



## Overview

This project encompasses a thorough analysis of Netflix's movies and TV shows data utilizing SQL. The aim is to derive meaningful insights and address a range of business inquiries based on the dataset. The subsequent README offers an in-depth overview of the project's goals, the business challenges encountered, the solutions implemented, as well as the findings and conclusions drawn.

### Objectives

- Analyze the distribution of content types (movies vs TV shows).
- Identify the most common ratings for movies and TV shows.
- List and analyze content based on release years, countries, and durations.
- Explore and categorize content based on specific criteria and keywords.

### Dataset

The data for this project is sourced from the [Kaggle](#)

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*/\* This query retrieves all columns and rows from the netflix\_titles table to examine the dataset.\*/*

*SELECT \**

*FROM netflix\_titles;*

	show...	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
1	s1	Movie	Dick Johnson Is...	Kirsten Johnson	NULL	United St...	2021-09-25	2020	PG-13	90 min	Documentaries	As her father nears the end of his life, f
2	s2	TV Sh...	Blood & Water	NULL	Ama Qamata, K...	South Afr...	2021-09-24	2021	TV-MA	2 Seasons	International TV S...	After crossing paths at a party, a Cape
3	s3	TV Sh...	Ganglands	Julien Leclercq	Sami Bouajila, ...	NULL	2021-09-24	2021	TV-MA	1 Season	Crime TV Shows, I...	To protect his family from a powerful dr
4	s4	TV Sh...	Jailbirds New Or...	NULL	NULL	NULL	2021-09-24	2021	TV-MA	1 Season	Docuseries, Realit...	Feuds, flirtations and toilet talk go down
5	s5	TV Sh...	Kota Factory	NULL	Mayur More, Jit...	India	2021-09-24	2021	TV-MA	2 Seasons	International TV S...	In a city of coaching centers known to
6	s6	TV Sh...	Midnight Mass	Mike Flanagan	Kate Siegel, Za...	NULL	2021-09-24	2021	TV-MA	1 Season	TV Dramas, TV Ho...	The arrival of a charismatic young pries
7	s7	Movie	My Little Pony: ...	Robert Cullen,...	Vanessa Hudg...	NULL	2021-09-24	2021	PG	91 min	Children & Family ...	Equestria's divided. But a bright-eyed h
8	s8	Movie	Sankofa	Haile Gerima	Kofi Ghanaba, ...	United St...	2021-09-24	1993	TV-MA	125 min	Dramas, Independ...	On a photo shoot in Ghana, an Americ

**-- 1. Count the number of Movies vs TV Shows**

*SELECT type, COUNT(\*) AS Number\_TVShows\_or\_Movie*

*FROM netflix\_titles*

*GROUP BY type*

	type	Number_TVShows_or_Movie
1	TV Show	2676
2	Movie	6131

**-- 2. Find the most common rating for movies and TV shows**

*-- Use of CTEs*

*WITH RatingCounts AS (*

*SELECT type, rating, COUNT(\*) AS rating\_count*

*FROM netflix\_titles*

*GROUP BY type, rating*

*),*

*RankedRatings AS (*

*SELECT type, rating, rating\_count,*

*RANK() OVER (PARTITION BY type ORDER BY rating\_count DESC) AS rank*

*FROM RatingCounts*

*)*

*SELECT type, rating AS most\_frequent\_rating*

*FROM RankedRatings*

*WHERE rank = 1;*

	type	most_frequent_rating
1	Movie	TV-MA
2	TV Show	TV-MA

**-- 3. List all movies released in a specific year**

*SELECT \**

*FROM netflix\_titles*

*WHERE release\_year = 2021*

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in
1	s2	TV Show	Blood & Water	NULL	Ama Gamata, Kho...	South Africa	2021-09-24	2021	TV-MA	2 Seasons	International TV Shows, TV Dramas
2	s3	TV Show	Ganglands	Julien Lec...	Sami Bouajila, Tra...	NULL	2021-09-24	2021	TV-MA	1 Season	Crime TV Shows, International TV Shows
3	s4	TV Show	Jailbirds New ...	NULL	NULL	NULL	2021-09-24	2021	TV-MA	1 Season	Docuseries, Reality TV
4	s5	TV Show	Kota Factory	NULL	Mayur More, Jiten...	India	2021-09-24	2021	TV-MA	2 Seasons	International TV Shows, Romantic TV Shows
5	s6	TV Show	Midnight Mass	Mike Flan...	Kate Siegel, Zach ...	NULL	2021-09-24	2021	TV-MA	1 Season	TV Dramas, TV Horror, TV Mysteries
6	s7	Movie	My Little Pony...	Robert Cu...	Vanessa Hudgens...	NULL	2021-09-24	2021	PG	91 min	Children & Family Movies
7	s9	TV Show	The Great Brit...	Andy Dev...	Mel Giedroyc, Sue...	United Kingdom	2021-09-24	2021	TV-14	9 Seasons	British TV Shows, Reality TV
8	s10	Movie	The Starling	Theodore ...	Melissa McCarthy...	United States	2021-09-24	2021	PG-13	104 min	Comedies, Dramas

**-- 4. Find the top 5 countries with the most content on Netflix**

*SELECT TOP 5*

*value AS country,*

*COUNT(\*) AS Total\_Content*

*FROM netflix\_titles*

*CROSS APPLY string\_split(country, ',')*

*WHERE value IS NOT NULL*

*GROUP BY value*

*ORDER BY Total\_Content DESC;*

	country	Total_Content
1	United States	3211
2	India	1008
3	United Kingdom	628
4	United States	479
5	Canada	271

## -- 5. Identify the longest movie

SELECT \*

FROM netflix\_titles

WHERE type = 'Movie'

ORDER BY CAST(LEFT(duration, CHARINDEX(' ',duration) - 1) AS INT) DESC;

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in
1	s4254	Movie	Black Mirror: Bandersnatch	NULL	Fionn Whitehead, Will Poul...	United States	2018-12-28	2018	TV-MA	312 min	Dramas, International Movies, Sci-Fi & Fantasy
2	s718	Movie	Headspace: Unwind Your Mind	NULL	Andy Puddicombe, Evelyn ...	NULL	2021-06-15	2021	TV-G	273 min	Documentaries
3	s2492	Movie	The School of Mischief	Houssam ...	Suhair El-Babli, Adel Emam ...	Egypt	2020-05-21	1973	TV-14	253 min	Comedies, Dramas, International Mov
4	s2488	Movie	No Longer kids	Samir Al A...	Said Saleh, Hassan Moust...	Egypt	2020-05-21	1979	TV-14	237 min	Comedies, Dramas, International Mov
5	s2485	Movie	Lock Your Girls In	Fouad El...	Fouad El-Mohandes, Sana...	NULL	2020-05-21	1982	TV-PG	233 min	Comedies, International Movies, Rom
6	s2489	Movie	Raya and Sakina	Hussein K...	Suhair El-Babli, Shadia, Ab...	NULL	2020-05-21	1984	TV-14	230 min	Comedies, Dramas, International Mov
7	s167	Movie	Once Upon a Time in America	Sergio Le...	Robert De Niro, James Wo...	Italy, United States	2021-09-01	1984	R	229 min	Classic Movies, Dramas
8	s7933	Movie	Sangam	Raj Kapoor	Raj Kapoor, Vijayanthimala...	India	2019-12-31	1964	TV-14	228 min	Classic Movies, Dramas, International
	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in
1	s4254	Movie	Black Mirror: Bandersnatch	NULL	Fionn Whitehead, Will Poul...	United States	2018-12-28	2018	TV-MA	312 min	Dramas, International Movies, Sci-Fi & Fantasy
2	s718	Movie	Headspace: Unwind Your Mind	NULL	Andy Puddicombe, Evelyn ...	NULL	2021-06-15	2021	TV-G	273 min	Documentaries
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8	s7933	Movie	Sangam	Raj Kapoor	Raj Kapoor, Vijayanthimala...	India	2019-12-31	1964	TV-14	228 min	Classic Movies, Dramas, International

## -- 6. Find content added in the last 5 years

SELECT \*

FROM netflix\_titles

WHERE TRY\_CONVERT(DATE,date\_added, 101) >= DATEADD(YEAR, -5, GETDATE());

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in
1	s1	Movie	Dick Johnson Is Dead	Kirsten J...	NULL	United States	2021-09-25	2020	PG-13	90 min	Documentaries
2	s2	TV Show	Blood & Water	NULL	Ama Qamata, Khosi N...	South Africa	2021-09-24	2021	TV-MA	2 Seasons	International TV Shows, TV Dr
3	s3	TV Show	Ganglands	Julien Le...	Sami Bouajila, Tracy ...	NULL	2021-09-24	2021	TV-MA	1 Season	Crime TV Shows, International
4	s4	TV Show	Jailbirds New Orleans	NULL	NULL	NULL	2021-09-24	2021	TV-MA	1 Season	Docuseries, Reality TV
5	s5	TV Show	Kota Factory	NULL	Mayur More, Jitendra ...	India	2021-09-24	2021	TV-MA	2 Seasons	International TV Shows, Roma
6	s6	TV Show	Midnight Mass	Mike Fla...	Kate Siegel, Zach Gif...	NULL	2021-09-24	2021	TV-MA	1 Season	TV Dramas, TV Horror, TV Mys
7	s7	Movie	My Little Pony: A New Generation	Robert C...	Vanessa Hudgens, Ki...	NULL	2021-09-24	2021	PG	91 min	Children & Family Movies
8	s8	Movie	Sankofa	Haile Ge...	Kofi Ghanaba, Oyafun...	United States, Ghana...	2021-09-24	1993	TV-MA	125 min	Dramas, Independent Movies,

**-- 7. Find all the movies/TV shows by director 'Rajiv Chilaka'**

```
SELECT *
FROM netflix_titles
CROSS APPLY string_split(director, ',')
WHERE director = 'Rajiv Chilaka'
```

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	li
10	s416	Movie	Chhota Bheem aur Krishna	Rajiv Chilaka	Vatsal Dubey, Julie Tejjwani, Rupa Bhimani, Jigna...	India	2021-07-22	2009	TV-Y7	68 min	i
11	s417	Movie	Chhota Bheem aur Krishna vs Zimbara	Rajiv Chilaka	Vatsal Dubey, Julie Tejjwani, Rupa Bhimani, Jigna...	NULL	2021-07-22	2013	TV-Y7	64 min	i
12	s420	Movie	Chhota Bheem: Bheem vs Aliens	Rajiv Chilaka	Vatsal Dubey, Julie Tejjwani, Rupa Bhimani, Jigna...	NULL	2021-07-22	2010	TV-Y7	69 min	i
13	s421	Movie	Chhota Bheem: Dholakpur to Kathmandu	Rajiv Chilaka	Vatsal Dubey, Julie Tejjwani, Rupa Bhimani, Jigna...	NULL	2021-07-22	2012	TV-Y7	70 min	i
14	s423	Movie	Chhota Bheem: Journey to Petra	Rajiv Chilaka	Vatsal Dubey, Julie Tejjwani, Rupa Bhimani, Jigna...	NULL	2021-07-22	2011	TV-Y7	68 min	i
15	s424	Movie	Chhota Bheem: Master of Shaolin	Rajiv Chilaka	Pooja Punabi, Mausam, Julie Tejjwani, Rupa Bhim...	NULL	2021-07-22	2011	TV-Y7	74 min	i
16	s425	Movie	Chhota Bheem: The Rise of Kirmada	Rajiv Chilaka	Vatsal Dubey, Julie Tejjwani, Rupa Bhimani, Jigna...	NULL	2021-07-22	2012	TV-Y7	68 min	i
17	s2718	Movie	Chhota Bheem and the Curse of Damyaan	Rajiv Chilaka	Kaustav Ghosh, Jigna Bhardwaj, Chutki, Rajesh ...	India	2020-04-01	2012	TV-Y7	87 min	i

**-- 8. List all TV shows with more than 5 seasons**

```
SELECT *
FROM netflix_titles
WHERE
    TYPE = 'TV Show'
    AND
    CAST(LEFT(duration,CHARINDEX(' ',duration) -1) AS INT) > 5
    ORDER BY CAST(LEFT(duration,CHARINDEX(' ',duration) -1) AS INT) DESC;
```

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in
1	s549	TV Show	Grey's Anat...	NULL	Ellen Pompeo, San...	United States	2021-07-03	2020	TV-14	17 Seasons	Romantic TV Shows, TV Dramas
2	s2424	TV Show	Supernatural	Phil Sgriccia	Jared Padalecki, J...	United States, Canada	2020-06-05	2019	TV-14	15 Seasons	Classic & Cult TV, TV Action & Adventure, TV Ho
3	s4799	TV Show	NCIS	NULL	Mark Harmon, Mic...	United States	2018-07-01	2017	TV-14	15 Seasons	Crime TV Shows, TV Dramas, TV Mysteries
4	s4221	TV Show	COMEDIAN...	NULL	Neal Brennan, Chri...	United States	2019-01-01	2019	TV-MA	13 Seasons	Stand-Up Comedy & Talk Shows, TV Comedies
5	s1355	TV Show	Heartland	NULL	Amber Marshall, Mi...	Canada	2021-02-01	2019	TV-14	13 Seasons	TV Dramas
6	s7848	TV Show	Red vs. Blue	NULL	Burnie Bums, Jaso...	United States	NULL	2015	NR	13 Seasons	TV Action & Adventure, TV Comedies, TV Sci-Fi
7	s4965	TV Show	Trailer Park ...	NULL	Mike Smith, John P...	Canada	2018-03-30	2018	TV-MA	12 Seasons	Classic & Cult TV, Crime TV Shows, International
8	s5413	TV Show	Criminal Minds	NULL	Mandy Patinkin, Jo...	United States, Canada	2017-06-30	2017	TV-14	12 Seasons	Crime TV Shows, TV Dramas, TV Mysteries

**-- 9. Count the number of content items in each genre**

```
SELECT value AS GERNE, COUNT(*) AS Total_Content
FROM netflix_titles
CROSS APPLY string_split(listed_in, ',')
GROUP BY value
ORDER BY Total_Content DESC;
```

	GERNE	Total_Content
1	International Movies	2624
2	Dramas	1600
3	Comedies	1210
4	Action & Adventure	859
5	Documentaries	829
6	Dramas	827
7	International TV Shows	774
8	Independent Movies	736
9	TV Dramas	696

**-- 10. Find each year and the average numbers of content release by India on netflix.**

**-- return top 5 year with highest avg content release**

*SELECT TOP 5*

*country,*

*release\_year,*

*COUNT(show\_id) as Total\_Release,*

*CAST(COUNT(show\_id) as decimal (10,2)) as Avg\_Release*

*FROM netflix\_titles*

*WHERE country = 'India'*

*GROUP BY country,release\_year*

*ORDER BY Avg\_Release DESC;*

	country	release_year	Total_Release	Avg_Release
1	India	2017	101	101.00
2	India	2018	94	94.00
3	India	2019	87	87.00
4	India	2020	75	75.00
5	India	2016	73	73.00

-- 11. List all movies that are documentaries

```
SELECT*
FROM netflix_titles
WHERE listed_in = 'Documentaries'
```

	show_id	type	title	director	cast	country	date_added	release_...	rating	duration	listed_in	description
1	s1	Movie	Dick Johnson Is Dead	Kirsten Joh...	NULL	United States	2021-09-25	2020	PG-13	90 min	Documentaries	As her father nears the end of his life, filmmaker Kir...
2	s46	Movie	My Heroes Were Cowb...	Tyler Greco	NULL	NULL	2021-09-16	2021	PG	23 min	Documentaries	Robin Wiltshire's painful childhood was rescued by...
3	s118	Movie	Final Account	Luke Holla...	NULL	United Kingdo...	2021-09-02	2021	PG-13	94 min	Documentaries	This documentary stitches together never-before-s...
4	s222	Movie	Bob Ross: Happy Acci...	Joshua Rofé	Bob ...	NULL	2021-08-25	2021	TV-14	93 min	Documentaries	Bob Ross brought joy to millions as the world's mos...
5	s305	Movie	Lady Boss: The Jackie...	Laura Faimé	Jacki...	United Kingdom	2021-08-05	2021	TV-14	97 min	Documentaries	"Queen of Sleaze" or feminist pioneer? Powerhous...
6	s379	Movie	Fantastic Fungi	Louie Sch...	NULL	United States	2021-07-28	2019	TV-14	81 min	Documentaries	Delve into the magical world of fungi, from mushroo...
7	s405	Movie	Sto5: The Story of a M...	NULL	NULL	NULL	2021-07-22	2021	TV-MA	85 min	Documentaries	In this documentary, female office workers in '70s ...
8	s463	Movie	This Changes Everything	Tom Dona...	NULL	United States	2021-07-15	2019	TV-MA	96 min	Documentaries	This documentary takes a deep look at gender dis...

-- 12. Find all content without a director

```
SELECT*
FROM netflix_titles
WHERE director IS NULL
```

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in
1	s2	TV Show	Blood & Water	NULL	Ama Qamata, Khosi Ngema, G...	South Africa	2021-09-24	2021	TV-MA	2 Seasons	International TV Shows, TV Dramas, TV Mystery
2	s4	TV Show	Jailbirds New Orle...	NULL	NULL	NULL	2021-09-24	2021	TV-MA	1 Season	Docuseries, Reality TV
3	s5	TV Show	Kota Factory	NULL	Mayur More, Jitendra Kumar, R...	India	2021-09-24	2021	TV-MA	2 Seasons	International TV Shows, Romantic TV Shows, TV
4	s11	TV Show	Vendetta: Truth, Li...	NULL	NULL	NULL	2021-09-24	2021	TV-MA	1 Season	Crime TV Shows, Docuseries, International TV Sh
5	s500	TV Show	Dogs	NULL	NULL	United States	2021-07-07	2021	TV-PG	2 Seasons	Docuseries
6	s15	TV Show	Crime Stories: Indi...	NULL	NULL	NULL	2021-09-22	2021	TV-MA	1 Season	British TV Shows, Crime TV Shows, Docuseries
7	s16	TV Show	Dear White People	NULL	Logan Browning, Brandon P. B...	United States	2021-09-22	2021	TV-MA	4 Seasons	TV Comedies, TV Dramas
8	s18	TV Show	Falsa identidad	NULL	Luis Ernesto Franco, Camila S...	Mexico	2021-09-22	2020	TV-MA	2 Seasons	Crime TV Shows, Spanish-Language TV Shows,

-- 13. Find how many movies actor 'Salman Khan' appeared in last 10 years!

```
SELECT*
FROM netflix_titles
WHERE
    cast LIKE '%Salman Khan%'
    AND
    release_year > YEAR(GETDATE()) - 10
```

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in
1	s2340	Movie	Prem Ratan Dhan Payo	Sooraj R. Barjatya	Salman Khan, Sonam Kapoor, Anupam Kher, Neil Nit...	India	2020-06-25	2015	TV-14	164 min	Action & Adventure, Dra
2	s2757	Movie	Paharganj	Rakesh Ranjan Kumar	Lorena Franco, Bijesh Jayarajan, Neet Chowdhary, ...	India	2020-03-31	2019	TV-MA	107 min	Dramas, Independent M

**-- 14. Find the top 10 actors who have appeared in the highest number of movies produced in India.**

```
SELECT TOP 10
    cast,
    COUNT(*) AS Total_Count
FROM netflix_titles
CROSS APPLY string_split(cast, ',') as Split_Casts
WHERE country = 'India'
GROUP BY cast
ORDER BY Total_Count DESC
```

	cast	Total_Count
1	Suriya, Vijay Sethupathi, Revathy, Prakash Raj, Siddarth,...	22
2	Sanjay Dutt, Govinda, Karisma Kapoor, Pooja Batra, Kad...	18
3	Shah Rukh Khan, Amrish Puri, Mahima Chaudhry, Apoorv...	18
4	Anupam Kher, Atul Kulkarni, Aakash Pandey, Milind Gun...	17
5	Manchu Lakshmi, Saanve Megghana, Naveen Kumar, J...	17
6	Rahul Pethe, Mrunmayee Deshpande, Adinath Kothare, ...	16
7	Anil Kapoor, Shah Rukh Khan, Jackie Shroff, Satyendra ...	15
8	Nawazuddin Siddiqui, Radhika Apte, Khalid Tyabji, Aditya...	15
9	Aftab Shivdasani, Antara Mali, Boman Irani, Isha Koppika...	14



**-- Question 15:**

**Categorize the content based on the presence of the keywords 'kill' and 'violence' in the description field. Label content containing these keywords as 'Bad' and all other content as 'Good'. Count how many items fall into each category. --**

```
SELECT
    Category,
    TYPE,
    COUNT(*) AS content_count
FROM (
    SELECT*,
    CASE
        WHEN LOWER(description) LIKE '%kill%' OR LOWER(description) LIKE
'%violence%' THEN 'Bad'
        ELSE 'Good'
    END AS category
FROM netflix_titles
) as Categorized_content
GROUP BY category, TYPE

ORDER BY TYPE DESC;
```

	Category	TYPE	content_count
1	Bad	TV Show	91
2	Good	TV Show	2585
3	Bad	Movie	251
4	Good	Movie	5880

**Findings and Conclusion**

*Content Diversity: The dataset showcases a wide range of movies and TV shows across various ratings and genres.*

*Audience Insights: Identifying common ratings reveals the target audience for the content.*

*Regional Trends: The analysis highlights leading countries and content releases in India, illustrating regional preferences.*

*Content Classification: Categorizing content by keywords enhances understanding of Netflix's offerings.*

**END**

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