

Importing Libraries

```
import numpy as np
import pandas as pd
import datetime
```

Downloading Dataset

```
!gdown
https://d2beiqkhq929f0.cloudfront.net/public_assets/assets/000/000/940
/original/netflix.csv
```

Downloading...

From:

```
https://d2beiqkhq929f0.cloudfront.net/public_assets/assets/000/000/940
/original/netflix.csv
```

To: /content/netflix.csv

```
0% 0.00/3.40M [00:00<?, ?B/s] 100% 3.40M/3.40M [00:00<00:00,
56.4MB/s]
```

1. Defining Problem Statement and Analysing basic metrics

Given the dataset containing Netflix data spanning from 1925 to 2021, we are presented with multiple attributes such as show_id, type, title, directors, cast, ratings, listed_in, date_added, description, release_year, duration, country. Our objective is to perform both explanatory and exploratory analysis on the dataset in order to uncover valuable insights.

To accomplish this task, we will begin by importing the pandas library to read the CSV file. Additionally, we will import the matplotlib.pyplot and seaborn libraries to visually represent the insights through graph plotting.

Now, we will proceed to analyze the fundamental metrics of the provided dataset.

2. Observations on the shape of data, data types of all the attributes, conversion of categorical attributes to 'category' (If required), missing value detection, statistical summary

```
netflix = pd.read_csv('/content/netflix.csv')
netflix
```

	show_id	type	title	director	\
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	
1	s2	TV Show	Blood & Water	NaN	
2	s3	TV Show	Ganglands	Julien Leclercq	
3	s4	TV Show	Jailbirds New Orleans	NaN	
4	s5	TV Show	Kota Factory	NaN	

8802	s8803	Movie	Zodiac	David Fincher
8803	s8804	TV Show	Zombie Dumb	NaN
8804	s8805	Movie	Zombieland	Ruben Fleischer
8805	s8806	Movie	Zoom	Peter Hewitt
8806	s8807	Movie	Zubaan	Mozez Singh

		cast	country
\	0	NaN	United States
1	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...		South Africa
2	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...		NaN
3		NaN	NaN
4	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...		India
...	
8802	Mark Ruffalo, Jake Gyllenhaal, Robert Downey J...		United States
8803		NaN	NaN
8804	Jesse Eisenberg, Woody Harrelson, Emma Stone, ...		United States
8805	Tim Allen, Courteney Cox, Chevy Chase, Kate Ma...		United States
8806	Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...		India

	date_added	release_year	rating	duration	\
0	September 25, 2021	2020	PG-13	90 min	
1	September 24, 2021	2021	TV-MA	2 Seasons	
2	September 24, 2021	2021	TV-MA	1 Season	
3	September 24, 2021	2021	TV-MA	1 Season	
4	September 24, 2021	2021	TV-MA	2 Seasons	
...					
8802	November 20, 2019	2007	R	158 min	
8803	July 1, 2019	2018	TV-Y7	2 Seasons	
8804	November 1, 2019	2009	R	88 min	
8805	January 11, 2020	2006	PG	88 min	
8806	March 2, 2019	2015	TV-14	111 min	

	listed_in	\
0	Documentaries	
1	International TV Shows, TV Dramas, TV Mysteries	
2	Crime TV Shows, International TV Shows, TV Act...	

```

3                                Docuseries, Reality TV
4    International TV Shows, Romantic TV Shows, TV ...
...
8802                                Cult Movies, Dramas, Thrillers
8803                                Kids' TV, Korean TV Shows, TV Comedies
8804                                Comedies, Horror Movies
8805                                Children & Family Movies, Comedies
8806    Dramas, International Movies, Music & Musicals

```

```

                                description
0    As her father nears the end of his life, filmm...
1    After crossing paths at a party, a Cape Town t...
2    To protect his family from a powerful drug lor...
3    Feuds, flirtations and toilet talk go down amo...
4    In a city of coaching centers known to train I...
...
8802    A political cartoonist, a crime reporter and a...
8803    While living alone in a spooky town, a young g...
8804    Looking to survive in a world taken over by zo...
8805    Dragged from civilian life, a former superhero...
8806    A scrappy but poor boy worms his way into a ty...

```

[8807 rows x 12 columns]

Datatype and the number of non-null values in the netflix dataframe

```
netflix.info()
```

```

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 8807 entries, 0 to 8806
Data columns (total 12 columns):
#   Column                Non-Null Count  Dtype
---  -
0   show_id               8807 non-null  object
1   type                  8807 non-null  object
2   title                 8807 non-null  object
3   director              6173 non-null  object
4   cast                  7982 non-null  object
5   country               7976 non-null  object
6   date_added            8797 non-null  object
7   release_year          8807 non-null  int64
8   rating                8803 non-null  object
9   duration              8804 non-null  object
10  listed_in             8807 non-null  object
11  description            8807 non-null  object
dtypes: int64(1), object(11)
memory usage: 825.8+ KB

```

The dataset contains null values in the following columns:

director: 2634 null values; **cast:** 825 null values; **country:** 931 null values; **date_added:** 10 null values; **rating:** 4 null values; **duration:** 3 null values. Regarding data preprocessing, we need to identify the columns in the dataframe that can serve as unique identifiers for each row.

```
for net in netflix.columns:
    print(f'{net} = {netflix[net].nunique()} unique values.')
```

```
show_id = 8807 unique values.
type = 2 unique values.
title = 8807 unique values.
director = 4528 unique values.
cast = 7692 unique values.
country = 748 unique values.
date_added = 1767 unique values.
release_year = 74 unique values.
rating = 17 unique values.
duration = 220 unique values.
listed_in = 514 unique values.
description = 8775 unique values.
```

Replacement of Null Values

```
netflix['director'].fillna("unknown",inplace = True)
netflix['cast'].fillna("unknown",inplace = True)
netflix['country'].fillna("unknown",inplace = True)
netflix['date_added'].fillna("unknown",inplace = True)
netflix['rating'].fillna("unknown",inplace = True)
netflix['duration'].fillna("unknown",inplace = True)
```

```
netflix.isna().sum()
```

```
show_id      0
type         0
title        0
director     0
cast         0
country      0
date_added   0
release_year 0
rating       0
duration     0
listed_in    0
description  0
dtype: int64
```

By converting the date_added feature from a string to a date type, extracting the month and year values into separate columns.

```
netflix['date_add']=pd.to_datetime(netflix['date_added'],
errors='coerce')
```

```

netflix['month']=netflix['date_add'].dt.month.fillna(-1)
netflix['month']=netflix['month'].astype('int64')

netflix['year']=netflix['date_add'].dt.year.fillna(-1)
netflix['year']=netflix['year'].astype('int64')

```

Obtained additional numerical data from the date_added feature and incorporated it into the dataset as new features representing the month and year.

3. Non-Graphical Analysis: Value counts and unique attributes

```

for i in range(netflix.shape[1]):
    print(netflix.iloc[:,i].value_counts())
    print('....++++***++++....')
    print()

```

```

s1      1
s5875   1
s5869   1
s5870   1
s5871   1
..
s2931   1
s2930   1
s2929   1
s2928   1
s8807   1
Name: show_id, Length: 8807, dtype: int64
....++++***++++....

```

```

Movie      6131
TV Show    2676
Name: type, dtype: int64
....++++***++++....

```

```

Dick Johnson Is Dead      1
Ip Man 2                  1
Hannibal Buress: Comedy  1
Turbo FAST                1
Masha's Tales             1
..
Love for Sale 2           1
ROAD TO ROMA              1
Good Time                 1
Captain Underpants Epic  1
Zubaan                    1
Name: title, Length: 8807, dtype: int64
....++++***++++....

```

```

unknown      2634

```

Rajiv Chilaka	19
Raúl Campos, Jan Suter	18
Suhas Kadav	16
Marcus Raboy	16
...	
Raymie Muzquiz, Stu Livingston	1
Joe Menendez	1
Eric Bross	1
Will Eisenberg	1
Mozez Singh	1
Name: director, Length: 4529, dtype: int64	
.....+***+.....	

unknown
825
David Attenborough
19
Vatsal Dubey, Julie Tejawani, Rupa Bhimani, Jigna Bhardwaj, Rajesh
Kava, Mousam, Swapnil
14
Samuel West
10
Jeff Dunham
7

...

Nick Lachey, Vanessa Lachey	1
Takeru Sato, Kasumi Arimura, Haru, Kentaro Sakaguchi, Takayuki Yamada, Kendo Kobayashi, Ken Yasuda, Arata Furuta, Suzuki Matsuo, Koichi Yamadera, Arata Iura, Chikako Kaku, Kotaro Yoshida	1
Toyin Abraham, Sambasa Nzeribe, Chioma Chukwuka Akpotha, Chioma Omeruah, Chiwetelu Agu, Dele Odule, Femi Adebayo, Bayray McNwizu, Biodun Stephen	1
Neeraj Kabi, Geetanjali Kulkarni, Danish Husain, Sheeba Chaddha, Paras Priyadarshan, Anshul Chauhan, Anud Singh Dhaka, Shirin Sewani, Mihir Ahuja, Vasundhara Rajput	1
Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanana, Manish Chaudhary, Meghna Malik, Malkeet Rauni, Anita Shabdish, Chittaranjan Tripathy	1
Name: cast, Length: 7693, dtype: int64	
.....+***+.....	

United States	2818
India	972
unknown	831
United Kingdom	419
Japan	245
...	
Romania, Bulgaria, Hungary	1

Uruguay, Guatemala	1
France, Senegal, Belgium	1
Mexico, United States, Spain, Colombia	1
United Arab Emirates, Jordan	1

Name: country, Length: 749, dtype: int64
+***+.....

January 1, 2020	109
November 1, 2019	89
March 1, 2018	75
December 31, 2019	74
October 1, 2018	71
...	
December 4, 2016	1
November 21, 2016	1
November 19, 2016	1
November 17, 2016	1
January 11, 2020	1

Name: date_added, Length: 1768, dtype: int64
+***+.....

2018	1147
2017	1032
2019	1030
2020	953
2016	902
...	
1959	1
1925	1
1961	1
1947	1
1966	1

Name: release_year, Length: 74, dtype: int64
+***+.....

TV-MA	3207
TV-14	2160
TV-PG	863
R	799
PG-13	490
TV-Y7	334
TV-Y	307
PG	287
TV-G	220
NR	80
G	41
TV-Y7-FV	6
unknown	4
NC-17	3
UR	3

```

74 min      1
84 min      1
66 min      1
Name: rating, dtype: int64
.....+***+.....

```

```

1 Season      1793
2 Seasons     425
3 Seasons     199
90 min        152
94 min        146

```

```

...
189 min      1
10 min       1
3 min        1
229 min      1
191 min      1
Name: duration, Length: 221, dtype: int64
.....+***+.....

```

```

Dramas, International Movies      362
Documentaries                     359
Stand-Up Comedy                   334
Comedies, Dramas, International Movies 274
Dramas, Independent Movies, International Movies 252

```

```

...
Kids' TV, TV Action & Adventure, TV Dramas      1
TV Comedies, TV Dramas, TV Horror               1
Children & Family Movies, Comedies, LGBTQ Movies 1
Kids' TV, Spanish-Language TV Shows, Teen TV Shows 1
Cult Movies, Dramas, Thrillers                  1
Name: listed_in, Length: 514, dtype: int64
.....+***+.....

```

Paranormal activity at a lush, abandoned property alarms a group eager to redevelop the site, but the eerie events may not be as unearthly as they think. 4

Challenged to compose 100 songs before he can marry the girl he loves, a tortured but passionate singer-songwriter embarks on a poignant musical journey. 3

A surly septuagenarian gets another chance at her 20s after having her photo snapped at a studio that magically takes 50 years off her life. 3

Multiple women report their husbands as missing but when it appears they are looking for the same man, a police officer traces their cryptic connection. 3

Secrets bubble to the surface after a sensual encounter and an unforeseen crime entangle two friends and a woman caught between them. 2

..
Sent away to evade an arranged marriage, a 14-year-old begins a harrowing journey of sex work and poverty in the slums of Accra.

1
When his partner in crime goes missing, a small-time crook's life is transformed as he dedicates himself to raising the daughter his friend left behind. 1

During 1962's Cuban missile crisis, a troubled math genius finds himself drafted to play in a U.S.-Soviet chess match – and a deadly game of espionage. 1

A teen's discovery of a vintage Polaroid camera develops into a darker tale when she finds that whoever takes their photo with it dies soon afterward. 1

A scrappy but poor boy worms his way into a tycoon's dysfunctional family, while facing his fear of music and the truth about his past.

1
Name: description, Length: 8775, dtype: int64

.....+***+.....

2020-01-01	110
2019-11-01	91
2018-03-01	75
2019-12-31	74
2018-10-01	71

...

2017-02-21	1
2017-02-07	1
2017-01-29	1
2017-01-25	1
2020-01-11	1

Name: date_add, Length: 1714, dtype: int64

.....+***+.....

7	827
12	813
9	770
4	764
10	760
8	755
3	742
1	738
6	728
11	705
5	632
2	563
-1	10

Name: month, dtype: int64

.....+***+.....

2019	2016
------	------

```

2020    1879
2018    1649
2021    1498
2017    1188
2016     429
2015      82
2014      24
2011      13
2013      11
-1       10
2012       3
2009       2
2008       2
2010       1
Name: year, dtype: int64
.....+***+.....

```

Insight

In the dataset, it is observed that there are significantly more movies (6131) compared to TV shows (2676), each with unique titles and show IDs. The United States has the highest representation with 2818 movies/TV shows, followed by India with a count of 972. The year 2018 witnessed the highest number of releases, with a total count of 1147 movies/TV shows. The most common rating is TV-MA, with 3207 occurrences, followed by TV-14 with 2160 occurrences. The majority of TV shows have only one season, while movies with a runtime of around 90 minutes are the most common and expected by viewers. Among Netflix audiences, the most favored genres are dramas, international movies, and documentaries.

```

for i in range(netflix.shape[1]):
    print(netflix.iloc[:,i].value_counts(normalize = True)*100)
    print('.....__.....')
    print()

s1      0.011355
s5875    0.011355
s5869    0.011355
s5870    0.011355
s5871    0.011355
...
s2931    0.011355
s2930    0.011355
s2929    0.011355
s2928    0.011355
s8807    0.011355
Name: show_id, Length: 8807, dtype: float64
.....__.....

```

Movie 69.615079
TV Show 30.384921
Name: type, dtype: float64
.....

Dick Johnson Is Dead	0.011355
Ip Man 2	0.011355
Hannibal Buress: Comedy Camisado	0.011355
Turbo FAST	0.011355
Masha's Tales	0.011355

Love for Sale 2	0.011355
ROAD TO ROMA	0.011355
Good Time	0.011355
Captain Underpants Epic Choice-o-Rama	0.011355
Zubaan	0.011355

Name: title, Length: 8807, dtype: float64
.....

unknown	29.908028
Rajiv Chilaka	0.215737
Raúl Campos, Jan Suter	0.204383
Suhas Kadav	0.181674
Marcus Raboy	0.181674

Raymie Muzquiz, Stu Livingston	0.011355
Joe Menendez	0.011355
Eric Bross	0.011355
Will Eisenberg	0.011355
Mozez Singh	0.011355

Name: director, Length: 4529, dtype: float64
.....

unknown
9.367549
David Attenborough
0.215737
Vatsal Dubey, Julie Tejwani, Rupa Bhimani, Jigna Bhardwaj, Rajesh
Kava, Mousam, Swapnil
0.158964
Samuel West
0.113546
Jeff Dunham
0.079482

...
Nick Lachey, Vanessa Lachey
0.011355
Takeru Sato, Kasumi Arimura, Haru, Kentaro Sakaguchi, Takayuki Yamada,

Kendo Kobayashi, Ken Yasuda, Arata Furuta, Suzuki Matsuo, Koichi Yamadera, Arata Iura, Chikako Kaku, Kotaro Yoshida 0.011355
 Toyin Abraham, Sambasa Nzeribe, Chioma Chukwuka Akpotha, Chioma Omeruah, Chiwetalu Agu, Dele Odule, Femi Adebayo, Bayray McNwizu, Biodun Stephen 0.011355
 Neeraj Kabi, Geetanjali Kulkarni, Danish Husain, Sheeba Chaddha, Paras Priyadarshan, Anshul Chauhan, Anud Singh Dhaka, Shirin Sewani, Mihir Ahuja, Vasundhara Rajput 0.011355
 Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanana, Manish Chaudhary, Meghna Malik, Malkeet Rauni, Anita Shabdish, Chittaranjan Tripathy 0.011355

Name: cast, Length: 7693, dtype: float64

.....__.....

United States	31.997275
India	11.036675
unknown	9.435676
United Kingdom	4.757579
Japan	2.781878

Romania, Bulgaria, Hungary	0.011355
Uruguay, Guatemala	0.011355
France, Senegal, Belgium	0.011355
Mexico, United States, Spain, Colombia	0.011355
United Arab Emirates, Jordan	0.011355

Name: country, Length: 749, dtype: float64

.....__.....

January 1, 2020	1.237652
November 1, 2019	1.010560
March 1, 2018	0.851595
December 31, 2019	0.840241
October 1, 2018	0.806177

December 4, 2016	0.011355
November 21, 2016	0.011355
November 19, 2016	0.011355
November 17, 2016	0.011355
January 11, 2020	0.011355

Name: date_added, Length: 1768, dtype: float64

.....__.....

2018	13.023731
2017	11.717952
2019	11.695242
2020	10.820938
2016	10.241853

1959	0.011355
1925	0.011355

```
1961      0.011355
1947      0.011355
1966      0.011355
Name: release_year, Length: 74, dtype: float64
.....__.....
```

```
TV-MA      36.414216
TV-14      24.525945
TV-PG      9.799024
R           9.072329
PG-13      5.563756
TV-Y7      3.792438
TV-Y       3.485864
PG         3.258771
TV-G       2.498013
NR         0.908368
G          0.465539
TV-Y7-FV   0.068128
unknown    0.045418
NC-17      0.034064
UR         0.034064
74 min     0.011355
84 min     0.011355
66 min     0.011355
Name: rating, dtype: float64
.....__.....
```

```
1 Season    20.358805
2 Seasons   4.825707
3 Seasons   2.259566
90 min      1.725900
94 min      1.657772
...
189 min     0.011355
10 min      0.011355
3 min       0.011355
229 min     0.011355
191 min     0.011355
Name: duration, Length: 221, dtype: float64
.....__.....
```

```
Dramas, International Movies      4.110367
Documentaries                     4.076303
Stand-Up Comedy                   3.792438
Comedies, Dramas, International Movies 3.111162
Dramas, Independent Movies, International Movies 2.861360
...
Kids' TV, TV Action & Adventure, TV Dramas 0.011355
TV Comedies, TV Dramas, TV Horror         0.011355
Children & Family Movies, Comedies, LGBTQ Movies 0.011355
```

Kids' TV, Spanish-Language TV Shows, Teen TV Shows 0.011355
Cult Movies, Dramas, Thrillers 0.011355
Name: listed_in, Length: 514, dtype: float64
.....__.....

Paranormal activity at a lush, abandoned property alarms a group eager to redevelop the site, but the eerie events may not be as unearthly as they think. 0.045418

Challenged to compose 100 songs before he can marry the girl he loves, a tortured but passionate singer-songwriter embarks on a poignant musical journey. 0.034064

A surly septuagenarian gets another chance at her 20s after having her photo snapped at a studio that magically takes 50 years off her life. 0.034064

Multiple women report their husbands as missing but when it appears they are looking for the same man, a police officer traces their cryptic connection. 0.034064

Secrets bubble to the surface after a sensual encounter and an unforeseen crime entangle two friends and a woman caught between them. 0.022709

...
Sent away to evade an arranged marriage, a 14-year-old begins a harrowing journey of sex work and poverty in the slums of Accra. 0.011355

When his partner in crime goes missing, a small-time crook's life is transformed as he dedicates himself to raising the daughter his friend left behind. 0.011355

During 1962's Cuban missile crisis, a troubled math genius finds himself drafted to play in a U.S.-Soviet chess match – and a deadly game of espionage. 0.011355

A teen's discovery of a vintage Polaroid camera develops into a darker tale when she finds that whoever takes their photo with it dies soon afterward. 0.011355

A scrappy but poor boy worms his way into a tycoon's dysfunctional family, while facing his fear of music and the truth about his past. 0.011355

Name: description, Length: 8775, dtype: float64
.....__.....

2020-01-01	1.250426
2019-11-01	1.034444
2018-03-01	0.852563
2019-12-31	0.841196
2018-10-01	0.807093

...

2017-02-21	0.011368
2017-02-07	0.011368
2017-01-29	0.011368
2017-01-25	0.011368

```
2020-01-11    0.011368
Name: date_add, Length: 1714, dtype: float64
```

```
.....__.....
```

```
7      9.390258
12     9.231293
9      8.743045
4      8.674918
10     8.629499
8      8.572726
3      8.425116
1      8.379698
6      8.266152
11     8.004996
5      7.176110
2      6.392642
-1     0.113546
```

```
Name: month, dtype: float64
```

```
.....__.....
```

```
2019    22.890882
2020    21.335301
2018    18.723742
2021    17.009197
2017    13.489270
2016     4.871125
2015     0.931078
2014     0.272511
2011     0.147610
2013     0.124901
-1      0.113546
2012     0.034064
2009     0.022709
2008     0.022709
2010     0.011355
```

```
Name: year, dtype: float64
```

```
.....__.....
```

Insight:

To analyze the data in terms of percentages, normalization was applied. The results indicate that Netflix has a distribution of approximately 70% for movies and 30% for TV shows. Among these, the United States holds the largest share at around 32%, followed by India at approximately 11%. More than half of the data consists of content released between the years 2016 and 2020. Additionally, mature and teenage audiences make up approximately 60% of the population, with TV-MA ratings contributing 36.44 and TV-14 ratings contributing 24.54. Other attributes mentioned earlier remain consistent.

```

for i in range(netflix.shape[1]):
    print(pd.unique(netflix.iloc[:,i]))
    print('.....000oo000.....')
    print()

['s1' 's2' 's3' ... 's8805' 's8806' 's8807']
.....000oo000.....

['Movie' 'TV Show']
.....000oo000.....

['Dick Johnson Is Dead' 'Blood & Water' 'Ganglands' ... 'Zombieland'
 'Zoom' 'Zubaan']
.....000oo000.....

['Kirsten Johnson' 'unknown' 'Julien Leclercq' ... 'Majid Al Ansari'
 'Peter Hewitt' 'Mozes Singh']
.....000oo000.....

['unknown'
 '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'
 'Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabiha Akkari, Sofia
 Lesaffre, Salim Kechiouche, Nouredine Farihi, Geert Van Rampelberg,
 Bakary Diombera'
 ...
 'Jesse Eisenberg, Woody Harrelson, Emma Stone, Abigail Breslin, Amber
 Heard, Bill Murray, Derek Graf'
 'Tim Allen, Courteney Cox, Chevy Chase, Kate Mara, Ryan Newman,
 Michael Cassidy, Spencer Breslin, Rip Torn, Kevin Zegers'
 'Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanana, Manish Chaudhary,
 Meghna Malik, Malkeet Rauni, Anita Shabdish, Chittaranjan Tripathy']
.....000oo000.....

['United States' 'South Africa' 'unknown' 'India'
 'United States, Ghana, Burkina Faso, United Kingdom, Germany,
 Ethiopia'
 'United Kingdom' 'Germany, Czech Republic' 'Mexico' 'Turkey'
 'Australia'
 'United States, India, France' 'Finland' 'China, Canada, United
 States'
 'South Africa, United States, Japan' 'Nigeria' 'Japan'
 'Spain, United States' 'France' 'Belgium' 'United Kingdom, United
 States'
 'United States, United Kingdom' 'France, United States' 'South Korea'
 'Spain' 'United States, Singapore' 'United Kingdom, Australia,
 France'

```


'United Kingdom, Australia, France, United States'
 'United States, Canada' 'Germany, United States'
 'South Africa, United States' 'United States, Mexico'
 'United States, Italy, France, Japan'
 'United States, Italy, Romania, United Kingdom'
 'Australia, United States' 'Argentina, Venezuela'
 'United States, United Kingdom, Canada' 'China, Hong Kong' 'Russia'
 'Canada' 'Hong Kong' 'United States, China, Hong Kong'
 'Italy, United States' 'United States, Germany'
 'United Kingdom, Canada, United States' ', South Korea' 'Ireland'
 'India, Nepal' 'New Zealand, Australia, France, United States'
 'Italy'
 'Italy, Brazil, Greece' 'Argentina' 'Jordan' 'Colombia'
 'United States, Japan' 'Belgium, United Kingdom'
 'Switzerland, United Kingdom, Australia' 'Israel, United States'
 'Canada, United States' 'Brazil' 'Argentina, Spain' 'Taiwan'
 'United States, Nigeria' 'Bulgaria, United States'
 'Spain, United Kingdom, United States' 'United States, China'
 'United States, France' 'Spain, France, United Kingdom, United
 States'
 ', France, Algeria' 'Poland' 'Germany'
 'France, Israel, Germany, United States, United Kingdom' 'New
 Zealand'
 'Saudi Arabia' 'Thailand' 'Indonesia' 'Egypt, Denmark, Germany'
 'United States, Switzerland' 'Hong Kong, Canada, United States'
 'Kuwait, United States' 'France, Canada, United States, Spain'
 'France, Netherlands, Singapore' 'France, Belgium'
 'Ireland, United States, United Kingdom' 'Egypt' 'Malaysia' 'Israel'
 'Australia, New Zealand' 'United Kingdom, Germany' 'Belgium,
 Netherlands'
 'South Korea, Czech Republic' 'Australia, Germany' 'Vietnam'
 'United Kingdom, Belgium' 'United Kingdom, Australia, United States'
 'France, Japan, United States'
 'United Kingdom, Germany, Spain, United States'
 'United Kingdom, United States, France, Italy'
 'United States, Germany, Canada'
 'United States, France, Italy, United Kingdom'
 'United States, United Kingdom, Germany, Hungary'
 'United States, New Zealand' 'Sweden' 'China' 'Lebanon' 'Romania'
 'Finland, Germany' 'Lebanon, Syria' 'Philippines' 'Iceland' 'Denmark'
 'United States, India' 'Philippines, Singapore, Indonesia'
 'China, United States, Canada' 'Lebanon, United Arab Emirates'
 'Canada, United States, Denmark' 'United Arab Emirates'
 'Mexico, France, Colombia' 'Netherlands' 'Germany, United States,
 France'
 'United States, Bulgaria'
 'United Kingdom, France, Germany, United States' 'Norway, Denmark'
 'Syria, France, Lebanon, Qatar' 'United States, Czech Republic'
 'Mauritius' 'Canada, South Africa' 'Austria' 'Mexico, Brazil'
 'Germany, France' 'Mexico, United States'

'United Kingdom, France, Spain, United States' 'United States, Australia'
'United States, United Kingdom, France' 'United States, Russia'
'United States, United Kingdom, New Zealand' 'Australia, United Kingdom'
'Canada, Nigeria, United States'
'France, United States, United Kingdom, Canada' 'France, United Kingdom'
'India, United Kingdom' 'Canada, United States, Mexico'
'United Kingdom, Germany, United States'
'Czech Republic, United Kingdom, United States' 'China, United Kingdom'
'Italy, United Kingdom' 'China, Taiwan'
'United States, Brazil, Japan, Spain, India'
'United States, China, United Kingdom' 'Cameroon'
'Lebanon, Palestine, Denmark, Qatar' 'Japan, United States'
'Uruguay, Germany' 'Egypt, Saudi Arabia'
'United Kingdom, France, Poland, Germany, United States'
'Ireland, Switzerland, United Kingdom, France, United States'
'United Kingdom, South Africa, France'
'Ireland, United Kingdom, France, Germany' 'Russia, United States'
'United Kingdom, United States, France' 'United Kingdom,'
'United States, India, United Kingdom' 'Kenya' 'Spain, Argentina'
'India, United Kingdom, France, Qatar' 'Belgium, France'
'Argentina, Chile' 'United States, Thailand' 'Chile, Brazil'
'United States, Colombia' 'Canada, United States, United Kingdom'
'Uruguay' 'Luxembourg' 'United States, Cambodia, Romania'
'Bangladesh'
'Spain, Belgium, United States'
'United Kingdom, United States, Australia'
'Canada, United States, France' 'Portugal, United States'
'Portugal, Spain' 'India, United States' 'United Kingdom, Ireland'
'United Kingdom, Spain, United States' 'Hungary, United States'
'United States, South Korea' 'Canada, United States, Cayman Islands'
'India, France' 'France, Canada' 'Canada, Hungary, United States'
'Norway' 'Canada, United Kingdom, United States'
'United Kingdom, Germany, France, United States' 'Denmark, United States'
'Senegal' 'France, Algeria'
'United Kingdom, Finland, Germany, United States, Australia, Japan, France, Ireland'
'Philippines, Canada, United Kingdom, United States'
'Ireland, France, Iceland, United States, Mexico, Belgium, United Kingdom, Hong Kong'
'Singapore' 'Kuwait' 'United States, France, Serbia'
'United States, Italy' 'Spain, Italy'
'United States, Ireland, United Kingdom, India'
'United Kingdom, Singapore' 'Hong Kong, United States'
'United States, Malta, France, United Kingdom'
'United States, China, Canada' 'Canada, United States, Ireland'

'Lebanon, Canada, France' 'Japan, Canada, United States'
 'Spain, France, Canada' 'Denmark, Singapore, Canada, United States'
 'United States, France, Denmark' 'United States, China, Colombia'
 'Spain, Thailand, United States' 'Mexico, Spain'
 'Ireland, Luxembourg, Belgium' 'China, United States' 'Canada,
 Belgium'
 'Canada, United Kingdom'
 'Lebanon, United Arab Emirates, France, Switzerland, Germany'
 'France, Belgium, Italy' 'Lebanon, United States, United Arab
 Emirates'
 'Lebanon, France' 'France, Lebanon' 'France, Lebanon, United Kingdom'
 'France, Norway, Lebanon, Belgium'
 'Sweden, Czech Republic, United Kingdom, Denmark, Netherlands'
 'United States, United Kingdom, India' 'Indonesia, Netherlands'
 'Turkey, South Korea' 'Serbia, United States' 'Namibia'
 'United Kingdom, Kenya' 'United Kingdom, France, Germany, Spain'
 'United Kingdom, France, United States, Belgium, Luxembourg, China,
 Germany'
 'Thailand, United States' 'United States, France, Canada, Belgium'
 'United Kingdom, China' 'Germany, China, United Kingdom'
 'Australia, New Zealand, United States'
 'Hong Kong, Iceland, United States' 'France, Australia, Germany'
 'United States, Belgium, Canada, France' 'South Africa, Angola'
 'United States, Philippines'
 'United States, United Kingdom, Canada, China'
 'United States, Canada, United Kingdom' 'Turkey, United States'
 'Peru, Germany, Norway' 'Mozambique' 'Brazil, France'
 'China, Spain, South Korea, United States' 'Spain, Germany'
 'Hong Kong, China' 'France, Belgium, Luxembourg, Cambodia,'
 'United Kingdom, Australia' 'Belarus' 'Indonesia, United Kingdom'
 'Switzerland, France, Belgium, United States' 'Ghana'
 'Spain, France, Canada, United States' 'Chile, Italy'
 'United Kingdom, Nigeria' 'Chile' 'France, Egypt' 'Egypt, France'
 'France, Brazil, Spain, Belgium' 'Egypt, Algeria'
 'Canada, South Korea, United States' 'Nigeria, United Kingdom'
 'United States, France, Canada' 'Poland, United States'
 'United Arab Emirates, Jordan, Lebanon, Saudi Arabia'
 'United States, Mexico, Spain, Malta'
 'Saudi Arabia, United Arab Emirates' 'Zimbabwe'
 'United Kingdom, Germany, United Arab Emirates, New Zealand'
 'Romania, United States' 'Canada, Nigeria'
 'Saudi Arabia, Netherlands, Germany, Jordan, United Arab Emirates,
 United States'
 'United Kingdom, Spain' 'Finland, France'
 'United Kingdom, Germany, United States, France'
 'India, United Kingdom, China, Canada, Japan, South Korea, United
 States'
 'Italy, United Kingdom, France' 'United States, Mexico, Colombia'
 'Turkey, India' 'Italy, Turkey' 'United Kingdom, United States,
 Japan'

'France, Belgium, United States' 'Puerto Rico, United States,
 Colombia'
 'Uruguay, Argentina' 'United States, United Kingdom, Japan'
 'United States, Argentina' 'United Kingdom, Italy'
 'Ireland, United Kingdom'
 'United Kingdom, France, Belgium, Canada, United States'
 'Netherlands, Germany, Denmark, United Kingdom' 'Hungary'
 'Austria, Germany' 'Taiwan, China'
 'United Kingdom, United States, Ireland' 'South Korea, United States'
 'Brazil, United Kingdom' 'Pakistan, United States'
 'Romania, France, Switzerland, Germany' 'Romania, United Kingdom'
 'France, Malta, United States' 'Cyprus'
 'United Kingdom, France, Belgium, Ireland, United States'
 'United States, Norway, Canada' 'Kenya, United States'
 'France, South Korea, Japan, United States' 'Taiwan, Malaysia'
 'Uruguay, Argentina, Germany, Spain'
 'United States, United Kingdom, France, Germany, Japan'
 'United States, France, Japan' 'United Kingdom, France, United
 States'
 'Spain, France, United States' 'Indonesia, South Korea, Singapore'
 'United States, Spain' 'Netherlands, Germany, Italy, Canada'
 'Spain, Germany, Denmark, United States' 'Norway, Sweden'
 'South Korea, Canada, United States, China' 'Argentina, Uruguay,
 Serbia'
 'France, Japan' 'Mauritius, South Africa' 'United States, Poland'
 'United Kingdom, United States, Germany, Denmark, Belgium, Japan'
 'India, Germany' 'India, United Kingdom, Canada, United States'
 'Philippines, United States' 'Romania, Bulgaria, Hungary'
 'Uruguay, Guatemala' 'France, Senegal, Belgium' 'United Kingdom,
 Canada'
 'Mexico, United States, Spain, Colombia' 'Canada, Norway'
 'Singapore, United States' 'Finland, Germany, Belgium'
 'United Kingdom, France' 'United States, Chile'
 'United Kingdom, Japan, United States' 'Spain, United Kingdom'
 'Argentina, United States, Mexico' 'United States, South Korea,
 Japan'
 'Canada, Australia' 'United Kingdom, Hungary, Australia' 'Italy,
 Belgium'
 'United States, United Kingdom, Germany' 'Switzerland'
 'Singapore, Malaysia'
 'France, Belgium, Luxembourg, Romania, Canada, United States'
 'South Africa, Nigeria' 'Spain, France' 'United Kingdom, Hong Kong'
 'Pakistan' 'Brazil, United States'
 'Denmark, Brazil, France, Portugal, Sweden' 'India, Turkey'
 'Malaysia, Singapore, Hong Kong' 'Philippines, Singapore'
 'Australia, Canada' 'Taiwan, China, France, United States'
 'Germany, Italy' 'Colombia, Peru, United Kingdom'
 'Thailand, China, United States' 'Argentina, United States'
 'Sweden, United States' 'Uruguay, Spain, Mexico'
 'France, Luxembourg, Canada' 'Denmark, Spain' 'Chile, Argentina'

'United Kingdom, Belgium, Sweden' 'Canada, Brazil' 'Italy, France'
'Canada, Germany' 'Pakistan, United Arab Emirates' 'Ghana, United
States'
'Mexico, Finland' 'United Arab Emirates, United Kingdom, India'
'Netherlands, Belgium' 'United States, Taiwan'
'Austria, Iraq, United States' 'United Kingdom, Malawi'
'Paraguay, Argentina' 'United Kingdom, Russia, United States'
'India, Pakistan' 'Indonesia, Singapore' 'Spain, Belgium'
'Iceland, Sweden, Belgium' 'Croatia' 'Uruguay, Argentina, Spain'
'United Kingdom, Ireland, United States'
'Canada, Germany, France, United States' 'United Kingdom, Japan'
'Norway, Denmark, Netherlands, Sweden' 'Hong Kong, China, United
States'
'Ireland, Canada' 'Italy, Switzerland, France, Germany'
'Mexico, Netherlands' 'United States, Sweden' 'Germany, France,
Russia'
'France, Iran, United States' 'United Kingdom, India'
'Russia, Poland, Serbia' 'Spain, Portugal' 'Peru' 'Mexico, Argentina'
'United Kingdom, Canada, United States, Cayman Islands'
'Indonesia, United States'
'United States, Israel, United Kingdom, Canada'
'Norway, Iceland, United States' 'Czech Republic, United States'
'United Kingdom, India, United States' 'United Kingdom, West Germany'
'India, Australia' 'United States,'
'Belgium, United Kingdom, United States' 'India, Germany, Austria'
'United States, Brazil, South Korea, Mexico, Japan, Germany'
'Spain, Mexico' 'China, Japan' 'Argentina, France'
'China, United States, United Kingdom'
'France, Luxembourg, United States' 'China, United States, Australia'
'Colombia, Mexico' 'United States, Canada, Ireland' 'Chile, Peru'
'Argentina, Italy' 'Canada, Japan, United States'
'United Kingdom, Canada, United States, Germany'
'Italy, Switzerland, Albania, Poland' 'United States, Japan, Canada'
'Cambodia' 'Italy, United States, Argentina'
'Saudi Arabia, Syria, Egypt, Lebanon, Kuwait'
'United States, Canada, Indonesia, United Kingdom, China, Singapore'
'Spain, Colombia'
'United Kingdom, South Africa, Australia, United States' 'Bulgaria'
'Argentina, Brazil, France, Poland, Germany, Denmark'
'United Kingdom, Spain, United States, Germany' 'Philippines, Qatar'
'Netherlands, Belgium, Germany, Jordan'
'United Arab Emirates, United States' 'Norway, Germany, Sweden'
'South Korea, China' 'Georgia' 'Soviet Union, India'
'Australia, United Arab Emirates' 'Canada, Germany, South Africa'
'South Korea, China, United States' 'India, Soviet Union' 'India,
Mexico'
'Georgia, Germany, France' 'United Arab Emirates, Romania'
'India, Malaysia' 'Germany, Jordan, Netherlands'
'Turkey, France, Germany, Poland' 'Greece, United States'
'France, United Kingdom, United States' 'Norway, Germany'

'France, Morocco' 'Cambodia, United States' 'United States, Denmark'
 'United States, Colombia, Mexico'
 'United Kingdom, Italy, Israel, Peru, United States'
 'Argentina, Uruguay, Spain, France'
 'United Kingdom, France, United States, Belgium'
 'France, Canada, China, Cambodia'
 'United Kingdom, France, Belgium, United States' 'Chile, France'
 'Netherlands, United States' 'France, United Kingdom, India'
 'Czech Republic, Slovakia' 'Singapore, France' 'Spain, Switzerland'
 'United States, Australia, China' 'South Africa, United States,
 Germany'
 'United States, United Kingdom, Australia' 'Spain, Italy, Argentina'
 'Chile, Spain, Argentina, Germany' 'West Germany'
 'Austria, Czech Republic' 'Lebanon, Qatar'
 'United Kingdom, Jordan, Qatar, Iran' 'France, South Korea, Japan'
 'Israel, Germany, France' 'Canada, Japan, Netherlands'
 'United States, Hungary' 'France, Germany' 'France, Qatar'
 'United Kingdom, Germany, Canada' 'Ireland, South Africa'
 'Chile, United States, France' 'Belgium, France, Netherlands'
 'United Kingdom, Ukraine, United States'
 'Germany, Australia, France, China' 'Norway, United States'
 'United States, Bermuda, Ecuador'
 'United States, Hungary, Ireland, Canada'
 'United Kingdom, Egypt, United States'
 'United States, France, United Kingdom' 'Spain, Mexico, France'
 'United States, South Africa' 'Hong Kong, China, Singapore'
 'South Africa, China, United States' 'Denmark, France, Poland'
 'New Zealand, United Kingdom' 'Netherlands, Denmark, South Africa'
 'Iran, France' 'United Kingdom, United States, France, Germany'
 'Australia, France' 'Ireland, United Kingdom, United States'
 'United Kingdom, France, Germany' 'Canada, Luxembourg'
 'Brazil, Netherlands, United States, Colombia, Austria, Germany'
 'France, Canada, Belgium' 'Canada, France'
 'Bulgaria, United States, Spain, Canada' 'Sweden, Netherlands'
 'France, United States, Mexico'
 'Australia, United Kingdom, United Arab Emirates, Canada'
 'Australia, Armenia, Japan, Jordan, Mexico, Mongolia, New Zealand,
 Philippines, South Africa, Sweden, United States, Uruguay'
 'India, Iran' 'France, Belgium, Spain'
 'Denmark, Sweden, Israel, United States' 'United States, Iceland'
 'United Kingdom, Russia' 'United States, Israel, Italy, South Africa'
 'Netherlands, Denmark, France, Germany' 'South Korea, Japan'
 'United Kingdom, Pakistan' 'France, New Zealand'
 'United Kingdom, Czech Republic, United States, Germany, Bahamas'
 'China, Germany, India, United States' 'Germany, Sri Lanka'
 'United States, India, Bangladesh' 'United States, Canada, France'
 'Brazil, France, Germany' 'Germany, United States, Hong Kong,
 Singapore'
 'France, Germany, Switzerland'
 'Germany, France, Luxembourg, United Kingdom, United States'

'United Kingdom, Canada, Italy' 'Czech Republic, France'
'Taiwan, Hong Kong, United States, China' 'Germany, Australia'
'United Kingdom, Poland, United States' 'Denmark, Zimbabwe'
'United Kingdom, South Africa' 'Finland, Sweden, Norway, Latvia,
Germany'
'South Africa, United States, New Zealand, Canada'
'United States, Italy, United Kingdom, Liechtenstein'
'Denmark, France, Belgium, Italy, Netherlands, United States, United
Kingdom'
'United States, Australia, Mexico'
'United Kingdom, Czech Republic, Germany, United States'
'France, China, Japan, United States' 'United States, South Korea,
China'
'Germany, Belgium' 'Pakistan, Norway, United States'
'United States, Canada, Belgium, United Kingdom' 'Venezuela'
'Canada, France, Italy, Morocco, United States' 'Canada, Spain,
France'
'United States, Indonesia' 'Spain, France, Italy'
'United Arab Emirates, United States, United Kingdom'
'United Kingdom, Israel, Russia' 'Spain, Cuba' 'United States,
Brazil'
'United States, France, Mexico' 'United States, Nicaragua'
'United Kingdom, United States, Spain, Germany, Greece, Canada'
'Italy, Canada, France' 'United Kingdom, Denmark, Canada, Croatia'
'Italy, Germany' 'United States, France, United Kingdom, Japan'
'United States, United Kingdom, Denmark, Sweden'
'United States, United Kingdom, Italy'
'United States, France, Canada, Spain' 'Russia, United States, China'
'United States, Canada, Germany' 'Ireland, United States'
'United States, United Arab Emirates' 'United States, Ireland'
'Ireland, United Kingdom, Italy, United States' 'Poland,'
'Slovenia, Croatia, Germany, Czech Republic, Qatar'
'Canada, United Kingdom, Netherlands' 'United States, Spain, Germany'
'India, Japan' 'China, South Korea, United States'
'United Kingdom, France, Belgium' 'Canada, Ireland, United States'
'United Kingdom, United States, Dominican Republic'
'United States, Senegal' 'Germany, United Kingdom, United States'
'South Africa, Germany, Netherlands, France'
'Canada, United States, United Kingdom, France, Luxembourg'
'Ireland, United States, France' 'Germany, United States, Canada'
'United Kingdom, Germany, Canada, United States'
'United States, France, Canada, Lebanon, Qatar'
'Netherlands, Belgium, United Kingdom, United States'
'France, Belgium, China, United States' 'United States, Chile,
Israel'
'United Kingdom, Norway, Denmark, Germany, Sweden'
'Norway, Denmark, Sweden' 'China, India, Nepal'
'Colombia, Mexico, United States' 'United Kingdom, South Korea'
'Denmark, China' 'United States, Greece, Brazil' 'South Korea,
France'

'United States, Australia, Samoa, United Kingdom'
 'Germany, United Kingdom' 'Argentina, Chile, Peru' 'Turkey,
 Azerbaijan'
 'Poland, West Germany' 'Germany, United States, Sweden' 'Canada,
 Spain'
 'United States, Cambodia' 'United States, Greece'
 'Norway, United Kingdom, France, Ireland' 'United Kingdom, Poland'
 'Israel, Sweden, Germany, Netherlands' 'Switzerland, France'
 'Italy, India' 'United States, Botswana'
 'Chile, Argentina, France, Spain, United States'
 'United States, India, South Korea, China'
 'Denmark, Germany, Belgium, United Kingdom, France'
 'Denmark, Germany, Belgium, United Kingdom, France, Sweden'
 'France, Switzerland, Spain, United States, United Arab Emirates'
 'Brazil, India, China, United States'
 'Denmark, France, United States, Sweden' 'Australia, Iraq'
 'China, Morocco, Hong Kong' 'Canada, United States, Germany'
 'United Kingdom, Thailand' 'Venezuela, Colombia'
 'Colombia, United States' 'France, Germany, Czech Republic, Belgium'
 'Switzerland, Vatican City, Italy, Germany, France'
 'Portugal, France, Poland, United States'
 'United States, New Zealand, Japan'
 'United States, Netherlands, Japan, France' 'India, Switzerland'
 'Canada, India' 'United States, Morocco' 'Singapore, Japan, France'
 'Canada, Mexico, Germany, South Africa'
 'United Kingdom, United States, Canada'
 'Germany, France, United States, Canada, United Kingdom'
 'United States, Uruguay' 'India, Canada'
 'Ireland, Canada, United Kingdom, United States'
 'United States, Germany, Australia' 'Australia, France, Ireland'
 'Australia, India' 'United States, United Kingdom, Canada, Japan'
 'Sweden, United Kingdom, Finland' 'Hong Kong, Taiwan'
 'United States, United Kingdom, Spain, South Korea' 'Guatemala'
 'Ukraine'
 'Italy, South Africa, West Germany, Australia, United States'
 'United States, Germany, United Kingdom, Australia'
 'Italy, France, Switzerland' 'Canada, France, United States'
 'Switzerland, United States' 'Thailand, Canada, United States'
 'China, Hong Kong, United States' 'United Kingdom, New Zealand'
 'Czech Republic, United Kingdom, France'
 'Australia, United Kingdom, Canada' 'Jamaica, United States'
 'Australia, United Kingdom, United States, New Zealand, Italy,
 France'
 'France, United States, Canada'
 'United Kingdom, France, Canada, Belgium, United States'
 'Denmark, United Kingdom, Sweden' 'United States, Hong Kong'
 'United States, Kazakhstan'
 'Argentina, France, United States, Germany, Qatar'
 'United States, Germany, United Kingdom'
 'United States, Germany, United Kingdom, Italy'

'United States, New Zealand, United Kingdom' 'Finland, United States'
'Spain, France, Uruguay' 'France, Canada, United States'
'United States, Canada, China'
'Ireland, Canada, Luxembourg, United States, United Kingdom,
Philippines, India'
'United States, Czech Republic, United Kingdom' 'Israel, Germany'
'Mexico, France'
'Israel, Germany, Poland, Luxembourg, Belgium, France, United States'
'Austria, United States' 'United Kingdom, Lithuania'
'United States, Greece, United Kingdom'
'United Kingdom, China, United States, India'
'United States, Sweden, Norway' 'United Kingdom, United States,
Morocco'
'United States, United Kingdom, Morocco' 'Spain, Canada, United
States'
'United States, India, United Arab Emirates'
'United Kingdom, Canada, France, United States' 'India, Germany,
France'
'Belgium, Ireland, Netherlands, Germany, Afghanistan'
'France, Canada, Italy, United States, China'
'Ireland, United Kingdom, Greece, France, Netherlands'
'Denmark, Indonesia, Finland, Norway, United Kingdom, Israel, France,
United States, Germany, Netherlands'
'New Zealand, United States'
'United States, Australia, South Africa, United Kingdom'
'United States, Germany, Mexico'
'Somalia, Kenya, Sudan, South Africa, United States'
'United States, Canada, Japan, Panama' 'United Kingdom, Spain,
Belgium'
'Serbia, South Korea, Slovenia'
'Denmark, United Kingdom, South Africa, Sweden, Belgium'
'Germany, Canada, United States'
'Ireland, Canada, United States, United Kingdom'
'New Zealand, United Kingdom, Australia'
'United Kingdom, Australia, Canada, United States'
'Germany, United States, Italy' 'United States, Venezuela'
'United Kingdom, Canada, Japan'
'United Kingdom, United States, Czech Republic'
'United Kingdom, China, United States' 'United Kingdom, Brazil,
Germany'
'United Kingdom, Namibia, South Africa, Zimbabwe, United States'
'Canada, United States, India, United Kingdom'
'Switzerland, United Kingdom, United States'
'United Kingdom, India, Sweden'
'United States, Brazil, India, Uganda, China'
'Peru, United States, United Kingdom'
'Germany, United States, United Kingdom, Canada'
'Canada, India, Thailand, United States, United Arab Emirates'
'United States, East Germany, West Germany'
'France, Netherlands, South Africa, Finland'

'Egypt, Austria, United States' 'Russia, Spain'
'Croatia, Slovenia, Serbia, Montenegro' 'Japan, Canada'
'United States, France, South Korea, Indonesia'
'United Arab Emirates, Jordan']
.....000oo000.....

['September 25, 2021' 'September 24, 2021' 'September 23, 2021' ...
'December 6, 2018' 'March 9, 2016' 'January 11, 2020']
.....000oo000.....

[2020 2021 1993 2018 1996 1998 1997 2010 2013 2017 1975 1978 1983 1987
2012 2001 2014 2002 2003 2004 2011 2008 2009 2007 2005 2006 1994 2015
2019 2016 1982 1989 1990 1991 1999 1986 1992 1984 1980 1961 2000 1995
1985 1976 1959 1988 1981 1972 1964 1945 1954 1979 1958 1956 1963 1970
1973 1925 1974 1960 1966 1971 1962 1969 1977 1967 1968 1965 1946 1942
1955 1944 1947 1943]
.....000oo000.....

['PG-13' 'TV-MA' 'PG' 'TV-14' 'TV-PG' 'TV-Y' 'TV-Y7' 'R' 'TV-G' 'G'
'NC-17' '74 min' '84 min' '66 min' 'NR' 'unknown' 'TV-Y7-FV' 'UR']
.....000oo000.....

['90 min' '2 Seasons' '1 Season' '91 min' '125 min' '9 Seasons' '104
min'
'127 min' '4 Seasons' '67 min' '94 min' '5 Seasons' '161 min' '61
min'
'166 min' '147 min' '103 min' '97 min' '106 min' '111 min' '3
Seasons'
'110 min' '105 min' '96 min' '124 min' '116 min' '98 min' '23 min'
'115 min' '122 min' '99 min' '88 min' '100 min' '6 Seasons' '102 min'
'93 min' '95 min' '85 min' '83 min' '113 min' '13 min' '182 min' '48
min'
'145 min' '87 min' '92 min' '80 min' '117 min' '128 min' '119 min'
'143 min' '114 min' '118 min' '108 min' '63 min' '121 min' '142 min'
'154 min' '120 min' '82 min' '109 min' '101 min' '86 min' '229 min'
'76 min' '89 min' '156 min' '112 min' '107 min' '129 min' '135 min'
'136 min' '165 min' '150 min' '133 min' '70 min' '84 min' '140 min'
'78 min' '7 Seasons' '64 min' '59 min' '139 min' '69 min' '148 min'
'189 min' '141 min' '130 min' '138 min' '81 min' '132 min' '10
Seasons'
'123 min' '65 min' '68 min' '66 min' '62 min' '74 min' '131 min' '39
min'
'46 min' '38 min' '8 Seasons' '17 Seasons' '126 min' '155 min' '159
min'
'137 min' '12 min' '273 min' '36 min' '34 min' '77 min' '60 min' '49
min'
'58 min' '72 min' '204 min' '212 min' '25 min' '73 min' '29 min' '47
min'
'32 min' '35 min' '71 min' '149 min' '33 min' '15 min' '54 min' '224
min']

'162 min' '37 min' '75 min' '79 min' '55 min' '158 min' '164 min'
 '173 min' '181 min' '185 min' '21 min' '24 min' '51 min' '151 min'
 '42 min' '22 min' '134 min' '177 min' '13 Seasons' '52 min' '14 min'
 '53 min' '8 min' '57 min' '28 min' '50 min' '9 min' '26 min' '45 min'
 '171 min' '27 min' '44 min' '146 min' '20 min' '157 min' '17 min'
 '203 min' '41 min' '30 min' '194 min' '15 Seasons' '233 min' '237
 min'
 '230 min' '195 min' '253 min' '152 min' '190 min' '160 min' '208 min'
 '180 min' '144 min' '5 min' '174 min' '170 min' '192 min' '209 min'
 '187 min' '172 min' '16 min' '186 min' '11 min' '193 min' '176 min'
 '56 min' '169 min' '40 min' '10 min' '3 min' '168 min' '312 min'
 '153 min' '214 min' '31 min' '163 min' '19 min' '12 Seasons'
 'unknown'
 '179 min' '11 Seasons' '43 min' '200 min' '196 min' '167 min' '178
 min'
 '228 min' '18 min' '205 min' '201 min' '191 min']
000oo000.....

['Documentaries' 'International TV Shows, TV Dramas, TV Mysteries'
 'Crime TV Shows, International TV Shows, TV Action & Adventure'
 'Docuseries, Reality TV'
 'International TV Shows, Romantic TV Shows, TV Comedies'
 'TV Dramas, TV Horror, TV Mysteries' 'Children & Family Movies'
 'Dramas, Independent Movies, International Movies'
 'British TV Shows, Reality TV' 'Comedies, Dramas'
 'Crime TV Shows, Docuseries, International TV Shows'
 'Dramas, International Movies' 'Children & Family Movies, Comedies'
 'British TV Shows, Crime TV Shows, Docuseries' 'TV Comedies, TV
 Dramas'
 'Documentaries, International Movies'
 'Crime TV Shows, Spanish-Language TV Shows, TV Dramas' 'Thrillers'
 'International TV Shows, Spanish-Language TV Shows, TV Action &
 Adventure'
 'International TV Shows, TV Action & Adventure, TV Dramas'
 'Comedies, International Movies'
 'Comedies, International Movies, Romantic Movies'
 'Docuseries, International TV Shows, Reality TV'
 'Comedies, International Movies, Music & Musicals' 'Comedies'
 'Horror Movies, Sci-Fi & Fantasy' 'TV Comedies'
 'British TV Shows, International TV Shows, TV Comedies'
 'International TV Shows, TV Dramas, TV Thrillers' "Kids' TV"
 'Dramas, International Movies, Thrillers'
 'Action & Adventure, Dramas, International Movies'
 "Kids' TV, TV Comedies" 'Action & Adventure, Dramas'
 "Kids' TV, TV Sci-Fi & Fantasy"
 'Action & Adventure, Classic Movies, Dramas'
 'Dramas, Horror Movies, Thrillers'
 'Action & Adventure, Horror Movies, Thrillers' 'Action & Adventure'
 'Dramas, Thrillers' 'International TV Shows, TV Dramas'
 'International TV Shows, TV Dramas, TV Sci-Fi & Fantasy'

'Action & Adventure, Anime Features, International Movies' 'Reality TV'

'Docuseries, International TV Shows'

'Documentaries, International Movies, Sports Movies'

'International TV Shows, Reality TV, Romantic TV Shows'

'British TV Shows, Docuseries, International TV Shows'

'Anime Series, International TV Shows'

'Comedies, Dramas, International Movies'

'Crime TV Shows, TV Comedies, TV Dramas'

'Action & Adventure, Comedies, Dramas' "Anime Series, Kids' TV"

'International Movies, Thrillers' "Kids' TV, Korean TV Shows"

'Documentaries, Sports Movies' 'Sci-Fi & Fantasy, Thrillers'

'Dramas, International Movies, Romantic Movies'

'Documentaries, Music & Musicals'

"Kids' TV, TV Comedies, TV Sci-Fi & Fantasy" "British TV Shows, Kids' TV"

'Docuseries, Science & Nature TV' 'Children & Family Movies, Dramas'

"Kids' TV, TV Dramas, Teen TV Shows"

'Crime TV Shows, International TV Shows, Spanish-Language TV Shows'

'Docuseries, International TV Shows, Spanish-Language TV Shows'

'Dramas'

'Comedies, Romantic Movies' 'Dramas, Romantic Movies'

'Comedies, Dramas, Independent Movies'

'Crime TV Shows, TV Action & Adventure, TV Comedies'

'Children & Family Movies, Music & Musicals'

'Action & Adventure, Classic Movies, Cult Movies'

'International TV Shows, TV Action & Adventure, TV Comedies'

'Action & Adventure, Sci-Fi & Fantasy' 'Action & Adventure, Comedies'

'Classic Movies, Comedies, Dramas' 'Comedies, Cult Movies'

'Comedies, Cult Movies, Music & Musicals' 'Comedies, Music & Musicals'

'TV Shows' 'Action & Adventure, International Movies'

'Anime Series, International TV Shows, Teen TV Shows'

'Action & Adventure, Children & Family Movies, Cult Movies'

'Comedies, Dramas, Romantic Movies'

'Comedies, Cult Movies, Sci-Fi & Fantasy' 'Classic Movies, Dramas'

'Action & Adventure, Children & Family Movies, Comedies'

'Dramas, Faith & Spirituality' 'Documentaries, LGBTQ Movies'

'Action & Adventure, Classic Movies' 'Docuseries'

'International TV Shows, TV Comedies' 'Dramas, Independent Movies'

'Action & Adventure, Comedies, International Movies'

'International TV Shows, Spanish-Language TV Shows, TV Dramas'

'Crime TV Shows, International TV Shows, TV Dramas'

'Action & Adventure, Horror Movies, International Movies'

'Comedies, International Movies, Sci-Fi & Fantasy'

'Action & Adventure, International Movies, Music & Musicals'

'Dramas, International Movies, Music & Musicals'

'Horror Movies, International Movies' 'Reality TV, Teen TV Shows'

'Crime TV Shows, TV Dramas, TV Mysteries'

'International TV Shows, Reality TV'

'International TV Shows, TV Comedies, TV Dramas'
'Dramas, Independent Movies, Romantic Movies' 'Horror Movies'
'Documentaries, LGBTQ Movies, Sports Movies'
'Horror Movies, International Movies, Thrillers'
'Action & Adventure, Anime Features'
'TV Dramas, TV Mysteries, TV Sci-Fi & Fantasy'
'International TV Shows, Spanish-Language TV Shows, TV Comedies'
'Children & Family Movies, Comedies, Music & Musicals'
'Comedies, Independent Movies'
'Anime Series, International TV Shows, Romantic TV Shows'
'Classic Movies, Dramas, Independent Movies'
'International TV Shows, Romantic TV Shows, Spanish-Language TV Shows'
'International TV Shows, TV Dramas, Teen TV Shows' 'Stand-Up Comedy'
'Action & Adventure, Anime Features, Children & Family Movies'
'International TV Shows, Romantic TV Shows, TV Dramas'
'International Movies, Music & Musicals'
'TV Action & Adventure, TV Dramas, TV Mysteries'
'Horror Movies, Independent Movies, International Movies'
'Comedies, Cult Movies, International Movies'
'Classic Movies, Dramas, International Movies' 'Movies'
'Crime TV Shows, Docuseries'
'Children & Family Movies, Comedies, Sci-Fi & Fantasy'
'Anime Series, International TV Shows, TV Thrillers'
'Action & Adventure, Horror Movies, Sci-Fi & Fantasy'
'Classic Movies, Comedies, Cult Movies' 'TV Dramas, Teen TV Shows'
'Action & Adventure, Sci-Fi & Fantasy, Thrillers'
'Children & Family Movies, Comedies, Dramas' 'Dramas, Sports Movies'
'Action & Adventure, Dramas, Sci-Fi & Fantasy'
'Action & Adventure, Comedies, Cult Movies'
'Dramas, Independent Movies, Thrillers' 'TV Dramas, TV Sci-Fi & Fantasy'
'Action & Adventure, International Movies, Thrillers'
'British TV Shows, International TV Shows, Reality TV'
'TV Action & Adventure, TV Dramas, Teen TV Shows' 'Anime Series'
'Crime TV Shows, TV Action & Adventure, TV Sci-Fi & Fantasy'
'Crime TV Shows, International TV Shows, TV Comedies'
'Stand-Up Comedy & Talk Shows, TV Comedies'
'Classic & Cult TV, TV Action & Adventure, TV Dramas'
'Children & Family Movies, Sports Movies'
'TV Action & Adventure, TV Sci-Fi & Fantasy'
'Anime Series, Stand-Up Comedy & Talk Shows' 'TV Dramas'
'Anime Features, Children & Family Movies, International Movies'
'Classic & Cult TV, Crime TV Shows, International TV Shows'
'Crime TV Shows, International TV Shows, Romantic TV Shows'
'Horror Movies, LGBTQ Movies'
'Action & Adventure, Dramas, Romantic Movies'
'Documentaries, International Movies, Music & Musicals'
'TV Comedies, TV Dramas, Teen TV Shows'
'Children & Family Movies, Comedies, Sports Movies'

'Children & Family Movies, Dramas, International Movies'
 'Comedies, Documentaries, International Movies'
 'Romantic TV Shows, TV Dramas' 'Anime Series, TV Horror, TV
 Thrillers'
 'International Movies, Romantic Movies'
 'TV Action & Adventure, TV Dramas, TV Sci-Fi & Fantasy'
 "Kids' TV, Korean TV Shows, TV Comedies"
 'British TV Shows, Crime TV Shows, International TV Shows'
 'Crime TV Shows, TV Horror, TV Mysteries'
 'Docuseries, International TV Shows, Science & Nature TV'
 'British TV Shows, International TV Shows, TV Dramas'
 "Kids' TV, TV Action & Adventure, TV Sci-Fi & Fantasy"
 'International Movies, Romantic Movies, Thrillers'
 'Action & Adventure, Cult Movies, International Movies'
 'Action & Adventure, Comedies, Sci-Fi & Fantasy'
 "International TV Shows, Kids' TV, TV Mysteries"
 'Action & Adventure, Thrillers'
 'Dramas, Faith & Spirituality, International Movies'
 'Action & Adventure, Classic Movies, Comedies'
 'Action & Adventure, Comedies, Sports Movies'
 'Action & Adventure, Children & Family Movies, Classic Movies'
 'Action & Adventure, Children & Family Movies, Dramas'
 'Horror Movies, Thrillers' 'Action & Adventure, Romantic Movies'
 'Dramas, Romantic Movies, Sci-Fi & Fantasy'
 'Dramas, Music & Musicals, Romantic Movies'
 'Anime Series, Crime TV Shows, International TV Shows'
 'Reality TV, Romantic TV Shows'
 'International Movies, Music & Musicals, Romantic Movies'
 'Reality TV, TV Action & Adventure, TV Mysteries'
 'Crime TV Shows, TV Dramas'
 'International TV Shows, Reality TV, Spanish-Language TV Shows'
 'Crime TV Shows, TV Dramas, TV Thrillers' 'British TV Shows,
 Docuseries'
 'International TV Shows, Korean TV Shows, TV Comedies'
 'Action & Adventure, Anime Features, Classic Movies'
 'TV Action & Adventure, TV Dramas, TV Horror'
 'Crime TV Shows, International TV Shows, TV Thrillers'
 'Anime Series, Crime TV Shows, TV Horror' 'Anime Features,
 Documentaries'
 'Comedies, Horror Movies'
 'International TV Shows, Spanish-Language TV Shows, Stand-Up Comedy &
 Talk Shows'
 'Children & Family Movies, Documentaries, International Movies'
 'Romantic TV Shows, TV Comedies, TV Dramas'
 'Dramas, Faith & Spirituality, Romantic Movies'
 'Dramas, Independent Movies, LGBTQ Movies'
 'Comedies, Independent Movies, LGBTQ Movies'
 'Action & Adventure, Cult Movies, Sci-Fi & Fantasy'
 'Cult Movies, Horror Movies' 'Action & Adventure, Dramas, Sports
 Movies'

'Anime Series, Romantic TV Shows, Teen TV Shows'
 'Dramas, International Movies, LGBTQ Movies'
 'Dramas, Romantic Movies, Thrillers'
 'Children & Family Movies, Dramas, Faith & Spirituality'
 'Dramas, International Movies, Sports Movies'
 'Action & Adventure, Horror Movies'
 'Documentaries, International Movies, LGBTQ Movies'
 'Dramas, Independent Movies, Sci-Fi & Fantasy'
 'Comedies, Independent Movies, International Movies'
 'Reality TV, TV Horror, TV Thrillers'
 'TV Action & Adventure, TV Horror, TV Sci-Fi & Fantasy'
 'International TV Shows, TV Horror, TV Sci-Fi & Fantasy'
 'Independent Movies, International Movies, Thrillers'
 'Independent Movies, Thrillers' 'Documentaries, Dramas'
 'Action & Adventure, Sports Movies'
 'Dramas, International Movies, Sci-Fi & Fantasy'
 'Comedies, Independent Movies, Romantic Movies'
 'Horror Movies, Romantic Movies, Sci-Fi & Fantasy'
 'International TV Shows, Stand-Up Comedy & Talk Shows'
 'Action & Adventure, Anime Features, Horror Movies'
 'Cult Movies, Dramas, Music & Musicals' 'TV Dramas, TV Thrillers'
 'Crime TV Shows, International TV Shows, Korean TV Shows'
 'TV Horror, TV Mysteries, TV Thrillers'
 'Comedies, Horror Movies, International Movies'
 'Crime TV Shows, Docuseries, TV Mysteries'
 'Comedies, International Movies, Sports Movies'
 'Classic Movies, Music & Musicals' 'Reality TV, TV Comedies, TV Horror'
 'Children & Family Movies, Faith & Spirituality, Music & Musicals'
 'International TV Shows, Korean TV Shows, Stand-Up Comedy & Talk Shows'
 'Dramas, Music & Musicals'
 'Docuseries, Science & Nature TV, TV Action & Adventure'
 "British TV Shows, Kids' TV, TV Dramas"
 'International TV Shows, Korean TV Shows, Romantic TV Shows'
 'Horror Movies, Independent Movies'
 "Anime Series, Kids' TV, TV Action & Adventure"
 'Comedies, Dramas, Music & Musicals' 'TV Horror, Teen TV Shows'
 'Comedies, LGBTQ Movies, Thrillers'
 'Docuseries, Reality TV, Science & Nature TV'
 'Crime TV Shows, Spanish-Language TV Shows, TV Action & Adventure'
 'Romantic TV Shows, Teen TV Shows' 'TV Comedies, Teen TV Shows'
 'Romantic TV Shows, TV Dramas, Teen TV Shows'
 'Children & Family Movies, Sci-Fi & Fantasy'
 'Romantic TV Shows, TV Action & Adventure, TV Dramas'
 'Comedies, International Movies, LGBTQ Movies' 'Dramas, Sci-Fi & Fantasy'
 "Kids' TV, TV Thrillers"
 'TV Action & Adventure, TV Comedies, TV Sci-Fi & Fantasy'
 'British TV Shows, Romantic TV Shows, TV Dramas'

'Anime Series, International TV Shows, Spanish-Language TV Shows'
 'Docuseries, TV Comedies' 'Comedies, Romantic Movies, Sports Movies'
 'TV Action & Adventure, TV Comedies, TV Dramas'
 'Children & Family Movies, Dramas, Sports Movies'
 'Action & Adventure, Dramas, Independent Movies'
 'Spanish-Language TV Shows, TV Dramas' 'Dramas, LGBTQ Movies'
 'TV Horror, TV Mysteries, TV Sci-Fi & Fantasy'
 'Action & Adventure, Dramas, Faith & Spirituality'
 'International TV Shows, TV Mysteries, TV Thrillers'
 'British TV Shows, Classic & Cult TV, International TV Shows'
 'Action & Adventure, Comedies, Independent Movies' 'Music & Musicals'
 "British TV Shows, Kids' TV, TV Comedies"
 'Docuseries, Spanish-Language TV Shows'
 'Dramas, Independent Movies, Sports Movies'
 'TV Dramas, TV Mysteries, TV Thrillers'
 'Comedies, LGBTQ Movies, Music & Musicals'
 'International TV Shows, TV Action & Adventure, TV Mysteries'
 "Kids' TV, TV Comedies, Teen TV Shows"
 'International TV Shows, TV Dramas, TV Horror'
 'Comedies, International Movies, Thrillers'
 'Classic & Cult TV, TV Action & Adventure, TV Sci-Fi & Fantasy'
 'International TV Shows, TV Horror, TV Mysteries'
 'Children & Family Movies, Documentaries'
 'Music & Musicals, Romantic Movies' 'Romantic Movies'
 'Children & Family Movies, Classic Movies, Comedies'
 'TV Action & Adventure, TV Dramas'
 'Dramas, LGBTQ Movies, Romantic Movies'
 'Children & Family Movies, Comedies, Romantic Movies'
 'Comedies, Sports Movies' 'International Movies'
 'International TV Shows, Romantic TV Shows, TV Mysteries'
 'Stand-Up Comedy & Talk Shows'
 'Action & Adventure, International Movies, Romantic Movies'
 'Reality TV, TV Comedies' 'Cult Movies, Dramas, International Movies'
 "Kids' TV, TV Dramas"
 'Crime TV Shows, International TV Shows, TV Mysteries'
 'Action & Adventure, Sci-Fi & Fantasy, Sports Movies'
 'TV Dramas, TV Sci-Fi & Fantasy, TV Thrillers'
 'Romantic TV Shows, TV Dramas, TV Sci-Fi & Fantasy'
 'Docuseries, TV Sci-Fi & Fantasy' 'Anime Features, International
 Movies'
 "British TV Shows, Classic & Cult TV, Kids' TV"
 'British TV Shows, Reality TV, Romantic TV Shows'
 'Documentaries, Faith & Spirituality, International Movies'
 "Kids' TV, Reality TV, TV Dramas" 'LGBTQ Movies, Thrillers'
 'TV Action & Adventure, TV Mysteries, TV Sci-Fi & Fantasy'
 'Reality TV, Science & Nature TV'
 "Kids' TV, TV Action & Adventure, TV Comedies"
 'International TV Shows, Romantic TV Shows, TV Action & Adventure'
 'Children & Family Movies, Dramas, Independent Movies'
 'Comedies, Music & Musicals, Romantic Movies'

'International TV Shows, Korean TV Shows, Reality TV'
'Classic & Cult TV, TV Dramas, TV Sci-Fi & Fantasy'
'Anime Features, Children & Family Movies'
'Action & Adventure, International Movies, Sci-Fi & Fantasy'
'Crime TV Shows, TV Action & Adventure, TV Dramas'
'Classic & Cult TV, TV Action & Adventure, TV Horror'
'International TV Shows, Korean TV Shows, TV Dramas'
'International TV Shows, TV Action & Adventure, TV Horror'
'Action & Adventure, Comedies, Romantic Movies'
'International TV Shows, Korean TV Shows, TV Action & Adventure'
"Classic & Cult TV, Kids' TV, TV Action & Adventure"
'Anime Series, International TV Shows, TV Horror'
'International TV Shows, Korean TV Shows, TV Horror'
'Children & Family Movies, Comedies, International Movies'
'International Movies, Sci-Fi & Fantasy'
'International Movies, Sci-Fi & Fantasy, Thrillers'
'Children & Family Movies, Dramas, Romantic Movies'
'Anime Series, Romantic TV Shows' 'Comedies, Dramas, LGBTQ Movies'
'British TV Shows, International TV Shows, TV Action & Adventure'
'Docuseries, Science & Nature TV, TV Comedies'
'International TV Shows, Stand-Up Comedy & Talk Shows, TV Comedies'
'Children & Family Movies, Dramas, Music & Musicals'
'Action & Adventure, Independent Movies, International Movies'
'Action & Adventure, Children & Family Movies, Sci-Fi & Fantasy'
'Horror Movies, Independent Movies, Sci-Fi & Fantasy'
'TV Dramas, TV Sci-Fi & Fantasy, Teen TV Shows'
'Anime Features, International Movies, Sci-Fi & Fantasy'
'Dramas, Independent Movies, Music & Musicals'
"Kids' TV, TV Comedies, TV Dramas"
'Children & Family Movies, Documentaries, Sports Movies'
'Independent Movies, Sci-Fi & Fantasy, Thrillers'
'Anime Features, Music & Musicals, Sci-Fi & Fantasy'
'TV Comedies, TV Dramas, TV Sci-Fi & Fantasy'
'Crime TV Shows, TV Action & Adventure'
'Comedies, Faith & Spirituality, Romantic Movies'
"Kids' TV, TV Action & Adventure"
'Action & Adventure, Independent Movies'
'International TV Shows, Reality TV, TV Comedies'
'Docuseries, Reality TV, Teen TV Shows'
'Crime TV Shows, International TV Shows, Reality TV'
'Anime Series, Teen TV Shows'
'Crime TV Shows, Romantic TV Shows, TV Dramas'
'Anime Features, Romantic Movies'
'Horror Movies, Sci-Fi & Fantasy, Thrillers'
'International TV Shows, TV Comedies, TV Sci-Fi & Fantasy'
'International TV Shows, Romantic TV Shows'
'Anime Features, Music & Musicals'
'Anime Features, International Movies, Romantic Movies'
'International TV Shows, Romantic TV Shows, Teen TV Shows'
'Docuseries, Stand-Up Comedy & Talk Shows'

'Horror Movies, Independent Movies, Thrillers'
 'TV Action & Adventure, TV Comedies, TV Horror'
 'Documentaries, Stand-Up Comedy' "Kids' TV, Spanish-Language TV Shows"
 "British TV Shows, Kids' TV, TV Thrillers"
 "Kids' TV, TV Action & Adventure, TV Dramas"
 'Anime Series, Crime TV Shows' 'Dramas, Sci-Fi & Fantasy, Thrillers'
 'TV Comedies, TV Dramas, TV Horror'
 'Children & Family Movies, Comedies, LGBTQ Movies'
 'International TV Shows, TV Action & Adventure, TV Sci-Fi & Fantasy'
 'Docuseries, TV Dramas'
 'Horror Movies, International Movies, Romantic Movies'
 'Crime TV Shows, Docuseries, Science & Nature TV'
 'International Movies, Music & Musicals, Thrillers'
 "Kids' TV, Spanish-Language TV Shows, Teen TV Shows"
 'Comedies, Horror Movies, Independent Movies'
 'Action & Adventure, International Movies, Sports Movies'
 'Action & Adventure, Independent Movies, Sci-Fi & Fantasy'
 'Horror Movies, LGBTQ Movies, Music & Musicals'
 'Comedies, Music & Musicals, Sports Movies'
 'TV Horror, TV Mysteries, Teen TV Shows' 'Romantic TV Shows, TV Comedies'
 "Kids' TV, Reality TV, Science & Nature TV"
 'International Movies, Romantic Movies, Sci-Fi & Fantasy'
 'TV Comedies, TV Horror, TV Thrillers' 'TV Action & Adventure'
 'International TV Shows, Spanish-Language TV Shows, TV Horror'
 'Crime TV Shows, TV Action & Adventure, TV Thrillers'
 'Music & Musicals, Stand-Up Comedy' 'British TV Shows, TV Comedies'
 'TV Comedies, TV Sci-Fi & Fantasy, Teen TV Shows'
 'TV Comedies, TV Sci-Fi & Fantasy'
 'Romantic TV Shows, Spanish-Language TV Shows, TV Comedies'
 'Crime TV Shows, International TV Shows, TV Sci-Fi & Fantasy'
 'British TV Shows, International TV Shows, Romantic TV Shows'
 "Crime TV Shows, Kids' TV"
 'Horror Movies, International Movies, Sci-Fi & Fantasy'
 'TV Comedies, TV Mysteries'
 'Cult Movies, Horror Movies, Independent Movies'
 'British TV Shows, Docuseries, TV Comedies' 'Comedies, Documentaries'
 'Reality TV, Science & Nature TV, TV Action & Adventure'
 'TV Comedies, TV Dramas, TV Mysteries'
 'Crime TV Shows, TV Comedies, Teen TV Shows'
 "Docuseries, Kids' TV, Science & Nature TV"
 'Reality TV, Spanish-Language TV Shows'
 'Action & Adventure, Anime Features, Sci-Fi & Fantasy'
 "Crime TV Shows, Kids' TV, TV Comedies"
 'Dramas, Faith & Spirituality, Independent Movies'
 'Documentaries, Faith & Spirituality'
 'British TV Shows, International TV Shows, Stand-Up Comedy & Talk Shows'
 'Comedies, Dramas, Faith & Spirituality' 'Classic & Cult TV, TV

Comedies'

'Dramas, Romantic Movies, Sports Movies'
'Stand-Up Comedy & Talk Shows, TV Mysteries, TV Sci-Fi & Fantasy'
'TV Sci-Fi & Fantasy, TV Thrillers'
'Comedies, Independent Movies, Music & Musicals'
'Comedies, Cult Movies, Independent Movies'
'Documentaries, Dramas, International Movies'
'British TV Shows, TV Horror, TV Thrillers'
'British TV Shows, Docuseries, Science & Nature TV'
'Children & Family Movies, Comedies, Cult Movies' 'Sports Movies'
'Sci-Fi & Fantasy' 'Comedies, LGBTQ Movies'
'Comedies, Independent Movies, Thrillers'
'Classic Movies, Cult Movies, Dramas'
'British TV Shows, TV Comedies, TV Dramas'
'Action & Adventure, Children & Family Movies, Independent Movies'
'Action & Adventure, Documentaries, International Movies'
'Children & Family Movies, Independent Movies'
'Comedies, Cult Movies, Dramas'
'International TV Shows, TV Horror, TV Thrillers'
'Classic Movies, Thrillers' 'Crime TV Shows, TV Dramas, TV Horror'
'British TV Shows, Docuseries, Reality TV'
'Documentaries, LGBTQ Movies, Music & Musicals'
'Classic Movies, Dramas, Romantic Movies'
'Crime TV Shows, Romantic TV Shows, Spanish-Language TV Shows'
'Classic Movies, Cult Movies, Horror Movies'
'Anime Series, Crime TV Shows, TV Thrillers'
'Children & Family Movies, Classic Movies'
'Classic Movies, Comedies, International Movies'
'Comedies, Sci-Fi & Fantasy' 'Action & Adventure, Cult Movies,

Dramas'

'Documentaries, Faith & Spirituality, Music & Musicals'
'British TV Shows, Classic & Cult TV, TV Comedies'
'International Movies, Sports Movies' 'International TV Shows'
"Classic & Cult TV, Kids' TV, Spanish-Language TV Shows"
'Romantic TV Shows, Spanish-Language TV Shows, TV Dramas'
'Children & Family Movies, Comedies, Faith & Spirituality'
'British TV Shows, Crime TV Shows, TV Dramas'
'Classic Movies, Dramas, Music & Musicals'
'Cult Movies, Horror Movies, Thrillers'
'Action & Adventure, Classic Movies, Sci-Fi & Fantasy'
'TV Action & Adventure, TV Comedies'
'Classic Movies, Comedies, Music & Musicals' 'Independent Movies'
'Documentaries, Horror Movies'
'Classic & Cult TV, TV Horror, TV Mysteries'
'Comedies, Faith & Spirituality, International Movies'
'Dramas, Horror Movies, Sci-Fi & Fantasy'
'British TV Shows, TV Dramas, TV Sci-Fi & Fantasy'
'Comedies, Cult Movies, Horror Movies'
'Comedies, Cult Movies, Sports Movies' 'Classic Movies,
Documentaries'

'Action & Adventure, Faith & Spirituality, Sci-Fi & Fantasy'
 'Action & Adventure, Children & Family Movies'
 'International TV Shows, Reality TV, TV Action & Adventure'
 'Docuseries, Science & Nature TV, TV Dramas' 'Anime Features'
 'Action & Adventure, Horror Movies, Independent Movies'
 'Action & Adventure, Classic Movies, International Movies'
 'Cult Movies, Independent Movies, Thrillers'
 'Crime TV Shows, TV Comedies'
 'Classic Movies, Cult Movies, Documentaries'
 "Classic & Cult TV, Kids' TV, TV Comedies"
 'Classic Movies, Dramas, LGBTQ Movies'
 'Classic Movies, Dramas, Sports Movies' 'Action & Adventure, Cult
 Movies'
 'Action & Adventure, Comedies, Music & Musicals'
 'Classic Movies, Horror Movies, Thrillers'
 'Classic Movies, Comedies, Independent Movies'
 'Children & Family Movies, Classic Movies, Dramas'
 'Dramas, Faith & Spirituality, Sports Movies'
 'Classic Movies, Comedies, Romantic Movies'
 'Dramas, Horror Movies, Music & Musicals'
 'Classic Movies, Independent Movies, Thrillers'
 'Children & Family Movies, Faith & Spirituality'
 'Classic Movies, Comedies, Sports Movies'
 'Comedies, Dramas, Sports Movies'
 'Action & Adventure, Romantic Movies, Sci-Fi & Fantasy'
 'Classic & Cult TV, TV Sci-Fi & Fantasy'
 'Comedies, Cult Movies, LGBTQ Movies'
 'Comedies, Horror Movies, Sci-Fi & Fantasy'
 'Action & Adventure, Comedies, Horror Movies'
 'Classic & Cult TV, Crime TV Shows, TV Dramas'
 'Action & Adventure, Documentaries, Sports Movies'
 'International Movies, LGBTQ Movies, Romantic Movies'
 'Cult Movies, Dramas, Thrillers']
000oo000.....

['As her father nears the end of his life, filmmaker Kirsten Johnson stages his death in inventive and comical ways to help them both face the inevitable.'

'After crossing paths at a party, a Cape Town teen sets out to prove whether a private-school swimming star is her sister who was abducted at birth.'

'To protect his family from a powerful drug lord, skilled thief Mehdi and his expert team of robbers are pulled into a violent and deadly turf war.'

...
 'Looking to survive in a world taken over by zombies, a dorky college student teams with an urban roughneck and a pair of grifter sisters.'

'Dragged from civilian life, a former superhero must train a new crop of youthful saviors when the military preps for an attack by a familiar villain.'

```
"A scrappy but poor boy worms his way into a tycoon's dysfunctional
family, while facing his fear of music and the truth about his past."]
.....000oo000.....
```

```
['2021-09-25T00:00:00.000000000' '2021-09-24T00:00:00.000000000'
'2021-09-23T00:00:00.000000000' ... '2018-12-06T00:00:00.000000000'
'2016-03-09T00:00:00.000000000' '2020-01-11T00:00:00.000000000']
.....000oo000.....
```

```
[ 9  8  7  6  5  4  3  2  1 12 11 10 -1]
.....000oo000.....
```

```
[2021 2020 2019 2018 2017 2016 2015 2014 2013 2012 2011 2009 2008  -1
2010]
.....000oo000.....
```

Insight: All unique values are printed of each attribute in the above for loop

```
netflix.nunique()
```

```
show_id      8807
type          2
title        8807
director     4529
cast         7693
country       749
date_added   1768
release_year   74
rating        18
duration     221
listed_in     514
description   8775
date_add     1714
month         13
year          15
dtype: int64
```

Insight:

The count of unique values printed for each attribute provides clarification on various aspects. Firstly, it indicates that there are only two types of data, namely "Movie" and "TV Show." Additionally, the attributes "show_id" and "title" have all unique values and can be considered as primary keys. The dataset consists of a total of 8807 unique show IDs and titles distributed across 749 countries worldwide. Furthermore, the data spans approximately 74 years, indicating a wide range of content from different time periods. Lastly, there are multiple types of rating criteria available for the shows.

Let's analyze the number of movies and TV shows released each year over the past 20 to 30 years

I have created separate dataframes, namely "netflix_movies" and "netflix_tvshows," to analyze the data specifically related to movies and TV shows, respectively.

```
netflix_movies = netflix[netflix['type'] == 'Movie']
netflix_tvshows = netflix[netflix['type'] == 'TV Show']
```

```
netflix_movies
```

	show_id	type	title \
0	s1	Movie	Dick Johnson Is Dead
6	s7	Movie	My Little Pony: A New Generation
7	s8	Movie	Sankofa
9	s10	Movie	The Starling
12	s13	Movie	Je Suis Karl
...
8801	s8802	Movie	Zinzana
8802	s8803	Movie	Zodiac
8804	s8805	Movie	Zombieland
8805	s8806	Movie	Zoom
8806	s8807	Movie	Zubaan

	director \
0	Kirsten Johnson
6	Robert Cullen, José Luis Ucha
7	Haile Gerima
9	Theodore Melfi
12	Christian Schwochow
...	...
8801	Majid Al Ansari
8802	David Fincher
8804	Ruben Fleischer
8805	Peter Hewitt
8806	Mozez Singh

	cast \
0	unknown
6	Vanessa Hudgens, Kimiko Glenn, James Marsden, ...
7	Kofi Ghanaba, Oyafunmike Ogunlano, Alexandra D...
9	Melissa McCarthy, Chris O'Dowd, Kevin Kline, T...
12	Luna Wedler, Jannis Niewöhner, Milan Peschel, ...
...	...
8801	Ali Suliman, Saleh Bakri, Yasa, Ali Al-Jabri, ...
8802	Mark Ruffalo, Jake Gyllenhaal, Robert Downey J...
8804	Jesse Eisenberg, Woody Harrelson, Emma Stone, ...
8805	Tim Allen, Courteney Cox, Chevy Chase, Kate Ma...
8806	Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...

	date_added \	country	
0		United States	September 25,
2021			
6		unknown	September 24,
2021			
7	United States, Ghana, Burkina Faso, United Kin...		September 24,
2021			
9		United States	September 24,
2021			
12		Germany, Czech Republic	September 23,
2021			
...		...	
...			
8801		United Arab Emirates, Jordan	March 9,
2016			
8802		United States	November 20,
2019			
8804		United States	November 1,
2019			
8805		United States	January 11,
2020			
8806		India	March 2,
2019			

	release_year	rating	duration \
0	2020	PG-13	90 min
6	2021	PG	91 min
7	1993	TV-MA	125 min
9	2021	PG-13	104 min
12	2021	TV-MA	127 min
...
8801	2015	TV-MA	96 min
8802	2007	R	158 min
8804	2009	R	88 min
8805	2006	PG	88 min
8806	2015	TV-14	111 min

	listed_in \
0	Documentaries
6	Children & Family Movies
7	Dramas, Independent Movies, International Movies
9	Comedies, Dramas
12	Dramas, International Movies
...	...
8801	Dramas, International Movies, Thrillers
8802	Cult Movies, Dramas, Thrillers
8804	Comedies, Horror Movies
8805	Children & Family Movies, Comedies
8806	Dramas, International Movies, Music & Musicals

		description	date_add
month \			
0		As her father nears the end of his life, filmm...	2021-09-25
9			
6		Equestria's divided. But a bright-eyed hero be...	2021-09-24
9			
7		On a photo shoot in Ghana, an American model s...	2021-09-24
9			
9		A woman adjusting to life after a loss contend...	2021-09-24
9			
12		After most of her family is murdered in a terr...	2021-09-23
9			
...	
...			
8801		Recovering alcoholic Talal wakes up inside a s...	2016-03-09
3			
8802		A political cartoonist, a crime reporter and a...	2019-11-20
11			
8804		Looking to survive in a world taken over by zo...	2019-11-01
11			
8805		Dragged from civilian life, a former superhero...	2020-01-11
1			
8806		A scrappy but poor boy worms his way into a ty...	2019-03-02
3			

	year
0	2021
6	2021
7	2021
9	2021
12	2021
...	...
8801	2016
8802	2019
8804	2019
8805	2020
8806	2019

[6131 rows x 15 columns]

netflix_tvshows

	show_id	type	title	director \
1	s2	TV Show	Blood & Water	unknown
2	s3	TV Show	Ganglands	Julien Leclercq
3	s4	TV Show	Jailbirds New Orleans	unknown
4	s5	TV Show	Kota Factory	unknown
5	s6	TV Show	Midnight Mass	Mike Flanagan
...

8795	s8796	TV Show	Yu-Gi-Oh! Arc-V	unknown
8796	s8797	TV Show	Yunus Emre	unknown
8797	s8798	TV Show	Zak Storm	unknown
8800	s8801	TV Show	Zindagi Gulzar Hai	unknown
8803	s8804	TV Show	Zombie Dumb	unknown

			cast \
1	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...		
2	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...		
3	unknown		
4	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...		
5	Kate Siegel, Zach Gilford, Hamish Linklater, H...		
...	...		
8795	Mike Liscio, Emily Bauer, Billy Bob Thompson, ...		
8796	Gökhan Atalay, Payidar Tüfekçioğlu, Baran Akbu...		
8797	Michael Johnston, Jessica Gee-George, Christin...		
8800	Sanam Saeed, Fawad Khan, Ayesha Omer, Mehreen ...		
8803	unknown		

			country
date_added \			
1	South Africa	September 24,	
2021			
2	unknown	September 24,	
2021			
3	unknown	September 24,	
2021			
4	India	September 24,	
2021			
5	unknown	September 24,	
2021			
...
.			
8795	Japan, Canada	May 1,	
2018			
8796	Turkey	January 17,	
2017			
8797	United States, France, South Korea, Indonesia	September 13,	
2018			
8800	Pakistan	December 15,	
2016			
8803	unknown	July 1,	
2019			

	release_year	rating	duration \
1	2021	TV-MA	2 Seasons
2	2021	TV-MA	1 Season
3	2021	TV-MA	1 Season
4	2021	TV-MA	2 Seasons
5	2021	TV-MA	1 Season

8795	2015	TV-Y7	2 Seasons
8796	2016	TV-PG	2 Seasons
8797	2016	TV-Y7	3 Seasons
8800	2012	TV-PG	1 Season
8803	2018	TV-Y7	2 Seasons

		listed_in \
1	International TV Shows, TV Dramas, TV Mysteries	
2	Crime TV Shows, International TV Shows, TV Act...	
3	Docuseries, Reality TV	
4	International TV Shows, Romantic TV Shows, TV ...	
5	TV Dramas, TV Horror, TV Mysteries	
...		
8795	Anime Series, Kids' TV	
8796	International TV Shows, TV Dramas	
8797	Kids' TV	
8800	International TV Shows, Romantic TV Shows, TV ...	
8803	Kids' TV, Korean TV Shows, TV Comedies	

		description	date_add
month \			
1	After crossing paths at a party, a Cape Town t...		2021-09-24
9			
2	To protect his family from a powerful drug lor...		2021-09-24
9			
3	Feuds, flirtations and toilet talk go down amo...		2021-09-24
9			
4	In a city of coaching centers known to train I...		2021-09-24
9			
5	The arrival of a charismatic young priest brin...		2021-09-24
9			
...	

...			
8795	Now that he's discovered the Pendulum Summonin...		2018-05-01
5			
8796	During the Mongol invasions, Yunus Emre leaves...		2017-01-17
1			
8797	Teen surfer Zak Storm is mysteriously transpor...		2018-09-13
9			
8800	Strong-willed, middle-class Kashaf and carefre...		2016-12-15
12			
8803	While living alone in a spooky town, a young g...		2019-07-01
7			

	year
1	2021
2	2021
3	2021
4	2021

```

5      2021
...    ...
8795   2018
8796   2017
8797   2018
8800   2016
8803   2019

```

```
[2676 rows x 15 columns]
```

How has the annual count of released movies changed over the past 20 to 30 years?

```

result = netflix["release_year"].value_counts()

dfa = result.to_frame()

dfa.to_csv("result.csv")

```

Upon analyzing the "result.csv" file, it is observed that the dataset encompasses data spanning approximately 100 years, from 1925 to 2021. Over this time period, the number of movies released per year has consistently increased.

Business Insight:

The dataset primarily consists of movies, with a count of 6131, which is nearly twice the count of TV shows (2676).

Insight:

The number of movies available in the Netflix dataset is approximately twice the count of TV shows, indicating a higher emphasis on movies within the platform's content library.

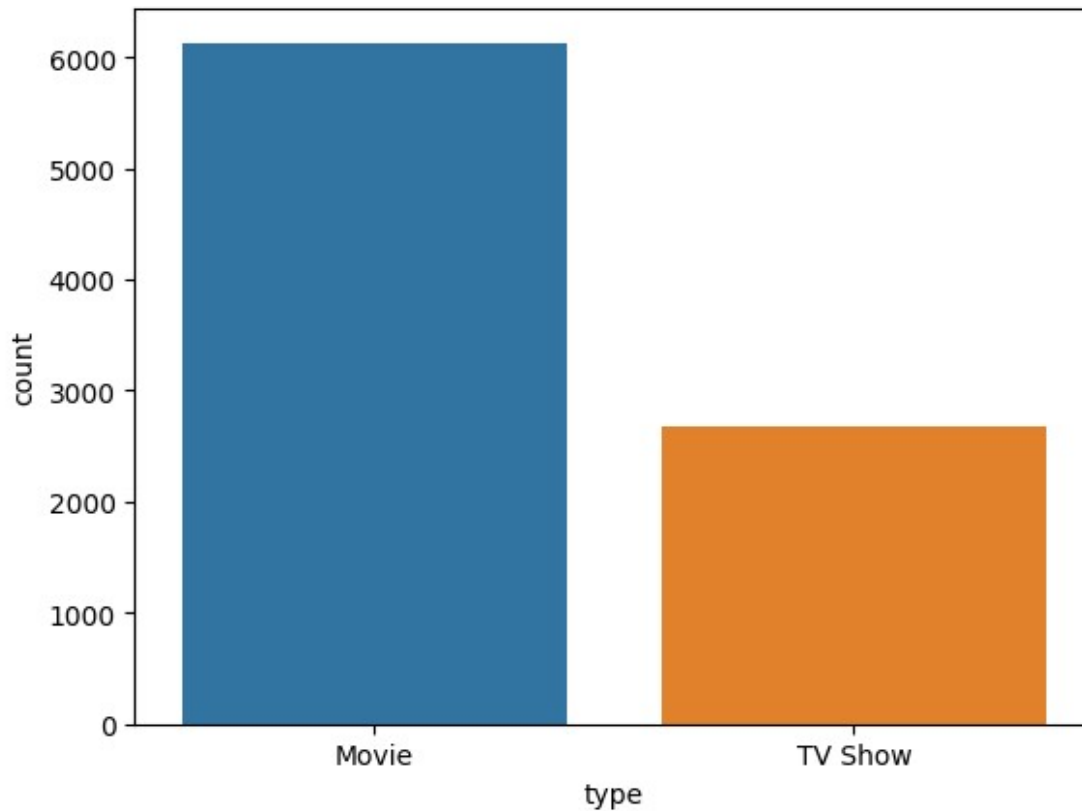
```

import seaborn as sns

Content_type =
sns.countplot(data=netflix,x=netflix["type"],order=netflix["type"].value_counts().index)
Content_type

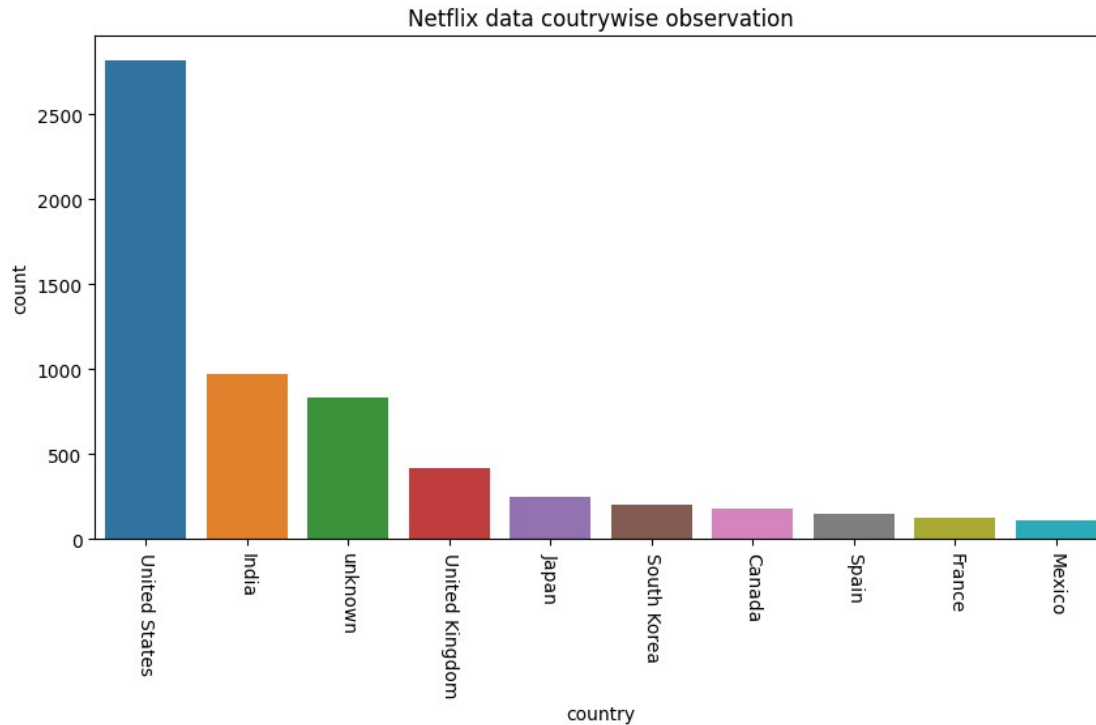
<Axes: xlabel='type', ylabel='count'>

```



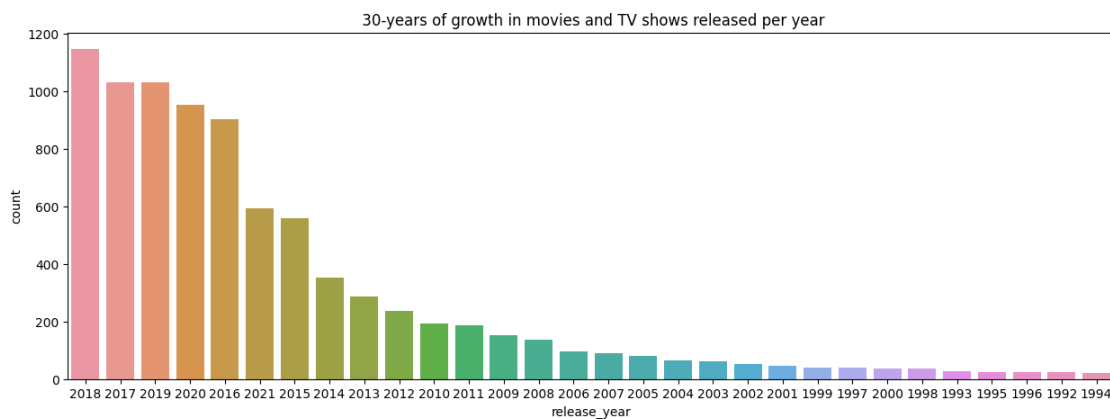
```
import matplotlib.pyplot as plt

plt.figure(figsize = (10,5))
plt.title("Netflix data countrywise observation")
Country = sns.countplot(x = netflix['country'],order =
netflix.country.value_counts().iloc[:10].index)
plt.xticks (rotation = 270)
Country
plt.show()
```



Insight: Within the given Netflix dataset, the United States holds the highest rank, followed by India.

```
plt.figure(figsize = (15,5))
plt.title(" 30-years of growth in movies and TV shows released per year")
release_year_head30 =
sns.countplot(data=netflix,x=netflix["release_year"],order=netflix["re
lease_year"].value_counts().head(30).index)
release_year_head30
plt.show()
```



Insight:

Upon observing the count plot, it becomes evident that the number of movies released per year has been consistently increasing over the past 20 to 30 years. However, the most remarkable observation is the exponential growth witnessed in the last 10 years, indicating a significant surge in movie releases during that period.

4. Visual Analysis - Univariate, Bivariate after pre-processing of the data

Note: Pre-processing involves unnesting of the data in columns like Actor, Director, Country

```
netflix_data = netflix
```

In the preprocessing step, un-nesting refers to the process of separating data. Specifically, when it comes to the cast and listed_in features, these two attributes contain entries as comma-separated values. By utilizing the explode command, I can separate each of these values into individual records, thus enabling further analysis and processing on each distinct entry.

```
netflix_data['cast'] = netflix_data['cast'].str.split(",")
netflix_data = netflix_data.explode(column='cast')
netflix_data['listed_in'] = netflix_data['listed_in'].str.split(",")
netflix_data = netflix_data.explode(column='listed_in')
netflix_data.reset_index(drop = True)
```

	show_id	type	title	director	\
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	
1	s2	TV Show	Blood & Water	unknown	
2	s2	TV Show	Blood & Water	unknown	
3	s2	TV Show	Blood & Water	unknown	
4	s2	TV Show	Blood & Water	unknown	
...	
149507	s8807	Movie	Zubaan	Mozez Singh	
149508	s8807	Movie	Zubaan	Mozez Singh	
149509	s8807	Movie	Zubaan	Mozez Singh	
149510	s8807	Movie	Zubaan	Mozez Singh	
149511	s8807	Movie	Zubaan	Mozez Singh	
		cast	country	date_added	\
0		unknown	United States	September 25, 2021	
1		Ama Qamata	South Africa	September 24, 2021	
2		Ama Qamata	South Africa	September 24, 2021	
3		Ama Qamata	South Africa	September 24, 2021	
4		Khosi Ngema	South Africa	September 24, 2021	
...		
149507		Anita Shabdish	India	March 2, 2019	

149508	Anita Shabdish	India	March 2, 2019
149509	Chittaranjan Tripathy	India	March 2, 2019
149510	Chittaranjan Tripathy	India	March 2, 2019
149511	Chittaranjan Tripathy	India	March 2, 2019

	release_year	rating	duration	listed_in \
0	2020	PG-13	90 min	Documentaries
1	2021	TV-MA	2 Seasons	International TV Shows
2	2021	TV-MA	2 Seasons	TV Dramas
3	2021	TV-MA	2 Seasons	TV Mysteries
4	2021	TV-MA	2 Seasons	International TV Shows
...
149507	2015	TV-14	111 min	International Movies
149508	2015	TV-14	111 min	Music & Musicals
149509	2015	TV-14	111 min	Dramas
149510	2015	TV-14	111 min	International Movies
149511	2015	TV-14	111 min	Music & Musicals

	description	date_add
month \		
0	As her father nears the end of his life, filmm...	2021-09-25
9		
1	After crossing paths at a party, a Cape Town t...	2021-09-24
9		
2	After crossing paths at a party, a Cape Town t...	2021-09-24
9		
3	After crossing paths at a party, a Cape Town t...	2021-09-24
9		
4	After crossing paths at a party, a Cape Town t...	2021-09-24
9		
...
...		
149507	A scrappy but poor boy worms his way into a ty...	2019-03-02
3		
149508	A scrappy but poor boy worms his way into a ty...	2019-03-02
3		
149509	A scrappy but poor boy worms his way into a ty...	2019-03-02
3		
149510	A scrappy but poor boy worms his way into a ty...	2019-03-02
3		
149511	A scrappy but poor boy worms his way into a ty...	2019-03-02
3		

	year
0	2021
1	2021
2	2021
3	2021
4	2021
...	...

```
149507 2019
149508 2019
149509 2019
149510 2019
149511 2019
```

```
[149512 rows x 15 columns]
```

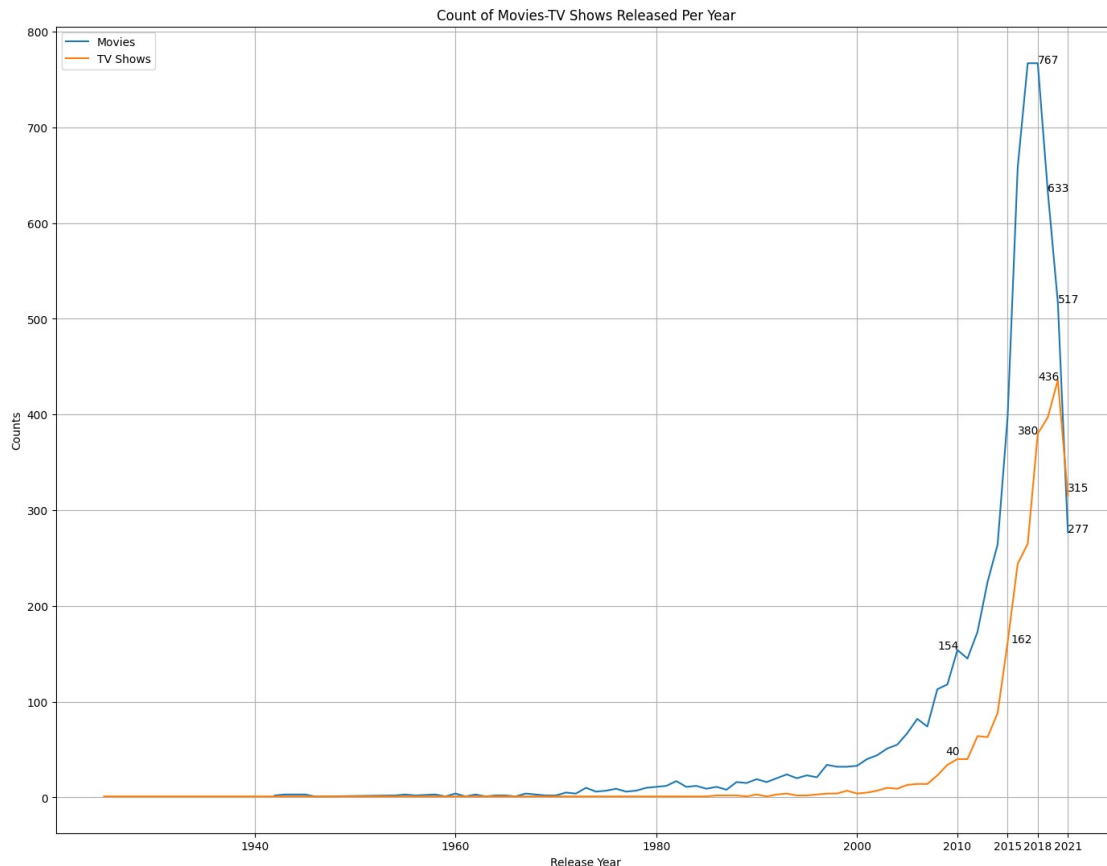
I have created separate dataframes, namely "netflix_movies" and "netflix_tvshows," to analyze the data specifically related to movies and TV shows, respectively.

```
netflix_movies = netflix[netflix['type'] == 'Movie']
netflix_tvshows = netflix[netflix['type'] == 'TV Show']
```

Counting the number of movies and TV shows released annually

```
movie_count = netflix_movies['release_year'].value_counts()
tvshows_count = netflix_tvshows['release_year'].value_counts()
movie_count.sort_index(inplace = True)
tvshows_count.sort_index(inplace = True)
```

```
plt.figure(figsize=(17,13))
plt.plot(movie_count.index,movie_count.values)
plt.plot(tvshows_count.index, tvshows_count.values)
plt.xlabel('Release Year')
plt.ylabel('Counts')
plt.title('Count of Movies-TV Shows Released Per Year')
plt.text(2008,155,movie_count[2010])
plt.text(2018,movie_count[2018],movie_count[2018])
plt.text(2019,movie_count[2019],movie_count[2019])
plt.text(2020,movie_count[2020],movie_count[2020])
plt.text(2021,movie_count[2021],movie_count[2021])
plt.text(2008.8,45,tvshows_count[2010])
plt.text(2015.3,tvshows_count[2015],tvshows_count[2015])
plt.text(2016,380,tvshows_count[2018])
plt.text(2018,tvshows_count[2020],tvshows_count[2020])
plt.text(2021,320,tvshows_count[2021])
plt.xticks([1940, 1960, 1980, 2000, 2010, 2015, 2018, 2021])
plt.legend(["Movies", "TV Shows"])
plt.grid()
plt.show()
```

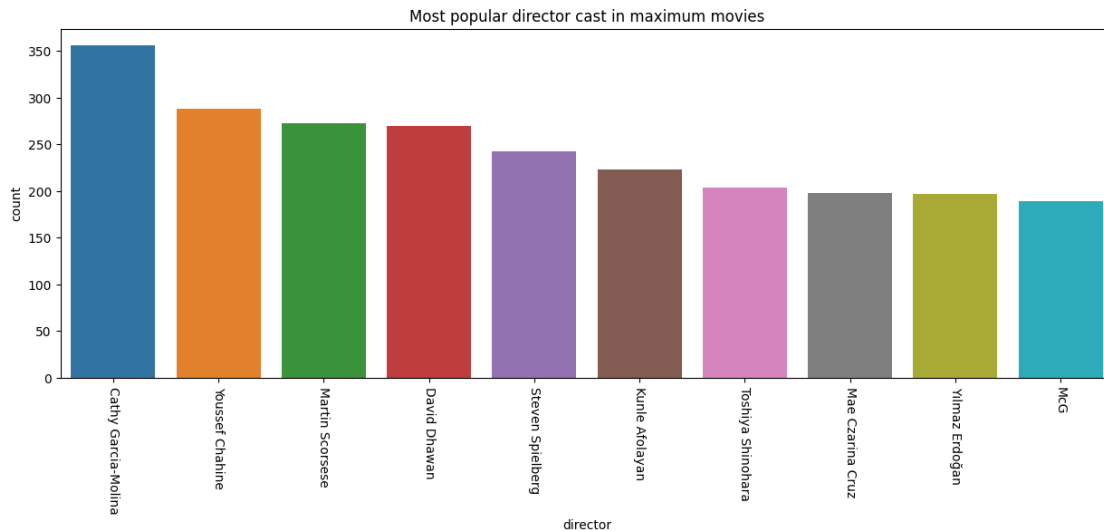



Business Insight from the plot - Movies Released Per Year:

The plot reveals that the growth of movies and TV shows was similar from 1940 to 2015. However, after 2015, there was a sudden surge in the number of movies released, resulting in a sharp increase. Notably, in 2017, there was a significant decrease in the number of movies released. On the other hand, the orange line representing TV shows demonstrates a consistent parallel growth. However, in 2021, it intersects with the blue line representing movies. This intersection suggests that TV shows have gained an equivalent level of popularity to movies, as indicated by audience interest. Overall, the plot highlights the evolving dynamics between movies and TV shows over the years, showcasing a surge in movies followed by a decline and the growing popularity of TV shows, eventually reaching a point where TV shows become equally appealing to audiences as movies.

```
plt.figure(figsize = (15,5))
plt.title("Most popular director cast in maximum movies")
Director = sns.countplot(data = netflix_data[(netflix_data['director']
!= 'unknown') & (netflix_data['type'] == 'Movie')],
x = 'director',
order = netflix_data[(netflix_data['director'] !=
'unknown') & (netflix_data['type'] == 'Movie')]
['director'].value_counts().index[:10])
Director
```

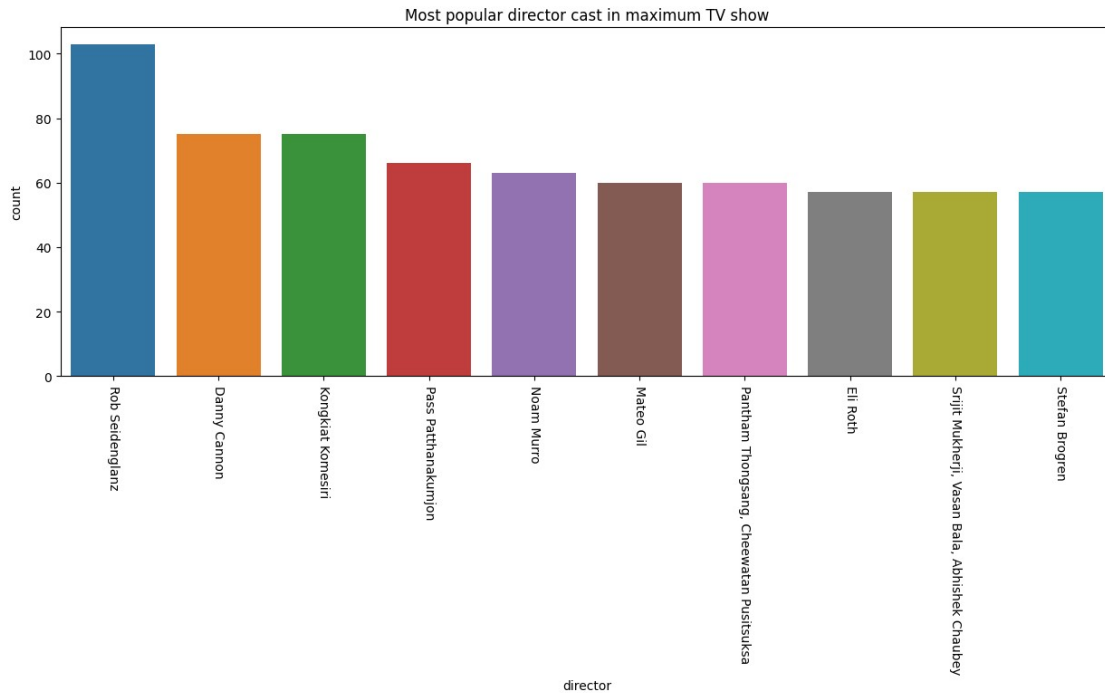
```
plt.xticks(rotation = 270)
plt.show()
```



Insight:

Cathy Garcia Molina has directed a significant number of movies, with approximately 350 films to her credit.

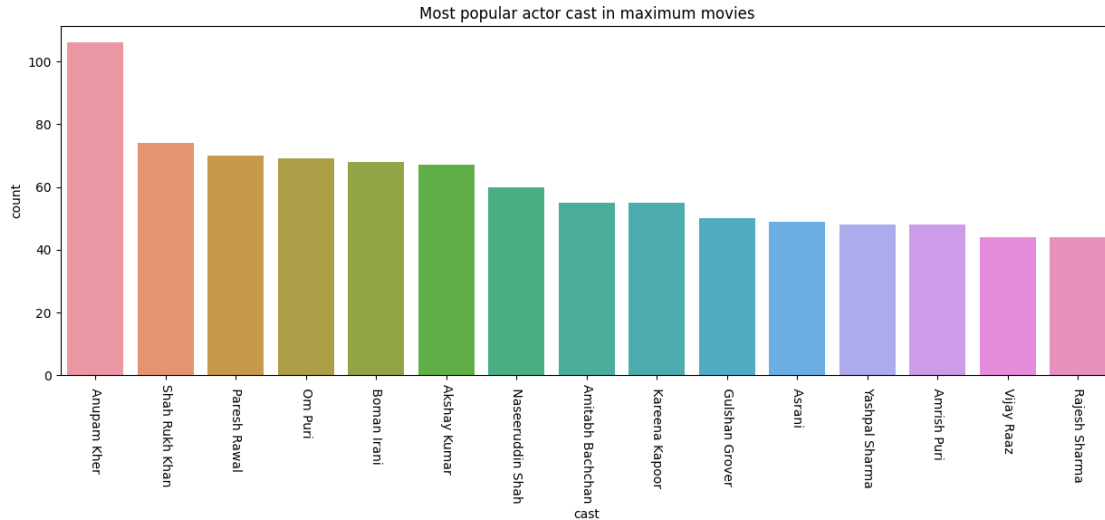
```
plt.figure(figsize = (15,5))
plt.title("Most popular director cast in maximum TV show")
Director = sns.countplot(data = netflix_data[(netflix_data['director']
!= 'unknown') & (netflix_data['type'] == 'TV Show')],
    x = 'director',
    order = netflix_data[(netflix_data['director'] !=
'unknown') & (netflix_data['type'] == 'TV Show')]
['director'].value_counts().index[:10])
Director
plt.xticks(rotation = 270)
plt.show()
```



#Insight:

Rob Seidenglanz holds the distinction of directing a substantial number of TV shows, with over 100 shows to his name.

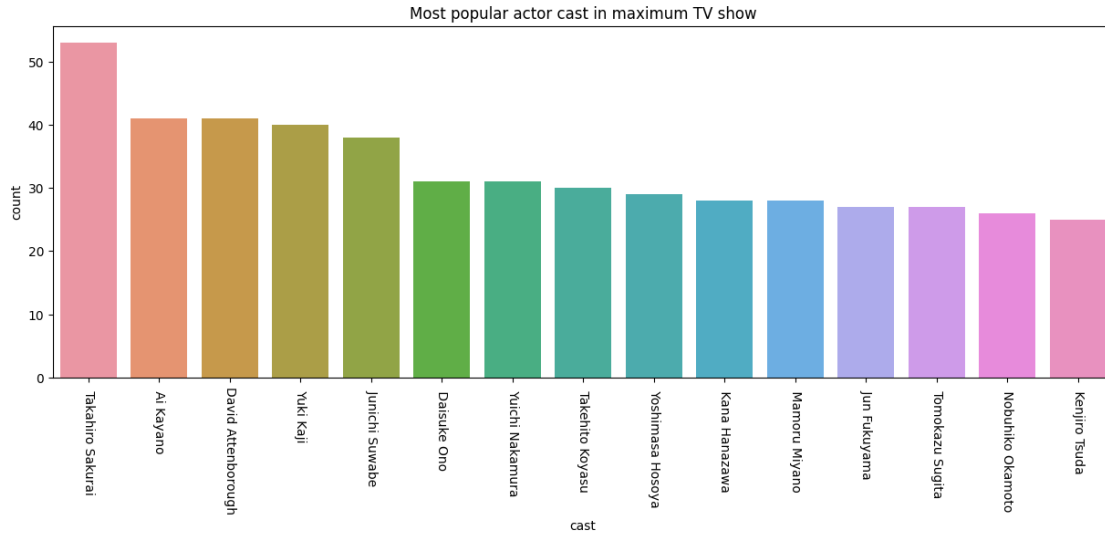
```
plt.figure(figsize = (15,5))
plt.title("Most popular actor cast in maximum movies")
Actor = sns.countplot(data = netflix_data[(netflix_data['cast'] !=
'unknown') & (netflix_data['type'] == 'Movie')],
x = 'cast',
order = netflix_data[(netflix_data['cast'] != 'unknown')
& (netflix_data['type'] == 'Movie')]
['cast'].value_counts().index[:15])
Actor
plt.xticks(rotation = 270)
plt.show()
```



Insight:

Anupam Kher has been cast in a remarkable number of movies and TV shows, with his appearances exceeding 100. Additionally, upon reviewing the top 15 actors, it becomes evident that many of them are renowned Bollywood stars. This suggests that Indian actors have gained popularity and recognition globally, emphasizing their widespread appeal in the entertainment industry.

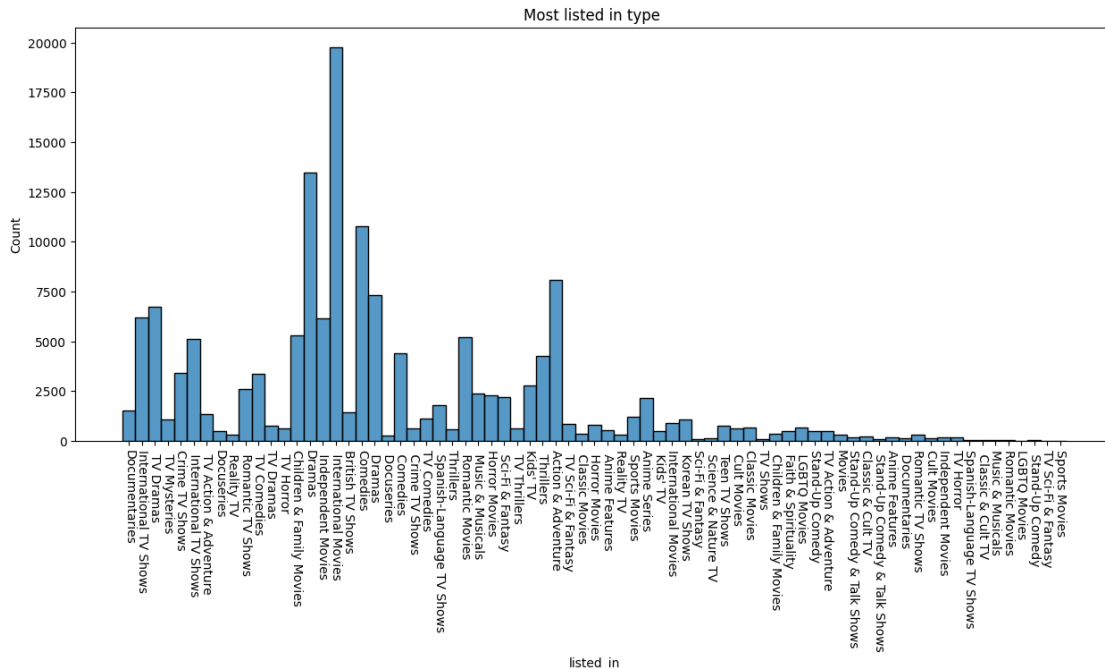
```
plt.figure(figsize = (15,5))
plt.title("Most popular actor cast in maximum TV show")
Actor = sns.countplot(data = netflix_data[(netflix_data['cast'] !=
'unknown') & (netflix_data['type'] == 'TV Show')],
x = 'cast',
order = netflix_data[(netflix_data['cast'] != 'unknown')
& (netflix_data['type'] == 'TV Show')]
['cast'].value_counts().index[:15])
Actor
plt.xticks(rotation = 270)
plt.show()
```



Insight:

While analyzing the TV show cast, it is notable that a significant portion of the cast members is not of Indian origin, but rather hails from Japanese or Chinese backgrounds. Among all the cast members, Takahiro Sakurai emerges as a favorite, having appeared in over 50 TV shows. This highlights the diverse and international nature of the TV show industry, with actors from different countries gaining popularity and contributing to the global appeal of these shows.

```
plt.figure(figsize = (15,6))
plt.title("Most listed in type ")
sns.histplot(netflix_data['listed_in'])
plt.xticks(rotation = 270)
plt.show()
```



Insight:

Among the listed genres, International Movies emerge as the most preferred category. Additionally, dramas and comedies hold significant popularity among viewers, with a considerable number of favorites falling under these genres. This showcases the widespread appeal and appreciation for diverse storytelling in the form of international movies, dramas, and comedies among the audience.

```
plt.title("Distplot showing Release year")
sns.distplot(netflix["release_year"])
plt.show()
```

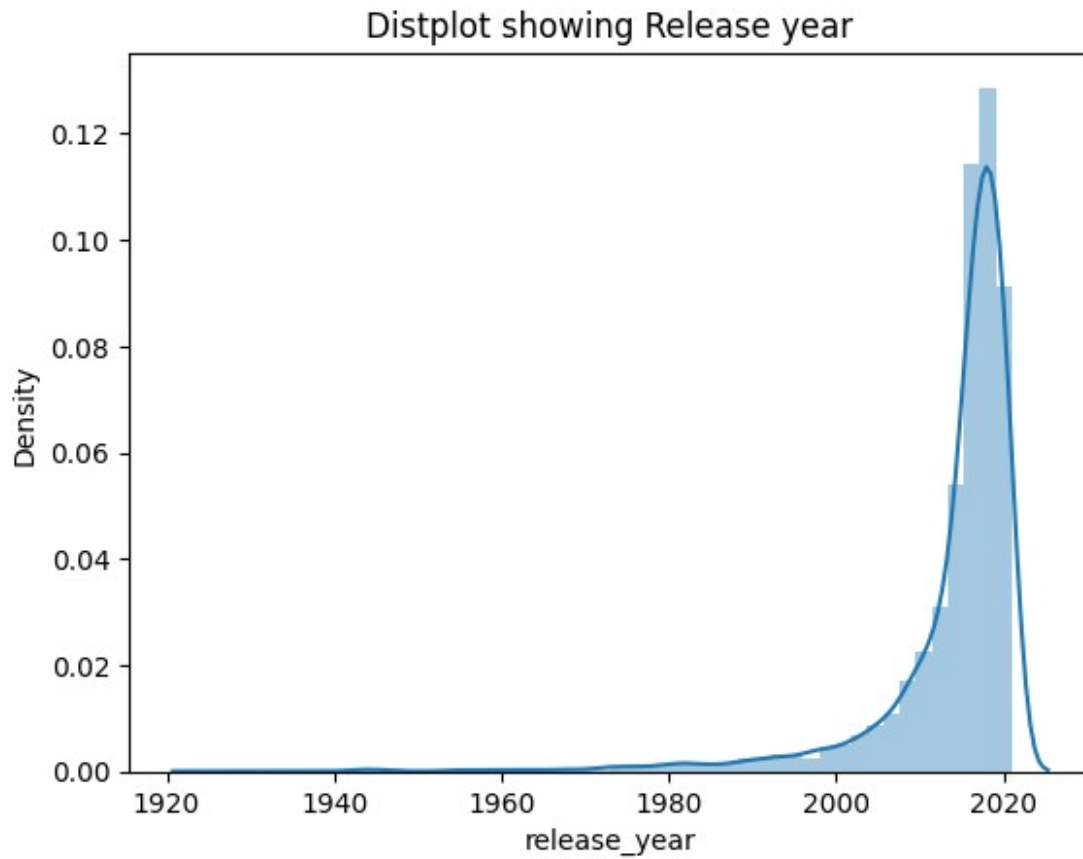
<ipython-input-36-f94dba8c060a>:2: UserWarning:

`distplot` is a deprecated function and will be removed in seaborn v0.14.0.

Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).

For a guide to updating your code to use the new functions, please see <https://gist.github.com/mwaskom/de44147ed2974457ad6372750bbe5751>

```
sns.distplot(netflix["release_year"])
```

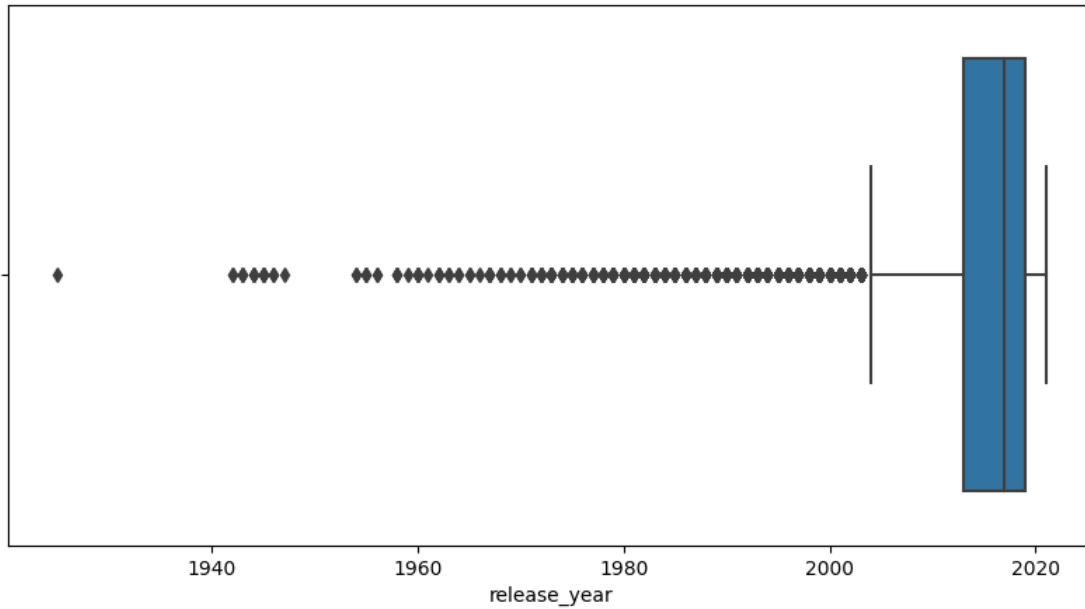


Insight:

Maximum movies and TV Shows are released after 2000 till 2020

```
plt.figure(figsize = (10,5))  
sns.boxplot(data = netflix, x = 'release_year')
```

```
<Axes: xlabel='release_year'>
```

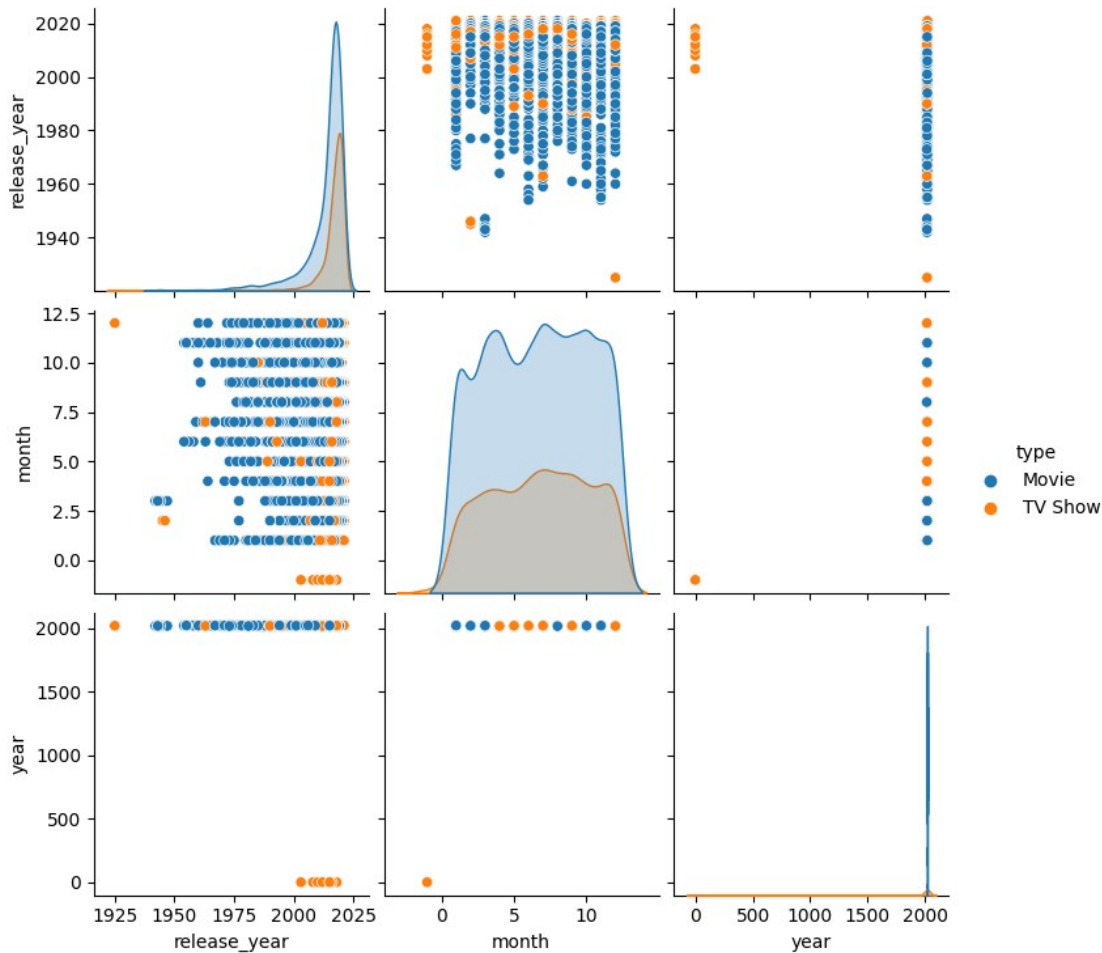


Insight:

Prior to the year 2000, the dots displayed were regarded as outliers. Since the majority of the Netflix data falls within the time frame of 2010 to 2020, they are considered significant and representative of the dataset.

The following graph illustrates the correlation between the types of content (movies and TV shows) and their respective release years, as well as the years in which they were added to Netflix.

```
sns.pairplot(netflix, hue = 'type')  
<seaborn.axisgrid.PairGrid at 0x7f3d03e91b10>
```

Analysing Content Rating for Netflix in Different Countries

```
expanded_country_list = netflix_data['country'].apply(lambda x :
str(x).split(',')).tolist()
netflix_country_list = pd.DataFrame(expanded_country_list, index =
netflix_data['title'])
netflix_country_list = netflix_country_list.stack()
netflix_country_list =
pd.DataFrame(netflix_country_list.reset_index())
netflix_country_list.drop(['level_1'], axis = 1, inplace = True)
netflix_country_list.rename(columns = {0:'Country'}, inplace = True)
netflix_country_expanded =
netflix_country_list.merge(netflix_data[['show_id', 'type', 'title',
'director', 'country', 'date_added',
'release_year', 'rating', 'duration', 'listed_in',
'description']], on = ['title'], how = 'left')
netflix_country_expanded['Country'] =
netflix_country_expanded['Country'].str.strip()
netflix_country_count =
netflix_country_expanded['Country'].value_counts()
```

```

netflix_country_top10 =
netflix_country_expanded[netflix_country_expanded['Country'].isin(list
(netflix_country_count.index)[:11])]
netflix_country_top10 = netflix_country_top10[['Country', 'rating']]
netflix_country_top10['Count'] = 1

df=netflix_country_top10.pivot_table(index="Country",
                                     columns="rating",
                                     aggfunc=["count"],
                                     fill_value=0)

column_names = []

for x in df.columns:
    column_names.append(x[2])

df.columns = column_names
df = df.loc[['United States',
'India',
'unknown',
'United Kingdom',
'Canada',
'France',
'Japan',
'Spain',
'South Korea',
'Germany',
'Mexico']]

```

Business Insight:

(Refer to the Figure Below: Top 10 Countries vs Content Ratings of Movies):

The figure displays the relationship between the top 10 countries and the content ratings assigned to movies.

Among the top 10 countries with the highest amount of movie content on Netflix, the United States, India, United Kingdom, Canada, France, Japan, Spain, South Korea, and Germany stand out.

Specifically, the United States, United Kingdom, Canada, and France have a significant number of Movies/TV Shows that require parental guidance for individuals under 14 years old, indicated by the numbers under the categories of PG (Parental Guidance) and PG-13.

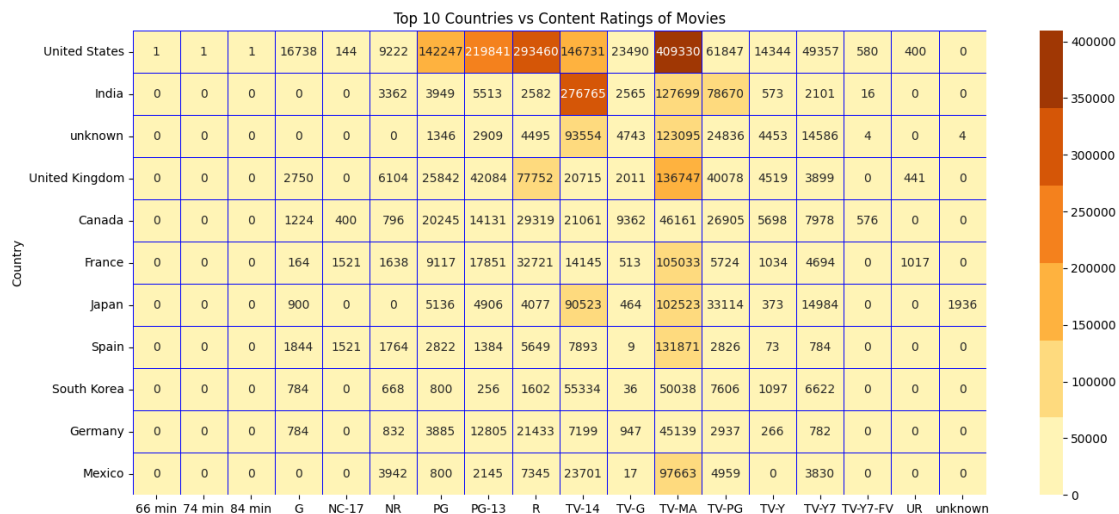
In contrast, India, Japan, Spain, South Korea, Germany, and Mexico have relatively fewer movies or TV shows with such ratings available on Netflix.

The distribution of movies intended for audiences aged 17 and above, or mature audiences, is relatively even among these top 10 countries.

The ratings TV-14 and TV-MA are similarly and fairly distributed across the top 10 movies on Netflix.

```
colormap = sns.color_palette("YlOrBr")
plt.figure(figsize=(16,7))
plt.title('Top 10 Countries vs Content Ratings of Movies')
sns.heatmap(df, annot = True, fmt="d", linewidths=.5,
linecolor='blue', cmap=colormap)
```

```
<Axes: title={'center': 'Top 10 Countries vs Content Ratings of
Movies'}, ylabel='Country'>
```



Recommendation:

In India, Netflix is primarily popular among teenagers, with the highest rating observed for TV-14 reaching a maximum value of 276765.

When considering content preferences in the United States, there is a wider range of ratings that have potential, including PG, PG-13, TV-14, TV-MA, and R. However, in India, the focus should be on TV-14 and TV-MA movies, as they have a greater scope and appeal to the audience.

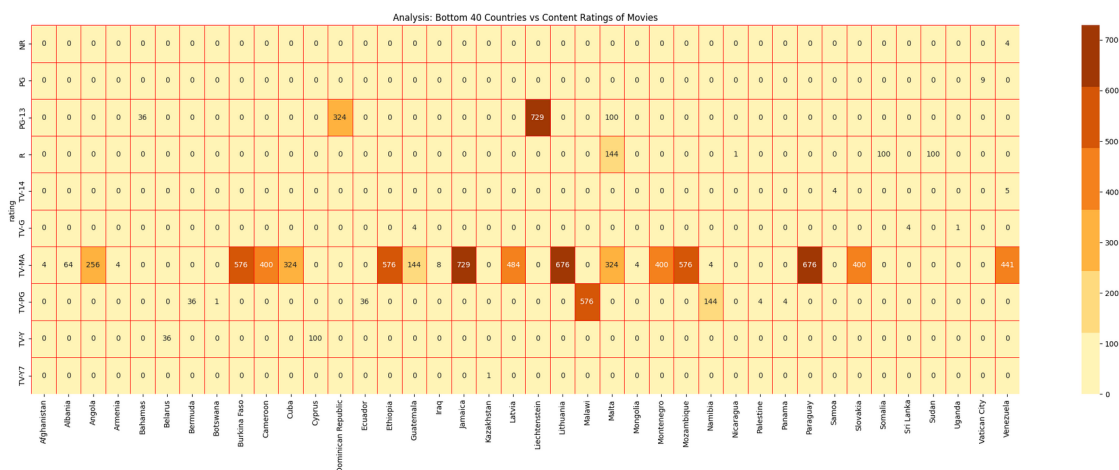
It is worth noting that content targeting mature audiences, such as TV-MA rated shows, can be produced regardless of country or location. In fact, among all the ratings, TV-MA has the highest count of 409330, indicating a significant demand for such content.

Creating a Pivot of Rating Count versus the Bottom 40 Countries with the highest amount of content on Netflix:

```
netflix_country_bottom40 =
netflix_country_expanded[netflix_country_expanded['Country'].isin(list
(netflix_country_count.index)[-40:])]
netflix_country_bottom40 =
netflix_country_bottom40[['Country','rating']]
netflix_country_bottom40['Count'] = 1
```

```
df.columns = column_names
```

```
<Axes: title={'center': 'Analysis: Bottom 40 Countries vs Content  
Ratings of Movies'}, ylabel='rating'>
```



Recommendation:

When considering expansion into countries with limited or no presence on Netflix, it is advisable to focus on content targeted towards a mature audience. This recommendation is based on the observation that the TV-MA rating, which represents content for mature audiences, is prevalent among the countries with lower interest, as illustrated in the graph above.