Netflix Analysis Project Report

Project Overview

The Netflix Analysis project aimed to understand how audiences engage with Netflix's movies and TV shows. Using Power BI, I explored viewership trends, ratings, popular genres, demographics, and subscription behaviour to turn raw data into meaningful insights for better content decisions.

Throughout the project, I cleaned and transformed the dataset, created DAX measures, and built an interactive dashboard showcasing patterns in viewing behaviour and country-level engagement. This demonstrates my ability to handle complete data analysis and visualization workflows.

Problem Statement

Netflix hosts a diverse global audience, and understanding viewer preferences is essential for sustaining engagement. The challenge was to analyze Netflix's data and uncover insights about which types of content perform best, how subscription types influence viewing habits, and how audience demographics affect ratings and watch time. The project aimed to answer business questions such as which countries watch the most, which genres are most loved, which directors are consistently high-rated, and when new content releases perform the best.

Task Explanations

1. Data Cleaning and Transformation:

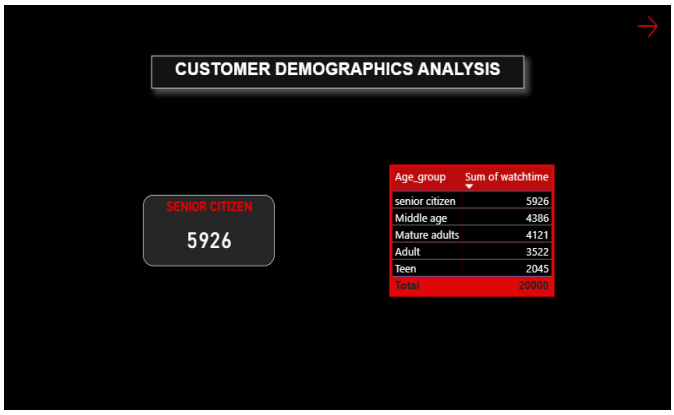
Data preparation was the first key step in this project. I fixed missing values in fields like director, cast, and country, and standardized the date format in the *date_added* column. I also ensured rating categories were consistent and all columns were properly formatted, improving the overall quality of the dataset.

Why this matters: Clean and consistent data prevents misleading insights and ensures accurate comparisons across watch time, ratings, and genres.

2. Customer Demographics Analysis:

In this step, I categorized viewers into distinct age groups — Teen, Adult, Mature Adults, Middle Age, and Senior Citizen. By visualizing total watch time across these segments, I found that Senior Citizens had the highest overall watch time, followed by Middle Age and Mature Adults. This suggested that Netflix's core user base is shifting toward older audiences.

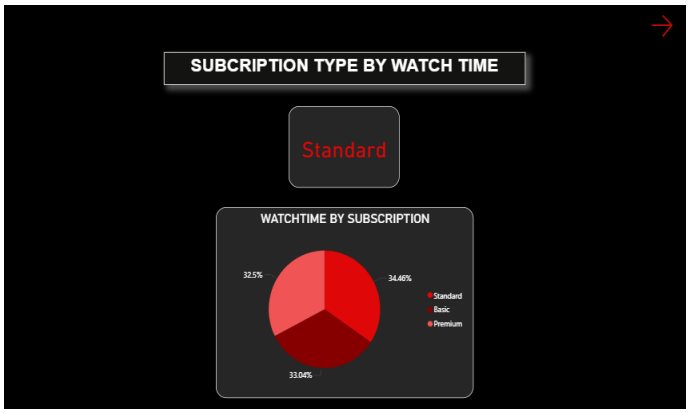
Insight: Understanding the age group engagement helps tailor content recommendations and plan targeted marketing campaigns.



3. Subscription Type vs Watch Time:

This analysis revealed how users on different subscription plans — Basic, Standard, and Premium - engaged with the platform. I created a donut chart showing watch time percentages for each plan, where Standard users accounted for the highest watch time at around 34%, slightly ahead of Premium users. This indicates that the Standard balance plan strikes a between affordability and content quality, making it the most popular choice.

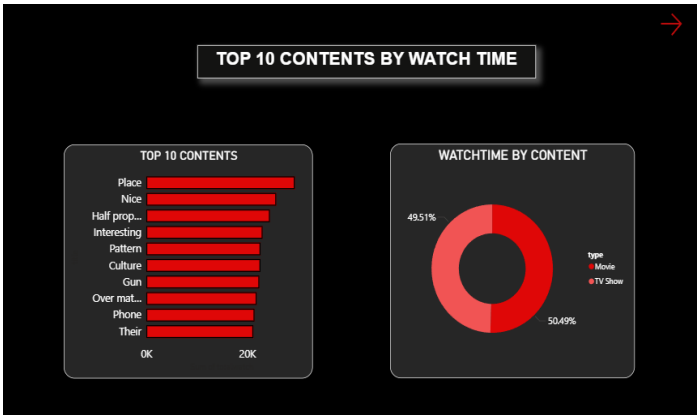
Why this matters: These insights help Netflix evaluate subscription pricing strategies and understand how plan types impact engagement.



4. Top 10 Contents by Watch Time:

To identify what attracts the most attention, I created a bar chart highlighting the top 10 movies and TV shows based on watch time. Titles such as 'Place,' 'Nice,' and 'Half Prop…' ranked among the most watched. Additionally, a pie chart compared overall watch time between Movies and TV Shows — showing nearly equal distribution (50.49% vs. 49.51%).

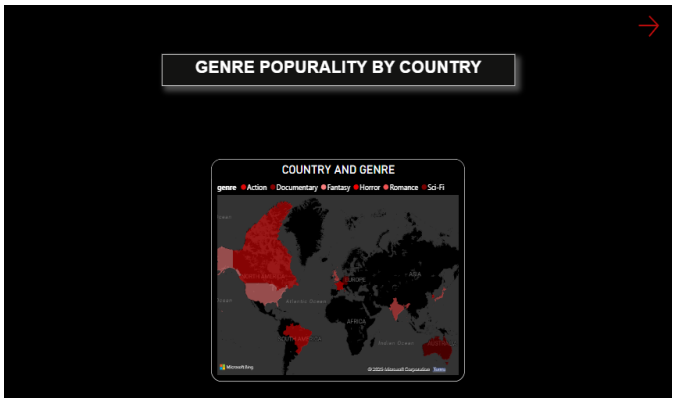
Insight: Balanced viewership between movies and TV shows indicates Netflix's diverse audience appeal.



5. Genre Popularity by Country:

I used a world map visualization to identify which genres performed best in each country. For instance, Action and Romance genres dominated in countries like India and the USA, while Documentary and Fantasy were

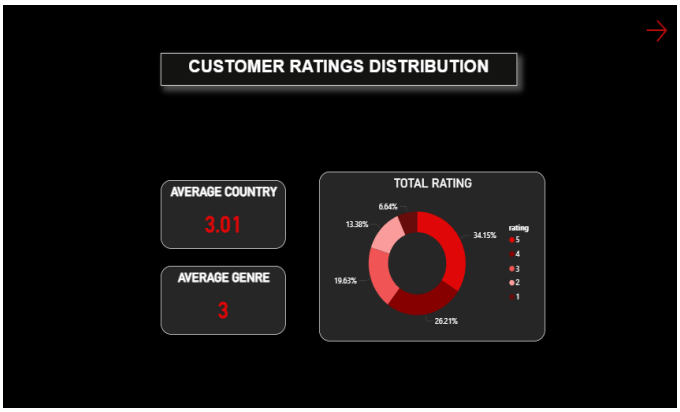
more popular in European countries. This visualization showcased regional viewing preferences that Netflix can use to design localized marketing strategies.



6. Customer Ratings Distribution:

Analyzing user ratings provided a clearer view of audience satisfaction. I visualized the distribution of ratings from 1 to 5 stars. The analysis showed that about 34% of ratings were 5-star, indicating high satisfaction overall. Average ratings by genre and country revealed that Action and Sci-Fi performed best globally.

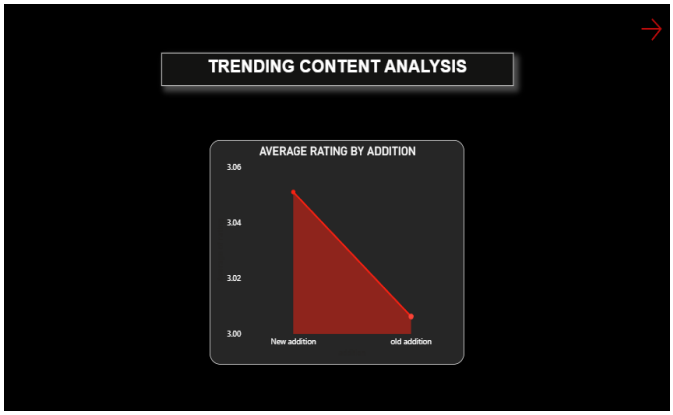
Insight: High proportions of positive ratings confirm that Netflix's content strategy aligns with customer preferences.



7. Trending content analysis:

This task focused on identifying Netflix shows and movies added in the last two years and comparing their average ratings with older content. Using a line chart, I visualized how viewer ratings varied between new additions and existing titles. The results showed that newly added content maintained a slightly higher average rating compared to older ones. This suggests that Netflix's recent releases are being well received and reflect improvements in storytelling, production, and audience relevance.

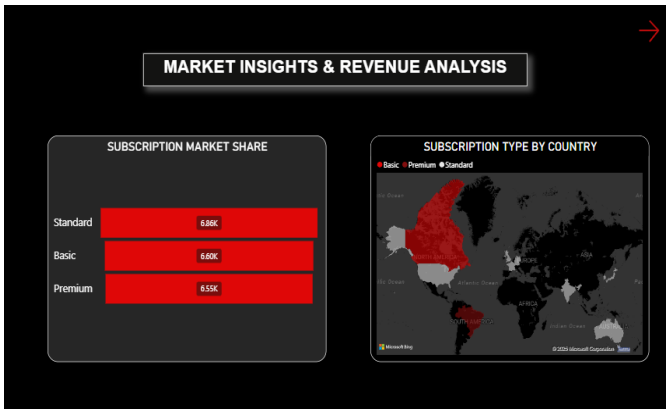
Insight: The line chart reveals a steady upward trend in ratings for newly added content, highlighting Netflix's successful strategy in delivering fresh, engaging releases that connect strongly with its viewers.



8.Market Insights & Revenue Analysis:

This task examined how users are distributed across Basic, Standard, and Premium plans. The funnel chart showed Standard as the most used plan, followed by Premium. The world map highlighted how subscription preferences differ by country, revealing regions that prefer higher-tier or basic plans.

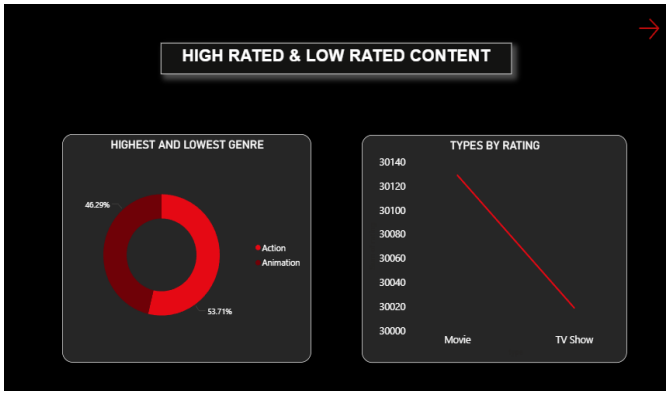
Insight: Standard dominates globally, while Premium is stronger in countries like the USA and Canada. Emerging markets lean toward Basic and Standard, suggesting the need for region-based pricing strategies.



10. High-rated vs Low rated content:

This task analyzed which genres received the highest and lowest ratings. The donut chart showed Action as the top-rated genre, while Animation had the lowest ratings. A line chart comparing Movies and TV Shows showed that Movies scored slightly higher overall.

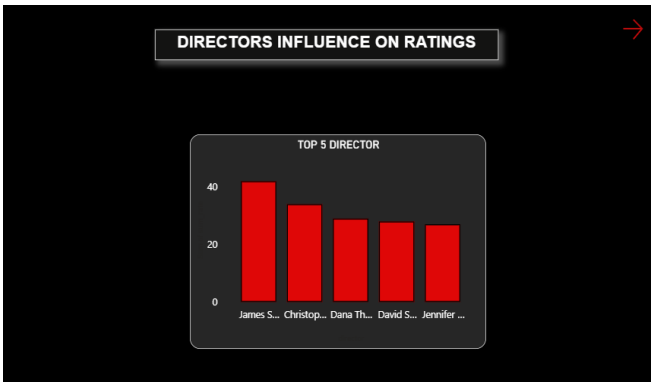
Insight: Action performs strongest, Animation weakest, and Movies receive better ratings than TV Shows, indicating higher viewer satisfaction with films.



11. Director and Cast Influence on Ratings:

To explore the creative side, I identified the top 5 directors with the highest-rated content. Directors like James S. and Christopher led the list. This chart demonstrated that content with well-known directors and casts tends to perform better in terms of ratings.

Why this task was important: Highlighting top directors helps Netflix understand which creators consistently attract and retain viewers.



12. Content localization strategy:

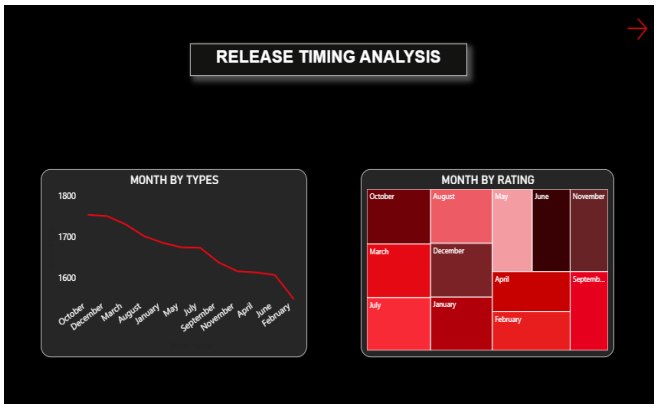
Using comparative visuals, I noticed that South Korea showed relatively lower engagement levels compared to countries like India or the USA. This insight can help Netflix focus on improving content localization or adding regionally relevant titles to boost engagement there.

Insight: South Korea's lower engagement highlights the need for stronger local content and tailored suggestions to match audience taste.

13. Release Timing Analysis:

Another important observation was identifying when Netflix adds the most content. Monthly trends revealed that October, December, and March saw

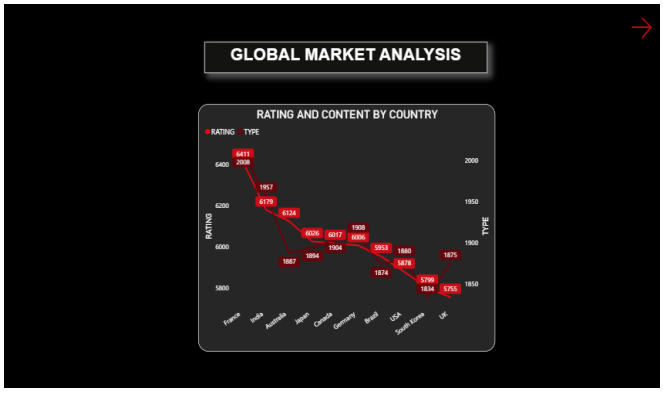
the highest content additions, while June and February were quieter months. Average rating analysis between newly added and older content showed that new additions often receive slightly better ratings, possibly due to stronger marketing efforts.



15. Competitor Benchmarking Simulation

The chart shows that countries like France, India, and Australia have higher ratings and stronger content engagement, while South Korea, the UK, and Brazil fall on the lower side. If a competitor offered better localized content in these weaker regions, Netflix would need to increase regional content variety and tailor recommendations to match audience preferences.

Insight: Lower-performing countries highlight where Netflix risks losing viewers. Adding more local content and improving relevance can help strengthen its position.



Key Metrics (KPIs):

At the top of the dashboard, I included KPI cards summarizing crucial metrics such as Total Content, Total Movies, Total TV Shows, Total Directors, Total Ratings, and Total Genres. These KPIs provide a quick at-a-glance overview of the dataset and help viewers understand the scope of the analysis before diving into details.

Dashboard Explanation

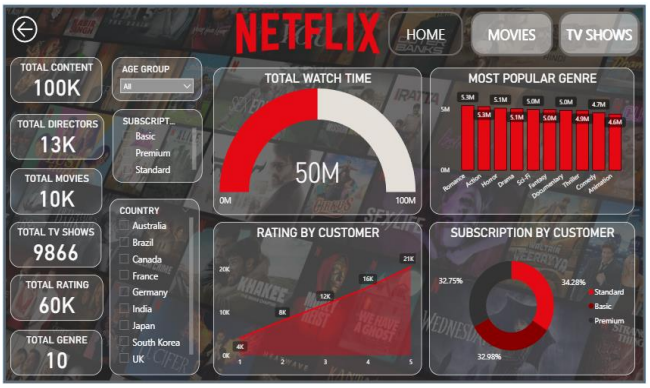
The Power BI dashboard was designed to be interactive, clean, and intuitive. It contains multiple pages with slicers, buttons, and charts that allow users to explore Netflix data dynamically.

• Slicers: The dashboard includes three main slicers — Country, Age Group, and Subscription Type. These allow users to filter visuals to view specific audience segments. For example, selecting India shows that Action and Romance dominate, while choosing Germany reveals interest in Sci-Fi and Documentary genres.

• KPIs: The top section features KPI cards summarizing total counts of content, ratings, and directors. These provide immediate context about the dataset size and scope.

• Charts: The dashboard includes several visuals such as bar charts for watch time by subscription type, pie charts for content ratio between movies and shows, line charts for release trends, and maps showing genre popularity by country. Each visual is interconnected so that slicer changes update all insights instantly.

• Buttons: Three navigation buttons — Home, Movies, and TV Shows — help users switch between report pages. The Home page gives a summary of all metrics, the Movies page focuses on movie-specific insights, and the TV Shows page highlights show-specific analytics. This design improves user navigation and makes the dashboard more professional and user-friendly.



Conclusion

This Netflix Analysis project provided a complete overview of how data-driven decisions can be made using Power BI. By analyzing factors such as age demographics, subscription types, content ratings, and release timings, I was able to uncover valuable insights about audience behavior and content performance.