objective

The primary objective of this project is to **analyze user behavior, content performance, and regional engagement on Netflix using data visualization techniques** to derive actionable insights. This analysis aims to help Netflix in several key areas such as optimizing content strategy, improving user retention, and identifying growth opportunities in different regions.

By creating an interactive and insightful **Tableau dashboard**, this project seeks to provide stakeholders with a clear view of how various factors such as user activity, content preferences, and geographic trends impact Netflix's overall performance.

Key objectives include:

1. **User Behavior Analysis:**
    - To understand how users engage with the platform over time, examining patterns like peak viewing hours, binge-watching tendencies, and frequency of use. This analysis helps identify when and how users prefer to consume content, allowing Netflix to enhance user experience by recommending content during high-activity periods or creating personalized watch schedules.
2. **Content Performance Evaluation:**

- To assess which genres, movies, or TV shows are most popular among users, identifying top-performing content across different demographics. The goal is to help Netflix optimize its content acquisition and production strategy by focusing on high-demand genres and regions that show the most interest in certain content types.

3. **Regional Trends and Preferences:**

   - To break down user activity and content preferences by region, understanding how local tastes and cultural differences influence viewing habits. By examining regional data, Netflix can tailor its marketing efforts and content offerings to better meet the needs of specific markets, potentially localizing content or producing region-specific shows.

4. **Subscription and User Growth Trends:**

   - To analyze Netflix's subscription trends, identifying regions with the highest growth potential and areas where user engagement is declining. This helps in understanding where to focus marketing and content strategies, as well as where user retention efforts should be prioritized.

5. **Content Recommendation Optimization:**

- To derive insights from viewing patterns that could improve Netflix's recommendation algorithms. By analyzing what types of content are frequently watched together, the platform can better tailor its recommendations, improving user satisfaction and time spent on the platform.

6. **Visualizing Key Performance Indicators (KPIs):**
   - To design a comprehensive dashboard that displays crucial KPIs such as total watch time, top genres, user activity by hour, and subscription growth by region. This allows Netflix executives to easily monitor performance and make data-driven decisions based on real-time metrics.
7. **Data-Driven Decision-Making:**
   - Ultimately, the objective is to provide Netflix's business and content teams with the tools and insights needed to make data-driven decisions. Whether it's deciding which new content to produce, where to focus marketing efforts, or how to improve the user experience, the dashboard will serve as a valuable asset in guiding strategic initiatives.

Data Collection

Sources of Data

The data for a **Netflix Dashboard** can be collected from various sources. Since Netflix does not publicly provide user-level data for privacy reasons, you may need to rely on publicly available datasets, simulated data, or other credible sources. Here are some potential sources:

1. **Publicly Available Datasets**:
   - Websites like **Kaggle** or **data.world** often host datasets related to Netflix content, including details like movie/series metadata, user ratings, genre classifications, and IMDb ratings. For example, you could use the **Netflix Movies and TV Shows** dataset, which includes content-related information such as title, release year, cast, genres, and ratings.
   - If available, datasets providing user interaction data such as viewing history, user watch time, or subscription details can also be used.

2. **Web Scraping**:
   - Although web scraping Netflix's website is prohibited by Netflix's terms of service, you can scrape data from external sources like **IMDb**, which provides information on ratings, popular shows, and metadata for various content on Netflix. This can provide useful insights into the popularity of shows and movies.

3. **Simulated Data**:

- You can create **simulated datasets** to mimic user activity and viewing patterns. This data can be structured to represent different regions, genres, and user behavior patterns (e.g., peak viewing times, most-watched shows).
- For example, you could create data for:
  - User demographics (age, gender, region)
  - Viewing habits (number of hours watched per week, favorite genres)
  - Subscription data (new subscriptions, cancellations)

4. **Netflix Open Connect**:
   - Netflix provides some insights through its **Open Connect** platform, which offers data about the network infrastructure and how content is delivered to users globally. While not focused on user activity, this data can be helpful in understanding Netflix's regional content delivery and network performance, especially for content popularity across regions.

Data Collection Techniques

1. **Downloading Public Datasets**:
   - For Netflix-related data, platforms like **Kaggle** offer a variety of curated datasets that are ready to be used. You can download these datasets and then clean and preprocess them for analysis.
   - Example dataset: Netflix Movies and TV Shows

2. **Simulating Data**:
   - If no real user data is available, you can simulate a dataset using tools like **Excel** or programming languages like

Python. Simulated data allows you to model hypothetical scenarios and viewing patterns.

- Example: You can generate data that includes fields such as:
  - Randomized viewing hours for different user demographics.
  - Content watch history across different regions (Asia, Europe, North America).
  - Subscription growth rates over time.

3. **APIs**:
   - Although Netflix does not offer public APIs for accessing its internal data, you can use third-party APIs, such as the **IMDb API**, to collect detailed metadata about movies and TV shows, including their ratings, popularity, and cast information.
   - Example: IMDb API for fetching ratings, genres, and title information for Netflix content.

4. **Data Cleaning and Preprocessing**:
   - Once the data is collected, it needs to be cleaned to ensure accuracy and consistency. This process may involve:
     - **Removing duplicates**: Ensuring no duplicate records exist, especially if combining multiple datasets.
     - **Handling missing values**: Filling in or removing missing values to avoid errors in analysis.
     - **Standardizing formats**: Ensuring consistency in data formats, such as dates, time zones, or categorical values (e.g., standardizing genre names like "Sci-Fi" and "Science Fiction").

Data Processing

Data preprocessing is a crucial step in ensuring that the dataset is clean, consistent, and ready for analysis. In the context of your **Netflix Dashboard Business Analyst project**, the data preprocessing phase involves multiple steps aimed at preparing raw data for meaningful visualization and insight generation. Below is a detailed breakdown of each step you should follow to preprocess your Netflix dataset effectively.

1. Data Understanding

Before diving into preprocessing, it's essential to first understand the structure and content of the data:

- **Dataset Overview**: The dataset includes information like:
  - User watch time
  - Content genres
  - Viewing preferences (movies, series)
  - Region-specific data (user location, country)
  - Time and duration of content watched
  - Subscription status (new users, canceled subscriptions)
- **Initial Inspection**: Perform a quick inspection of the dataset to understand the data types (numeric, categorical, date/time) and identify any immediate issues (e.g., missing values or outliers).

2. Handling Missing Data

- **Missing Values Detection**: The first step is to check for any missing values in the dataset, which may occur in fields like watch time, genre, or user location.

    - Use functions such as `isnull()` in Python or Tableau's "Show Empty Fields" feature to identify missing values.
- **Imputation or Removal**:
    - **For numeric fields** (e.g., watch time): If there are missing values, decide whether to replace them with the mean, median, or a default value based on your analysis. For example, missing watch time might be replaced with the average watch time for that genre.
    - **For categorical fields** (e.g., genre, region): You can either assign a default category (like 'Unknown') or remove rows with missing values if they represent a small portion of the dataset.
- **Example**:

  In cases where user region data was missing, rows with null values were filled with 'Unknown,' and missing watch time was replaced with the median watch time for the corresponding content genre.

3. Handling Duplicates

- **Duplicate Data Detection**: It's essential to identify and remove duplicate records to prevent skewing the analysis. Duplicates may exist in terms of repeated user IDs or multiple entries for the same viewing session.
    - Use functions like `drop_duplicates()` in Python or the "Remove Duplicates" feature in Excel.
- **Removal Strategy**: Remove exact duplicates, especially in cases where a user's viewing session or subscription information is repeated without new data.
- **Example**:

  Duplicate entries for users watching the same content multiple times were identified and consolidated to ensure each unique viewing session was captured.

4. Standardization and Formatting

- **Date and Time Formatting**:
  - Ensure that the date and time fields (e.g., "Watch Date," "Watch Time") are in a consistent format. Convert these into proper date-time formats for easy analysis of trends over time.
  - You may convert time fields into hours or create new fields for **day of the week**, **month**, or **hourly bins** to help visualize peak viewing times.
- **Categorical Data Consistency**:
  - Ensure uniformity in categorical fields such as "Genre" or "Region." For example, variations like "Action" and "action" should be standardized.
  - Use tools like Excel's "Find and Replace" or Python's `str.lower()` to ensure consistent formatting.

5. Feature Engineering

- **Creating New Features**:
  - You can derive new variables that might be helpful for your analysis. For example:
    - **Watch Duration (in hours)**: If the dataset contains start and end times, calculate the total duration spent watching content.
    - **User Engagement**: Create a field for user engagement by calculating the average number of hours watched per user, per day.
    - **Subscription Length**: If subscription start and end dates are available, create a feature that calculates how long a user has been a Netflix subscriber.
- **Binning of Data**:
  - You can categorize continuous data into bins. For instance, divide the **watch time** into categories like "Low," "Medium," and "High" to analyze user engagement more easily.

KPIs and Analysis

Here are some key KPIs and analysis areas you can explore in your HR analysis dashboard:

Key Performance Indicators (KPIs)

1. Total Watch Time (Content Engagement)

KPI Definition:

- This metric measures the total amount of time users spend watching content on Netflix across all genres, time periods, and regions.

Analysis:

- **Objective:** Total Watch Time is a critical indicator of content engagement. Higher watch times suggest that users are highly engaged with the platform, and Netflix is successfully retaining its audience.
- **Insights:** Analyzing watch time across different genres, days, and hours will help Netflix identify what type of content is keeping users engaged. For instance, if drama and action genres consistently show higher watch times, Netflix can focus on producing or acquiring more content in these genres.
- **Actionable Insights:**
    - Prioritize content in top-performing genres (e.g., action, drama).
    - Introduce promotions or exclusive releases during peak viewing hours to maximize user engagement.

2. Most Popular Genres (Content Preference)

KPI Definition:

- This metric identifies which genres (e.g., drama, action, comedy) have the highest number of viewers and the longest watch times.

Analysis:

- **Objective:** Understanding the popularity of different genres helps Netflix prioritize content development and licensing. It also informs marketing strategies to target user segments based on their viewing preferences.
- **Insights:** If action and drama consistently appear as the top genres, Netflix can align its production strategy with audience demand. Genre preferences can also be used to customize user recommendations, making the platform more personalized and engaging.
- **Actionable Insights:**
    - Invest in producing or acquiring content within the most popular genres.
    - Personalize user dashboards to recommend content from high-engagement genres.
    - Identify underperforming genres and analyze the reasons behind low viewership.

3. User Demographics and Regional Preferences

KPI Definition:

- This tracks the preferences of users based on their demographic profile (age, gender, etc.) and region, including viewing habits and preferred content.

Analysis:

- **Objective**: By analyzing how different demographics and regions consume content, Netflix can create tailored content strategies to appeal to specific groups and locations.
- **Insights**: If young adults in the U.S. prefer science fiction while older viewers in Europe prefer drama, Netflix can create or license content accordingly to serve these audiences better. Understanding regional preferences helps in expanding Netflix's international market and tailoring content to cultural tastes.
- **Actionable Insights**:
  - Localize content for specific regions to appeal to diverse audience segments.
  - Use demographic insights to inform targeted marketing campaigns, making recommendations based on user preferences and behavior patterns.

4. Content Release Impact on User Activity

KPI Definition:

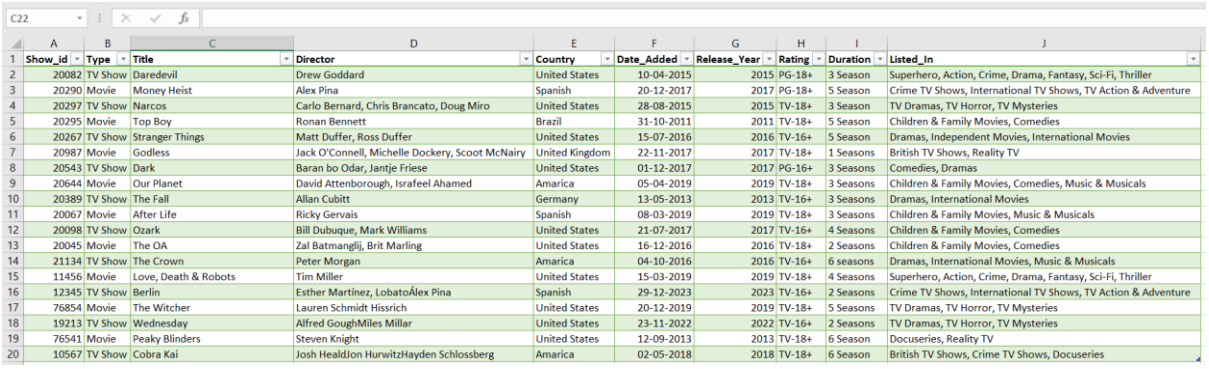
- This measures the user activity and engagement in response to newly released shows or movies.

Analysis:

- **Objective**: Understanding the immediate impact of new content on user engagement helps Netflix assess the success of content releases.
- **Insights**: If user activity spikes after a new release, particularly for certain genres or regions, Netflix can use this to optimize its release strategy. Conversely, if new content fails to generate engagement, it may suggest a need for reevaluating content quality or marketing efforts.

- **Actionable Insights**:
  - Use this KPI to adjust release strategies, focusing on prime times or regions where new content generates the most engagement.
  - Optimize marketing efforts around the release of high-engagement content.

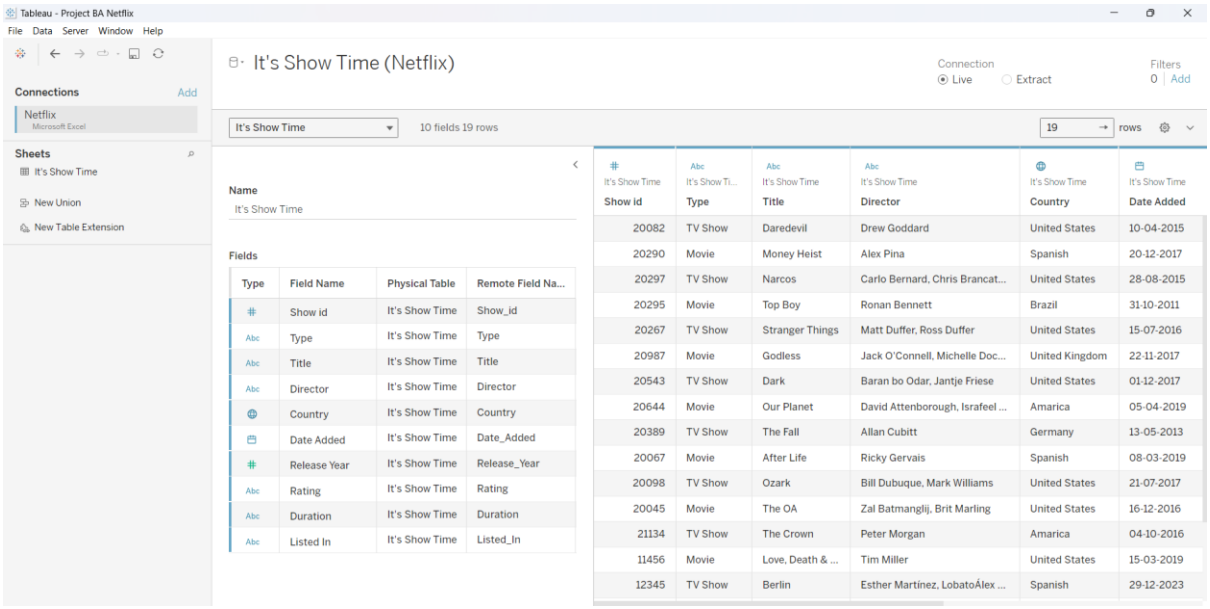
Tableau Features Used



Show_id	Type	Title	Director	Country	Date_Added	Release_Year	Rating	Duration	Listed_In
20082	TV Show	Daredevil	Drew Goddard	United States	10-04-2015	2015	PG-18+	3 Season	Superhero, Action, Crime, Drama, Fantasy, Sci-Fi, Thriller
20290	Movie	Money Heist	Alex Pina	Spanish	20-12-2017	2017	PG-18+	5 Season	Crime TV Shows, International TV Shows, TV Action & Adventure
20297	TV Show	Narcos	Carlo Bernard, Chris Brancato, Doug Miro	United States	28-08-2015	2015	TV-18+	3 Season	TV Dramas, TV Horror, TV Mysteries
20295	Movie	Top Boy	Ronan Bennett	Brazil	31-10-2011	2011	TV-18+	5 Season	Children & Family Movies, Comedies
20267	TV Show	Stranger Things	Matt Duffer, Ross Duffer	United States	15-07-2016	2016	TV-16+	5 Season	Dramas, Independent Movies, International Movies
20987	Movie	Godless	Jack O'Connell, Michelle Dockery, Scoot McNairy	United Kingdom	22-11-2017	2017	TV-18+	1 Seasons	British TV Shows, Reality TV
20543	TV Show	Dark	Baran bo Odar, Jantje Friese	United States	01-12-2017	2017	PG-16+	3 Seasons	Comedies, Dramas
20644	Movie	Our Planet	David Attenborough, Israfeel Ahamed	Amarica	05-04-2019	2019	TV-18+	3 Seasons	Children & Family Movies, Comedies, Music & Musicals
20389	TV Show	The Fall	Allan Cubitt	Germany	13-05-2013	2013	TV-16+	3 Seasons	Dramas, International Movies
20067	Movie	After Life	Ricky Gervais	Spanish	08-03-2019	2019	TV-18+	3 Seasons	Children & Family Movies, Music & Musicals
20098	TV Show	Ozark	Bill Dubuque, Mark Williams	United States	21-07-2017	2017	TV-16+	4 Seasons	Children & Family Movies, Comedies
20045	Movie	The OA	Zal Batmanglij, Brit Marling	United States	16-12-2016	2016	TV-18+	2 Seasons	Children & Family Movies, Comedies
21134	TV Show	The Crown	Peter Morgan	Amarica	04-10-2016	2016	TV-16+	6 seasons	Dramas, International Movies, Music & Musicals
11456	Movie	Love, Death & Robots	Tim Miller	United States	15-03-2019	2019	TV-18+	4 Seasons	Superhero, Action, Crime, Drama, Fantasy, Sci-Fi, Thriller
12345	TV Show	Berlin	Esther Martínez, LobatoÁlex Pina	Spanish	29-12-2023	2023	TV-16+	2 Seasons	Crime TV Shows, International TV Shows, TV Action & Adventure
76854	Movie	The Witcher	Lauren Schmidt Hissrich	United States	20-12-2019	2019	TV-18+	5 Seasons	TV Dramas, TV Horror, TV Mysteries
19213	TV Show	Wednesday	Alfred GoughMiles Millar	United States	23-11-2022	2022	TV-16+	2 Seasons	TV Dramas, TV Horror, TV Mysteries
76541	Movie	Peaky Blinders	Steven Knight	United States	12-09-2013	2013	TV-18+	6 Season	Docuseries, Reality TV
10567	TV Show	Cobra Kai	Josh HealdJon HurwitzHayden Schlossberg	Amarica	02-05-2018	2018	TV-18+	6 Season	British TV Shows, Crime TV Shows, Docuseries

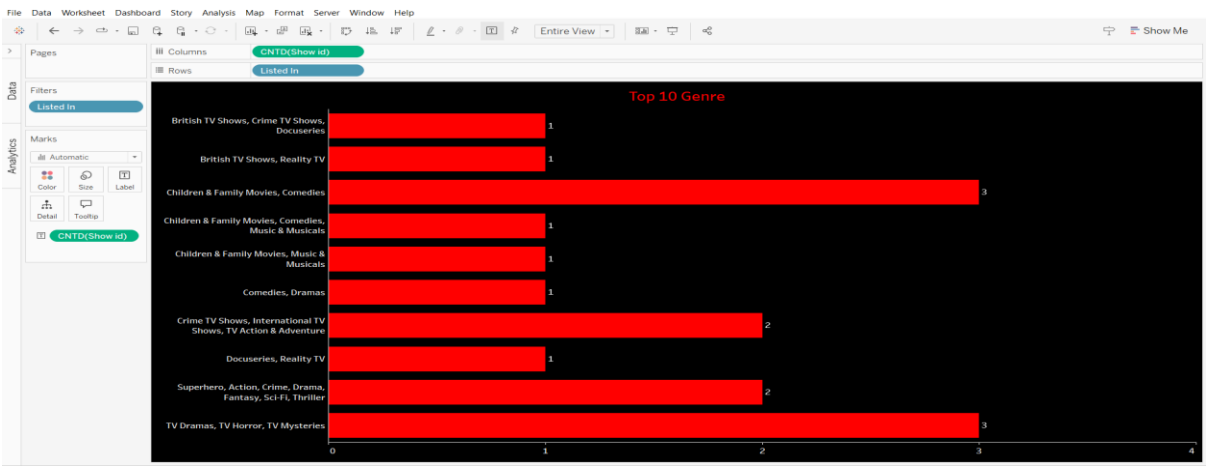
1. Data Import and Connection

- **Feature**: Tableau allows users to connect to a wide variety of data sources, including Excel, CSV, SQL databases, and others.
- **Application in Project**: The Netflix dataset, stored in a CSV file or database, was imported into Tableau. This feature enabled the smooth integration of data from multiple sources such as watch history, content categories, and regional trends into one consolidated platform for analysis.



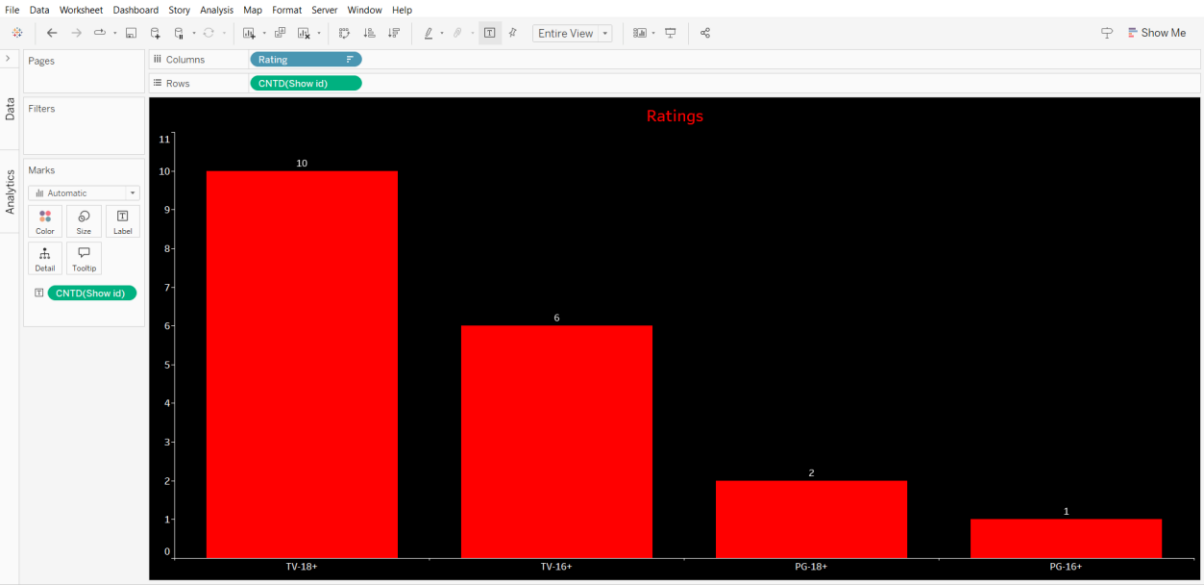
2. Data Blending

- **Feature**: Data blending in Tableau enables the merging of data from different sources based on common fields.
- **Application in Project**: If multiple datasets were used (e.g., user demographics and viewing history), Tableau's data blending feature was leveraged to combine them. This allowed for the analysis of user engagement alongside other metrics such as region and content preferences.



3. Calculated Fields

- **Feature**: Calculated fields allow users to create new data columns based on custom formulas.
- **Application in Project**: Calculated fields were used to derive new metrics, such as calculating the total watch time per user or the average watch time per region. For example, a calculated field was used to find the total number of hours watched per genre across different regions, which helped to identify the most popular genres.



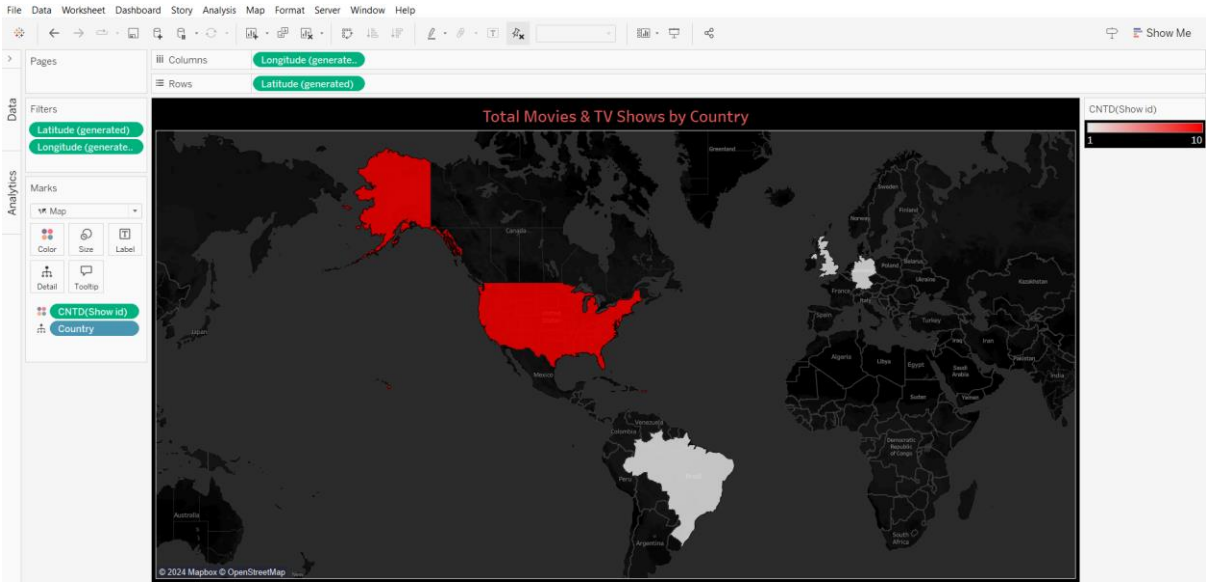
4. Filters and Quick Filters

- **Feature**: Filters in Tableau allow users to focus on specific subsets of data, and quick filters provide interactive filtering directly on the dashboard.
- **Application in Project**: Filters were added to the dashboard to allow users to dynamically view data by genre, region, or time period. For example, users could filter the dashboard to see only

the top-performing shows in a specific region, or analyze data for a specific month or year. Quick filters were displayed on the dashboard, enabling users to interactively explore the data without needing to modify the underlying data source.

5. Interactive Dashboards

- **Feature**: Tableau allows the creation of interactive dashboards where multiple charts and graphs can be interconnected, and actions taken in one visualization affect others.
- **Application in Project**: The Netflix dashboard was designed with interactivity in mind. For example, clicking on a specific genre in a bar chart could filter the entire dashboard to display related metrics like total watch time, regional preferences, and peak viewing times for that genre. This feature made it easier for users to explore the data in a flexible manner, gaining insights without having to create multiple static reports.



6. Visualizations (Charts and Graphs)

- **Bar Charts**: Used to display the top 10 most-watched shows or genres. These charts effectively illustrated which content had the highest user engagement.
- **Line Charts**: Used to track trends over time, such as subscription growth or daily active users. These visualizations were helpful in identifying seasonal or time-based trends.
- **Heatmaps**: Created to show peak viewing hours. The heatmap made it easy to visualize which hours or days had the highest activity, enabling Netflix to plan promotions during those times.
- **Geographical Maps**: Tableau's built-in geographic visualization tools were used to display regional data. For example, a map showing the most popular genres by region allowed Netflix to easily see which content resonated with users in different parts of the world.

Data Visualization

1. Bar Chart: Top 10 Most Watched Genres

- **Purpose**: To identify the most popular content genres on Netflix based on total watch time.
- **Description**: The bar chart presents the top 10 genres ranked by total viewing hours. Each genre is represented by a bar, with the length of the bar indicating its popularity in terms of watch time. This visualization allows Netflix to understand which genres attract the most viewers and can help in content acquisition and production decisions.
- **Insights**: From the chart, Netflix can see which genres—like action, drama, or comedy—are driving the most engagement, and this can guide future investment in content.

How to Create in Tableau:

- Drag Genres to the Rows shelf and Total Watch Time to the Columns shelf.
- Sort the genres in descending order based on watch time.
- Apply a filter to display the top 10 genres only.

2. Map Visualization: Regional Content Preferences

- **Purpose**: To explore regional preferences in terms of popular content and genres.
- **Description**: The map visualization displays geographic regions where Netflix users are most active. Each region is colored based on the total number of viewing hours or the most popular genre

in that region. The map allows Netflix to quickly identify regional preferences and engagement levels.

- **Insights**: Netflix can use this visualization to tailor content for specific regions. For example, if action movies are popular in North America while drama thrives in Europe, Netflix can adjust its content offerings to suit regional tastes.

How to Create in Tableau:

- Drag Region/Country to the Rows shelf and use Geographic Map as the chart type.
- Drag Watch Time or Top Genre to the Color shelf to color-code regions based on engagement or content preference.
- Use filters to allow users to drill down by genre or other metrics.

3. Line Chart: User Activity Over Time

- **Purpose**: To track user engagement trends over time, such as daily or monthly active users.
- **Description**: The line chart plots user activity (e.g., watch hours, number of users) over a defined time period, such as days, weeks, or months. The x-axis represents the time, and the y-axis shows user engagement metrics. This visualization helps Netflix understand how user engagement fluctuates over time, identify trends, and predict future user behavior.
- **Insights**: This allows Netflix to monitor trends, such as increases in activity during weekends or special events (e.g., new show releases). It also helps in spotting periods of declining engagement that may need attention.

How to Create in Tableau:

- Drag Date to the Columns shelf and Watch Time/User Activity to the Rows shelf.
- Use the Line Chart type to represent the data over time.
- Add filters to adjust the time period for more granular or broader analysis.

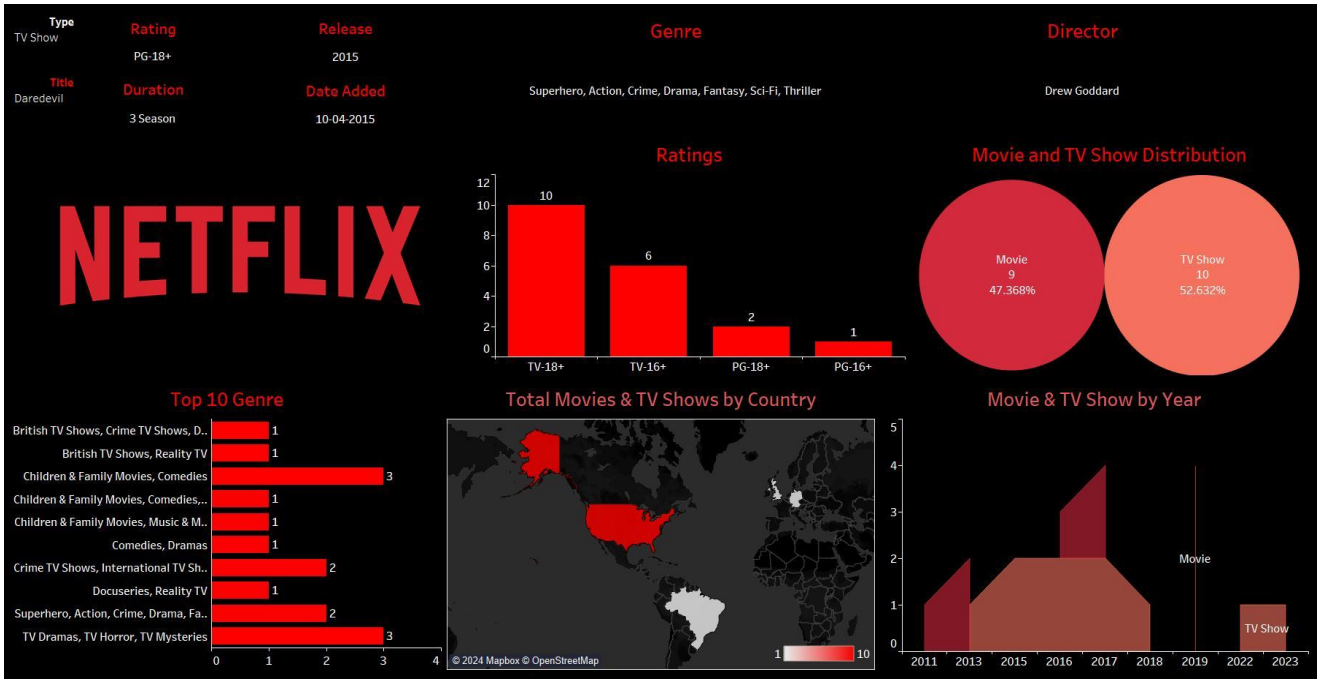
6. Stacked Bar Chart: Content Performance by Genre

- **Purpose**: To compare content performance across genres by different user metrics (e.g., number of views, average rating, or watch time).
- **Description**: A stacked bar chart displays the performance of various genres, with each bar divided into different segments representing a user metric. For example, a bar for each genre could be split into segments showing total views, total watch time, and average ratings. This visualization allows Netflix to compare how different genres perform based on multiple KPIs.
- **Insights**: Netflix can see which genres not only attract the most views but also engage users for longer periods, helping prioritize content development and acquisition.

How to Create in Tableau:

- Drag Genre to the Rows shelf and Watch Time, Views, or other metrics to the Columns shelf.
- Use the Stacked Bar Chart type to represent different performance metrics for each genre.
- Color-code each section of the bars based on different KPIs.

Dashboard



Conclusion

This project aimed to provide a comprehensive analysis of Netflix's content performance, user engagement, and regional preferences using an interactive Tableau dashboard. By leveraging data visualization techniques, the project successfully uncovered key patterns in user behavior and content consumption that can drive strategic decision-making for Netflix.

Key Insights:

1. **Content Performance**: The data analysis highlighted significant trends in content consumption, revealing that certain genres such as **action**, **drama**, and **comedy** consistently dominate viewership.

This insight is crucial for Netflix, as it can help guide future content acquisition and production decisions. For example, prioritizing investments in these popular genres may yield higher user engagement and retention.

2. **User Behavior and Peak Engagement**: One of the most critical findings was the identification of **peak viewing times**, which predominantly occur between **7 PM and 10 PM** across multiple regions. This time window represents the most active period for Netflix users, and the data suggests that targeted content recommendations or promotions during these hours could further enhance user engagement.
3. **Regional Analysis**: The geographic analysis revealed differences in content preferences across various regions. For instance, **North America** showed higher engagement with **action and thriller content**, while **Asia** and **Europe** exhibited preferences for **dramas** and **romantic comedies**. These findings can inform Netflix's content localization strategies, where region-specific content is developed or promoted to align with local preferences, enhancing global market penetration.
4. **Subscription and Growth Trends**: Subscription data pointed to steady growth in **emerging markets**, particularly in **Asia** and **Latin America**. These regions showed a significant uptick in user engagement over time, indicating potential areas where Netflix could focus its expansion efforts. Strategies like offering tailored content or localized pricing models in these regions could further accelerate growth.

References

Netflix Dataset:

- Source: Kaggle Dataset - Netflix Movies and TV Shows

Tableau Software Documentation:

- Source: Tableau Help Documentation