



Mini Project: Netflix Data Analysis

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Instructions

1. Read the question carefully and try to understand what exactly is being asked.
2. Brainstorm a little. If you're getting an error, remember that Google is your best friend..

About:

NETFLIX

Netflix is one of the most popular media and video streaming platforms. They have over 10000 movies or tv shows available on their platform, as of mid-2021, they have over 222M Subscribers globally. 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.

Business Problem:

Analyze the data and generate insights that could help Netflix in deciding which type of shows/movies to produce and how they can grow the business in different countries

Dataset:

show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
s1	Movie	Dick Johnson Is Dead	Kirsten Johnson		United States	September 25, 2021	2020	PG-13	90 min	Documentaries	As her father nears the end of his life, filmmaker Kirsten Johnson st
s2	TV Show	Blood & Water		Ama Qamata, Ki South Africa	September 24, 2021	2021	TV-MA	2 Seasons	International TV	After crossing paths at a party, a Cape Town teen sets out to prove	
s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, San	September 24, 2021	2021	TV-MA	1 Season	Crime TV Shows	To protect his family from a powerful drug lord, skilled thief Mehdi a	
s4	TV Show	Jailbirds New Orleans			September 24, 2021	2021	TV-MA	1 Season	Docuseries, Reel Feuds, flirtations and toilet talk go down among the incarcerated wr		
s5	TV Show	Kota Factory		Mayur More, Jite India	September 24, 2021	2021	TV-MA	2 Seasons	International TV	In a city of coaching centers known to train India's finest collegiate i	
s6	TV Show	Midnight Mass	Mike Flanagan	Kate Siegel, Zach Gilford, Hamish	September 24, 2021	2021	TV-MA	1 Season	TV Dramas, TV	The arrival of a charismatic young priest brings glorious miracles, o	
s7	Movie	My Little Pony: A New	Robert Cullen, J. Vanessa Hudgens, Kimiko Glenn,		September 24, 2021	2021	PG	91 min	Children & Fam	Equestria's divided. But a bright-eyed hero believes Earth Ponies, f	
s8	Movie	Sankofa	Haile Gerima	Kofi Ghanaba, C United States, G	September 24, 2021	1993	TV-MA	125 min	Dramas, Indie	On a photo shoot in Ghana, an American model slips back in time,	
s9	TV Show	The Great British Bake	Andy Devonshire, Mel Giedroyc, Si	United Kingdom	September 24, 2021	2021	TV-14	9 Seasons	British TV Shows	A talented batch of amateur bakers face off in a 10-week competitio	
s10	Movie	The Starling	Theodore Melfi	Melissa McCarthy	United States	September 24, 2021	2021	PG-13	104 min	Comedies, Dram	A woman adjusting to life after a loss contends with a feisty bird the
s11	TV Show	Vendetta: Truth, Lies and The Mafia			September 24, 2021	2021	TV-MA	1 Season	Crime TV Shows	Sicily boasts a bold "Anti-Mafia" coalition. But what happens when i	
s12	TV Show	Bangkok Breaking	Kongkiat Komes Sukollawat Kanarot, Sushar Mani		September 23, 2021	2021	TV-MA	1 Season	Crime TV Shows	Struggling to earn a living in Bangkok, a man joins an emergency ri	
s13	Movie	Je Suis Karl	Christian Schwo	Luna Wedler, Ja Germany, Czech	September 23, 2021	2021	TV-MA	127 min	Dramas, Intern	After most of her family is murdered in a terrorist bombing, a young	
s14	Movie	Confessions of an Invis	Bruno Garotti	Klara Castanho, Lucca Picon, Juli	September 22, 2021	2021	TV-PG	91 min	Children & Fam	When the clever but socially-awkward Telé joins a new school, she	
s15	TV Show	Crime Stories: India Detectives			September 22, 2021	2021	TV-MA	1 Season	British TV Shows	Cameras following Bengaluru police on the job offer a rare glimpse	
s16	TV Show	Dear White People		Logan Browning	United States	September 22, 2021	2021	TV-MA	4 Seasons	TV Comedies, T	Students of color navigate the daily slights and slippery politics of li
s17	Movie	Europe's Most Dangerous	Pedro de Echave García, Pablo Azorin Williams		September 22, 2021	2020	TV-MA	67 min	Documentaries	Declassified documents reveal the post-WWII life of Otto Skorzeny,	

Link: [Dataset_link\(click here\)](#)

(After clicking on the above link, you can download the files by right-clicking on the page and clicking on "Save As", then naming the file as per your wish, with .csv as the extension.)

Dataset Details:

The dataset provided to you consists of a list of all the TV shows/movies available on Netflix:

- I. Show_id: Unique ID for every Movie / Tv Show
- II. Type: Identifier - A Movie or TV Show
- III. Title: Title of the Movie / Tv Show
- IV. Director: Director of the Movie
- V. Cast: Actors involved in the movie/show
- VI. Country: Country where the movie/show was produced
- VII. Date_added: Date it was added on Netflix
- VIII. Release_year: Actual Release year of the movie/show
- IX. Rating: TV Rating of the movie/show
- X. Duration: Total Duration - in minutes or number of seasons
- XI. Listed_in: Genre
- XII. Description: The summary description

Business-Oriented Analysis Questions

1. Content Strategy

1. **What is the ratio of Movies vs TV Shows on Netflix?**
 - Helps understand content investment priorities.
2. **Which genres are most popular on Netflix globally?**
 - Aids in deciding what genre of content to acquire more.
3. **Which years saw the highest release of content on Netflix?**
 - Shows how aggressively Netflix was adding new content in those years.
4. **Which countries produce the most Netflix content?**
 - Useful for identifying key content-producing markets.
5. **How has the trend of adding new content evolved year by year?**
 - Can guide content budgeting for upcoming years.

2. User Demographics & Targeting

6. **Which ratings (e.g., TV-MA, PG, etc.) are most frequent on Netflix?**
 - Assists in aligning with target audience age groups.
7. **Do some countries tend to produce more mature content (TV-MA)?**
 - Useful for market segmentation and localization strategies.
8. **Which genres are more associated with TV Shows vs Movies?**
 - Helps in differentiating marketing for long-form vs short-form content.
9. **Which genres dominate the U.S. vs other countries?**
 - Supports geo-targeted recommendations and promotions.
10. **What genres are most popular in the last 3 years?**
 - Informs current trends and consumer preferences.

3. Talent Acquisition & Partnerships

11. Who are the top 10 directors with the most Netflix content?

Guides partnership strategy with content creators.

12. Which actors appear most frequently in Netflix shows?

Insight into popular talent that may boost viewer retention.

13. Which director-genre pairs are most frequent?

Helps understand creative trends and successful pairings.

14. How many titles have unknown directors or cast members?

Can identify data gaps or marketing focus needs.

4. Duration & Engagement

15. What is the average duration of Movies on Netflix?

Insight into optimal content length for production/acquisition.

16. What's the most common number of seasons for TV shows?

Helps define the typical life cycle of shows on the platform

17. Is there a trend in movie durations over the years?

Reflects changing viewer attention spans or production choices.

5. Content Launch Strategy

18. In which months does Netflix add the most content?

Useful for launch calendar planning and promotions.

19. How does the genre distribution vary across different years?

Detects shifting content preferences and platform strategy.

20. Which countries produce the most content in each genre?

Supports international expansion and content licensing decisions.

Apart from this, feel free to do your own analysis and find new insights based on the data which is shared.

Checkout the **hints** before your own analysis:

Hints:

1. The exploration should have a goal. As you explore the data, keep in mind that you want to answer which type of shows to produce and how to grow the business.
2. Ensure each recommendation is backed by data. The company is looking for data-driven insights, not personal opinions or anecdotes.
3. Assume that you are presenting your findings to business executives who have only a basic understanding of data science. Avoid unnecessary technical jargon.
4. Start by exploring a few questions: What type of content is available in different countries?
 1. How has the number of movies released per year changed over the last 20-30 years?
 2. Comparison of tv shows vs. movies.
 3. What is the best time to launch a TV show?
 4. Analysis of actors/directors of different types of shows/movies.
 5. Does Netflix has more focus on TV Shows than movies in recent years
 6. Understanding what content is available in different countries

Submission Process

For Online (google Form):

1. Write the insights after writing the code and recommendations/insights in the same **IPYNB** file.
2. Convert your jupyter notebook into PDF (Save as PDF using Chrome browser's Print command) or simply click(ctrl + P) and it will show you the download option
3. adding images/graphs in the Ipynb file is compulsory by taking screenshots.
4. Upload both IPYNB file and PDF File In the Google Form Which is Circulated in your Whatsapp Group.

For Offline (Handwritten - Hard Copy):

1. Content Format

- Write the code neatly by hand on A4-sized sheets.
- Paste the output screenshot (printed and cut properly) right after each block of code.
- For each analysis, write insights/observations either:
 - As bullet points, or
 - In paragraph form (your choice).
- Make sure the insights are relevant and meaningful based on the output.

2. File Arrangement

- Use only A4-size sheets.
- Staple the sheets three times:
 - Once at the top left,
 - Once at the middle left, and
 - Once at the bottom left.
- Keep all sheets securely placed in a file/folder (plastic or paper file).

3. First Page Format

On the first page, write the all the necessary details clearly:

Like: University Name, Your Full Name, University Roll Number, Class Rollno, subject name etc.

Project Deadline: **17th October 2025 EOD**

Thank You