

# Netflix Content Analysis

A data analysis project using SQL and Excel

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and origin

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explore and  
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# Project Title and Description

## Title: Netflix Content Analysis: Trends and Insights from the Global Catalog

**Description:** This project explores the structure and trends of Netflix's global content catalog using SQL and data analysis. The goal is to identify key insights such as the share of content types, popular genres, top directors, and content growth over time.



## Source: Kaggle – Netflix Movies and TV Shows

- Rows: 8,800+ entries
- Fields: show\_id, type, title, director, cast, country, date\_added, release\_year, rating, duration, listed\_in, description

type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
Movie	Dick Johnson Is Dead	Kirsten Johnson		United States	25.09.2021	2020	PG-13	90 min	Documentaries	As her father
TVShow	Blood & Water		Ama Qamata, Khosi Ngema, Gail Mabalane, Thabang	South Africa	24.09.2021	2021	TV-MA	2 Seasons	International TVShows, TV Dramas, TV Myst	After crossing
TVShow	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabih	Akl	24.09.2021	2021	TV-MA	1 Season	Crime TVShows, International TVShows, TV	To protect h
TVShow	Jailbirds New Orleans				24.09.2021	2021	TV-MA	1 Season	Docuseries, Reality TV	Feuds, flirta
TVShow	Kota Factory		Mayur More, Jitendra Kumar, Ranjan Raj, Alam Khan,	India	24.09.2021	2021	TV-MA	2 Seasons	International TVShows, Romantic TVShows	In a city of
TVShow	Midnight Mass	Mike Flanagan	Kate Siegel, Zach Gilford, Hamish Linklater, Henry Th		24.09.2021	2021	TV-MA	1 Season	TV Dramas, TV Horror, TV Mysteries	The arrival
Movie	My Little Pony: A New Generation		Vanessa Hudgens, Kimiko Glenn, James Marsden, Sof		24.09.2021	2021	PG	91 min	Children & Family Movies	Equestria's
Movie	Sankofa	Haile Gerima	Kofi Ghanaba, Oyafunmike Ogunlana, Alexandra Dual	United States, Ghana, Bi	24.09.2021	1993	TV-MA	125 min	Dramas, Independent Movies, Internationa	On a photo
TVShow	The Great British Baking Show	Andy Devons hire	Mel Giedroyc, Sue Perkins, Mary Berry, Paul Hollywo	United Kingdom	24.09.2021	2021	TV-14	9 Seasons	British TVShows, Reality TV	Atalented l
Movie	The Starling	Theodore Melfi	Melissa McCarthy, Chris O'Dowd, Kevin Kline, Timoth	United States	24.09.2021	2021	PG-13	104 min	Comedies, Dramas	A woman a
TVShow	Vendetta: Truth, Lies and The Mafia				24.09.2021	2021	TV-MA	1 Season	Crime TVShows, Docuseries, International	Sicily boast
TVShow	Bangkok Breaking	Kongkiat Komesiri	Sukollawat Kanarot, Sushar Manaying, Pavarit Mongl		23.09.2021	2021	TV-MA	1 Season	Crime TVShows, International TVShows, TV	Struggling t
Movie	Je Suis Karl	Christian Schwachow	Luna Wedler, Jannik Niewöhner, Milan Peschel, Edin	Germany, Czech Republi	23.09.2021	2021	TV-MA	127 min	Dramas, International Movies	After a mas
Movie	Confessions of an Invisible Girl	Bruno Garotti	Klara Castanho, Lucca Picon, Júlia Gomes, Marcus Be		22.09.2021	2021	TV-PG	91 min	Children & Family Movies, Comedies	When the c
TVShow	Crime Stories: India Detectives				22.09.2021	2021	TV-MA	1 Season	British TVShows, Crime TVShows, Docuseri	Hundreds fo
TVShow	Dear White People		Logan Browning, Brandon P. Bell, DeRon Horton, Anto	United States	22.09.2021	2021	TV-MA	4 Seasons	TV Comedies, TV Dramas	Students of
Movie	Europe's Most Dangerous Man: Otto Skorzeny in Spai	Pedro de Echave García, Pat			22.09.2021	2020	TV-MA	67 min	Documentaries, International Movies	Declassifi
TVShow	Falsa identidad		Luis Ernesto Franco, Camila Sodi, Sergio Goyri, Samac	Mexico	22.09.2021	2020	TV-MA	2 Seasons	Crime TVShows, Spanish-Language TVShow	Strangers D
Movie	Intrusion	Adam Salky	Freida Pinto, Logan Mars hall-Green, Robert John Burl		22.09.2021	2021	TV-14	94 min	Thrillers	After a dea
TVShow	Jaguar		Blanca Suárez, Iván Marcos, Óscar Casas, Adrián Lask		22.09.2021	2021	TV-14	1 Season	International TVShows, Spanish-Language 1	In the 1960
TVShow	Monsters Inside: The 24 Faces of Billy Milligan	Olivier Megaton			22.09.2021	2021	TV-14	1 Season	Crime TVShows, Docuseries, International	In the late 2
TVShow	Resurrection: Ertugrul		Engin Altan Düzatan, Serdar Gökhan, Hülya Darcan, I Turkey		22.09.2021	2021	TV-MA	5 Seasons	International TVShows, TV Action & Adventi	When a goo
Movie	Avai Shanmughi	K.S. Ravikumar	Kamal Hassan, Meena, Gemini Ganesan, Heera Rajgr		21.09.2021	1996	TV-PG	161 min	Comedies, International Movies	Newly divor
Movie	Go! Go! Cory Carson: Chrissy Takes the Wheel	Alex Woo, Stanley Moore	Maisie Benson, Paul Killam, Kerry Gudjohnsen, AC Lir		21.09.2021	2021	TV-Y	61 min	Children & Family Movies	Fram arcad
Movie	Jeans	S. Shankar	Prashanth, Aishwarya Rai Bachchan, Sri Laks hmi, Nas India		21.09.2021	1998	TV-14	166 min	Comedies, International Movies, Romantic	When the fa
TVShow	Love on the Spectrum		Brooke Satchwell	Australia	21.09.2021	2021	TV-14	2 Seasons	Docuseries, International TVShows, Reality Finding love	After a mas
Movie	Minsara Kanavu	Rajiv Menon	Arvind Swamy, Kajal, Prabhu Deva, Nassar, S.P. Balas		21.09.2021	1997	TV-PG	147 min	Comedies, International Movies, Music & Iv	Atangled l
Movie	Grown Ups	Dennis Dugan	Adam Sandler, Kevin James, Chris Rock, David Spade, United States		20.09.2021	2010	PG-13	103 min	Comedies	Mourning th
Movie	Dark Skies	Scott Stewart	Keri Russell, Josh Hamilton, J.K. Simmons, Dakota Go	United States	19.09.2021	2013	PG-13	97 min	Horror Movies, Sci-Fi & Fantasy	A family's i
Movie	Paranoia	Robert Luketic	Liam Hemsworth, Gary Oldman, Amber Heard, Harris	United States, India, Fra	19.09.2021	2013	PG-13	106 min	Thrillers	Blackmaile
Movie	Ankahi Kahaniya	Ashwiny Iyer Tiwari, Abhishek Banerjee, Rinku Rajguru, Delzad Hiwale, Ku			17.09.2021	2021	TV-14	111 min	Dramas, Independent Movies, Internationa	As big city li
TVShow	Chicago Party Aunt		Lauren Ash, Rory O'Malley, RuPaul Charles, Jill Talley,		17.09.2021	2021	TV-MA	1 Season	TV Comedies	Chicago Par
TVShow	Sex Education		Asa Butterfield, Gillian Anderson, Ncuti Gatwa, Emmi	United Kingdom	17.09.2021	2020	TV-MA	3 Seasons	British TVShows, International TVShows, Tv	Insurecure
TVShow	Squid Game		Lee Jung-jae, Park Hae-soo, Wi Ha-jun, Oh Young-soo,		17.09.2021	2021	TV-MA	1 Season	International TVShows, TV Dramas, TV Thril	Hundreds o
TVShow	Taya and Little Wizards		Dami Lee, Jason Lee, Bonnie Catherine Han, Jennife		17.09.2021	2020	TV-Y7	1 Season	Kids' TV	Taya's speed
Movie	The Father Who Moves Mountains	Daniel Sandu	Adrian Titieni, Elena Puresa, Judith State, Valeriu Andr		17.09.2021	2021	TV-MA	110 min	Dramas, International Movies, Thrillers	When his s
Movie	The Stronghold	Cédric Jimenez	Gilles Lellouche, Karim Leklou, François Civil, Adèle E		17.09.2021	2021	TV-MA	105 min	Action & Adventure, Dramas, International	Tired of the
TVShow	Angry Birds		Antti Pääkkönen, Heikki Heikkinen, Lynne Guaglione, F Finland		16.09.2021	2018	TV-Y7	1 Season	Kids' TV, TV Comedies	Birds Red, c
Movie	Birth of the Dragon	George Nolfi	Billy Magnussen, Ron Yuan, Qu Jingling, Terry Chen, Y China, Canada, United S		16.09.2021	2017	PG-13	96 min	Action & Adventure, Dramas	Ayung Bruc
TVShow	Chota Bheem		Vatsal Dubey, Julie Tejwani, Rupa Bhimani, Jigna Bha	India	16.09.2021	2021	TV-Y7	3 Seasons	Kids' TV	A brave, en
TVShow	He-Man and the Masters of the Universe		Yuri Lowenthal, Kimberly Brooks, Antony Del Rio, Trex	United States	16.09.2021	2021	TV-Y7	1 Season	Kids' TV, TV Sci-Fi & Fantasy	Mighty teen
Movie	Jaws	Steven Spielberg	Roy Scheider, Robert Shaw, Richard Dreyfuss, Lorrain	United States	16.09.2021	1975	PG	124 min	Action & Adventure, Classic Movies, Drama	When an in
Movie	Jaws 2	Jeannot Szwarc	Roy Scheider, Lorraine Gary, Murray Hamilton, Jos ep	United States	16.09.2021	1978	PG	116 min	Dramas, Horror Movies, Thrillers	Four year in

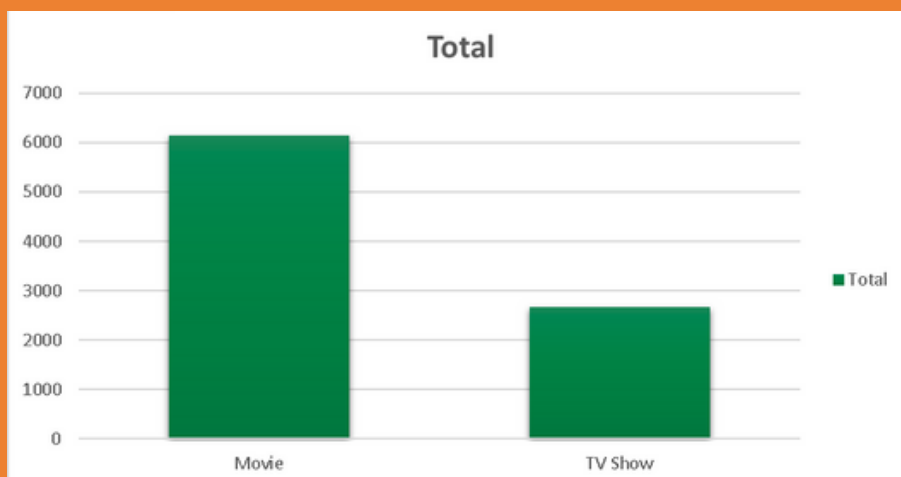


# SQL Query 1 – Movies vs. TV Shows: Content Type Distribution

## Query Goal

I wanted to get a basic overview of the dataset and understand the structure of Netflix's catalog. This simple query counts how many entries are movies and how many are TV shows.

```
Query  Query History
1  SELECT type, COUNT(*) AS count
2  FROM netflix_titles
3  GROUP BY type;
```



## Query Summary

By grouping data by the type column (which contains either "Movie" or "TV Show"), I calculated the number of each type currently in the catalog.

## Findings

Movies dominate the Netflix catalog, making up approximately 70% of the total content, while TV shows account for the remaining 30%. This highlights Netflix's strong focus on movie content globally.

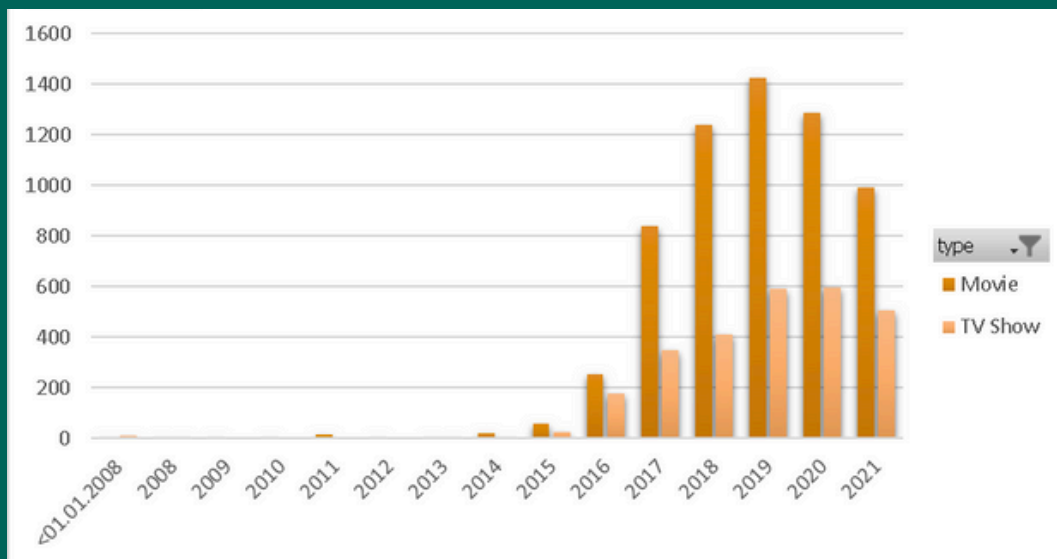


# SQL Query 2 – How many movies and TV shows were added to Netflix in successive years?

## Query Goal

I wanted to analyze how Netflix's content library has grown over time. This helps us understand when the platform was expanding most aggressively.

```
Query  Query History
1  SELECT EXTRACT(YEAR FROM date_added) AS year_added,
2      COUNT(*) AS titles_added
3  FROM netflix_titles
4  WHERE date_added IS NOT NULL
5  GROUP BY year_added
6  ORDER BY year_added;
```



## Query Summary

I extracted the year from the date, added column and grouped titles by year. This allowed me to count how many new titles were added in each calendar year.

## Findings

The number of added titles increased steadily between 2015 and 2019, peaking in 2019. A slight decline in 2020 may be related to the impact of the COVID-19 pandemic on content production.



## SQL Query 3 – Number of Titles per Release Year (≥100 Titles)

### Query Goal

I wanted to examine which release years are most represented in Netflix's current catalog. This helps understand the age distribution of the available content and how much of it comes from recent decades.

Query		Query History	
1	▼	<pre>SELECT release_year, COUNT(*) AS count FROM netflix_titles WHERE release_year IS NOT NULL GROUP BY release_year HAVING COUNT(*) &gt;= 100 ORDER BY release_year;</pre>	
		release_year	count
		integer	bigint
1		2008	136
2		2009	152
3		2010	194
4		2011	185
5		2012	237
6		2013	288
7		2014	352
8		2015	560
9		2016	902
10		2017	1032
11		2018	1147
12		2019	1030
13		2020	953
14		2021	592

### Query Summary

This query groups all titles by their release\_year — the year in which each title was originally produced — and counts how many titles were released in each year. Only years with 100 or more titles were included using the HAVING clause. The results are sorted in chronological order to observe trends over time.

### Findings

The data shows a clear dominance of recent productions. Titles released between 2015 and 2020 make up the bulk of Netflix's catalog, indicating a strong focus on newer content. While there are some older titles available, the majority of the platform's library consists of productions from the last decade.



# SQL Query 4 – Top 10 Most Frequent Directors

## Query Goal

This query aims to highlight which directors have the most titles featured on Netflix.

Query	Query History
1	SELECT director, COUNT(*) AS count
2	FROM netflix_titles
3	WHERE director IS NOT NULL
4	GROUP BY director
5	ORDER BY count DESC
6	LIMIT 10;

	director text	count bigint
1	Rajiv Chilaka	19
2	Raúl Campos, Jan Suter	18
3	Suhas Kadav	16
4	Marcus Raboy	16
5	Jay Karas	14
6	Cathy Garcia-Molina	13
7	Youssef Chahine	12
8	Martin Scorsese	12
9	Jay Chapman	12
10	Steven Spielberg	11

## Query Summary

I filtered out rows with missing director values, grouped by director, and sorted by the number of appearances in descending order.

## Findings

The top directors on Netflix include Raúl Campos and Marcus Raboy, who have produced numerous stand-up comedy specials and regional content. This illustrates Netflix's strong investment in original and niche programming.



# Visual Insights - Excel Analysis

## Goal:

I wanted to calculate the average length of movies available on Netflix. The goal was to understand the typical runtime of films and identify whether short films or full-length features are more common.

## Data Cleaning & Preparation:

The original `duration` column contained text values such as "90 min" or "1 Season". To analyze only movies and extract numerical values from the text, I filtered the dataset where `type = "Movie"` and used Excel functions to clean the data.

```
=IF([@type]="Movie"; VALUE(LEFT([@duration]; FIND(" "; [@duration]))); 0)
```

## Steps I took:

- Filtered rows that referred to TV shows
- Used `LEFT()` and `FIND()` functions to extract the number of minutes
- Converted the result to numeric values

After cleaning the data, I calculated the average and median movie duration.

```
=ROUND(AVERAGEIFS(netflix_titles[minutes];netflix_titles[type]; "Movie");1)
```

```
=MEDIAN(FILTER(M2:M8421; B2:B8421="Movie"))
```

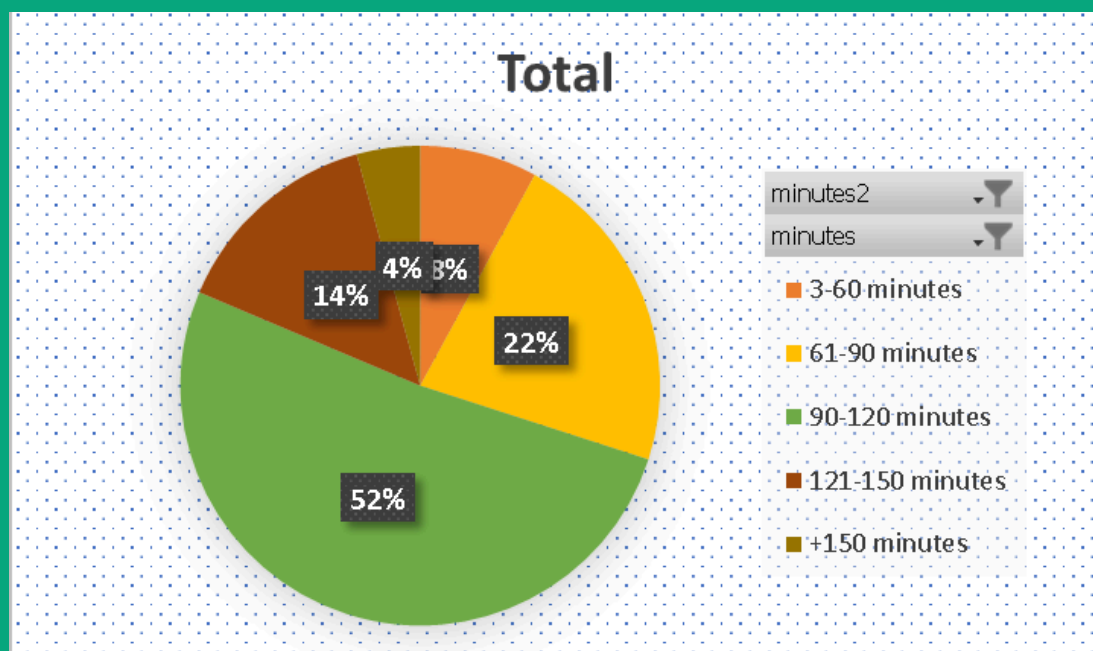
	AVERAGE:	MEDIAN:	
	99,6	98	

In this dataset, the average and median values for film duration are very similar (average = 99.6 min, median = 98 min).

This suggests that the distribution of movie durations is approximately symmetrical, with no significant skewness to the left or right.

It indicates a well-balanced dataset without strong outliers pulling the average in any direction.

To better understand the distribution, I grouped durations into ranges (under 60 minutes, 61–90 minutes, etc.) and created a pie chart showing how many movies fall into each category.



### Findings:

Most movies on Netflix are between 90 and 120 minutes long, with an average duration of approximately 99,6 minutes. There are also some short films and longer feature films, but the majority fall into the typical feature-length range.

### Excel Deep Dive – Movie Length by Genre

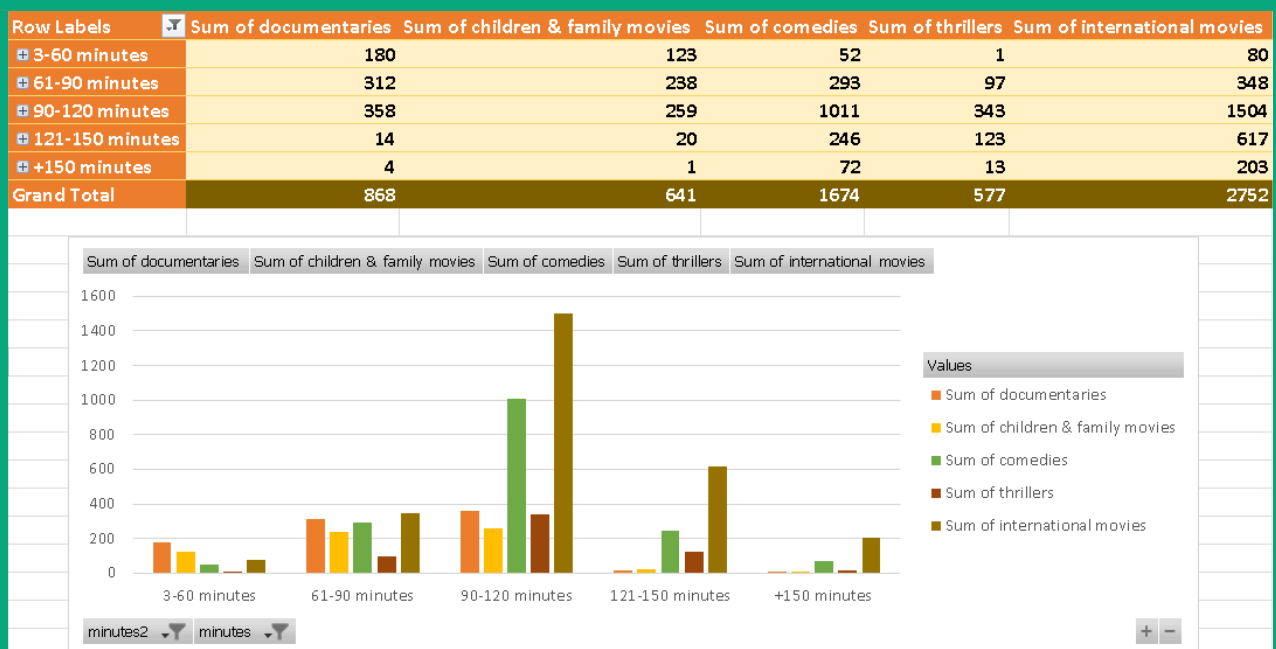
To better understand how content length varies by genre, I decided to create a pivot table in Excel showing the distribution of movie durations across different categories. Before creating the final pivot table, I had to clean and prepare the genre data.



The “listed\_in” column often includes multiple genres separated by commas (e.g. “Documentaries, International Movies”). To analyze genres individually, I created separate binary columns for each genre of interest. I used Excel formulas to flag whether a particular genre was present for a given row. Here's an example of the logic I used:

```
=IF(AND([@type]="Movie";ISNUMBER(SEARCH("Documentaries";[@[listed_in]]))); 1; 0)
```

To better understand how content length varies by genre, I created a pivot table in Excel showing the distribution of movie durations across different categories. I grouped movies into five runtime brackets. Each genre was analyzed to see how its content is spread across these time ranges.



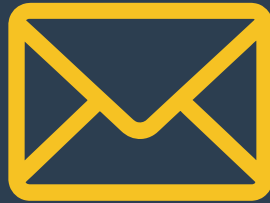
- Documentaries dominate short-form content: The majority of films under 60 minutes are documentaries, which aligns with their typical format and production style.
- Comedies and family movies cluster around standard feature lengths: These genres are most common in the 90–120 minute range, suggesting a focus on traditional cinematic runtimes.
- International movies tend to be the longest: a significant number of international films appear in the 121–150 minute range and even beyond, possibly reflecting artistic, festival-style productions that favor slower storytelling formats.
- Thrillers show a wide range: Though many are within the 90–120 minute range, a noticeable portion also exceeds two hours, indicating that thrillers may lean into more complex narratives.

## Final Thoughts & Next Steps

This project offered a hands-on opportunity to explore real-world data using both SQL and Excel. The analysis revealed trends in content types, genres, and production years, showing how Netflix's catalog has evolved in recent years.

## Through this project I practiced:

- Writing and structuring SQL queries
- Cleaning and transforming messy data
- Creating pivot tables and charts in Excel
- Documenting findings clearly and visually



### Contact:

email: [gorskakarolina23@gmail.com](mailto:gorskakarolina23@gmail.com)

GitHub: [github.com/karola9123](https://github.com/karola9123)