



SYMBIOSIS
INSTITUTE OF COMPUTER
STUDIES AND RESEARCH

NETFLIX ANALYSIS
FOR
TECHNOLOGY IN BUSINESS PROJECT

PREPARE BY,
PRATIK DESHMUKH 23030141018

SUBMITTED TO,
SHASHANK GAIKWAD

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INTRODUCTION

Netflix, a global streaming giant, hosts a diverse content library of movies and TV shows, continually expanding to meet the varied tastes of its audience. This project aims to analyze the Netflix dataset to distinguish between movies and TV shows, uncovering trends in content distribution, viewer preferences, and regional contributions. Using Tableau, the analysis will visualize these insights, providing a clearer understanding of Netflix's content landscape and guiding strategic decisions for content curation and platform enhancement.

ABOUT DATASET

Kaggle Link: <https://www.kaggle.com/datasets/shivamb/netflix-shows>

Records: 6235

Attributes:

Show_id: Unique identifier for each show type:

Indicates whether it's a movie or a TV show title: Title

of the show director: Director of the show cast: Cast

of the show country: Country of origin for the show

date_added: Date when the show was added to

Netflix release_year: Year when the show was

released rating: Age rating for the show duration:

Duration of the show

genre: Categories or genres the show belongs to description:

Brief description of the show

PROBLEM STATEMENT

The Netflix platform hosts a vast and diverse content library, including both movies and TV shows from various countries and genres. However, the sheer volume and variety of content make it challenging to identify key trends, viewer preferences, and regional variations. This analysis seeks to address these challenges by examining the Netflix dataset to uncover meaningful insights into content distribution, viewer demographics, and regional contributions.

OBJECTIVE

The primary objective of this project is to analyze the Netflix dataset to distinguish between movies and TV shows, uncovering trends, patterns, and insights related to viewer preferences, content distribution, and regional variations.

The analysis will focus on:

Temporal distribution of content additions on Netflix.

Ratio of movies to TV shows, offering insights into content diversity and viewer preferences.

Geographical distribution of content, identifying regions with significant content contributions.

Viewer age group preferences, analyzing duration trends and consumption patterns for both movies and TV shows.

KEY PERFORMANCE INDICATORS(KPIs)

Content Upload Trends: Number of movies and TV shows added to Netflix over time, broken down by year

Movies to TV Shows Ratio: The proportion of movies to TV shows available on Netflix, highlighting content diversity.

Regional Content Distribution: Number of movies and TV shows produced in different countries, identifying key content-producing regions.

Viewer Age Group Preferences: Distribution of content duration and age ratings, providing insights into the preferred content length and age group preferences.

Genre Distribution: Analysis of the listed genres/categories, determining the popularity of various content types across different regions and time periods.

SQL

Original Dataset

Clipboard	Font	Alignment	Number	Styles	Cells	Editing	Add-ins	Commands	Gr...																
show_id																									
1	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description													
11	81145628	Movie	Norm of the North: King Richard Finn, Tim Malt	Alan Marriott, Anc	United States	1 September	2019	TV-PG	90 min	Children & Families	Before planning an awesome wedding for his grandfather, a polar bear king must take back a stolen artifact from an evil archaeologist first.														
8	80117401	Movie	Jandino: Whatever It Takes	Jandino Asporaat	United Kingdom	September	2016	TV-MA	94 min	Stand-Up	Jandino Asporaat	riffs on the challenges of raising kids and serenades the audience with a rousing rendition of "Sex on Fire" in his comedy show.													
4	70234439	TV Show	Transformers Prime	Peter Cullen, Sum	United States	September	2013	TV-Y7-FV	1 Season	Kids' TV	With the help of three human allies, the Autobots once again protect Earth from the onslaught of the Decepticons and their leader, Megatron.														
8	80098054	TV Show	Transformers: Robots in Disguise	Will Friedle, Darre	United States	September	2016	TV-Y7	1 Season	Kids' TV	When a prison ship crash unleashes hundreds of Decepticons on Earth, Bumblebee leads a new Autobots force to protect humankind.														
6	80125375	Movie	Awfullyhigh	Nesta Cooper, Kat	United States	September	2017	TV-14	99 min	Comedies	When nerdy high schooler Dan finally attracts the interest of her longtime crush, she lands in the cross hairs of his ex, a social media celebrity.														
7	80163890	TV Show	Apaches	Fernando Lebrija	Alberto Ammann, Spain	September	2016	TV-MA	1 Season	Crime TV	A young journalist is forced into a life of crime to save his father and family in this series based on the novel by Miguel Sez Carral.														
8	80349889	Movie	Automata	Gabe Ibez	Antonio Banderas	Bulgaria, United States	September	2014	R	110 min	International	In a dystopian future, an insurance adjuster for a tech company investigates a robot killed for violating protocol and discovers a global conspiracy.													
9	80164077	Movie	Fabrizio Copano: Solo pienso en m	Rodrigo Toro, Francis	Fabrizio Copano	Chile	September	2017	TV-MA	60 min	Stand-Up	Fabrizio Copano takes audience participation to the next level in this stand-up set while reflecting on sperm banks, family WhatsApp groups and more.													
10	80117902	TV Show	Fire Chasers	Henrik Ruben Genz	James Franco, Kati	United States	September	2017	TV-MA	1 Season	Docuseries	As California's 2018 fire season rages, brave backcountry firefighters race to put out the flames, protect homes and save lives in this docuseries.													
11	70304990	Movie	Good People	Henrik Ruben Genz	James Franco, Kati	United States	September	2017	TV-MA	90 min	Action & Adventure	A struggling couple can't believe their luck when they find a stash of money in the apartment of a neighbor who was recently murdered.													
12	80169755	Movie	Joaqn Reyes: Una y n jo	Miguel Contre	Joaqn Reyes	September	2017	TV-MA	78 min	Stand-Up	Comedian and celebrity impersonator Joaqn Reyes decides to be his zesty self for a night of stories about buses, bathroom habits, royalty and more.														
13	70299204	Movie	Kidnapping Mr. Heineken	Daniel Alfredson	Jim Sturgess, Sam	Netherlands, B	September	2015	R	95 min	Action & Adventure	When beer magnate Alfred " Freddy" Heineken is kidnapped in 1983, his abductors make the largest ransom demand in history.													
14	80182480	Movie	Krish Trish and Balitboy	Damandeep Singh Baggan, Smita	September	2009	TV-Y7	58 min	Children & Families	A team of minstrels, including a monkey, cat and donkey, narrate folktales from the Indian regions of Rajasthan, Kerala and Punjab.															
15	80182483	Movie	Krish Trish and Balitboy: Part II	Munjal Shroff, Tilak	Sid Damandeep Singh Baggan, Smita	September	2013	TV-Y7	62 min	Children & Families	An artisan is cheated of his payment, a lion of his throne and a brother of his inheritance in these three stories of deception and justice.														
16	80182396	Movie	Krish Trish and Balitboy	Munjal Shroff, Tilak	Sid Damandeep Singh Baggan, Smita	September	2016	TV-Y	65 min	Children & Families	EA cat, monkey and donkey team up to narrate folktales about friendship from Northeast India, and the Indian regions of Bihar and Rajasthan.														
17	80182482	Movie	Krish Trish and Balitboy: Tilak Shetty	Damandeep Singh Baggan, Smita	September	2012	TV-Y7	61 min	Children & Families	EA cat, monkey and donkey team up to narrate folktales about friendship from Northeast India, and the Indian regions of Bihar and Rajasthan.															
18	80182597	Movie	Krish Trish and Balitboy: Tilak Shetty	Rohi Gambhir, Smita	Malhotra, De	September	2017	TV-Y7	65 min	Children & Families	EA cat, monkey and donkey team up to narrate folktales about friendship from Northeast India, and the Indian regions of Bihar and Rajasthan.														
19	80182481	Movie	Krish Trish and Balitboy: Part II	Damandeep Singh Baggan, Smita	September	2010	TV-Y7	58 min	Children & Families	EA cat, monkey and donkey team up to narrate folktales about friendship from Northeast India, and the Indian regions of Bihar and Rajasthan.															
20	80182481	Movie	Krish Trish and Balitboy: Munjal Shroff, Tilak	Sid Damandeep Singh Baggan, Smita	September	2013	TV-Y7	60 min	Children & Families	EA cat, monkey and donkey team up to narrate folktales about friendship from Northeast India, and the Indian regions of Bihar and Rajasthan.															
21	80057969	Movie	Love	Gaspar No	Karl Glusman, Klar	France, Belgium	September	2015	NR	135 min	Cult Movie	A man in an unsatisfying marriage recalls the details of an intense past relationship with an ex-girlfriend when he gets word that she may be missing.													
22	80060227	Movie	Manhattan Romance	Tom O'Brien	Tom O'Brien, Kath	United States	September	2014	TV-14	98 min	Comedies	A filmmaker working on a documentary about love in modern Manhattan becomes personally entangled in the romantic lives of his subjects.													
23	80046728	Movie	Moonwalk	Antoine Baroud-Jacq	Ron Perlman, Rup	France, Belgium	September	2015	R	96 min	Action & Adventure	A brain-addled war vet, a failing band manager and a Stanley Kubrick impersonator help the CIA construct an epic scam by faking the 1969 moon landin													
24	80046727	Movie	Rolling Papers	Mitch Dickman	United States	September	2014	PG-13	113 min	Horror	McIn 1899, a young doctor arrives at an asylum for an apprenticeship and becomes suspicious of his mentor's methods while falling for a female patient.														
25	70304988	Movie	Stoneheart Asylum	Brad Anderson	Kate Beckinsale, Ji	United States	September	2015	NR	80 min	Drama	It's a volatile young couple who have been together for six years approach college graduation, unexpected career opportunities threaten their future.													
26	80077000	Movie	The Runner	Austin Stark	Nicolas Cage, Sara	United States	September	2015	R	90 min	Drama	A New Orleans politician finds his idealistic plans for rebuilding after a toxic oil spill unraveling thanks to a sex scandal.													
27	80045322	Movie	6 Years	Hannah Fidell	Tatara Farniga, Be	United States	September	2015	NR	80 min	Drama	It's a volatile young couple who have been together for six years approach college graduation, unexpected career opportunities threaten their future.													
28	80044601	TV Show	Castle of Stars	Chalypol Pupart, Jintanuda	Lum	September	2017	TV-14	1 Season	Documentary	As four couples with different lifestyles go through the ebbs and flows of joy and sorrow, each must learn how to live a good life.														
29	80203094	Movie	City of Joy	Madeline Gavin	United States	September	2018	TV-MA	77 min	Documentary	Women who have been sexually brutally in war-torn Congo begin to heal at City of Joy, a center that helps them regain a sense of self and empowerment.														
30	80190843	TV Show	First and Last	Sopon Sukdapihit	Saharat Sangkrua	Thailand	September	2018	TV-MA	1 Season	Docuseries	Take an intimate look at the emotionally charged first and last days of new and soon-to-be released inmates at Georgia's Gwinnett County Jail.													
31	70245657	Movie	Ladland	Kevin R. Adams, Joe	K John Krasinski, Ch	China, Canada	September	2018	TV-PG	112 min	Horror	When a family moves into an upscale housing development, they encounter a series of paranormal events that drive them to the edge of insanity.													
32	80988092	Movie	Next Gen	Kevin R. Adams, Joe	K John Krasinski, Ch	China, Canada	September	2018	TV-PG	106 min	Children & Families	When lonely Mai forms an unlikely bond with a top-secret robot, they embark on an intense, action-packed adventure to foil the plot of a vicious villain.													
33	80239639	Movie	Sierra Burgess Is A Loser	Ian Samuels	Shannon Purser, K	United States	September	2018	PG-13	106 min	Comedies	A wrong-number text sparks a virtual romance between a smart but unpopular teen and a sweet jock who thinks he's talking to a gorgeous cheerleader.													

CREATED DATABASE:

SCHEMAS

Filter objects

apeksha

customers

departments

deptemp

employee_department

netflixanalysis

netflix_table

Columns

1

create database netflixanalysis;

2

CREATED TABLE AND INSERTED VALUES

```
1 CREATE TABLE netflix_table(
2 show_id INTEGER NOT NULL PRIMARY KEY
3 ,type VARCHAR(1000) NOT NULL
4 ,title VARCHAR(1000) NOT NULL
5 ,director VARCHAR(1000)
6 ,cast VARCHAR(1000)
7 ,country VARCHAR(1000)
8 ,date_added DATE
9 ,release_year INTEGER NOT NULL
10 ,rating VARCHAR(1000)
11 ,duration VARCHAR(1000) NOT NULL
12 ,listed_in VARCHAR(1000) NOT NULL
13 ,description VARCHAR(1000) NOT NULL
14 );
15 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (81145628,'Movie','Norm of the North: King Sized Adventure',NULL,NULL,'United States',NULL,2019,'TV-PG',90,'Children & Families','Before planning an awesome wedding for his grandfather, a polar bear king must take back a stolen artifact from an evil archaeologist first.
16 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80117401,'Movie','Jandino: Whatever It Takes',NULL,NULL,'United States',NULL,2016,'TV-MA',94,'Stand-Up','Jandino Asporaat riffs on the challenges of raising kids and serenades the audience with a rousing rendition of "Sex on Fire" in his comedy show.
17 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (70234439,'TV Show','Transformers: Prime',NULL,NULL,'United States',NULL,2013,'TV-Y7-FV',1,'Season','With the help of three human allies, the Autobots once again protect Earth from the onslaught of the Decepticons and their leader, Megatron.
18 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80098054,'TV Show','Transformers: Robots in Disguise',NULL,NULL,'United States',NULL,2016,'TV-Y7',1,'Season','When a prison ship crash unleashes hundreds of Decepticons on Earth, Bumblebee leads a new Autobots force to protect humankind.
19 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80125375,'Movie','Awfullyhigh',NULL,NULL,'United States',NULL,2017,'TV-14',99,'Comedies','When nerdy high schooler Dan finally attracts the interest of her longtime crush, she lands in the cross hairs of his ex, a social media celebrity.
20 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80163890,'TV Show','Apaches',NULL,NULL,'Spain',NULL,2016,'TV-MA',1,'Season','A young journalist is forced into a life of crime to save his father and family in this series based on the novel by Miguel Sez Carral.
21 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80349889,'Movie','Automata',NULL,NULL,'Bulgaria, United States',NULL,2014,'R',110,'International','In a dystopian future, an insurance adjuster for a tech company investigates a robot killed for violating protocol and discovers a global conspiracy.
22 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80164077,'Movie','Fabrizio Copano: Solo pienso en m',NULL,NULL,'Chile',NULL,2017,'TV-MA',60,'Stand-Up','Fabrizio Copano takes audience participation to the next level in this stand-up set while reflecting on sperm banks, family WhatsApp groups and more.
23 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80117902,'TV Show','Fire Chasers',NULL,NULL,'United States',NULL,2017,'TV-MA',1,'Season','As California's 2018 fire season rages, brave backcountry firefighters race to put out the flames, protect homes and save lives in this docuseries.
24 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (70304990,'Movie','Good People',NULL,NULL,'United States',NULL,2017,'TV-MA',90,'Action & Adventure','A struggling couple can't believe their luck when they find a stash of money in the apartment of a neighbor who was recently murdered.
25 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80169755,'Movie','Joaqn Reyes: Una y n jo',NULL,NULL,'United States',NULL,2017,'TV-MA',78,'Stand-Up','Comedian and celebrity impersonator Joaqn Reyes decides to be his zesty self for a night of stories about buses, bathroom habits, royalty and more.
26 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (70299204,'Movie','Kidnapping Mr. Heineken',NULL,NULL,'Netherlands, B',NULL,2015,'R',95,'Action & Adventure','When beer magnate Alfred " Freddy" Heineken is kidnapped in 1983, his abductors make the largest ransom demand in history.
27 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80182480,'Movie','Krish Trish and Balitboy',NULL,NULL,'United States',NULL,2009,'TV-Y7',58,'Children & Families','A team of minstrels, including a monkey, cat and donkey, narrate folktales from the Indian regions of Rajasthan, Kerala and Punjab.
28 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80182483,'Movie','Krish Trish and Balitboy: Part II',NULL,NULL,'United States',NULL,2013,'TV-Y7',62,'Children & Families','An artisan is cheated of his payment, a lion of his throne and a brother of his inheritance in these three stories of deception and justice.
29 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80182396,'Movie','Krish Trish and Balitboy',NULL,NULL,'United States',NULL,2016,'TV-Y',65,'Children & Families','EA cat, monkey and donkey team up to narrate folktales about friendship from Northeast India, and the Indian regions of Bihar and Rajasthan.
30 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80182482,'Movie','Krish Trish and Balitboy: Tilak Shetty',NULL,NULL,'United States',NULL,2012,'TV-Y7',61,'Children & Families','EA cat, monkey and donkey team up to narrate folktales about friendship from Northeast India, and the Indian regions of Bihar and Rajasthan.
31 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80182597,'Movie','Krish Trish and Balitboy: Tilak Shetty',NULL,NULL,'United States',NULL,2017,'TV-Y7',65,'Children & Families','EA cat, monkey and donkey team up to narrate folktales about friendship from Northeast India, and the Indian regions of Bihar and Rajasthan.
32 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80182481,'Movie','Krish Trish and Balitboy: Munjal Shroff, Tilak',NULL,NULL,'United States',NULL,2013,'TV-Y7',60,'Children & Families','EA cat, monkey and donkey team up to narrate folktales about friendship from Northeast India, and the Indian regions of Bihar and Rajasthan.
33 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80057969,'Movie','Love',NULL,NULL,'France, Belgium',NULL,2015,'NR',135,'Cult Movie','A man in an unsatisfying marriage recalls the details of an intense past relationship with an ex-girlfriend when he gets word that she may be missing.
34 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80060227,'Movie','Manhattan Romance',NULL,NULL,'United States',NULL,2014,'TV-14',98,'Comedies','A filmmaker working on a documentary about love in modern Manhattan becomes personally entangled in the romantic lives of his subjects.
35 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80046728,'Movie','Moonwalk',NULL,NULL,'France, Belgium',NULL,2015,'R',96,'Action & Adventure','A brain-addled war vet, a failing band manager and a Stanley Kubrick impersonator help the CIA construct an epic scam by faking the 1969 moon landing.
36 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80046727,'Movie','Rolling Papers',NULL,NULL,'United States',NULL,2014,'PG-13',113,'Horror','McIn 1899, a young doctor arrives at an asylum for an apprenticeship and becomes suspicious of his mentor's methods while falling for a female patient.
37 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (70304988,'Movie','Stoneheart Asylum',NULL,NULL,'United States',NULL,2015,'NR',80,'Drama','It's a volatile young couple who have been together for six years approach college graduation, unexpected career opportunities threaten their future.
38 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80077000,'Movie','The Runner',NULL,NULL,'United States',NULL,2015,'R',90,'Drama','A New Orleans politician finds his idealistic plans for rebuilding after a toxic oil spill unraveling thanks to a sex scandal.
39 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80045322,'Movie','6 Years',NULL,NULL,'United States',NULL,2015,'NR',80,'Drama','It's a volatile young couple who have been together for six years approach college graduation, unexpected career opportunities threaten their future.
40 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80044601,'TV Show','Castle of Stars',NULL,NULL,'Thailand',NULL,2017,'TV-14',1,'Season','As four couples with different lifestyles go through the ebbs and flows of joy and sorrow, each must learn how to live a good life.
41 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80203094,'Movie','City of Joy',NULL,NULL,'United States',NULL,2018,'TV-MA',77,'Documentary','Women who have been sexually brutalized in war-torn Congo begin to heal at City of Joy, a center that helps them regain a sense of self and empowerment.
42 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80190843,'TV Show','First and Last',NULL,NULL,'Thailand',NULL,2018,'TV-MA',1,'Season','Take an intimate look at the emotionally charged first and last days of new and soon-to-be released inmates at Georgia's Gwinnett County Jail.
43 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (70245657,'Movie','Ladland',NULL,NULL,'China, Canada',NULL,2018,'TV-PG',106,'Horror','When a family moves into an upscale housing development, they encounter a series of paranormal events that drive them to the edge of insanity.
44 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80988092,'Movie','Next Gen',NULL,NULL,'China, Canada',NULL,2018,'TV-PG',106,'Children & Families','When lonely Mai forms an unlikely bond with a top-secret robot, they embark on an intense, action-packed adventure to foil the plot of a vicious villain.
45 INSERT INTO netflix_table(show_id,type,title,director,cast,country,date_added,release_year,rating,duration,listed_in,description) VALUES (80239639,'Movie','Sierra Burgess Is A Loser',NULL,NULL,'United States',NULL,2018,'PG-13',106,'Comedies','A wrong-number text
```

NETFLIX TABLE DATA

show null* show null value count clean data after cleaning null movies tv shows distribution by... rating distribution movies type distribution year wise disdbution normalization SQL File 15* SQL File 16* SQL File 17*

Limit to 1000 rows

1 • SELECT * from netflix_table;

2

show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
247747	Movie	Anar Akbar Anthony	Mamohan Desai	Vinod Khanna, Rishi Kapoor, Amitabh Bachchan...	India	2019-12-31	1977	TV-14	172 min	Action & Adventure, Classic Movies, Comedies	Abandoned i
269880	Movie	Bed Boys	Michael Bay	Will Smith, Martin Lawrence, Téa Leoni, Tobey ...	United States	2019-10-01	1995	R	119 min	Action & Adventure, Comedies	In this fast-p
281550	Movie	La Bamba	Luis Valdez	Lou Diamond Phillips, Essi Morales, Rosanna De...	United States	2020-01-01	1987	PG-13	109 min	Classic Movies, Dramas, Music & Musicals	The plane cr
284890	Movie	Barsaat	Rajkumar Santoshi	Twinkle Khanna, Bobby Deol, Danny Denzongpa...	India	2018-04-01	1995	TV-PG	166 min	Action & Adventure, International Movies, Musi...	A naive you
292118	Movie	Beavis and Butt-head Do America	Mike Judge	Mike Judge, Bruce Willis, Demi Moore, Cloris Lea...	United States	2019-11-20	1996	PG-13	81 min	Comedies, Cult Movies	After realiz
296682	Movie	Berji	Joe Camp	Berji, Deborah Walley, Peter Breck, Edgar Buch...	United States	2018-03-06	1974	G	86 min	Children & Family Movies, Classic Movies	After lovable
347265	Movie	Candyman	Bernard Rose	Virginia Madsen, Tony Todd, Xander Berkeley, K...	United States, United Kingdom	2019-10-01	1992	R	99 min	Cult Movies, Horror Movies	Grad studen
352969	Movie	Carrie	Brian De Palma	Sissy Spacek, Piper Laurie, Amy Irving, William ...	United States	2019-06-01	1976	R	98 min	Classic Movies, Dramas, Horror Movies	An outcast b
372195	Movie	Child's Play	Tom Holland	Catherine Hicks, Alex Vincent, Brad Dourif, Chri...	United States	2019-12-31	1988	R	87 min	Cult Movies, Horror Movies	When a rash
374651	Movie	Chitty Chitty Bang Bang	Ken Hughes	Dick Van Dyke, Sally Ann Howes, Lionel Jeffries...	United Kingdom, United States	2020-01-01	1968	G	146 min	Children & Family Movies, Classic Movies, Come...	Quirky inven
382650	Movie	Cleopatra Jones	Jack Starrett	Tamara Dobson, Bernie Casey, BrendaSykes, E...	United States	2019-11-01	1973	PG	89 min	Action & Adventure, Classic Movies	A stylin' spec
404067	Movie	The Craft	Andrew Fleming	Robin Tunney, Fairuza Balk, Neve Campbell, Ra...	United States	2020-01-01	1996	R	101 min	Horror Movies, Thrillers	At a Catholi
408911	Movie	The Crow	Alex Proyas	Brandon Lee, Rochelle Davis, Ernie Hudson, Mic...	United States	2019-01-01	1994	R	102 min	Action & Adventure, Cult Movies, Sci-Fi & Fantasy	One year aft
419753	Movie	The Dark Crystal	Frank Oz, Jim He...	Jim Henson, Kathryn Mullen, Frank Oz, Dave Go...	United States	2019-05-01	1982	PG	93 min	Children & Family Movies	In the myth
449931	Movie	Doctor Zhivago	David Lean	Omar Sharif, Julie Christie, Geraldine Chaplin, R...	United States, Italy, United Ki...	2019-11-01	1965	PG-13	200 min	Classic Movies, Dramas, Romantic Movies	A young phy
484369	Movie	The Evil Dead	Sam Raimi	Bruce Campbell, Ellen Sandres, Richard DeMa...	United States	2020-01-10	1981	TV-MA	85 min	Classic Movies, Cult Movies, Horror Movies	During a stop
485218	Movie	Executive Decision	Stuart Baird	Kurt Russell, Halle Berry, John Leguizamo, Olive...	United States	2019-11-01	1996	R	133 min	Action & Adventure	When terrori
498716	Movie	Ferris Bueller's Day Off	John Hughes	Matthew Broderick, Alan Ruck, Mia Sara, Jeffrie...	United States	2020-01-03	1986	PG-13	103 min	Classic Movies, Comedies, Cult Movies	Ferris convin
506464	Movie	The First Wives Club	Hugh Wilson	Bette Midler, Goldie Hawn, Diane Keaton, Maggi...	United States	2019-11-20	1996	PG	103 min	Comedies	Following a f
510854	Movie	The Flintstones	Brian Levant	John Goodman, Elizabeth Perkins, Rick Moranis...	United States	2019-10-01	1994	PG	91 min	Children & Family Movies, Comedies	The Flintsto
516154	Movie	For the Love of Berji	Joe Camp	Patsy Garrett, Cynthia Smith, Allen Fuzat, Ed N...	United States	2018-03-06	1977	G	84 min	Children & Family Movies	Berji and his
516788	Movie	Forbidden Planet	Fred M. Wilcox	Leslie Nielsen, Walter Pidgeon, Anne Francis, Ja...	United States	2019-11-01	1956	G	98 min	Action & Adventure, Classic Movies, Sci-Fi & Fa...	A pulp-fictio
520489	Movie	Four Weddings and a Funeral	Mike Newell	Hugh Grant, Andie MacDowell, James Fleet, Sim...	United Kingdom	2019-08-01	1994	R	118 min	Classic Movies, Comedies, International Movies	A committe

DATA PREPROCESSING

Count no null values column wise

show null* show null value count clean data after cleaning null movies tv shows distribution by... rating distribution movies ty

Limit to 1000 rows

```
13 • SELECT
14     SUM(CASE WHEN title IS NULL THEN 1 ELSE 0 END) AS null_title,
15     SUM(CASE WHEN director IS NULL THEN 1 ELSE 0 END) AS null_director,
16     SUM(CASE WHEN cast IS NULL THEN 1 ELSE 0 END) AS null_cast,
17     SUM(CASE WHEN country IS NULL THEN 1 ELSE 0 END) AS null_country,
18     SUM(CASE WHEN date_added IS NULL THEN 1 ELSE 0 END) AS null_date_added,
19     SUM(CASE WHEN release_year IS NULL THEN 1 ELSE 0 END) AS null_release_year,
20     SUM(CASE WHEN rating IS NULL THEN 1 ELSE 0 END) AS null_rating,
21     SUM(CASE WHEN duration IS NULL THEN 1 ELSE 0 END) AS null_duration,
22     SUM(CASE WHEN listed_in IS NULL THEN 1 ELSE 0 END) AS null_listed_in,
23     SUM(CASE WHEN description IS NULL THEN 1 ELSE 0 END) AS null_description
24 FROM netflix_table;
```

25

null_title	null_director	null_cast	null_country	null_date_added	null_release_year	null_rating	null_duration	null_listed_in	null_description
0	1969	570	476	11	0	10	0	0	0

HANDLED NULL VALUES

show null* show null value count clean data after cleaning null movies tv show

Limit to 1000 rows

```
1 • UPDATE netflix_table
2     SET director = 'Unknown'
3     WHERE director IS NULL;
4
5 • UPDATE netflix_table
6     SET cast = 'Unknown'
7     WHERE cast IS NULL;
8
9 • DELETE FROM netflix_table
10    WHERE country IS NULL
11        OR date_added IS NULL
12        OR rating IS NULL;
```

13

1. query updates the director column of the netflix_table, setting its value to 'Unknown' wherever the director value is NULL.
2. query updates the cast column in the same table, assigning 'Unknown' where the cast field is NULL.
3. query deletes rows from the netflix_table where any of the columns country, date_added, or rating contain NULL values.

DATA AFTER PREPROCESSING

	null_title	null_director	null_cast	null_country	null_date_added	null_release_year	null_rating	null_duration	null_listed_in
▶	0	0	0	0	0	0	0	0	0

Now we have 0 null values

```

6
7 • SELECT COUNT(*) AS total_records
8 FROM netflix_table;
9

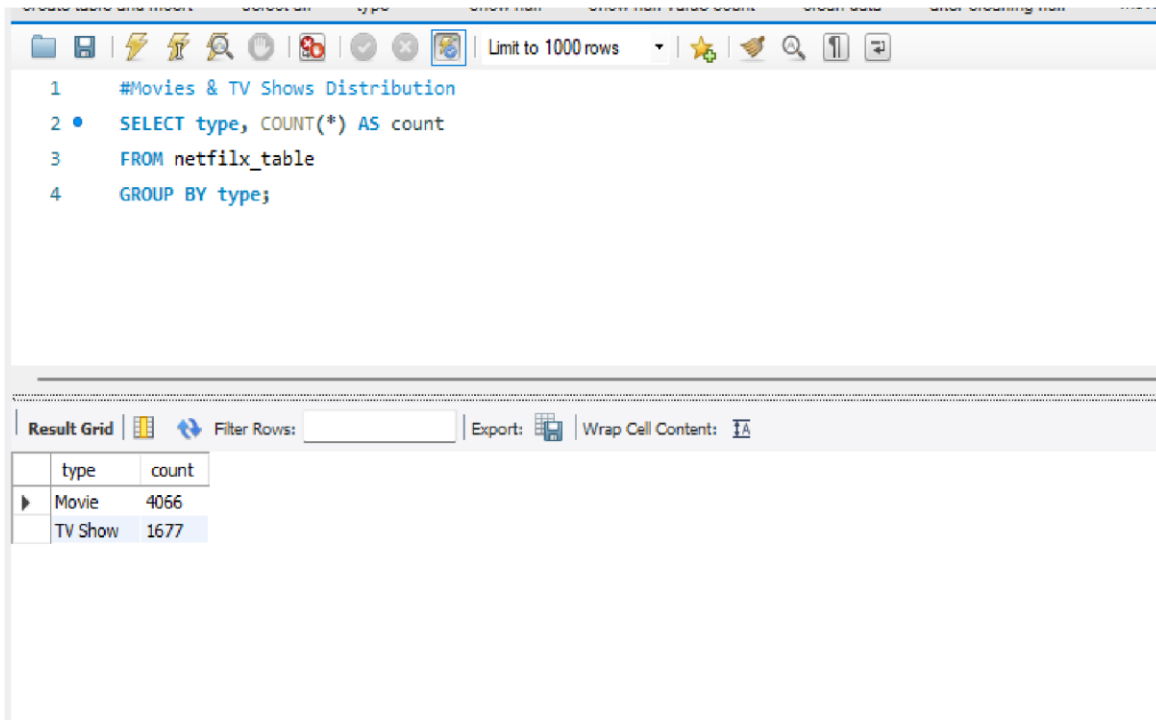
```

	total_records
▶	5743

Total remaining record 5743

SQL QUERIES FOR ANALYSIS

Movies and Tv shows Distibution



The screenshot shows a SQL query editor with the following query:

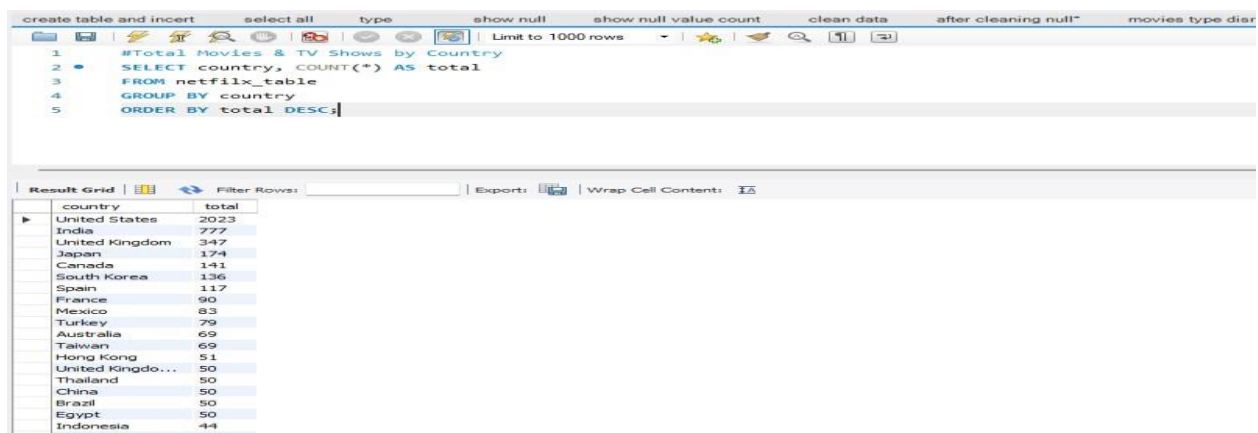
```
1 #Movies & TV Shows Distribution
2 SELECT type, COUNT(*) AS count
3 FROM netflix_table
4 GROUP BY type;
```

Below the query editor, the result grid is displayed, showing the following data:

type	count
Movie	4066
TV Show	1677

This SQL query counts the number of movies and TV shows and groups them by type. It provides a summarized dataset that can be used to quickly create clear charts showing the distribution of content types

Movies and Tv shows by Country



The screenshot shows a SQL query editor with the following query:

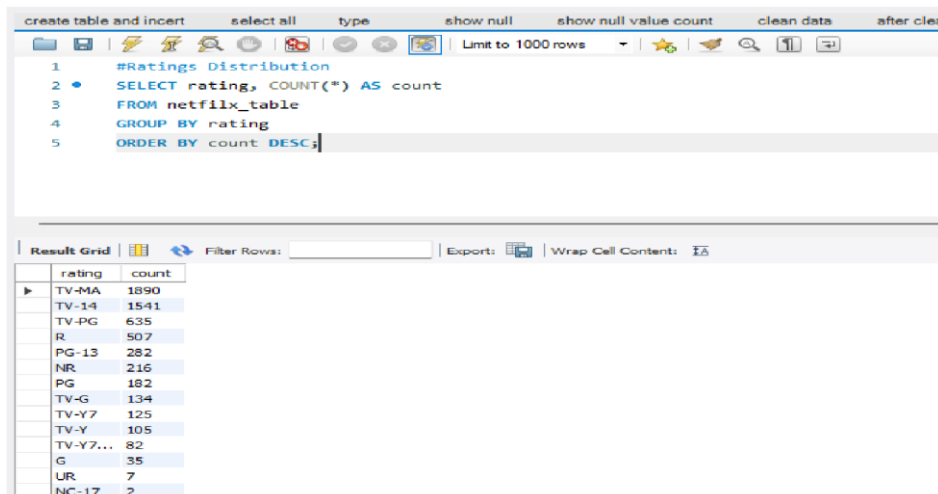
```
1 #Total Movies & TV Shows by Country
2 SELECT country, COUNT(*) AS total
3 FROM netflix_table
4 GROUP BY country
5 ORDER BY total DESC;
```

Below the query editor, the result grid is displayed, showing the following data:

country	total
United States	2023
India	777
United Kingdom	347
Japan	174
Canada	141
South Korea	136
Spain	117
France	90
Mexico	83
Turkey	79
Australia	69
Taiwan	69
Hong Kong	51
United Kingdom...	50
Thailand	50
China	50
Brazil	50
Egypt	50
Indonesia	44
Philippines	44

This SQL query counts the total number of movies and TV shows for each country and sorts them in descending order. By grouping the data by country and counting the entries, it helps show which countries have the most content on Netflix.

Rating wise Distibution



The screenshot shows a SQL IDE with a query editor and a result grid. The query is as follows:

```

1 #Ratings Distribution
2 SELECT rating, COUNT(*) AS count
3 FROM netflix_table
4 GROUP BY rating
5 ORDER BY count DESC;

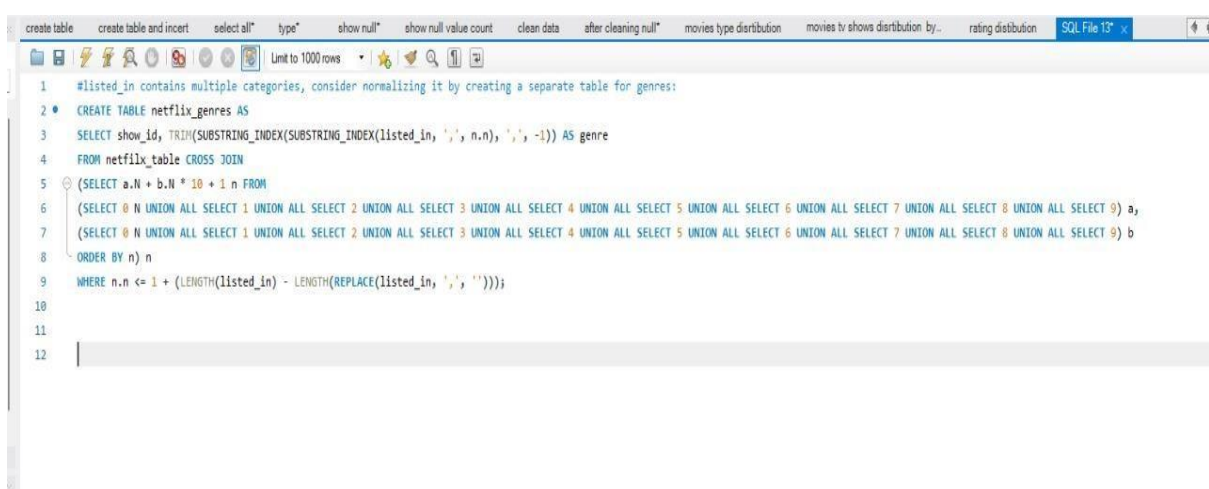
```

The result grid displays the following data:

rating	count
TV-MA	1890
TV-14	1541
TV-PG	635
R	507
PG-13	282
NR	216
PG	182
TV-G	134
TV-Y7	125
TV-Y	105
TV-Y7...	82
G	35
UR	7
NC-17	2

This SQL query counts the number of movies and TV shows for each rating and orders the results by count in descending order. It helps in show the distribution of content across different ratings, making it easy to see which ratings are most common.

Normalization:



The screenshot shows a SQL IDE with a query editor. The query is as follows:

```

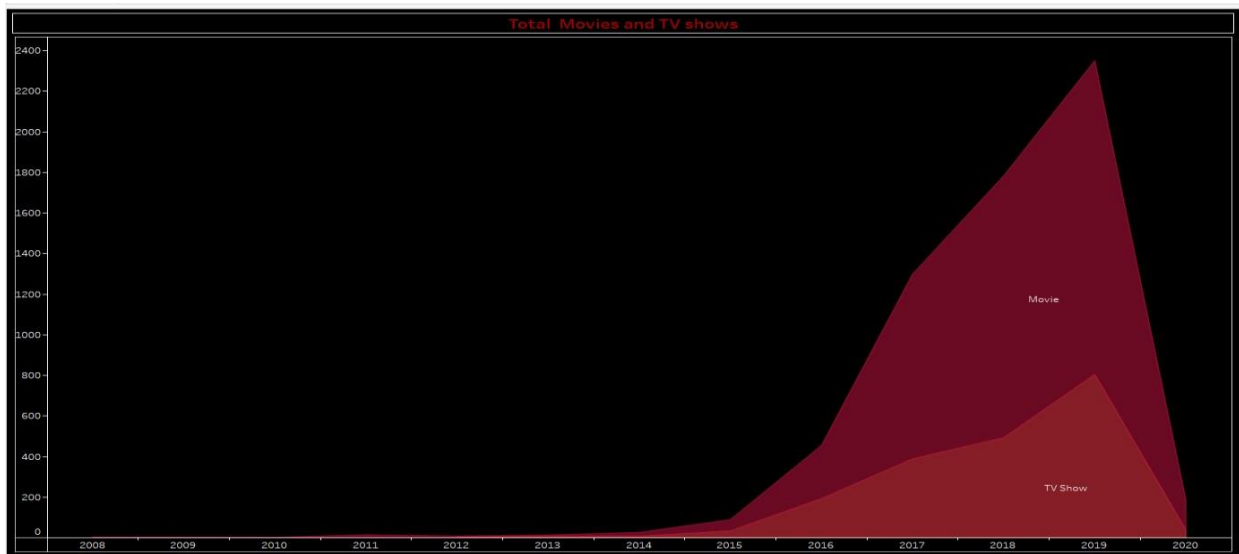
1 #listed_in contains multiple categories, consider normalizing it by creating a separate table for genres:
2 CREATE TABLE netflix_genres AS
3 SELECT show_id, TRIM(SUBSTRING_INDEX(SUBSTRING_INDEX(listed_in, ',', n.n), ',', -1)) AS genre
4 FROM netflix_table CROSS JOIN
5 (SELECT a.n + b.n * 10 + 1 n FROM
6 (SELECT 0 n UNION ALL SELECT 1 UNION ALL SELECT 2 UNION ALL SELECT 3 UNION ALL SELECT 4 UNION ALL SELECT 5 UNION ALL SELECT 6 UNION ALL SELECT 7 UNION ALL SELECT 8 UNION ALL SELECT 9) a,
7 (SELECT 0 n UNION ALL SELECT 1 UNION ALL SELECT 2 UNION ALL SELECT 3 UNION ALL SELECT 4 UNION ALL SELECT 5 UNION ALL SELECT 6 UNION ALL SELECT 7 UNION ALL SELECT 8 UNION ALL SELECT 9) b
8 ORDER BY n) n
9 WHERE n.n <= 1 + (LENGTH(listed_in) - LENGTH(REPLACE(listed_in, ',', '')));
10
11
12

```

The SQL query creates a netflix_genres table and splits a comma-separated listed_in field into individual genres, storing each genre with its associated show_id.

TABLEAU VISUALIZATION

Total Movies and TV Shows

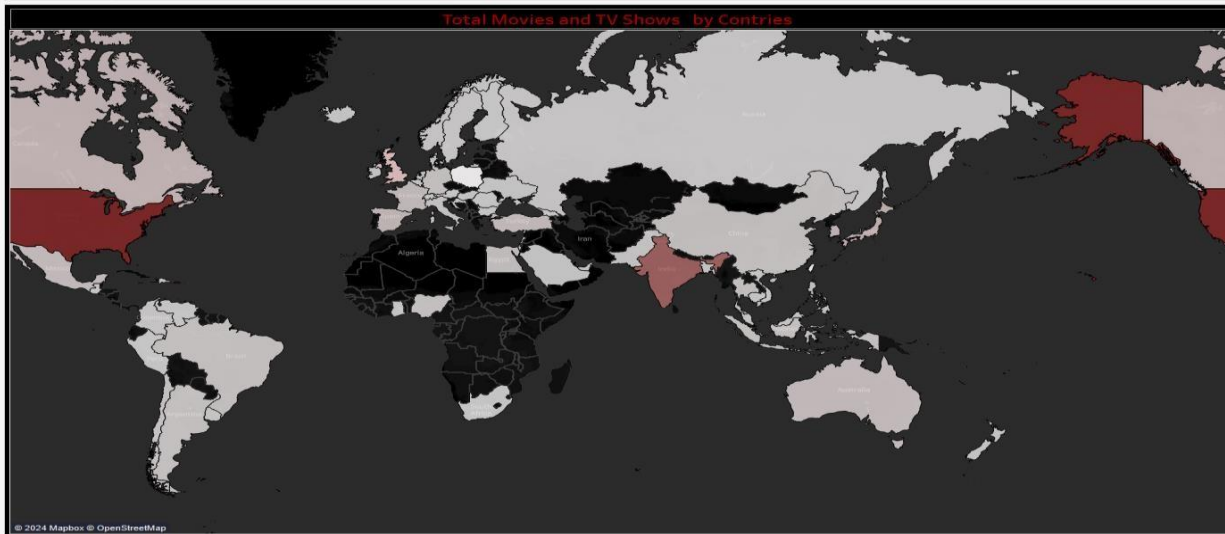


2019 Peak in Content Additions: The graph shows that 2019 experienced the highest number of content additions, with both movies and TV shows reaching a peak. This suggests that Netflix was heavily focused on expanding its content library during this year.

Significant Growth Leading Up to 2019: The sharp increase in content additions begins around 2015, with steady growth each year, culminating in the 2019 peak.

Movies vs TV Shows: Throughout the timeline, movies consistently outnumber TV shows, reflecting a possible preference or strategic focus on movies during this period.

Total Movies and TV Shows by Country:



Insights from the Map Visualization:

Dominance of the United States: The map shows that the United States is a major contributor to Netflix's content library, with the darkest shade indicating the highest number of movies and TV shows. This aligns with the understanding that the U.S. is a significant hub for film and television production.

Strong Contributions from India: India also stands out as a significant content provider, with a large number of movies and TV shows. This suggests that Netflix has a strong presence in the Indian market, likely driven by the country's prolific film industry (Bollywood) and regional cinema.

Other Key Contributors: Countries like the United Kingdom, Canada, and Japan also contribute noticeably to Netflix's content, though to a lesser extent than the U.S. and India. These regions are known for their established entertainment industries.

Sparse Contributions from Other Regions: The map shows that many regions, particularly in Africa and some parts of Asia, have minimal content contributions. This could indicate either a lower production volume in these regions or that Netflix has not yet fully tapped into these markets.

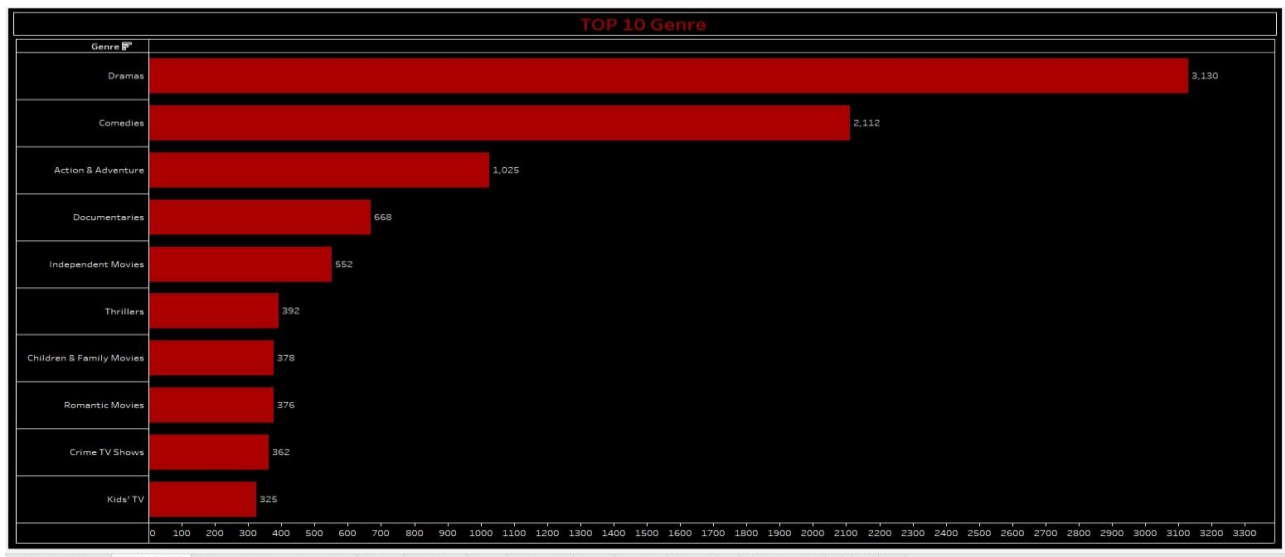
Regional Content Focus: The variation in content contributions across different regions highlights Netflix's focus on specific markets where the production of movies and TV shows is more robust. This focus could also reflect regional content preferences and the availability of local productions.

Conclusions:

Content Strategy: Netflix's content library is heavily influenced by productions from the U.S. and India, suggesting a strategy that leverages the strengths of these major entertainment hubs.

Market Opportunities: There may be opportunities for Netflix to expand its content offerings in regions that currently contribute less, potentially by investing in or acquiring more local productions from underrepresented areas.

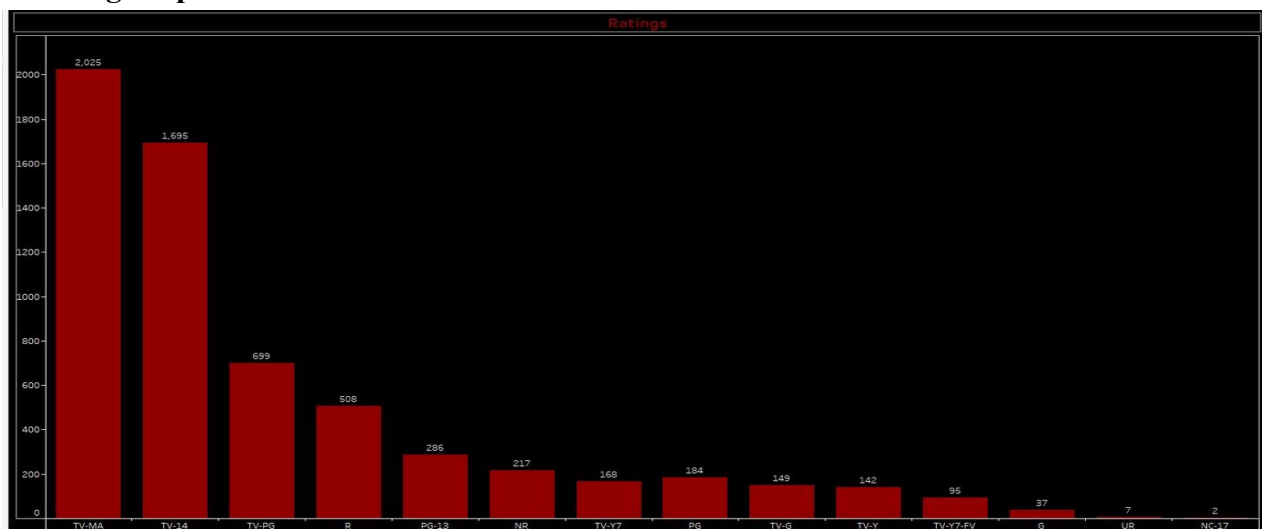
Top 10 genres:



Insights:

Dramas are the most frequent genre on Netflix, followed by Comedies, Sports Movies and action and Adventure. Kids' TV has the fewest entries among the top genres, suggesting a lesser focus on children's content compared to others.

Ratings Top 10:



G: All Ages

TV-Y: All Children

TV-Y7: Older Children

TV-G: General Audience

TV-PG / PG: Parental Guidance Suggested

PG-13 / TV-14: Parents Strongly Cautioned

R: Restricted

TV-MA: Adult Audience

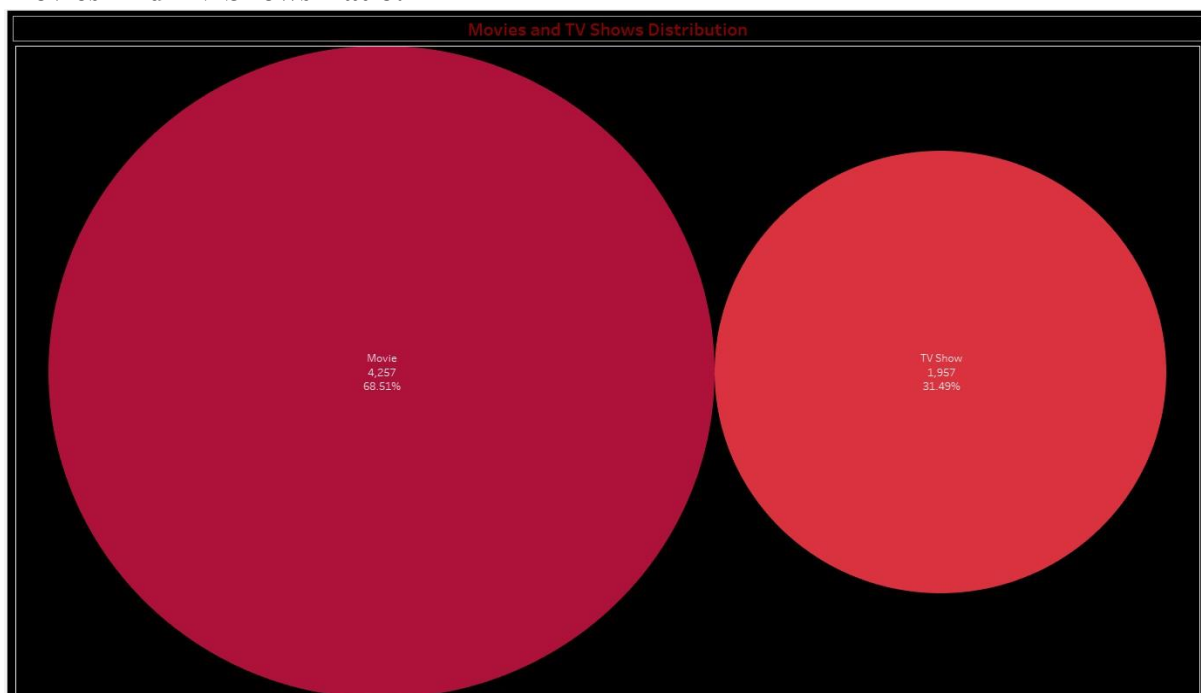
Insights:

The largest portions of content are aimed at mature audiences (TV-MA, TV-14, and R), indicating that Netflix has a strong focus on adult-oriented content.

There is still a substantial amount of content suitable for younger audiences, although it makes up a smaller proportion of the overall library.

The distribution suggests that Netflix is heavily weighted towards providing content that appeals to teens and adults, with fewer options available for younger children.

Movies And TV Shows Ratio:



Insights: The bubble chart shows that Netflix has a higher proportion of movies (68.51%) compared to TV shows (31.49%). This indicates a significant focus on movies in Netflix's content library.

Other Sheets:

Description	Duration	Type
Roommates Wine and Pie find their lives turned upside down when two more ladies move in next door, bringing up past heartaches and new attractions.	107 min	Movie
	Genre	Title
	Action & Adventure	Yes or No 2.5
Release Year	Rating	
2015	TV-PG	

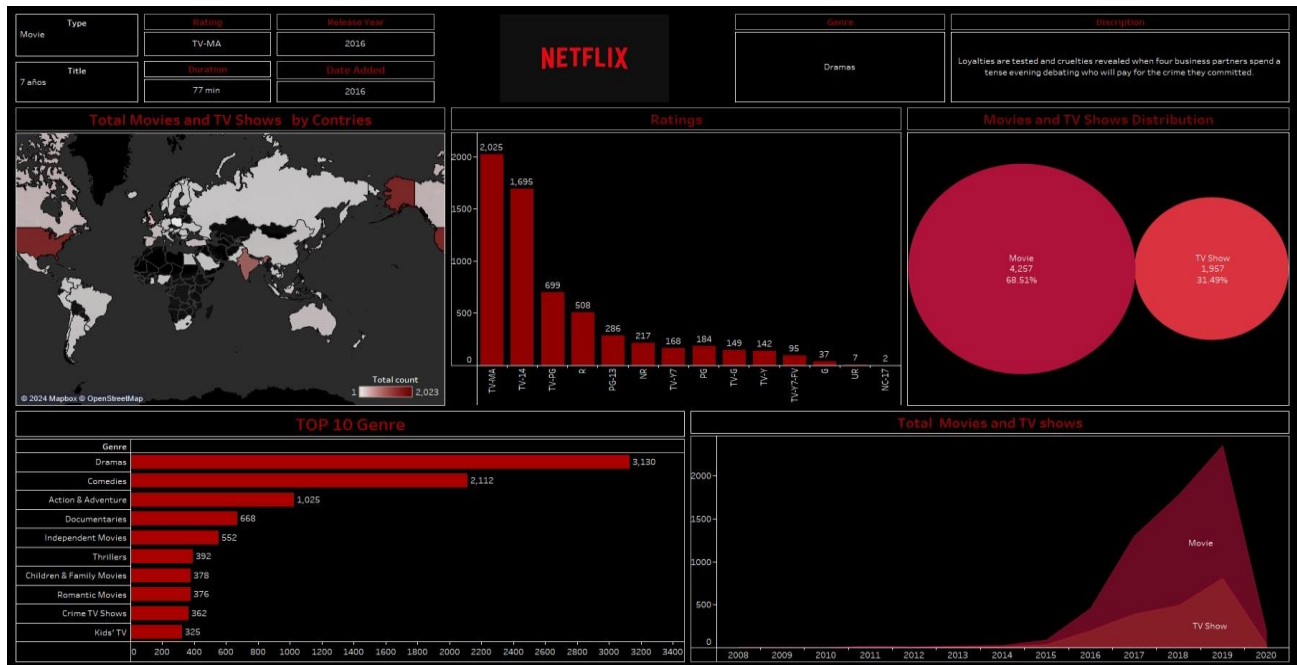
In Tableau visualization used filters to display details about a selected Netflix movie And Tv Shows

Type filter, Title filter Description: Provides a summary of the movie's plot.

Duration: Shows the length of the movie, Genre: Indicates that the movie and Tv shows belongs to which genre. Release Year: Displays the year the movie was released.

Rating: Shows the movie's audience rating.

NETFLIX DASHBOARD



OVERALL INSIGHTS AND CONCLUSION

Content Focus: Netflix's content library is heavily focused on movies, which constitute about (68.51%) compared to TV shows (31.49%). This suggests a strategic preference for movies over TV shows, potentially due to their broader appeal or shorter production timelines.

Genre Popularity: The most popular genre on Netflix is drama, followed by comedies, sports movies, and action & adventure. This indicates a strong audience preference for narrated-driven content and diverse genres that cater to various tastes.

Regional Content Distribution: The United States and India are the leading contributors to Netflix's content library, highlighting these countries' significant role in global entertainment. Other countries like the UK, Canada, and Japan also contribute, but there is less content from Africa and some parts of Asia, indicating potential areas for growth and expansion.

Content Trends: There was a significant increase in content additions around 2019, suggesting a period of rapid expansion for Netflix. This could be attributed to Netflix's efforts to strengthen its catalog to compete with other streaming services.

Viewer Demographics: A large portion of Netflix's content is targeted at mature audiences (TV-MA, TV-14, and R), with less content available for younger viewers. This shows a strategic focus on adult content, which aligns with the viewing habits of a significant portion of Netflix's subscriber base.

Content Addition Over Time: Netflix saw the highest number of content additions in 2019. This aligns with their strategy to rapidly expand their library in response to growing competition in the streaming market.

SUGGESTIONS

Expand TV Show Library: To balance the content offering and attract more subscribers who prefer episodic content, Netflix could consider expanding its TV show library.

Increase Content for Younger Audiences: With a lower percentage of content aimed at younger audiences, Netflix could develop or acquire more children's programming to cater to families and younger viewers.

Focus on Underrepresented Regions: By investing in content from underrepresented regions, particularly Africa and parts of Asia, Netflix can diversify its content offerings and appeal to a broader global audience.

Genre Diversification: While drama is the most popular genre, diversifying the genres further by investing in lesser-represented genres could attract niche audiences and provide a more varied content library.

LIMITATIONS

Dataset Limitations: The dataset from Kaggle only provides a snapshot of Netflix's content at a specific time and may not reflect real-time updates. Additionally, it lacks detailed viewer statistics and engagement metrics, which are crucial for deeper analysis of content preferences.

Tool Limitations: Tableau is effective for visualization but has limited capabilities for advanced data processing and statistical analysis. Complex data transformations and predictive modelling would require additional tools like Python or R.

TOOLS USED

Tableau for data visualization

SQL for data preparation and cleaning

REFERENCES

Dataset source: Netflix Movies and TV Shows dataset on Kaggle

<https://www.tableau.com/academic/students>