

# **Netflix Movies and TV Shows Data Analysis Using SQL**

## **OBJECTIVES:**

- Analyze the distribution of content types (movie vs 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.

## **SCHEMA:**

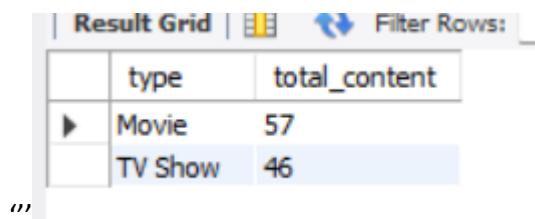
```
CREATE TABLE netflix (  
    show_id VARCHAR(6),  
    `type` VARCHAR(10),  
    title VARCHAR(250),  
    director VARCHAR(550),  
    casts VARCHAR(1050),  
    country VARCHAR(550),  
    date_added VARCHAR(55),  
    release_year INT,  
    rating VARCHAR(15),  
    duration VARCHAR(15),  
    listed_in VARCHAR(250),
```

```
        description VARCHAR(550)  
    );
```

### Business problem and solutions:

#### 1.Count the Number of Movies and vs TV shows

```
'''SQL  
Select  
    Type,  
    Count (*) as total_content  
from netflix_movie  
group by type;
```



The screenshot shows a database query results grid titled "Result Grid". It has two columns: "type" and "total\_content". There are two rows: one for "Movie" with a value of 57, and one for "TV Show" with a value of 46. The "Movie" row is highlighted with a blue background.

	type	total_content
▶	Movie	57
	TV Show	46

\*\*Objective:\*\* Determine the distribution of content types on Netflix

#### 2.Find the Most Common Rating for Movies and TV Shows

```
'''SQL  
SELECT type, rating, rating_count  
FROM (  
SELECT  
    type,  
    rating,  
    COUNT (*) AS rating_count,  
    RANK () OVER (PARTITION BY type ORDER BY COUNT(*) DESC) AS rnk  
FROM Netflix_movie  
    GROUP BY type, rating  
) AS sub  
WHERE rnk = 1;  
'''
```

Result Grid | Filter Rows:

	type	rating	rating_count
▶	Movie	TV-MA	12
	Movie	TV-PG	12
	TV Show	TV-MA	22

**\*\* OBJECTIVE:\*\*** Identify the most frequently occurring rating for each type of content.

### 3. List All Movies Released in a Specific Year (e.g., 2021)

```
'''sql
SELECT *
FROM Netflix_movie
Where release_year = 2021;
'''
```

casts	country	date_added	release_year	rating	duration	listed_in
Vanessa Hudgens, Kimiko Glenn, James Marsden...	United States	24-Sep-21	2021	PG	91 min	Children
Melissa McCarthy, Chris O'Dowd, Kevin Kline, Ti...	United States	24-Sep-21	2021	PG-13	104 min	Comedie
Luna Wedler, Janne Niewöhner, Milan Peschel...	Germany, Czech Republic	23-Sep-21	2021	TV-MA	127 min	Dramas,
Klara Castanho, Lucca Picon, Júlia Gomes, Mar...	22-Sep-21	2021	TV-PG	91 min	Children	
Freida Pinto, Logan Marshall-Green, Robert Joh...	22-Sep-21	2021	TV-14	94 min	Thrillers	
Maisie Benson, Paul Kilam, Kerry Godliman, A...	21-Sep-21	2021	TV-Y	61 min	Children	
Abhishek Banerjee, Rinku Rajguru, Delzad Hiwal...	17-Sep-21	2021	TV-14	111 min	Dramas,	
Adrian Titieni, Elena Purea, Judith State, Valeriu...	17-Sep-21	2021	TV-MA	110 min	Dramas,	
Gilles Lellouche, Karim Leklou, Françoise Civil, A...	17-Sep-21	2021	TV-MA	105 min	Action &	
Winslow Fegley, Lidya Jewett, Krysten Ritter	16-Sep-21	2021	PG	23 min	Documer	
Michael Schumacher	15-Sep-21	2021	TV-PG	103 min	Children	
Evan Spindellis, Erin Fitzgerald, Jeff Gill, Fred T...	14-Sep-21	2021	TV-14	113 min	Documer	
Rosa Grulla, Tanna Nagel, Drennan	14-Sep-21	2021	TV-Y	13 min	Children	

**\*\*OBJECTIVE\*\*** Retrieve all movies released in a specific year.

### 4. Find the Top 5 countries with the Most Content Netflix

```
'''sql
SELECT new_country, COUNT(show_id) AS total_content
FROM (
    SELECT SUBSTRING_INDEX(SUBSTRING_INDEX(country, ',', n.digit),
    ',', -1) AS new_country, show_id
    FROM netflix
    JOIN (
        
```

```

SELECT 1 AS digit UNION ALL SELECT 2 UNION ALL SELECT 3 UNION ALL
SELECT UNION ALL SELECT 5 UNION ALL SELECT 6 UNION ALL SELECT 7
UNION ALL SELECT 8 UNION ALL SELECT 9 UNION ALL SELECT 10
) AS n
ON CHAR_LENGTH(country) - CHAR_LENGTH(REPLACE(country, ',', '')) >=
n.digit - 1
) AS split_countries
GROUP BY new_country
ORDER BY total_content DESC
LIMIT 5;

```

Result Grid | Filter Rows:

	new_country	total_content
▶		17
	United States	10
	United States	2
	France	1
	France	1

### How it works:

- Splits the country column (which has multiple countries in one row).
- Counts the number of shows for each country.
- Sorts and selects the **top 5** countries with the most content.

### Key SQL Functions Used:

- SUBSTRING\_INDEX() → Splits country names.
- COUNT() → Counts the number of shows.
- ORDER BY → Sorts by total content

**\*\*OBJECTIVE\*\*:** Identify the top 5 countries with the highest number of content items

## 5. Identify the Longest Movie

'''sql

```
SELECT *
FROM Netflix_movie
WHERE type = 'Movie'
AND duration = (SELECT MAX(duration) FROM Netflix)'''
```

show_id	type	title	director	casts	country	date_added	release_year	rating	duration	listed_in	description
s19	Movie	Intrusion	Adam Salky	Freida Pinto, Logan Marshall-Green, Robert Joh...		22-Sep-21	2021	TV-14	94 min	Thrillers	After a deadly home invasion at a coupleâ€™s ...

**\*\*OBJECTIVE:\*\*** Find the movie with the longest duration

## 6. Find All Movie/TV shows by Director ‘ Daniel Espinosa’

'''sql

```
select * from Netflix_movie
where director ='Daniel Espinosa'
```

show_id	type	title	director	casts	country	date_added	release_year
s47	Movie	Safe House	Daniel Espinosa	Denzel Washington, Ryan Reynolds, Vera Farmi...	South Africa, United States, Japan	16-Sep-21	2012

**\*\*OBJECTIVE:\*\***: List all content directed by ‘Daniel Espinosa’

## 7. List all TV shows with More than 5 Seasons

'''sql

```
SELECT *,
       CAST(SUBSTRING_INDEX(duration, ', 1) AS UNSIGNED) AS seasons
FROM Netflix_movie
WHERE type = 'TV Show'
AND CAST(SUBSTRING_INDEX(duration, ', 1) AS UNSIGNED) > 5;
'''
```

show_id	type	title	director	casts	country	date_added	release_year
s9	TV Show	The Great British Baking Show	Andy Devonshire	Mel Giedroyc, Sue Perkins, Mary Berry, Paul Holl...	United Kingdom	24-Sep-21	2021
s56	TV Show	Nailed It	Nicole Byer, Jacques Torres		United States	15-Sep-21	2021
s66	TV Show	Numberblocks	Beth Chalmers, David Holt, Marcel McCalla, Ter...		United Kingdom	15-Sep-21	2021
s68	TV Show	Saved by the Bell	Mark-Paul Gosselaar, Tiffani Thiessen, Mario Lo...	United States	15-Sep-21	1994	
s83	TV Show	Lucifer	Tom Ellis, Lauren German, Kevin Alejandro, D.B....	United States	10-Sep-21	2021	

**\*\*OBJECTIVE:\*\*** Identify TV shows with more than 5 seasons

**Explanation:**

duration      **1. SUBSTRING\_INDEX(duration, ' ', 1)** → Extracts the numeric part of before the first space (e.g., "6 Seasons" → "6").

**2. CAST( AS UNSIGNED )** → Converts the extracted string into an integer.

**3. WHERE type = 'TV Show'** → Filters only TV shows.

**4. AND CAST(...) > 5** → Filters only those with more than 5 seasons.

**8. "What are the top 5 years with the highest percentage of releases in India, compared to the total number of releases in India, and how many shows were released in those years?"**

'''sql

SELECT

country,

release\_year,

COUNT(show\_id) AS total\_release,

ROUND(

COUNT(show\_id) /

(SELECT COUNT(show\_id) FROM netflix\_movie WHERE country = 'India') \*  
100, 2

) AS avg\_release,

FROM netflix\_movie

```

WHERE country = 'India'

GROUP BY country, release_year

ORDER BY avg_release DESC

LIMIT 5;

```

Result Grid | Filter Rows: Export:

	country	release_year	total_release	avg_release
▶	India	2021	2	33.33
	India	2014	2	33.33
	India	1998	1	16.67
	India	2015	1	16.67

**\*\*OBJECTIVE:\*\*** CALCULATE AND RANK YEARS BY THE AVERAGE NUMBER OF CONTENT RELEASE BY INDIA

## 9. List All Movies that are Documentaries

```

"""sql
select *
from netflix_movie
where listed_in like'%Documentaries%';
"""

```

country	date_added	release_year	rating	duration	listed_in
United States	25-Sep-21	2020	PG-13	90 min	Documentaries
	22-Sep-21	2020	TV-MA	67 min	Documentaries, International Movies
	16-Sep-21	2021	PG	23 min	Documentaries
	15-Sep-21	2021	TV-14	113 min	Documentaries, International Movies, Sports M...
	9-Sep-21	2021	PG-13	96 min	Documentaries, Sports Movies
France	9-Sep-21	2021	TV-14	92 min	Documentaries, International Movies
.. United States	7-Sep-21	2018	TV-MA	97 min	Documentaries, Music & Musicals
United States	7-Sep-21	2021	TV-MA	80 min	Documentaries, Sports Movies

**\*\*OBJECTIVE:\*\*** Retrieve all movies classified as documentaries.

**10.Find How Many Movies Actor "%Ama Qamata, Khosi Ngema, Gail Mabalane, Thabang Molaba, Dillon Windvogel, Natasha Thahane, Arno Greeff, Xolile Tshabalala, Getmore Sithole, Cindy Mahlangu, Ryle De Morny, Greteli Fincham, Sello Maake Ka-Ncube, Odwa Gwanya, Mekaila Mathys, Sandi Schultz, Duane Williams, Shamilla Miller, Patrick Mofokeng' Appeared in the last 10 years**

'''sql

```
SELECT* FROM netflix_movie
where casts
like '%Ama Qamata, Khosi Ngema, Gail Mabalane, Thabang Molaba, Dillon
Windvogel, Natasha Thahane, Arno Greeff, Xolile Tshabalala, Getmore
Sithole, Cindy Mahlangu, Ryle De Morny, Greteli Fincham, Sello Maake Ka-
Ncube, Odwa Gwanya, Mekaila Mathys, Sandi Schultz, Duane Williams,
Shamilla Miller, Patrick Mofokeng%' And release_year >
extract(year from current_date)-10
'''
```

show_id	type	title	director	casts	country	date_added	release_year	rating
s2	TV Show	Blood & Water		Ama Qamata, Khosi Ngema, Gail Mabalane, Tha...	South Africa	24-Sep-21	2021	TV-MA

**\*\*OBJECTIVE\*\*** count the number of movie featuring %Ama Qamata, Khosi Ngema, Gail Mabalane, Thabang Molaba, Dillon Windvogel, Natasha Thahane, Arno Greeff, Xolile Tshabalala, Getmore Sithole, Cindy Mahlangu, Ryle De Morny, Greteli Fincham, Sello Maake Ka-Ncube, Odwa Gwanya, Mekaila Mathys, Sandi Schultz, Duane Williams, Shamilla Miller, Patrick Mofokeng% in the last 10 years