Analytical Report on Netflix Content and User Insights

SUBMITTED BY

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1. Introduction

Netflix is a leading global streaming service, recognized for its vast library content and user engagement with 283 million paid memberships in over 190 countries enjoying TV series, films and games across a wide variety of genres and languages.

The company's success is attributed to its strategic content creation and acquisition, which allows it to offer a diverse range of content to its users. With millions of subscribers worldwide, examining its data allows for rich insights into viewer preferences and trends across different demographics.

1.1 Overview of the open-source data

The dataset was sourced from Kaggle and is characterized as a synthetic open-source dataset that mimics real-world Netflix user data, ensuring it serves well for analysis and visualizations.

1.2 Source and Dataset Selection

I have selected the dataset from Kaggle. This is an open-source synthetic dataset which mimics real world Netflix user data, ensuring it serves well for analysis and visualizations. This dataset contains 5000 records on various Netflix titles, including information on genres, ratings, user engagement, and content distribution.

1.3 Why is this dataset chosen?

Netflix is one of the world's leading streaming service platforms. With this dataset the primary aim is to analyze content trends, user engagement, and popular genres. Analyzing Netflix data provides vital insights into user preferences, engagement, and content distribution pattern across genres, helping to understand trends in the streaming industry.

2. Purpose and Goals

2.1 "Primary Objective":

The goal is to analyze Netflix user data to understand user preferences, subscription trends, and content performance. The insights will help in making data-driven decisions for content creation, marketing strategies, and improving user experience.

2.2 "Initial Goals and Expectations":

- Identify the most popular genres and titles among different user demographics.
- Analyze subscription trends based on plan duration and subscription type.
- Understand the relationship between user ratings and content performance.

3. Key Research Questions

Our analysis focused on answering the following key questions:

1. What are the most popular genres and top-rated content?
2. Which devices are most used for Netflix streaming?
3. How do TV shows compare to movies in terms of user engagement?
4. What are the subscription patterns across different countries?
5. How has the content distribution changed over time?

4. How did I connect the data using Microsoft PowerBI?

PowerBI is the main tool used to integrate and connect with the dataset, building interactive dashboards for data-driven decision-making and analysis.

- The Netflix dataset "csv" file was imported into PowerBI.
- The data was cleaned and transformed using Power Query to handle missing values, fixing data types and renaming columns, etc.…)
- Created a Data model and established relationships between entity tables.
- Created DAX measures (Avg. rating, Top rated titles, etc.) and developed interactive visuals for analysis (Tree map, Bar charts, etc.)

5. Data Model

5.1 Overview of the Data Model

In PowerBI, a data model is a conceptual representation of the data. It defines relationships between different tables, allowing us to create complex calculations and interactive visualizations. The provided image mentioned below shows a **Netflix Content and User Insights Data Model**, which consists of multiple related tables.

Here's an overview:

➔ **Central Table: Netflix_dataset_5000**

- This is the fact table, containing key transactional data.
- The attributes are as follows:
  (Date Added, Device, Subscription Type, Titles, User ID, Avg. Rating, Most Popular Genre, Top Rated Titles, Top Devices Used, Total users)

➔ **Lookup Tables:**

- Content Lookup Table:
  This table provides metadata about Netflix content.

- Device Lookup Table:
  This defines the device types used for streaming.

- Date Lookup Table:
  This table helps with time-based analysis.

- Subscription Lookup Table:
  Provides details on Netflix subscription plans.

- User Lookup Table:
  This table illustrates demographic information about users.

➔ **Relationships:**

The **fact table** (netflix_dataset_5000) is connected to **dimension tables** based on shared keys:

- Titles → Linked to Content Lookup
- Device → Linked to Device Lookup
- Date Added → Linked to Date Lookup
- Subscription Type → Linked to Subscription Lookup
- UserID → Linked to User Lookup

5.2 Key Insights Enabled by this Data model

This well-structured data model enables efficient querying, reporting, and visualization for Netflix content and user insights.

Content Trends: Analyze content preferences by genre, ratings, and release year.

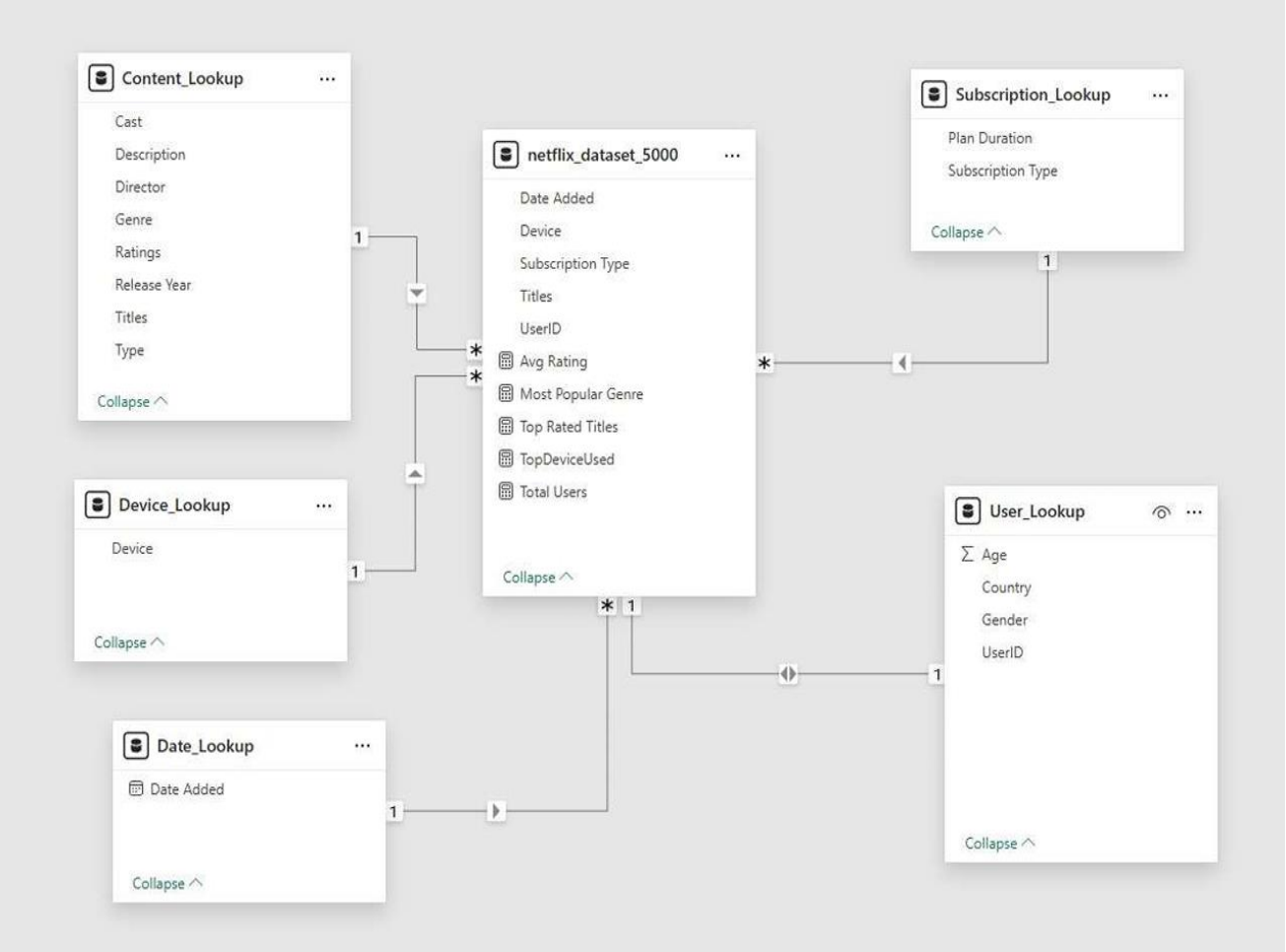
User Insights: Examine demographics like age, gender, and country.

Device Usage: Identify the most used streaming devices.

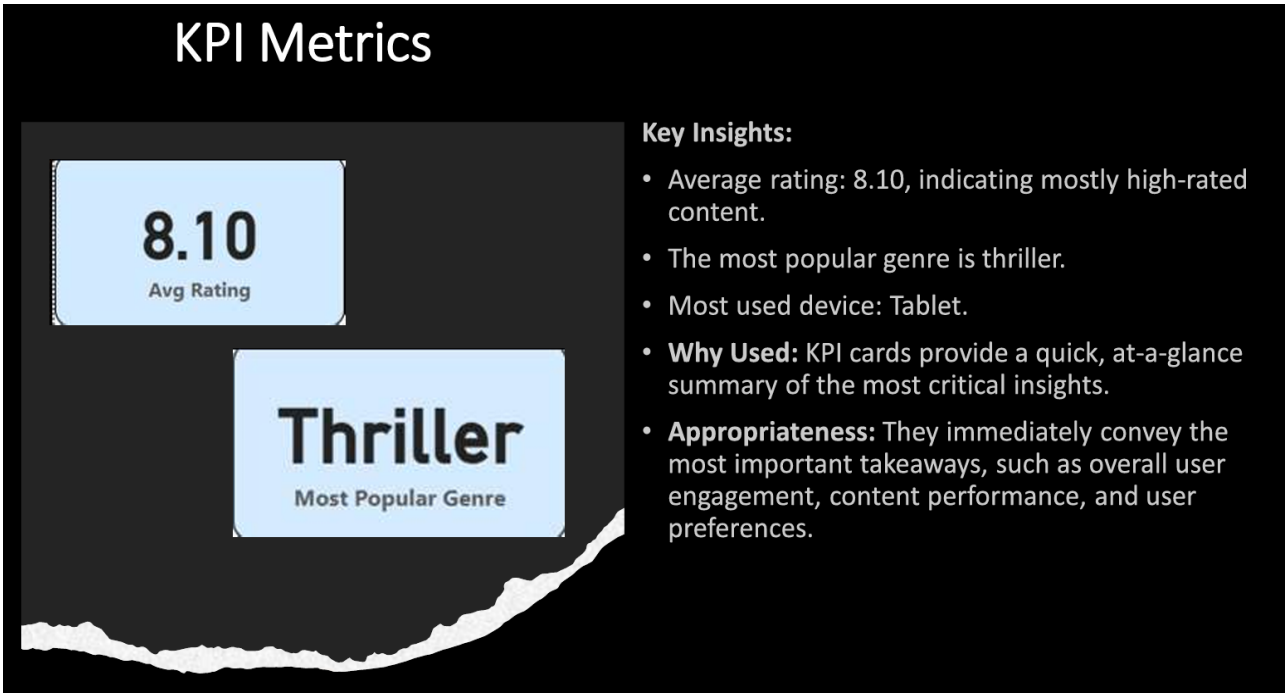
Subscription Trends: Track subscription preferences by country.

Time Analysis: Study trends in content addition over time.

5.3 Data Model



6. KPI Metrics



7. Other Visuals

-> Tree Map (Titles and Ratings Distribution).

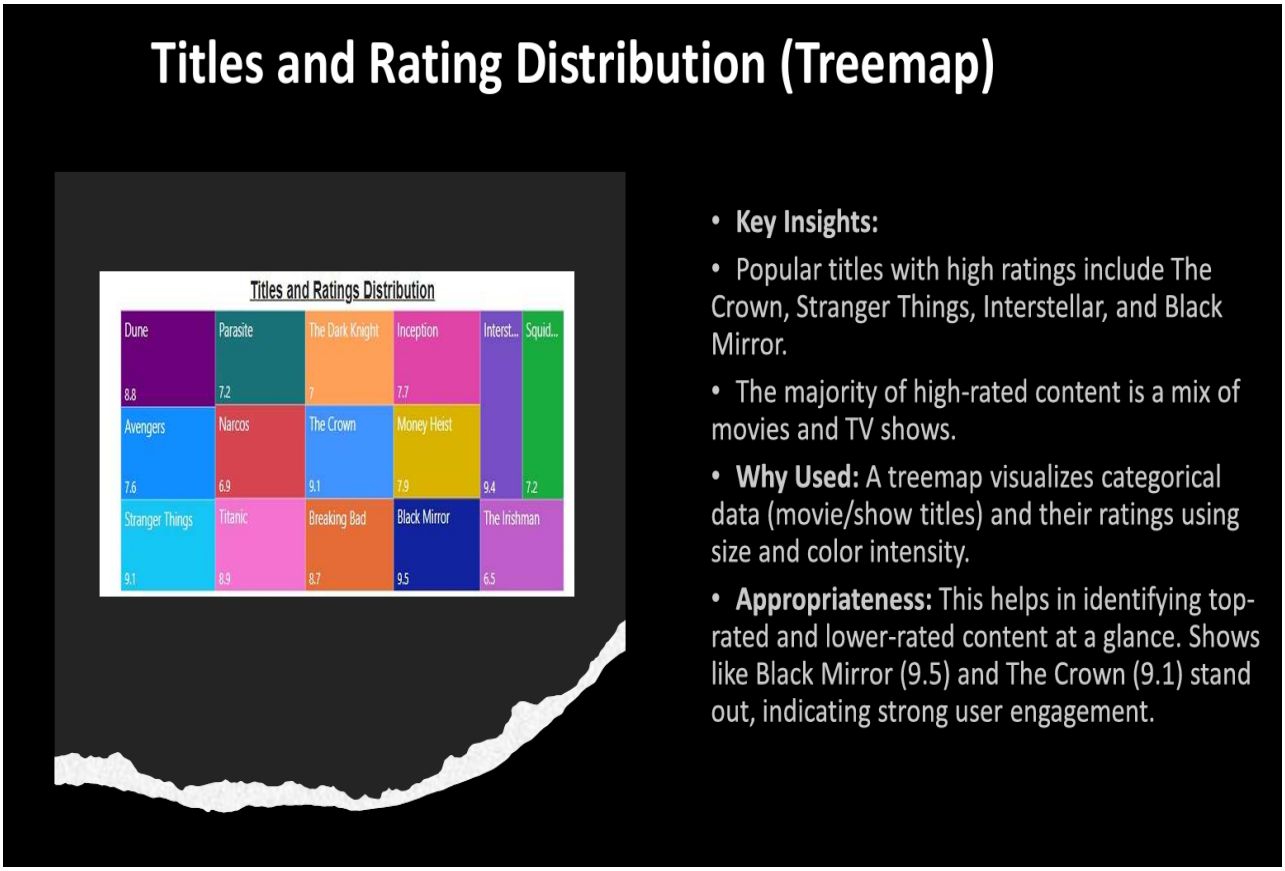
-> Pie Chart (Total Users by Device).

-> Donut Chart (Total Users by Type).

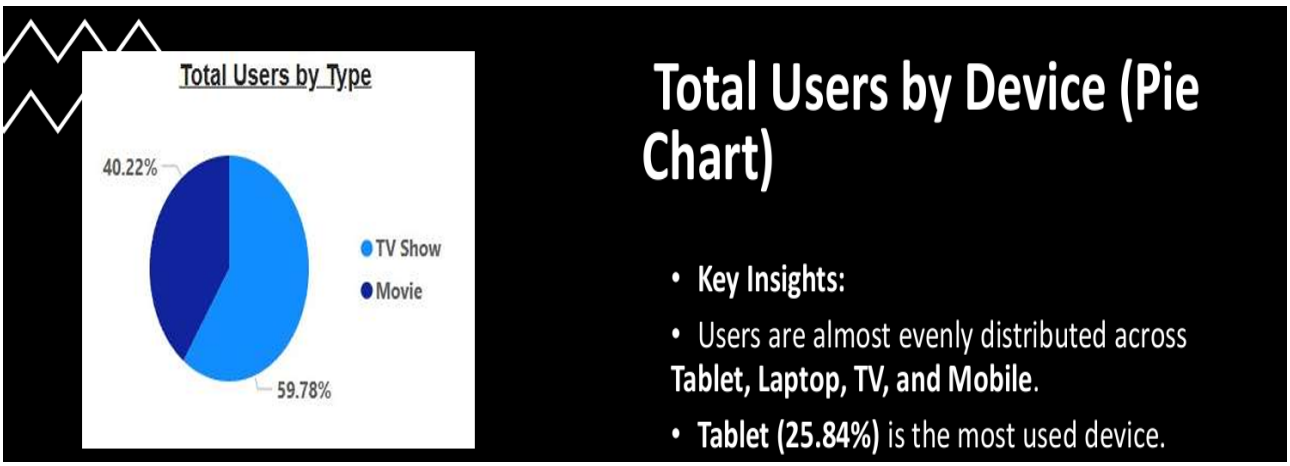
-> Stacked Bar Chart (Subscription type by Country).

-> Bar Chart (Count of Titles by Year and Type).

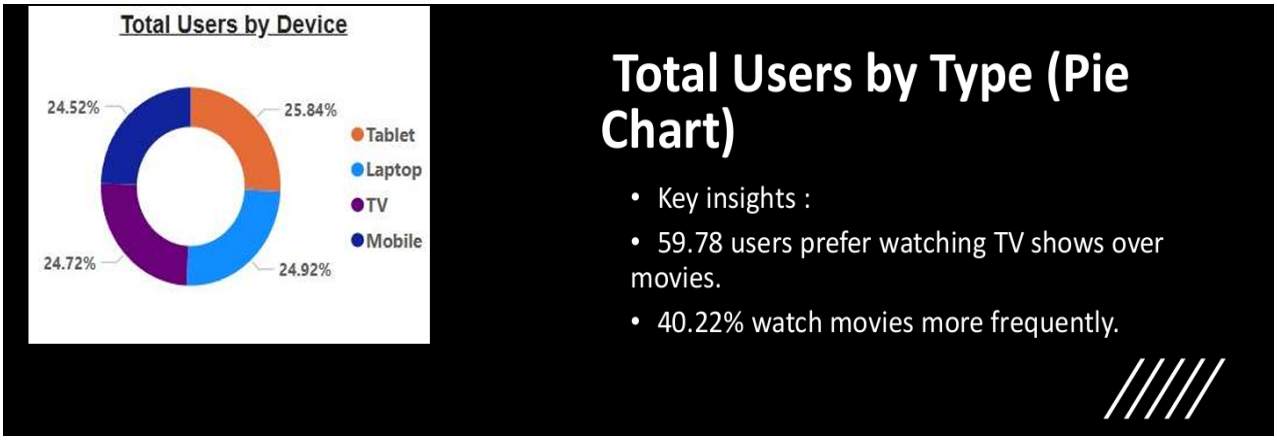
7.1 Tree Map (Titles and Ratings Distribution).



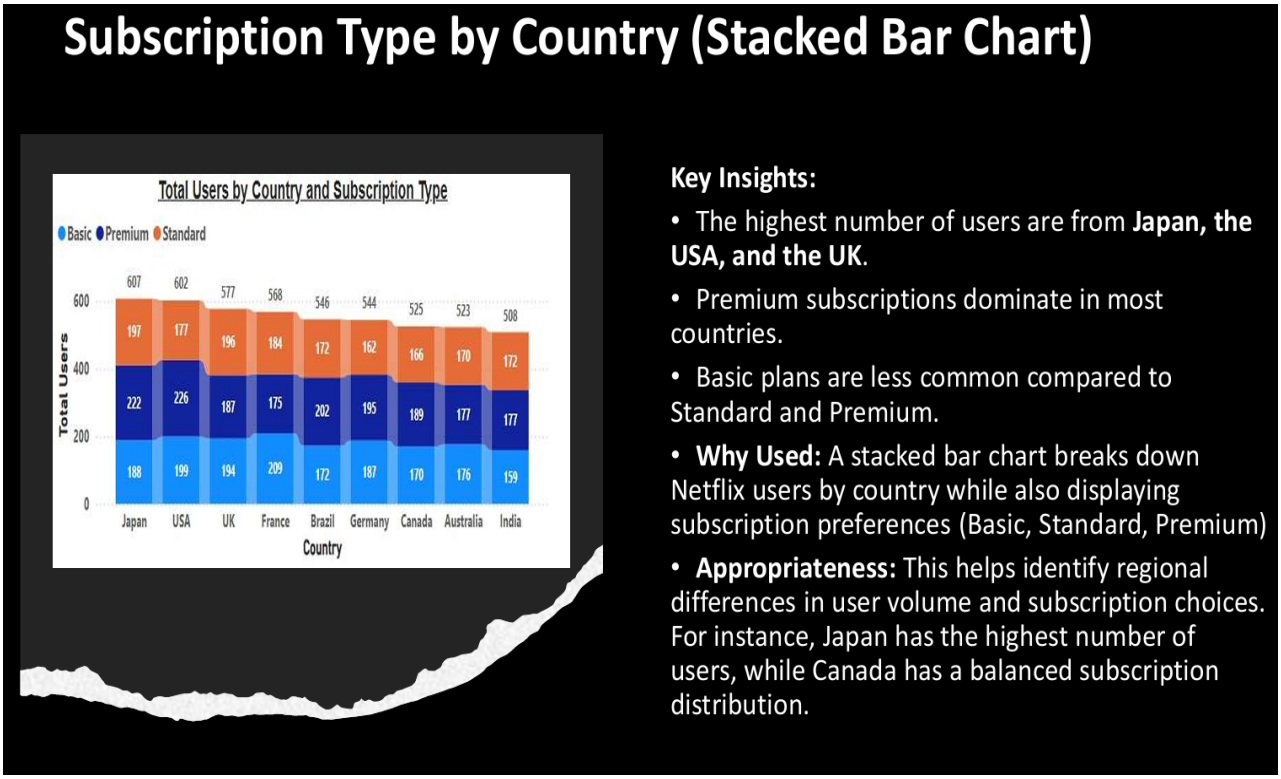
7.2 Pie Chart (Total Users by Device).



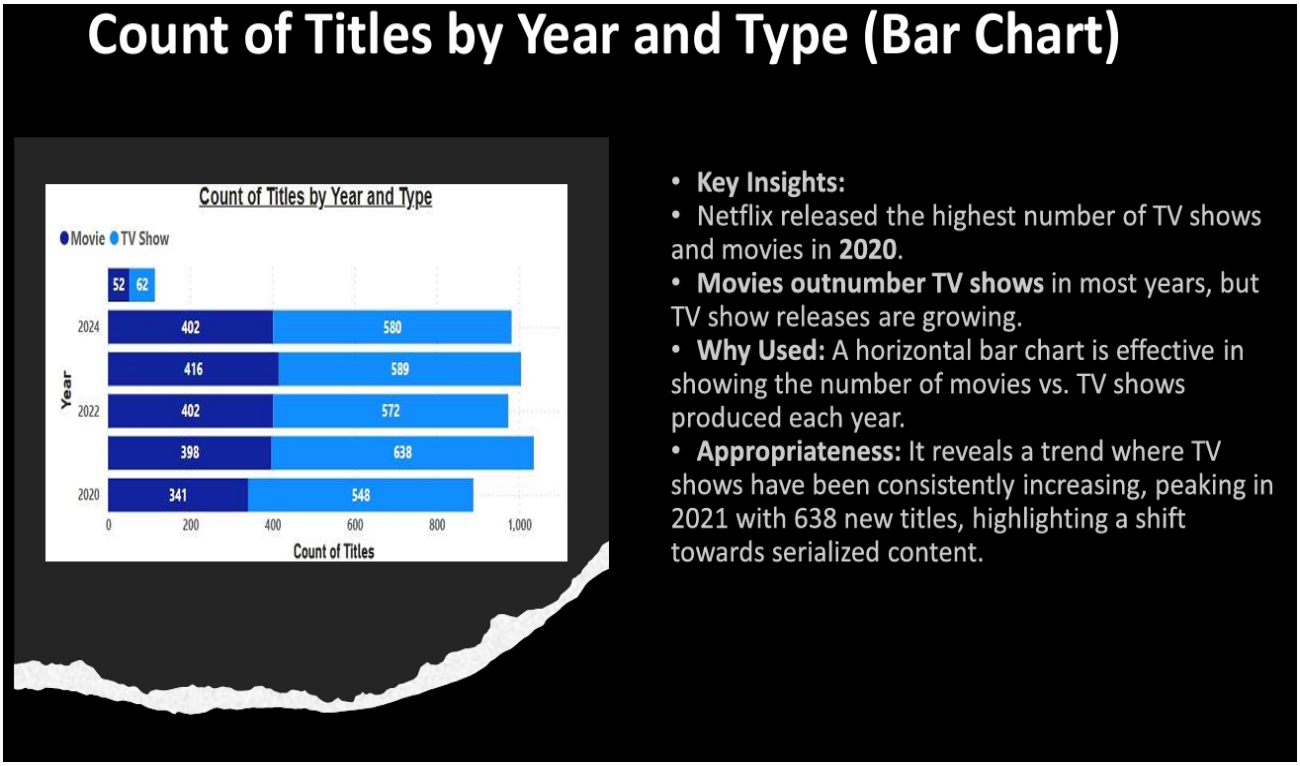
7.3 Donut Chart (Total Users by Type).



7.4 Stacked Bar Chart (Subscription type by Country).



7.5 Bar Chart (Count of Titles by Year and Type).



8. RESULTS

➢ Content Popularity

- **Thriller** emerged as the most preferred genre.
- **TV shows** are gaining more popularity compared to movies (59.78% vs. 40.22%).

➢ Device Usage Analysis

- Users are almost evenly distributed across different devices.
- **Tablet (25.84%)** is the most used device for streaming Netflix.

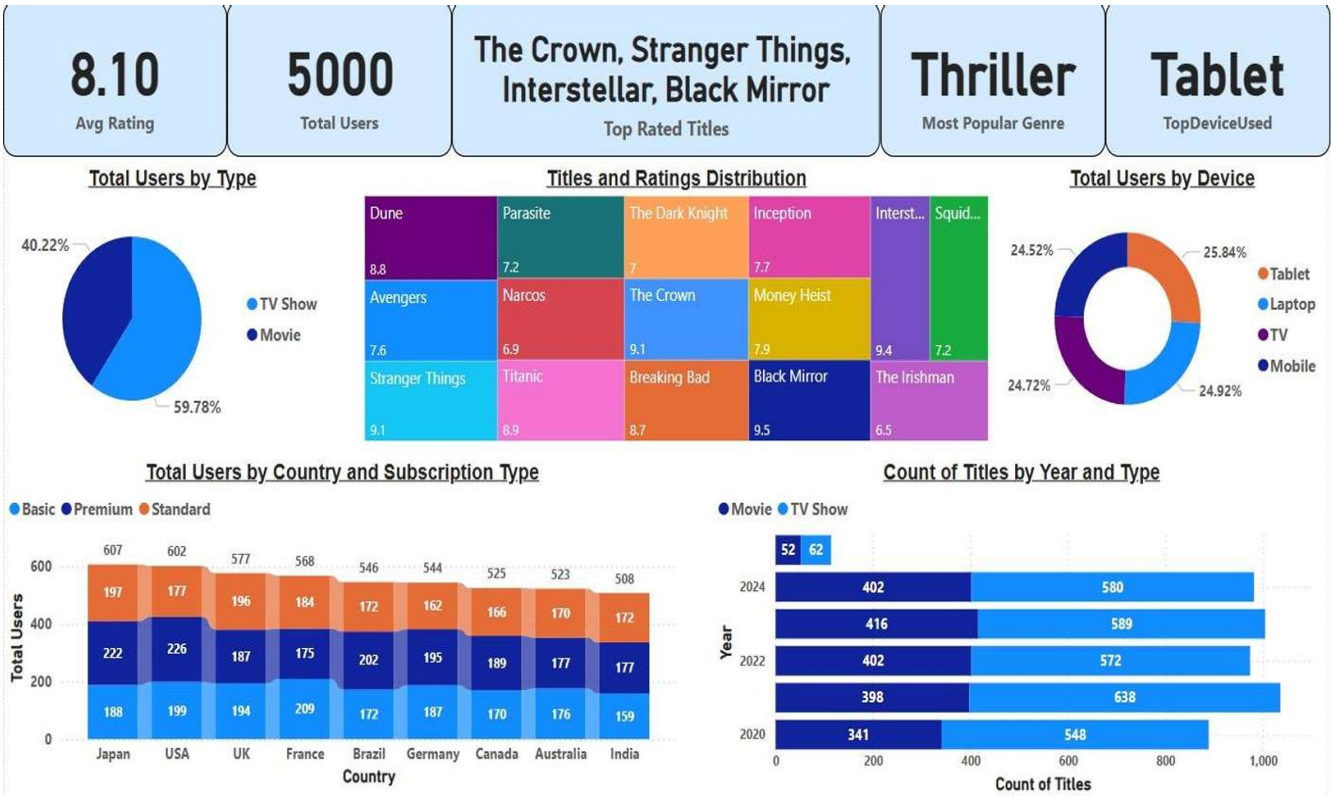
- **Subscription Analysis**
  - The highest number of users are from **Japan, the USA, and the UK**.
  - **Premium subscriptions** dominate in most countries, while Basic plans are less common.

- **Content Trends**
  - Netflix has a diverse content distribution across multiple years.
  - A steady increase in content production is observed, supporting the growth of streaming services.

9. Conclusion

Our analysis highlights the diverse user base of Netflix and the growing preference for TV shows over movies. Users access Netflix from multiple devices, with tablets leading in engagement. Subscription patterns vary across countries, with Japan and the USA having the most users. These insights can help content creators and Netflix strategists tailor their offerings based on user preferences and regional trends.

10. Appendix (Final Dashboard)



The final dashboard visualizes our insights, including:

- **Popular genres and ratings.**
- **Device usage distribution.**
- **Subscription patterns by country.**
- **Trends in TV shows vs. movies.**