Introduction

In this project, we used the pandas library to analyze a dataset from Netflix, aiming to support strategic decision-making on content release strategies based on data insights.

Our primary objective was to answer the question: What release strategy should we follow according to the data analyzed?

By examining patterns in content distribution, popularity across genres, and regional preferences, we gained valuable insights into which content resonates most with audiences in different countries. This analysis serves as a foundation for shaping Netflix's content strategy, helping to identify where new releases could generate the greatest engagement and impact.

The project involved key steps such as data exploration, data cleaning, analysis, and visualization to ensure that our findings were clear, actionable, and professionally presented.

Through this data-driven approach, we aim to provide recommendations that align with audience demand and enhance Netflix's reach in its global markets.

Problem Definition

Netflix is facing challenges in effectively engaging audiences across different regions, leading to a lack of clarity on optimal content release strategies. This issue is driven by an inconsistent understanding of content preferences in various countries, impacting Netflix's ability to capture and retain subscribers globally. The main challenge is to identify data-driven strategies that align content offerings with regional demands to maximize engagement and growth.

Impact:

BUSINESS
- Limited growth and revenue in key regions due to reduced market penetration.
- Inefficient resource use in content acquisition and marketing affects profitability.

CUSTOMERS
- Lower satisfaction and increased churn risk from content misalignment with viewer preferences.
- Limited content localization decreases appeal in culturally diverse markets

STAKEHOLDERS
- Declining investor confidence from slower international growth.
- Difficulty in forming strategic partnerships with local creators, hindering regional expansion

DATA ANALYTICS BOOTCAMP

Dataset- Kaggle

- This tabular dataset consists of listings of all the movies and tv shows available on Netflix, along with details such as - cast, directors, ratings, release year, duration, etc.

8807

unique values

Year

mid-2021

Summary

- 📁 1 file
  - 🔳 .csv   1
- 🔳 12 columns
  - 🔤 String   10
  - # Integer   1
  - 🔢 DateTime   1

Collection, exploration, and cleanup process

- Explore variables
- Remove show_id
- Rename of variables
- Drop duplicates
- Create a new CSV

date_added	Available on Netflix since
September 25, 2021	September 25, 2021
September 24, 2021	September 24, 2021

```python
# Count the columns
netflix_path.count()
```

```
show_id          8807
type             8807
title            8807
director         6173
cast             7982
country          7976
date_added       8797
release_year     8807
rating           8803
duration         8804
listed_in        8807
description      8807
dtype: int64
```
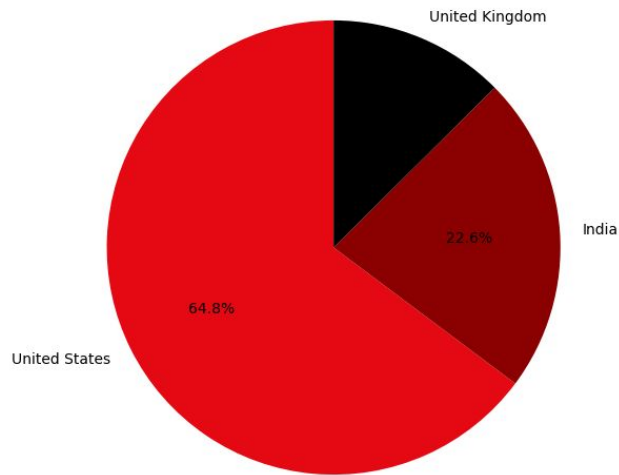
Case Study Analysis

- Which countries have the most movies on the platform?

**Top 3 Countries with the Most Movies on the Platform**
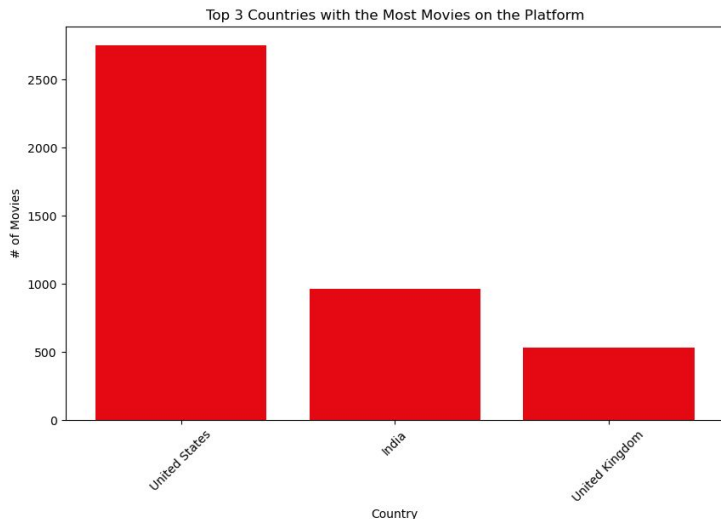
Movie Distribution Among the Top 3 Countries

- The analysis reveals that the majority of movies on the platform are concentrated in the United States, which holds 64.8% of the total, followed by India with 22.6%, and the United Kingdom with a much smaller share. This significant disparity suggests that Netflix's content library is heavily skewed toward certain regions, potentially limiting its appeal in other international markets.

DATA ANALYTICS BOOTCAMP

Case Study Analysis

- Who are the top actors or actresses with the most content on the platform, and in which countries is their content available?

Top 3 Most Frequent Actors on the Platform
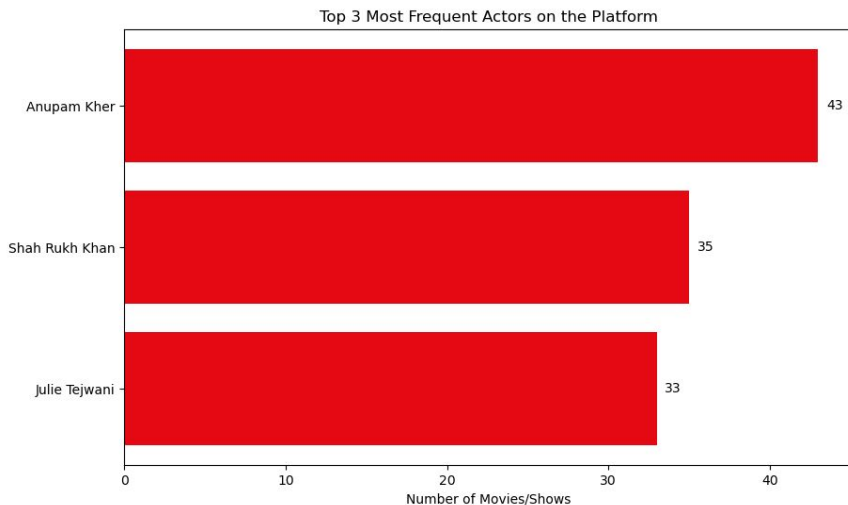
- The top actors on Netflix by content volume are Anupam Kher (43 titles), Shah Rukh Khan (35 titles), and Julie Tejwani (33 titles), with a strong focus on the Indian market. Their content availability extends to regions like the United States, Canada, and Germany, highlighting their appeal beyond India.
- This concentration underscores the critical role of Indian actors in driving engagement in South Asian markets. For Netflix, maximizing content featuring these actors in regions with high demand for Indian cinema is a strategic opportunity to boost viewership and market penetration globally.

Case Study Analysis

- What directors have the most content?

Top 10 Directors with the Most Content on Netflix
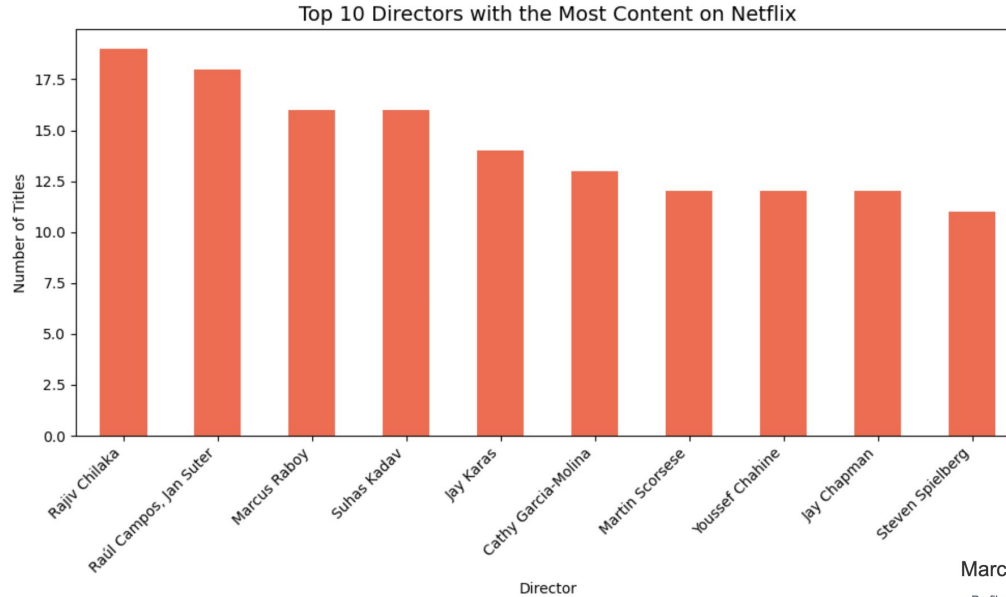
- The analysis shows that the 3 directors with most content are
- Rajiv Chilaka
- Raúl Campos-Jan Suter
- Marcus Raboy-Suhas Kadav

Rajiv Chilaka

Profile | Filmography [8] | Groups | Genres | Films-TV | Credited with

☞ director | ✎ screenplay | ☼ Creator

Born: India
Links / Social Networks: W ⊕

Known for

8 Films | TV Series

Mighty Littl... | Mighty Littl... | Mighty Littl...

Jan Suter

Profile | Filmography [24] | Genres | Films-TV | Cred

☞ director

Country: 🇺🇸 United States
Born: United States

Known for

24 Films | TV Series

Malena Pic... | Sebastián ...

Raúl Campos

☞ director

🇲🇽 Mexico

Marcus Raboy

Profile | Filmography [36] | Awards | Groups | Genres | Films-T

☞ director

Country: 🇺🇸 United States
Born: November 30, 1965, United States
Links / Social Networks: W

Known for

36 Films | TV Series

See filmography
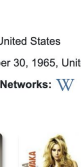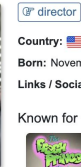
The Fresh ... | Shakira: W... | Friday After...

Original title	Motu Patlu: King of Kings
Year	2016
Running time	110 min.
Country	🇮🇳 India
Director	Suhas Kadav
Screenwriter	Novel: Kripa Shankar

www.filmaffinity.com

Case Study Analysis

- What directors have the most content?

Top 10 Directors with the Most Content (Movies) on Netflix

Top 10 Directors with the Most TV Shows on Netflix
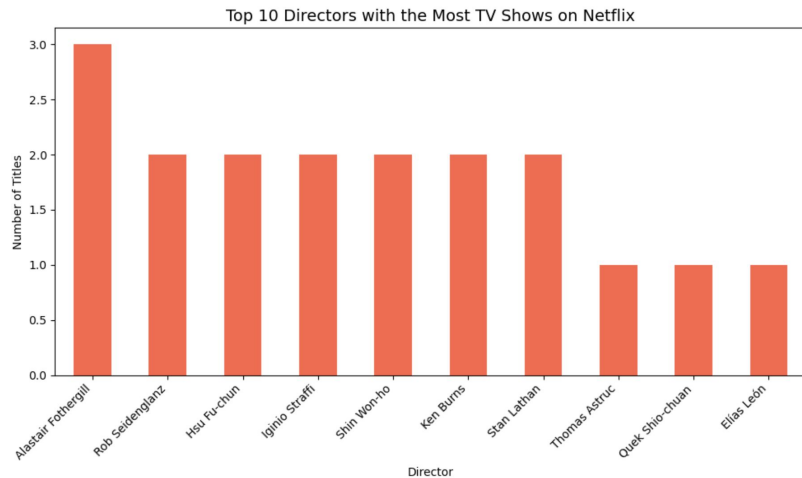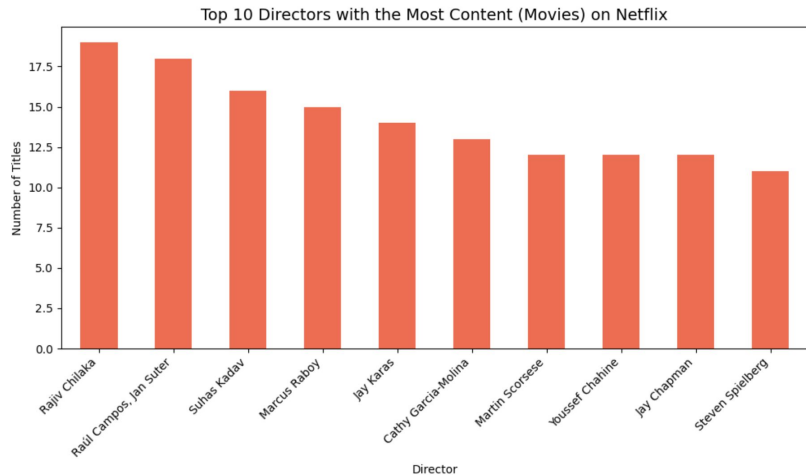
- The analysis shows that the director with more movies is Rajiv Chilaka
- The director (TV show) is Alastair Fothergill

Alastair Fothergill

Profile   Filmography [19]   Awards   Groups   Genres   Films-TV

director   screenplay   producer

Born: April 10, 1960, United Kingdom
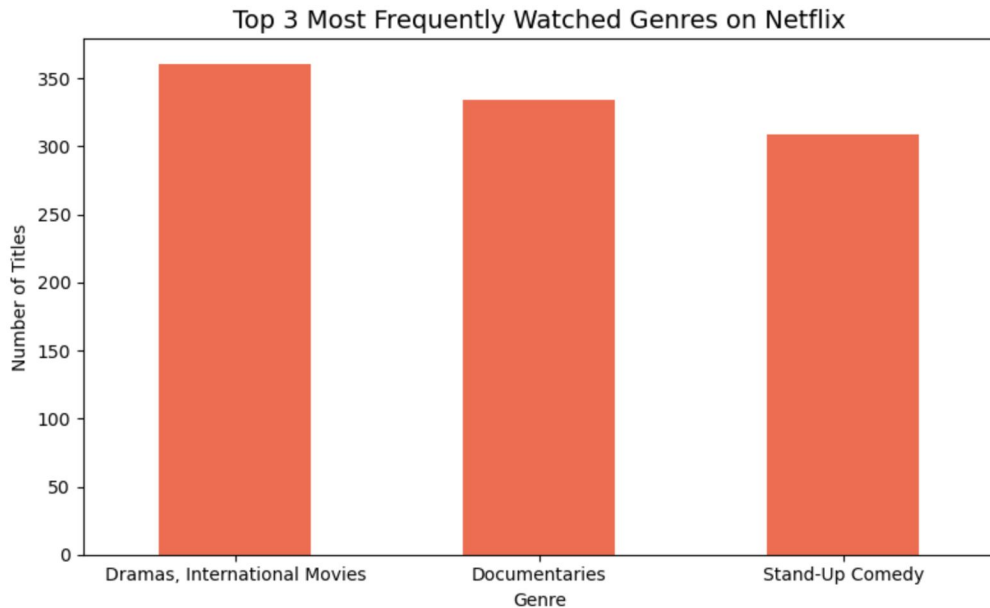
Known for

Planet Eart...   Earth   David Atten...

www.filmaffinity.com

Case Study Analysis

- Which show genre is most frequently watched?

Top 3 Most Frequently Watched Genres on Netflix

-

Case Study Analysis

Top 10 countries that produce content?

This data set enables us to identify which countries create the largest amount of content (at least available on Netlix). This information, could possible lead us to some assumptions, that should be taken as that: assumptions.

At first we are identifying the ranking of countries that create content:

country	Content
United States	2818
India	972
United Kingdom	419
Japan	245
South Korea	199
Canada	181
Spain	145
France	124
Mexico	110
Egypt	106
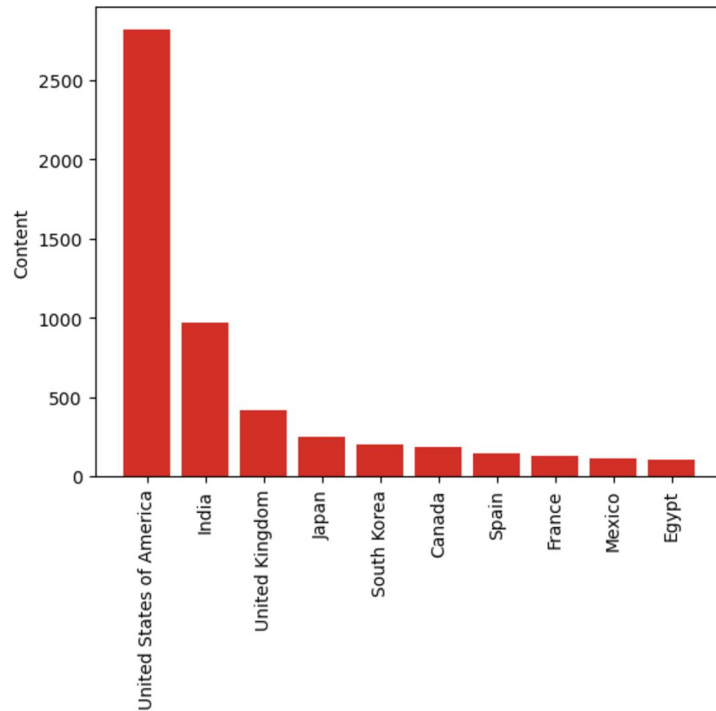
Case Study Analysis

Top 10 countries that produce content?

We can see that the top 10 countries that create content that ends up being added to netflix are "somehow" in the northern side of the globe. Does that mean something? probably not, considering that there are some regions famous for their entertainment industry such as the USA (hollywood), México (soap operas); and India (Bollywood).
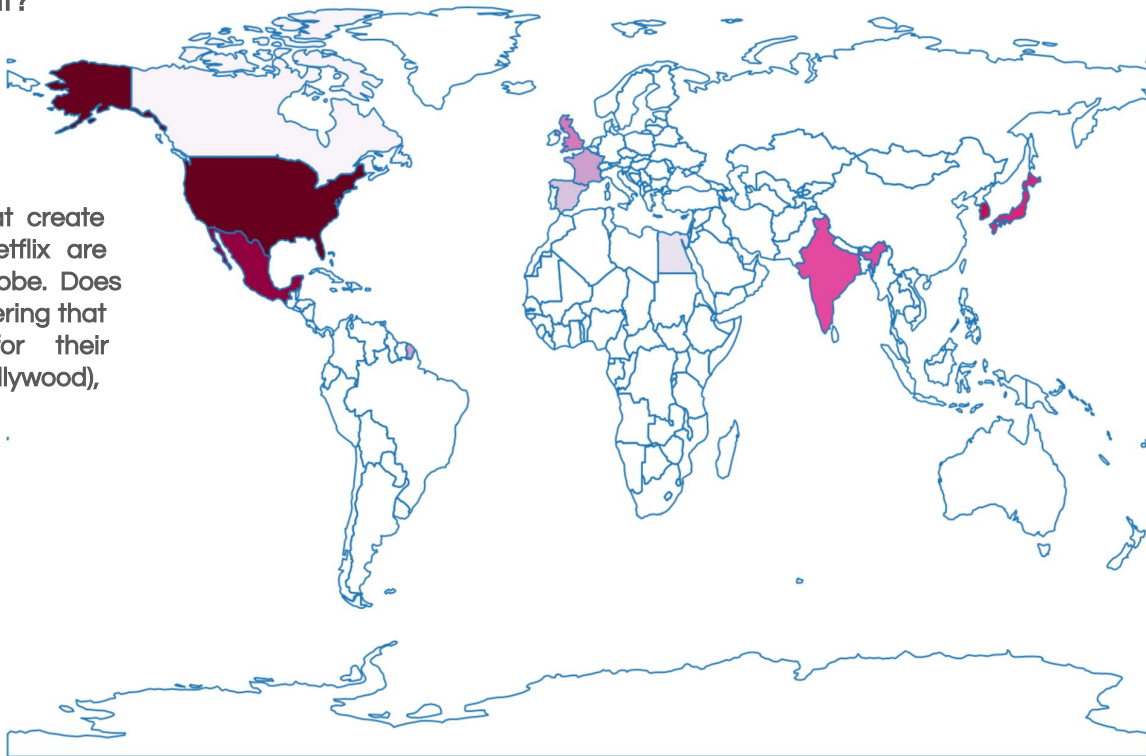
Case Study Analysis

Which countries are creating the newest and the oldest content?

This data could also lead us to some assumptions. At first we can see that by the year the data set was created (2021):

>_ The most recent years that contert were created: [2021, 2020, 2019, 2018, 2017]...
>_ The oldest years when content were created: [1925, 1942, 1943, 1944, 1945]...

The we can see how the countries with more content created the last year of the dataset, performed (regarding of content creation) the previous years.

It is interesting how the US, India and United Kingdom led continuously the creation of content during the last years, but: there is a slightly decrease in the amount of content creation as we get closer to the present.

(This may be caused fo some real reason, as the 2020 pandemic, or it could be a data driven misconception, as we could have the info for just a fraction of the last year (2021).
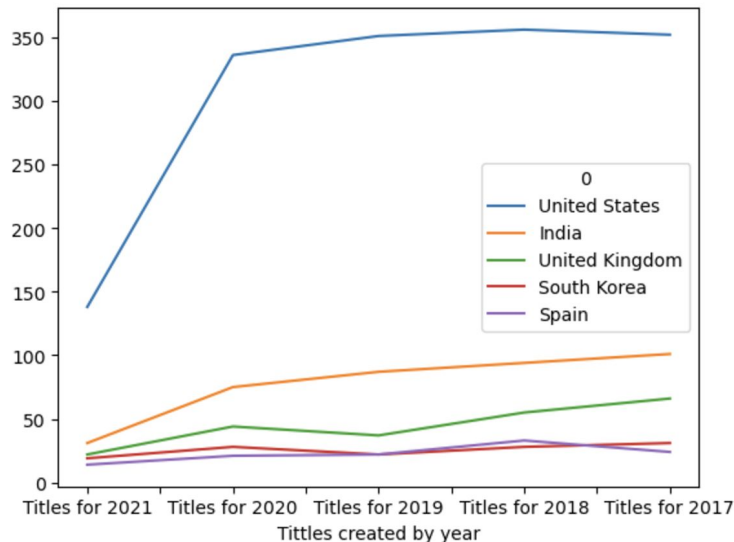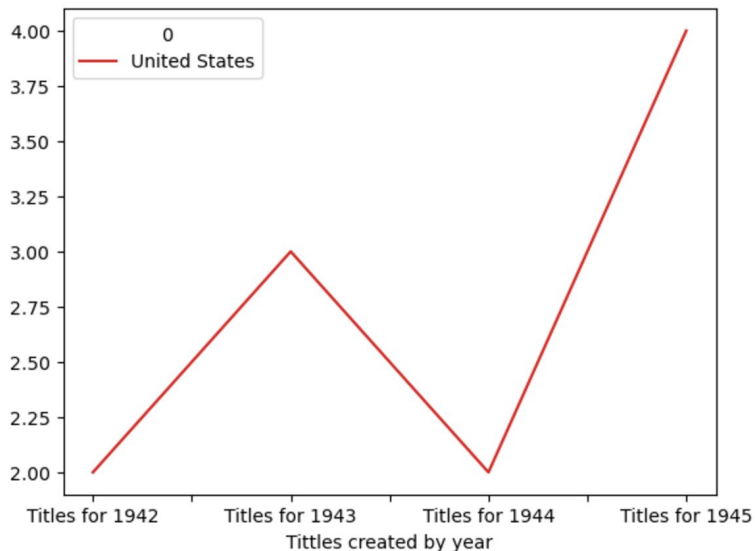
Case Study Analysis

Which countries are creating the newest and the oldest content?

Most of the oldest (if not every) , comes from the United States. But, there is only one content (the oldest one) with no date of creation registered. Further research (out of the data set) showed us that this specific content (Pioneers: First Women Filmmakers) comes from several countries.

So, from the age of the content, we see that there is a start in the content creation industry in the States.
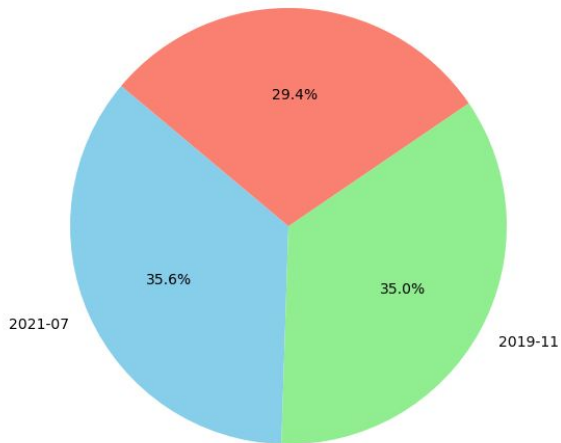
Case Study Analysis

```
Top 3 months with more shows added:
date_added
2021-07    257
2019-11    253
2019-12    212
Freq: M, Name: count, dtype: int64
```

Top 3 Months with More Shows Added to Netflix

- **Significant Spike:** July 2021 saw the highest number of new additions, indicating a possible increase in content acquisition or production.

- **Holiday Trends:** November and December 2019 reflect high show additions, aligning with increased viewer demand during the holiday season

  Conclusion

- This analysis highlights critical periods in Netflix's content strategy, reflecting both consumer demand and potential shifts in production capabilities. Understanding these trends can aid in forecasting future content strategies and optimizing viewer engagement during peak times.

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Case Study Analysis

Distribution of Family-Friendly vs Non-Family-Friendly Content on Netflix

19.6%

80.4%
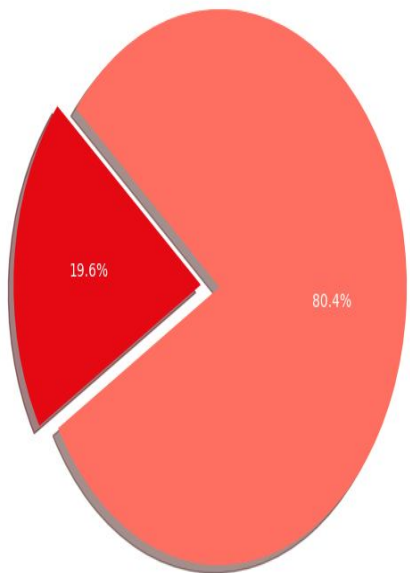
Significant Family-Friendly Presence:
Family-friendly titles make up 19.58% of Netflix's total library, indicating a strong focus on content suitable for all ages.

Room for Expansion:
With 1,724 family-friendly titles, there is considerable potential to increase this segment, attracting more families seeking safe viewing options.

Engagement During Key Periods:
Expanding family-oriented content can enhance viewer engagement during holidays and school breaks, times when families are more likely to watch together .

Conclusion:
Netflix's commitment to family-friendly content is evident, but there remains a significant opportunity for growth. By increasing the number of family-oriented titles and enhancing marketing efforts, Netflix can further strengthen its appeal to families, ensuring a competitive edge in the streaming market while catering to diverse viewer preferences.

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Final insights

Explore new markets/Countries
- The majority of movies on the platform are concentrated in the United States. Explore other international markets.

1

Indian actors and directors driving engagement in South Asian markets.
- For Netflix, maximizing content featuring these actors/directors

2

People like to watch drama
- Focusing on holiday trends
- There remains a significant opportunity for growth in family-friendly content

3

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