

```
In [2]: import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib as plt
```

```
In [3]: df = pd.read_csv('netflix_titles.csv')
df.head()
```

```
Out[3]:
```

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-13	90 min	Documentaries	As her father nears the end of his life, filmm...
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-MA	2 Seasons	International TV Shows, TV Dramas, TV Mysteries	After crossing paths at a party, a Cape Town t...
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	NaN	September 24, 2021	2021	TV-MA	1 Season	Crime TV Shows, International TV Shows, TV Act...	To protect his family from a powerful drug lor...
3	s4	TV Show	Jailbirds New Orleans	NaN	NaN	NaN	September 24, 2021	2021	TV-MA	1 Season	Docuseries, Reality TV	Feuds, flirtations and toilet talk go down amo...
4	s5	TV Show	Kota Factory	NaN	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...	India	September 24, 2021	2021	TV-MA	2 Seasons	International TV Shows, Romantic TV Shows, TV ...	In a city of coaching centers known to train l...

```
In [4]: df.shape #tells The exacat rows and column in our dataset
```

```
Out[4]: (8807, 12)
```

```
In [5]: df.describe() # It will describe the data it will shows only interger and flotes datatypes it will not applied on objects
```

Out[5]:

	release_year
count	8807.000000
mean	2014.180198
std	8.819312
min	1925.000000
25%	2013.000000
50%	2017.000000
75%	2019.000000
max	2021.000000

In [6]: `df.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
```

In [7]: `df.isna().sum()` # It will display the sum of Null Values in the data sets. Sum() will shows the sum of all null values

```
Out[7]: show_id      0
        type        0
        title       0
        director    2634
        cast        825
        country     831
        date_added   10
        release_year 0
        rating       4
        duration     3
        listed_in    0
        description  0
        dtype: int64
```

```
In [8]: # Convert the data types form object to datetime
        df['date_added']=pd.to_datetime(df['date_added'])
```

```
In [9]: df.head(10)
```

Out[9]:

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	2021-09-25	2020	PG-13	90 min	Documentaries	As her father nears the end of his life, filmm...
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	2021-09-24	2021	TV-MA	2 Seasons	International TV Shows, TV Dramas, TV Mysteries	After crossing paths at a party, a Cape Town t...
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	NaN	2021-09-24	2021	TV-MA	1 Season	Crime TV Shows, International TV Shows, TV Act...	To protect his family from a powerful drug lor...
3	s4	TV Show	Jailbirds New Orleans	NaN	NaN	NaN	2021-09-24	2021	TV-MA	1 Season	Docuseries, Reality TV	Feuds, flirtations and toilet talk go down amo...
4	s5	TV Show	Kota Factory	NaN	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...	India	2021-09-24	2021	TV-MA	2 Seasons	International TV Shows, Romantic TV Shows, TV ...	In a city of coaching centers known to train l...
5	s6	TV Show	Midnight Mass	Mike Flanagan	Kate Siegel, Zach Gilford, Hamish Linklater, H...	NaN	2021-09-24	2021	TV-MA	1 Season	TV Dramas, TV Horror, TV Mysteries	The arrival of a charismatic young priest brin...
6	s7	Movie	My Little Pony: A New Generation	Robert Cullen, José Luis Ucha	Vanessa Hudgens, Kimiko Glenn, James Marsden, ...	NaN	2021-09-24	2021	PG	91 min	Children & Family Movies	Equestria's divided. But a bright-eyed hero be...
7	s8	Movie	Sankofa	Haile Gerima	Kofi Ghanaba, Oyafunmike Ogunlano, Alexandra D...	United States, Ghana, Burkina Faso, United Kin...	2021-09-24	1993	TV-MA	125 min	Dramas, Independent Movies, International Movies	On a photo shoot in Ghana, an American model s...

show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
8	s9 TV Show	The Great British Baking Show	Andy Devonshire	Mel Giedroyc, Sue Perkins, Mary Berry, Paul Ho...	United Kingdom	2021-09-24	2021	TV-14	9 Seasons	British TV Shows, Reality TV	A talented batch of amateur bakers face off in...
9	s10 Movie	The Starling	Theodore Melfi	Melissa McCarthy, Chris O'Dowd, Kevin Kline, T...	United States	2021-09-24	2021	PG-13	104 min	Comedies, Dramas	A woman adjusting to life after a loss contend...

## Handling Missing Vales In Data Based

```
In [10]: df.fillna({'director':'NA','cast':'NA','country':'NA','rating':'NA'}, inplace=True)
# In This Code we Can Converted The null values into NA
```

```
In [11]: df.isna().sum()
```

```
Out[11]: show_id      0
type          0
title         0
director      0
cast          0
country       0
date_added    10
release_year   0
rating        0
duration      3
listed_in     0
description    0
dtype: int64
```

```
In [12]: df[df.date_added.isnull()] #it wil shows the rows at which null values is present in date added column
```

Out[12]:

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
<b>6066</b>	s6067	TV Show	A Young Doctor's Notebook and Other Stories	NA	Daniel Radcliffe, Jon Hamm, Adam Godley, Chris...	United Kingdom	NaT	2013	TV-MA	2 Seasons	British TV Shows, TV Comedies, TV Dramas	Set during the Russian Revolution, this comic ...
<b>6174</b>	s6175	TV Show	Anthony Bourdain: Parts Unknown	NA	Anthony Bourdain	United States	NaT	2018	TV-PG	5 Seasons	Docuseries	This CNN original series has chef Anthony Bour...
<b>6795</b>	s6796	TV Show	Frasier	NA	Kelsey Grammer, Jane Leeves, David Hyde Pierce...	United States	NaT	2003	TV-PG	11 Seasons	Classic & Cult TV, TV Comedies	Frasier Crane is a snooty but lovable Seattle ...
<b>6806</b>	s6807	TV Show	Friends	NA	Jennifer Aniston, Courteney Cox, Lisa Kudrow, ...	United States	NaT	2003	TV-14	10 Seasons	Classic & Cult TV, TV Comedies	This hit sitcom follows the merry misadventure...
<b>6901</b>	s6902	TV Show	Gunslinger Girl	NA	Yuuka Nanri, Kanako Mitsuhashi, Eri Sendai, Am...	Japan	NaT	2008	TV-14	2 Seasons	Anime Series, Crime TV Shows	On the surface, the Social Welfare Agency appe...
<b>7196</b>	s7197	TV Show	Kikoriki	NA	Igor Dmitriev	NA	NaT	2010	TV-Y	2 Seasons	Kids' TV	A wacky rabbit and his gang of animal pals hav...
<b>7254</b>	s7255	TV Show	La Familia P. Luche	NA	Eugenio Derbez, Consuelo Duval, Luis Manuel Áv...	United States	NaT	2012	TV-14	3 Seasons	International TV Shows, Spanish-Language TV Sh...	This irreverent sitcom featues Ludovico, Feder...
<b>7406</b>	s7407	TV Show	Maron	NA	Marc Maron, Judd Hirsch, Josh Brener, Nora Zeh...	United States	NaT	2016	TV-MA	4 Seasons	TV Comedies	Marc Maron stars as Marc Maron, who interviews...

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
	7847	s7848 TV Show	Red vs. Blue	NA	Burnie Burns, Jason Saldaña, Gustavo Sorola, G...	United States	NaT	2015	NR	13 Seasons	TV Action & Adventure, TV Comedies, TV Sci-Fi ...	This parody of first-person shooter games, mil...
	8182	s8183 TV Show	The Adventures of Figaro Pho	NA	Luke Jurevicius, Craig Behenna, Charlotte Haml...	Australia	NaT	2015	TV-Y7	2 Seasons	Kids' TV, TV Comedies	Imagine your worst fears, then multiply them: ...

```
In [13]: most_recent_entry_date=df['date_added'].max()
# in this we can find the most recent date_added in the data sets
```

```
In [14]: most_recent_entry_date
#This Is the most recent date_added in the column
```

```
Out[14]: Timestamp('2021-09-25 00:00:00')
```

```
In [15]: df.fillna({'date_added':most_recent_entry_date},inplace=True)
```

```
In [16]: df[df.show_id=='s8183'] #We can Now check null value is replaced by most recent date(i.e;2021-09-25)
```

```
Out[16]:
```

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
	8182	s8183 TV Show	The Adventures of Figaro Pho	NA	Luke Jurevicius, Craig Behenna, Charlotte Haml...	Australia	2021-09-25	2015	TV-Y7	2 Seasons	Kids' TV, TV Comedies	Imagine your worst fears, then multiply them: ...

```
In [17]: df[df.duration.isnull()]
#Duration Record For Null Values
#for duration, we get actual duration in rating,
#so we have to replace rating by nan and actual values in rating are move to duration.
```

Out[17]:

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
<b>5541</b>	s5542	Movie	Louis C.K. 2017	Louis C.K.	Louis C.K.	United States	2017-04-04	2017	74 min	NaN	Movies	Louis C.K. muses on religion, eternal love, gi...
<b>5794</b>	s5795	Movie	Louis C.K.: Hilarious	Louis C.K.	Louis C.K.	United States	2016-09-16	2010	84 min	NaN	Movies	Emmy-winning comedy writer Louis C.K. brings h...
<b>5813</b>	s5814	Movie	Louis C.K.: Live at the Comedy Store	Louis C.K.	Louis C.K.	United States	2016-08-15	2015	66 min	NaN	Movies	The comic puts his trademark hilarious/thought...

In [18]: `df[df.director == 'Louis C.K.'].head()`  
*#here we can check that the Louis C.K has no other contern rather that above three*  
*# it will prevented by accidental overwritting and cause a Losss of data*

Out[18]:

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
<b>5541</b>	s5542	Movie	Louis C.K. 2017	Louis C.K.	Louis C.K.	United States	2017-04-04	2017	74 min	NaN	Movies	Louis C.K. muses on religion, eternal love, gi...
<b>5794</b>	s5795	Movie	Louis C.K.: Hilarious	Louis C.K.	Louis C.K.	United States	2016-09-16	2010	84 min	NaN	Movies	Emmy-winning comedy writer Louis C.K. brings h...
<b>5813</b>	s5814	Movie	Louis C.K.: Live at the Comedy Store	Louis C.K.	Louis C.K.	United States	2016-08-15	2015	66 min	NaN	Movies	The comic puts his trademark hilarious/thought...

In [19]: `df.loc[df['director'] == 'Louis C.K.', 'duration'] = df['rating']`  
`df[df.director == 'Louis C.K.'].head()`  
*# in this code we has used the Loc. function it will Used for accessing the columns by the names*



Out[19]:

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
<b>5541</b>	s5542	Movie	Louis C.K. 2017	Louis C.K.	Louis C.K.	United States	2017-04-04	2017	74 min	74 min	Movies	Louis C.K. muses on religion, eternal love, gi...
<b>5794</b>	s5795	Movie	Louis C.K.: Hilarious	Louis C.K.	Louis C.K.	United States	2016-09-16	2010	84 min	84 min	Movies	Emmy-winning comedy writer Louis C.K. brings h...
<b>5813</b>	s5814	Movie	Louis C.K.: Live at the Comedy Store	Louis C.K.	Louis C.K.	United States	2016-08-15	2015	66 min	66 min	Movies	The comic puts his trademark hilarious/thought...

In [20]:

```
df.loc[df['director'] == 'Louis C.K.', 'duration'] = df['rating']
df[df.director == 'Louis C.K.'].head()
# in this code we has used the Loc. function it will Used for accessing the columns by the names
```

Out[20]:

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
<b>5541</b>	s5542	Movie	Louis C.K. 2017	Louis C.K.	Louis C.K.	United States	2017-04-04	2017	74 min	74 min	Movies	Louis C.K. muses on religion, eternal love, gi...
<b>5794</b>	s5795	Movie	Louis C.K.: Hilarious	Louis C.K.	Louis C.K.	United States	2016-09-16	2010	84 min	84 min	Movies	Emmy-winning comedy writer Louis C.K. brings h...
<b>5813</b>	s5814	Movie	Louis C.K.: Live at the Comedy Store	Louis C.K.	Louis C.K.	United States	2016-08-15	2015	66 min	66 min	Movies	The comic puts his trademark hilarious/thought...

In [21]:

```
df.loc[df['director']=='Louis C.K.', 'rating'] = 'Unavailable'
df[df.director == 'Louis C.K.'].head()
```

Out[21]:

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
<b>5541</b>	s5542	Movie	Louis C.K. 2017	Louis C.K.	Louis C.K.	United States	2017-04-04	2017	Unavailable	74 min	Movies	Louis C.K. muses on religion, eternal love, gi...
<b>5794</b>	s5795	Movie	Louis C.K.: Hilarious	Louis C.K.	Louis C.K.	United States	2016-09-16	2010	Unavailable	84 min	Movies	Emmy-winning comedy writer Louis C.K. brings h...
<b>5813</b>	s5814	Movie	Louis C.K.: Live at the Comedy Store	Louis C.K.	Louis C.K.	United States	2016-08-15	2015	Unavailable	66 min	Movies	The comic puts his trademark hilarious/thought...


# Visualizations

## 1. Country Analysis That How Many Movies They Produced Overall

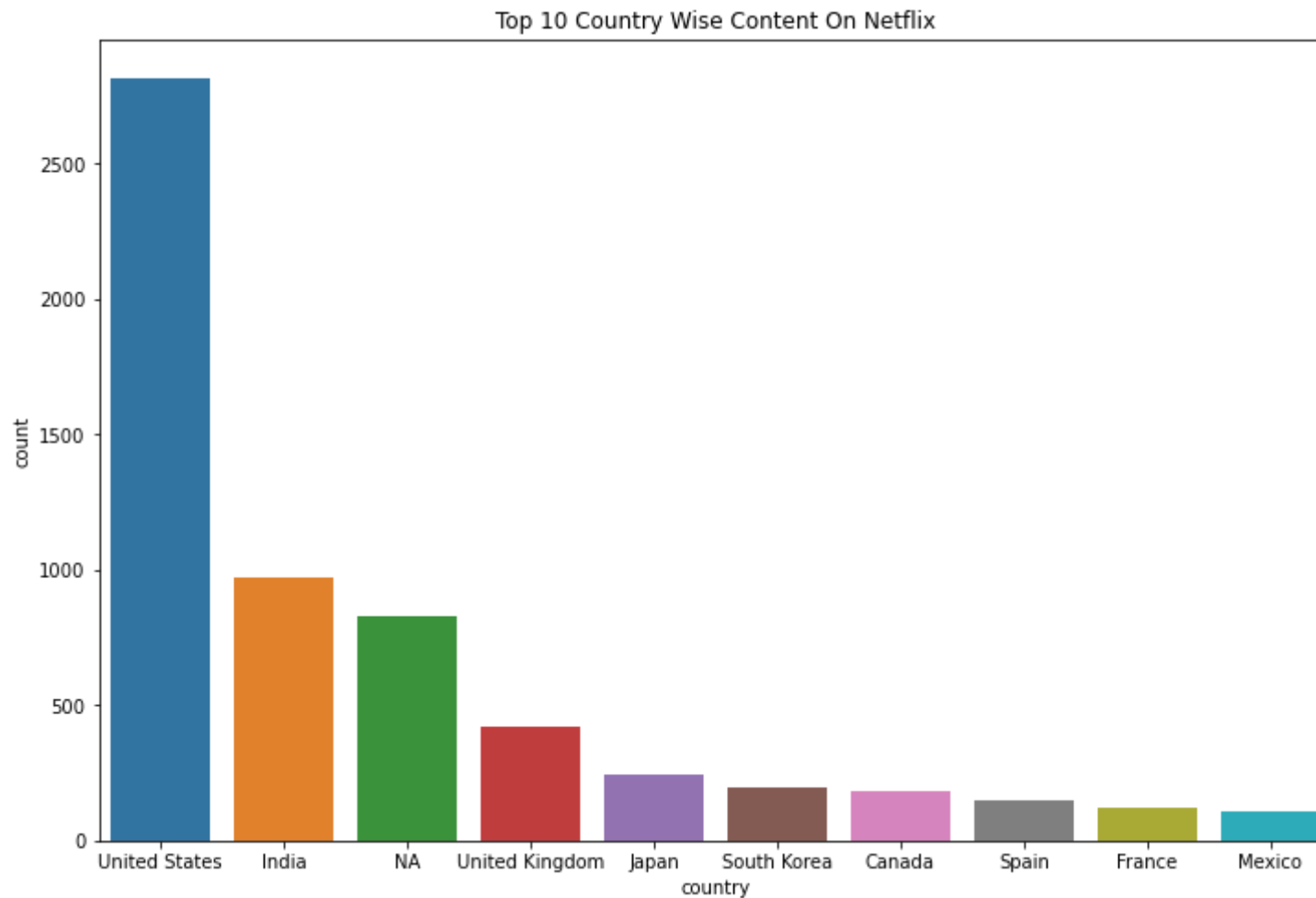
```
In [22]: df['country'].value_counts().head(10)
# here we can see the top 10 counters which has uploads more content on the netflix most
```

```
Out[22]: United States    2818
India          972
NA             831
United Kingdom 419
Japan          245
South Korea    199
Canada         181
Spain          145
France         124
Mexico         110
Name: country, dtype: int64
```

```
In [25]: #here we can see the graph that contents the top 10 countries that uploads most contents

plt.figure(figsize=(12,8)) # it will give the size of the chart 
sns.countplot(x='country',order=df['country'].value_counts().index[0:10],data=df) #in this we can say to command that we have
#the country on the x axis and the top 10 of them has to be displayed
plt.title('Top 10 Country Wise Content On Netflix')
```

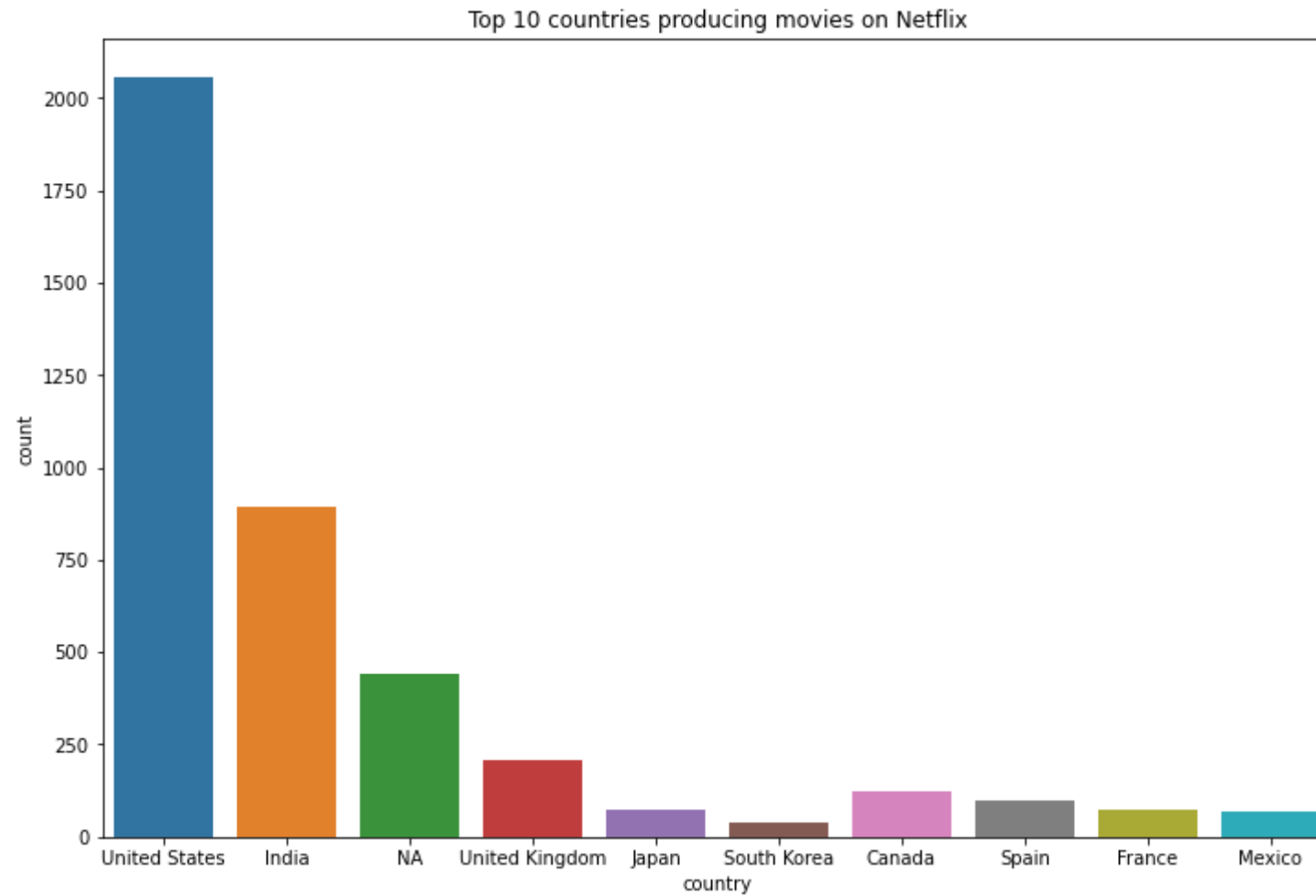
```
Out[25]: Text(0.5, 1.0, 'Top 10 Country Wise Content On Netflix')
```

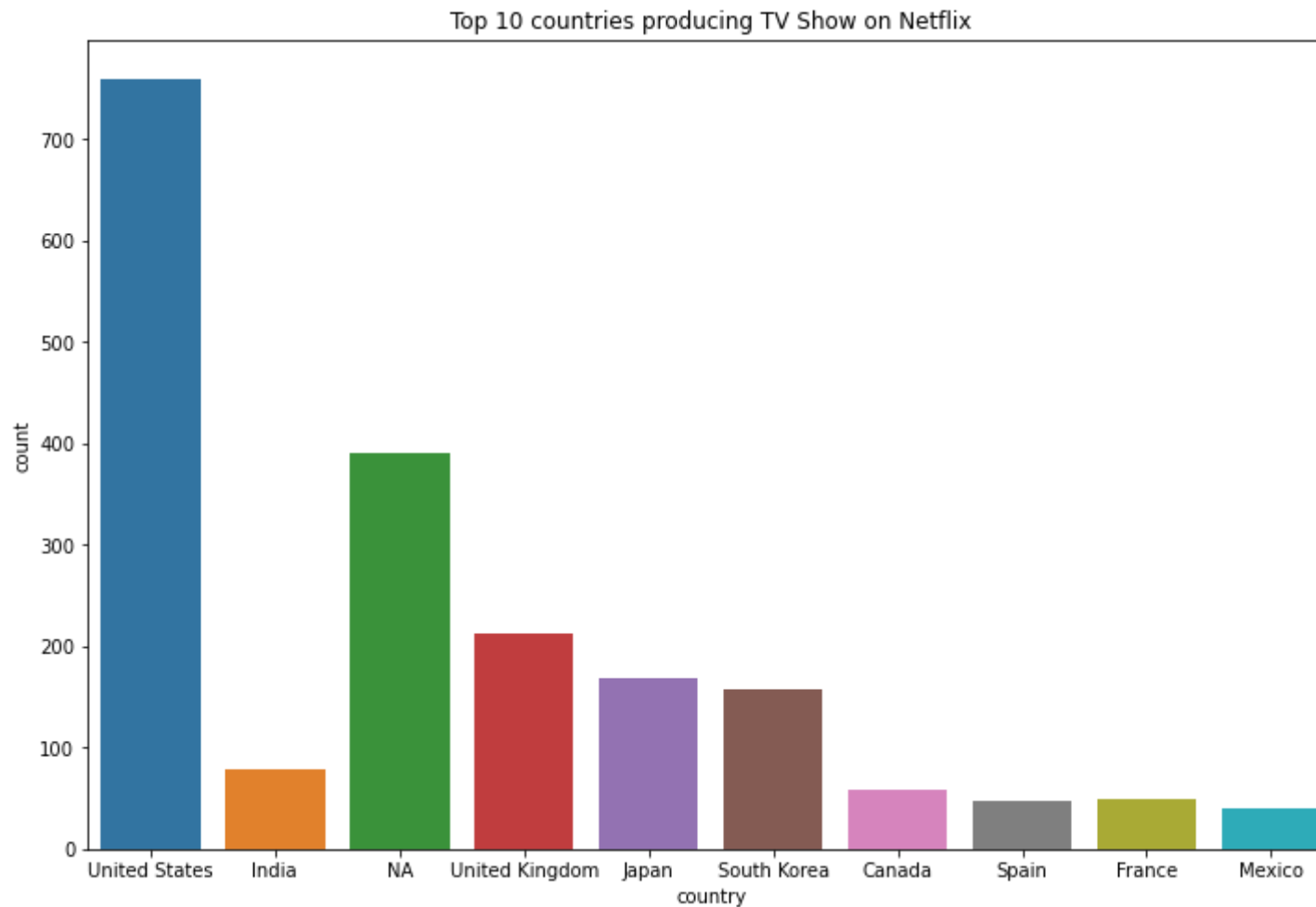


```
In [26]: movies_countries=df[df['type']=='Movie']  
TV_show_countries=df[df['type']=='TV Show']
```

```
In [27]: plt.figure(figsize=(12,8)) #create graph for movies  
sns.countplot(x='country',order=df['country'].value_counts().index[0:10],data=movies_countries)  
plt.title('Top 10 countries producing movies on Netflix')  
  
plt.figure(figsize=(12,8))  
sns.countplot(x='country',order=df['country'].value_counts().index[0:10],data=TV_show_countries)  
plt.title('Top 10 countries producing TV Show on Netflix')
```

Out[27]: Text(0.5, 1.0, 'Top 10 countries producing TV Show on Netflix')





let's now google the categories and explore them

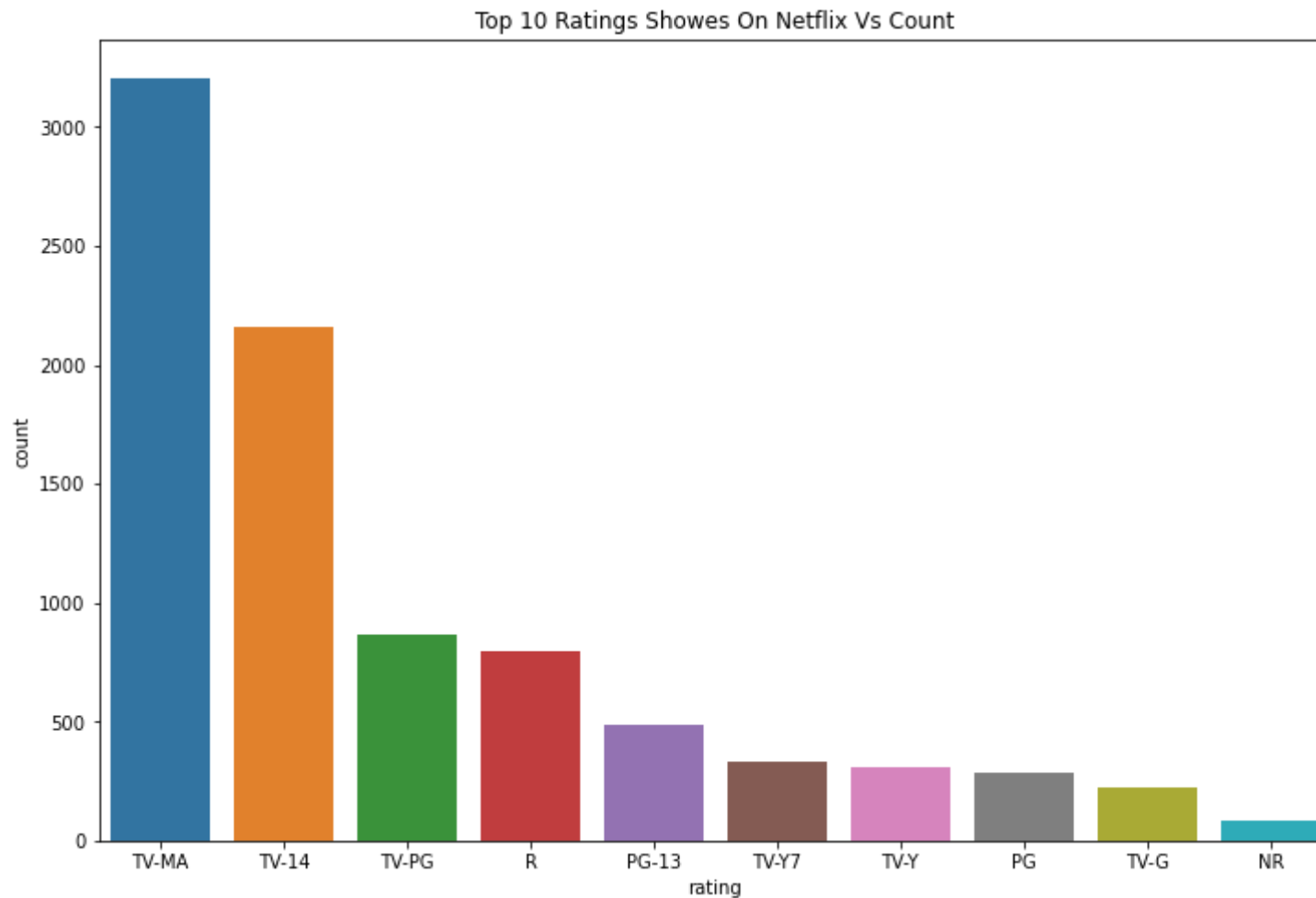
Types Of rating Are Available In The Netflix Web And App

- TV-MA:This program is specifically designed to be viewed by adults and therefore may be unsuitable for children under 17.
- TV-14:This program contains some material that many parents would find unsuitable for children under 14 years of age.
- TV-PG:This program contains material that parents may find unsuitable for younger children.
- R:Under 17 requires accompanying parent or adult guardian,Parents are urged to learn more about the film before taking their young children with them.

- PG-13:Some material may be inappropriate for children under 13. Parents are urged to be cautious. Some material may be inappropriate for pre-teenagers.
- NR or UR:If a film has not been submitted for a rating or is an uncut version of a film that was submitted
- PG:Some material may not be suitable for children,May contain some material parents might not like for their young children.
- TV-Y7:This program is designed for children age 7 and above.
- TV-G:This program is suitable for all ages.
- TV-Y:Programs rated TV-Y are designed to be appropriate for children of all ages. The thematic elements portrayed in programs with this rating are specifically designed for a very young audience, including children ages 2-6.
- TV-Y7-FV:is recommended for ages 7 and older, with the unique advisory that the program contains fantasy violence.
- G:All ages admitted. Nothing that would offend parents for viewing by children.
- NC-17:No One 17 and Under Admitted. Clearly adult. Children are not admitted.

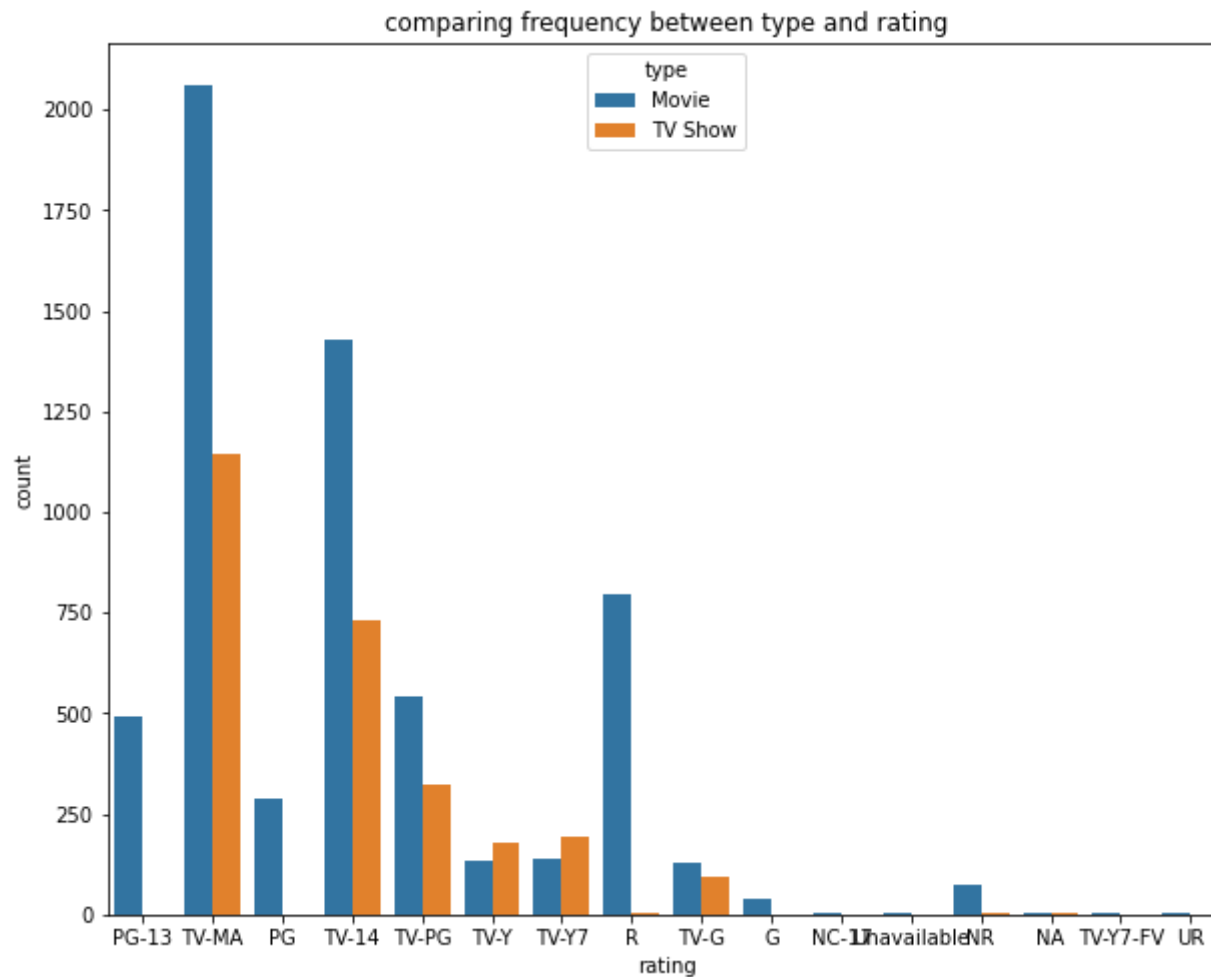
```
In [28]: plt.figure(figsize = (12,8))
sns.countplot(x = 'rating' ,order = df['rating'].value_counts().index[0:10],data = df)
plt.title('Top 10 Ratings Showes On Netflix Vs Count')
```

```
Out[28]: Text(0.5, 1.0, 'Top 10 Ratings Showes On Netflix Vs Count')
```



Here we can see that most shows has the TV-MA rating That means netflix uplodes more content related to the adultes (above 17)group

```
In [29]: plt.figure(figsize=(10,8))
sns.countplot(x='rating',hue='type',data=df)
plt.title('comparing frequency between type and rating')
plt.show()
```



Here we can see that classify the rating with TV shows and movies

## 2. Identifying Similar Content By Matching Text Based Features

```
In [30]: dups=df.duplicated(['description'])  
df[dups]['description']
```



```

Out[30]: 79      A budding politician has devious plans to rise...
          237      Paranormal activity at a lush, abandoned prope...
          238      Paranormal activity at a lush, abandoned prope...
          239      Paranormal activity at a lush, abandoned prope...
          851      Challenged to compose 100 songs before he can ...
          852      Challenged to compose 100 songs before he can ...
          1653     As a blind librarian, dispirited cricketer and...
          1986     As a woman scours Hyderabad for her missing hu...
          2335     Multiple women report their husbands as missin...
          2873     After growing up enduring criticism from his f...
          3393     This educational series for tiny tots features...
          3493     A surly septuagenarian gets another chance at ...
          3516     A surly septuagenarian gets another chance at ...
          3569     As a series of murders hit close to home, a vi...
          3939     An affable, newly appointed college warden pro...
          4061     An aspiring musician battles age-old caste div...
          5964     As a psychology professor faces Alzheimer's, h...
          5965     After devastating terror attacks in Norway, a ...
          5966     On India's Independence Day, a zany mishap in ...
          6024     Multiple women report their husbands as missin...
          6449     When pretty new neighbor Seema falls for their...
          6529     Secrets bubble to the surface after a sensual ...
          6705     Cora has three sons and a daughter and she's a...
          7022     A scheming matriarch plots to cut off her disa...
          7089     The Great Dog Demon beaqueathed one of the Thr...
          7090     With their biggest foe seemingly defeated, Inu...
          7559     Mistakenly accused of an attack on the Fourth ...
          7649     Two quirky cats, Ollie and Moon, and their fri...
          8022     Born into a small town controlled by the mafia...
          8052     A young Han Solo tries to settle an old score ...
          8173     From controversial cartoonist to powerful Mumb...
          8360     When Elastigirl gets recruited for a high-prof...
          Name: description, dtype: object

```

```

In [31]: for i in df[dups]['description'].values:
          print(df[df['description']==i][['type','title','release_year','country']])
          print('-'*40)

```

	type	title	release_year	country
78	Movie	Tughlaq Durbar	2020	NA
79	Movie	Tughlaq Durbar (Telugu)	2021	NA

	type	title	release_year	country
236	Movie	Boomika	2021	NA
237	Movie	Boomika (Hindi)	2021	NA
238	Movie	Boomika (Malayalam)	2021	NA
239	Movie	Boomika (Telugu)	2021	NA

	type	title	release_year	country
236	Movie	Boomika	2021	NA
237	Movie	Boomika (Hindi)	2021	NA
238	Movie	Boomika (Malayalam)	2021	NA
239	Movie	Boomika (Telugu)	2021	NA

	type	title	release_year	country
236	Movie	Boomika	2021	NA
237	Movie	Boomika (Hindi)	2021	NA
238	Movie	Boomika (Malayalam)	2021	NA
239	Movie	Boomika (Telugu)	2021	NA

	type	title	release_year	country
850	Movie	99 Songs	2021	India
851	Movie	99 Songs (Tamil)	2021	NA
852	Movie	99 Songs (Telugu)	2021	NA

	type	title	release_year	country
850	Movie	99 Songs	2021	India
851	Movie	99 Songs (Tamil)	2021	NA
852	Movie	99 Songs (Telugu)	2021	NA

	type	title	release_year	country
1652	Movie	Andhaghaaram	2020	NA
1653	Movie	Andhakaaram	2020	India

	type	title	release_year	country
1982	Movie	Anaamika	2014	India
1986	Movie	Nee Enge En Anbe	2014	NA

	type	title	release_year	country
2334	Movie	Seven (Tamil)	2019	India
2335	Movie	Seven (Telugu)	2019	NA
6024	TV Show	7 (Seven)	2019	India

```

-----
      type                title  release_year  country
2840  Movie  Angu Vaikuntapurathu (Malayalam)      2020      NA
2873  Movie                Ala Vaikunthapurramuloo      2020    India
-----

      type                title \
2664  TV Show      ChuChu TV Nursery Rhymes & Kids Songs (Hindi)
3393  TV Show  ChuChu TV Kids Songs, Learning Videos & Bedtim...

      release_year  country
2664              2019    India
3393              2019      NA
-----

      type                title  release_year  country
3492  Movie  Oh! Baby (Malayalam)      2019      NA
3493  Movie      Oh! Baby (Tamil)      2019      NA
3516  Movie                Oh! Baby      2019    India
-----

      type                title  release_year  country
3492  Movie  Oh! Baby (Malayalam)      2019      NA
3493  Movie      Oh! Baby (Tamil)      2019      NA
3516  Movie                Oh! Baby      2019    India
-----

      type                title  release_year      country
3568  Movie  Game Over (Hindi Version)      2019      NA
3569  Movie  Game Over (Tamil Version)      2019  India, Turkey
-----

      type                title  release_year  country
3933  Movie  Petta (Telugu Version)      2019      NA
3939  Movie                Petta      2019    India
-----

      type                title  release_year  country
3932  Movie  Sarvam Thaala Mayam (Telugu Version)      2018    India
4061  Movie  Sarvam Thaala Mayam (Tamil Version)      2018      NA
-----

      type                title  release_year  country
3996  TV Show  February 9      2018      NA
5964  TV Show    Feb-09      2018      NA
-----

      type                title  release_year      country
4522  Movie  22 July      2018  Norway, Iceland, United States
5965  Movie  22-Jul      2018  Norway, Iceland, United States
-----

      type                title  release_year  country

```

3962 Movie 15 August 2019 India  
5966 Movie 15-Aug 2019 India

-----  
type title release\_year country  
2334 Movie Seven (Tamil) 2019 India  
2335 Movie Seven (Telugu) 2019 NA  
6024 TV Show 7 (Seven) 2019 India

-----  
type title release\_year country  
2270 Movie Chashme Baddoor 2013 India  
6449 Movie Chashme Buddoor 2013 India

-----  
type title release\_year country  
3371 Movie Consequences 2014 Turkey  
6529 Movie Consequences 2014 Turkey

-----  
type title release\_year country  
303 Movie Esperando la carroza 1985 Argentina  
6705 Movie Esperando La Carroza 1985 Argentina

-----  
type title release\_year country  
2969 Movie Together For Eternity 1999 India  
7022 Movie Hum Saath-Saath Hain 1999 India

-----  
type title release\_year \  
52 Movie InuYasha the Movie 3: Swords of an Honorable R... 2003  
7089 Movie Inuyasha the Movie - La spada del dominatore d... 2003

country  
52 Japan  
7089 Japan

-----  
type title release\_year \  
51 Movie InuYasha the Movie 2: The Castle Beyond the Lo... 2002  
7090 Movie InuYasha: The Movie 2: The Castle Beyond the L... 2002

country  
51 Japan  
7090 Japan

-----  
type title release\_year country  
56 Movie Naruto Shippuden the Movie: Blood Prison 2011 Japan  
7559 Movie Naruto Shippuden : Blood Prison 2011 Japan

	type	title	release_year	country
3028	TV Show	The Ollie & Moon Show	2018	France
7649	TV Show	Ollie & Moon	2018	France

---

	type	title	release_year	country
1270	TV Show	Sin senos sí hay paraíso	2018	United States, Colombia
8022	TV Show	Sin Senos sí Hay Paraíso	2018	United States, Colombia

---

	type	title	release_year	\
8051	Movie	Solo: A Star Wars Story	2018	
8052	Movie	Solo: A Star Wars Story (Spanish Version)	2018	

	country
8051	United States
8052	United States

---

	type	title	release_year	country
2336	Movie	Thackeray (Hindi)	2019	India
8173	TV Show	Thackeray	2019	India

---

	type	title	release_year	country
7067	Movie	Incredibles 2 (Spanish Version)	2018	United States
8360	Movie	The Incredibles 2	2018	United States

---

### 3. Network Analysis Of Actor / Directors And Find Interesting Insights

```
In [32]: for i in df[dups]['cast'].values:
          print(df[df['cast']==i][['director','cast','title']])
          print('-'*40)
```

```

                                director                                cast \
78 Delhiprasad Deenadayalan Vijay Sethupathi, Parthiban, Raashi Khanna
79 Delhiprasad Deenadayalan Vijay Sethupathi, Parthiban, Raashi Khanna

```

```

                                title
78          Tughlaq Durbar
79 Tughlaq Durbar (Telugu)
-----

```

```

                                director                                cast \
236 Rathindran R Prasad  Aishwarya Rajesh, Vidhu, Surya Ganapathy, Madh...
237 Rathindran R Prasad  Aishwarya Rajesh, Vidhu, Surya Ganapathy, Madh...
238 Rathindran R Prasad  Aishwarya Rajesh, Vidhu, Surya Ganapathy, Madh...
239 Rathindran R Prasad  Aishwarya Rajesh, Vidhu, Surya Ganapathy, Madh...

```

```

                                title
236          Boomika
237      Boomika (Hindi)
238 Boomika (Malayalam)
239      Boomika (Telugu)
-----

```

```

                                director                                cast \
236 Rathindran R Prasad  Aishwarya Rajesh, Vidhu, Surya Ganapathy, Madh...
237 Rathindran R Prasad  Aishwarya Rajesh, Vidhu, Surya Ganapathy, Madh...
238 Rathindran R Prasad  Aishwarya Rajesh, Vidhu, Surya Ganapathy, Madh...
239 Rathindran R Prasad  Aishwarya Rajesh, Vidhu, Surya Ganapathy, Madh...

```

```

                                title
236          Boomika
237      Boomika (Hindi)
238 Boomika (Malayalam)
239      Boomika (Telugu)
-----

```

```

                                director                                cast \
236 Rathindran R Prasad  Aishwarya Rajesh, Vidhu, Surya Ganapathy, Madh...
237 Rathindran R Prasad  Aishwarya Rajesh, Vidhu, Surya Ganapathy, Madh...
238 Rathindran R Prasad  Aishwarya Rajesh, Vidhu, Surya Ganapathy, Madh...
239 Rathindran R Prasad  Aishwarya Rajesh, Vidhu, Surya Ganapathy, Madh...

```

```

                                title
236          Boomika
237      Boomika (Hindi)
238 Boomika (Malayalam)
239      Boomika (Telugu)
-----

```

	director	cast	\
0	Kirsten Johnson	NA	
3		NA	NA
10		NA	NA
14		NA	NA
16	Pedro de Echave García, Pablo Azorín Williams	NA	
...		...	...
8746	Pascale Lamche	NA	
8755		NA	NA
8756	Barak Goodman	NA	
8763	John Huston	NA	
8803		NA	NA

	title
0	Dick Johnson Is Dead
3	Jailbirds New Orleans
10	Vendetta: Truth, Lies and The Mafia
14	Crime Stories: India Detectives
16	Europe's Most Dangerous Man: Otto Skorzeny in ...
...	...
8746	Winnie
8755	Women Behind Bars
8756	Woodstock
8763	WWII: Report from the Aleutians
8803	Zombie Dumb

[825 rows x 3 columns]

	director	cast	\
0	Kirsten Johnson	NA	
3		NA	NA
10		NA	NA
14		NA	NA
16	Pedro de Echave García, Pablo Azorín Williams	NA	
...		...	...
8746	Pascale Lamche	NA	
8755		NA	NA
8756	Barak Goodman	NA	
8763	John Huston	NA	
8803		NA	NA

	title
0	Dick Johnson Is Dead
3	Jailbirds New Orleans

10	Vendetta: Truth, Lies and The Mafia
14	Crime Stories: India Detectives
16	Europe's Most Dangerous Man: Otto Skorzeny in ...
...	...
8746	Winnie
8755	Women Behind Bars
8756	Woodstock
8763	WWII: Report from the Aleutians
8803	Zombie Dumb

[825 rows x 3 columns]

	director	cast \
1652	V Vignarajan	Vinoth Kishan, Arjun Das, Pooja Ramachandran, ...
1653	V Vignarajan	Vinoth Kishan, Arjun Das, Pooja Ramachandran, ...

	title
1652	Andhaghaaram
1653	Andhakaaram

	director	cast \
1982	Sekhar Kammula	Nayantara, Vaibhav Reddy, Pasupathy, Harshvard...
1986	Sekhar Kammula	Nayantara, Vaibhav Reddy, Pasupathy, Harshvard...

	title
1982	Anaamika
1986	Nee Enge En Anbe

	director	cast \
0	Kirsten Johnson	NA
3		NA NA
10		NA NA
14		NA NA
16	Pedro de Echave García, Pablo Azorín Williams	NA
...	...	...
8746	Pascale Lamche	NA
8755		NA NA
8756	Barak Goodman	NA
8763	John Huston	NA
8803		NA NA

	title
0	Dick Johnson Is Dead
3	Jailbirds New Orleans



10	Vendetta: Truth, Lies and The Mafia
14	Crime Stories: India Detectives
16	Europe's Most Dangerous Man: Otto Skorzeny in ...
...	...
8746	Winnie
8755	Women Behind Bars
8756	Woodstock
8763	WWII: Report from the Aleutians
8803	Zombie Dumb

[825 rows x 3 columns]

	director	cast \
2840	Trivikram Srinivas	Allu Arjun, Pooja Hegde, Tabu, Sushanth, Nivet...
2873	Trivikram Srinivas	Allu Arjun, Pooja Hegde, Tabu, Sushanth, Nivet...

	title
2840	Angu Vaikuntapurathu (Malayalam)
2873	Ala Vaikunthapurramuloo

	director	cast \
0	Kirsten Johnson	NA
3		NA NA
10		NA NA
14		NA NA
16	Pedro de Echave García, Pablo Azorín Williams	NA
...	...	...
8746	Pascale Lamche	NA
8755		NA NA
8756	Barak Goodman	NA
8763	John Huston	NA
8803		NA NA

	title
0	Dick Johnson Is Dead
3	Jailbirds New Orleans
10	Vendetta: Truth, Lies and The Mafia
14	Crime Stories: India Detectives
16	Europe's Most Dangerous Man: Otto Skorzeny in ...
...	...
8746	Winnie
8755	Women Behind Bars
8756	Woodstock
8763	WWII: Report from the Aleutians

[825 rows x 3 columns]

```

-----
              director                                cast \
3492 B. V. Nandini Reddy Samantha Ruth Prabhu, Lakshmi, Rajendraprasad,...
3493 B. V. Nandini Reddy Samantha Ruth Prabhu, Lakshmi, Rajendraprasad,...
3516 B. V. Nandini Reddy Samantha Ruth Prabhu, Lakshmi, Rajendraprasad,...

```

```

              title
3492 Oh! Baby (Malayalam)
3493      Oh! Baby (Tamil)
3516      Oh! Baby

```

```

-----
              director                                cast \
3492 B. V. Nandini Reddy Samantha Ruth Prabhu, Lakshmi, Rajendraprasad,...
3493 B. V. Nandini Reddy Samantha Ruth Prabhu, Lakshmi, Rajendraprasad,...
3516 B. V. Nandini Reddy Samantha Ruth Prabhu, Lakshmi, Rajendraprasad,...

```

```

              title
3492 Oh! Baby (Malayalam)
3493      Oh! Baby (Tamil)
3516      Oh! Baby

```

```

-----
              director                                cast \
3568 Ashwin Saravanan Taapsee Pannu, Vinodhini, Parvathi T, Ramya Su...
3569 Ashwin Saravanan Taapsee Pannu, Vinodhini, Parvathi T, Ramya Su...
3570 Ashwin Saravanan Taapsee Pannu, Vinodhini, Parvathi T, Ramya Su...

```

```

              title
3568 Game Over (Hindi Version)
3569 Game Over (Tamil Version)
3570 Game Over (Telugu Version)

```

```

-----
              director                                cast \
3933 Karthik Subbaraj Rajnikanth, Vijay Sethupathi, M. Sasikumar, Na...
3939 Karthik Subbaraj Rajnikanth, Vijay Sethupathi, M. Sasikumar, Na...

```

```

              title
3933 Petta (Telugu Version)
3939      Petta

```

```

-----
              director                                cast \
3932 Rajiv Menon G.V. Prakash Kumar, Nedumudi Venu, Aparna Bala...

```

4061 Rajiv Menon G.V. Prakash Kumar, Nedumudi Venu, Aparna Bala...

title

3932 Sarvam Thaala Mayam (Telugu Version)

4061 Sarvam Thaala Mayam (Tamil Version)

-----

director

cast

title

3996 NA Shahd El Yaseen, Shaila Sabt, Hala, Hanadi Al-... February 9

5964 NA Shahd El Yaseen, Shaila Sabt, Hala, Hanadi Al-... Feb-09

-----

director

cast \

4522 Paul Greengrass Anders Danielsen Lie, Jon Øigarden, Jonas Stra...

5965 Paul Greengrass Anders Danielsen Lie, Jon Øigarden, Jonas Stra...

title

4522 22 July

5965 22-Jul

-----

director

cast \

3962 Swapnaneel Jayakar Rahul Pethe, Mrunmayee Deshpande, Adinath Koth...

5966 Swapnaneel Jayakar Rahul Pethe, Mrunmayee Deshpande, Adinath Koth...

title

3962 15 August

5966 15-Aug

-----

director

cast \

6024 Nizar Shafi Rahman, Havish, Regina Cassandra, Nandita Swet...

title

6024 7 (Seven)

-----

director

cast \

6449 David Dhawan Ali Zafar, Siddharth, Divyendu Sharma, Tapsee ...

title

6449 Chashme Buddoor

-----

director

cast \

3371 Ozan Açıktan Nehir Erdoğan, Tardu Flordun, İlker Kaleli, Se...

6529 Ozan Açıktan Nehir Erdoğan, Tardu Flordun, İlker Kaleli, Se...

title

3371 Consequences

# 6529 Consequences

```
-----
                director                                cast \
303  Alejandro Doria  Luis Brandoni, China Zorrilla, Antonio Gasalla...
6705 Alejandro Doria  Luis Brandoni, China Zorrilla, Antonio Gasalla...
```

```
                title
303  Esperando la carroza
6705 Esperando La Carroza
-----
```

```
                director                                cast \
7022 Sooraj R. Barjatya  Salman Khan, Karisma Kapoor, Saif Ali Khan, Ta...
```

```
                title
7022 Hum Saath-Saath Hain
-----
```

```
                director                                cast \
52   Toshiya Shinohara  Kappei Yamaguchi, Satsuki Yukino, Koji Tsujita...
7089 Toshiya Shinohara  Kappei Yamaguchi, Satsuki Yukino, Koji Tsujita...
```

```
                title
52   InuYasha the Movie 3: Swords of an Honorable R...
7089 Inuyasha the Movie - La spada del dominatore d...
-----
```

```
                director                                cast \
7090 Toshiya Shinohara  Kappei Yamaguchi, Satsuki Yukino, Koji Tsujita...
```

```
                title
7090 InuYasha: The Movie 2: The Castle Beyond the L...
-----
```

```
                director                                cast \
56   Masahiko Murata  Junko Takeuchi, Chie Nakamura, Rikiya Koyama, ...
7559 Masahiko Murata  Junko Takeuchi, Chie Nakamura, Rikiya Koyama, ...
```

```
                title
56   Naruto Shippuden the Movie: Blood Prison
7559          Naruto Shippuden : Blood Prison
-----
```

```
                director                                cast                                title
3028          NA  Mattea Conforti, Kobi Frumer  The Ollie & Moon Show
7649          NA  Mattea Conforti, Kobi Frumer          Ollie & Moon
-----
```

```
                director                                cast \
8022          NA  Majida Issa, Fabián Ríos, Catherine Siachoque,...
```

```

                                title
8022 Sin Senos sí Hay Paraíso
-----
                                director                                cast \
8051 Ron Howard Alden Ehrenreich, Woody Harrelson, Emilia Clar...
8052 Ron Howard Alden Ehrenreich, Woody Harrelson, Emilia Clar...

```

```

                                title
8051 Solo: A Star Wars Story
8052 Solo: A Star Wars Story (Spanish Version)
-----
                                director cast \
0 Kirsten Johnson NA
3 NA NA
10 NA NA
14 NA NA
16 Pedro de Echave García, Pablo Azorín Williams NA
... ...
8746 Pascale Lamche NA
8755 NA NA
8756 Barak Goodman NA
8763 John Huston NA
8803 NA NA

```

```

                                title
0 Dick Johnson Is Dead
3 Jailbirds New Orleans
10 Vendetta: Truth, Lies and The Mafia
14 Crime Stories: India Detectives
16 Europe's Most Dangerous Man: Otto Skorzeny in ...
... ...
8746 Winnie
8755 Women Behind Bars
8756 Woodstock
8763 WWII: Report from the Aleutians
8803 Zombie Dumb

```

[825 rows x 3 columns]

```

                                director                                cast \
8360 Brad Bird Craig T. Nelson, Holly Hunter, Samuel L. Jacks...

```

title

## 4.Ration Of TV Showes VS Movies

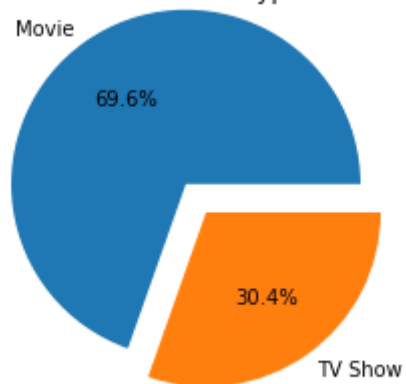
```
In [33]: content_types = df['type'].value_counts()
content_types
# here we have the counts of the Movies And TV Shows
```

```
Out[33]: Movie      6131
TV Show    2676
Name: type, dtype: int64
```

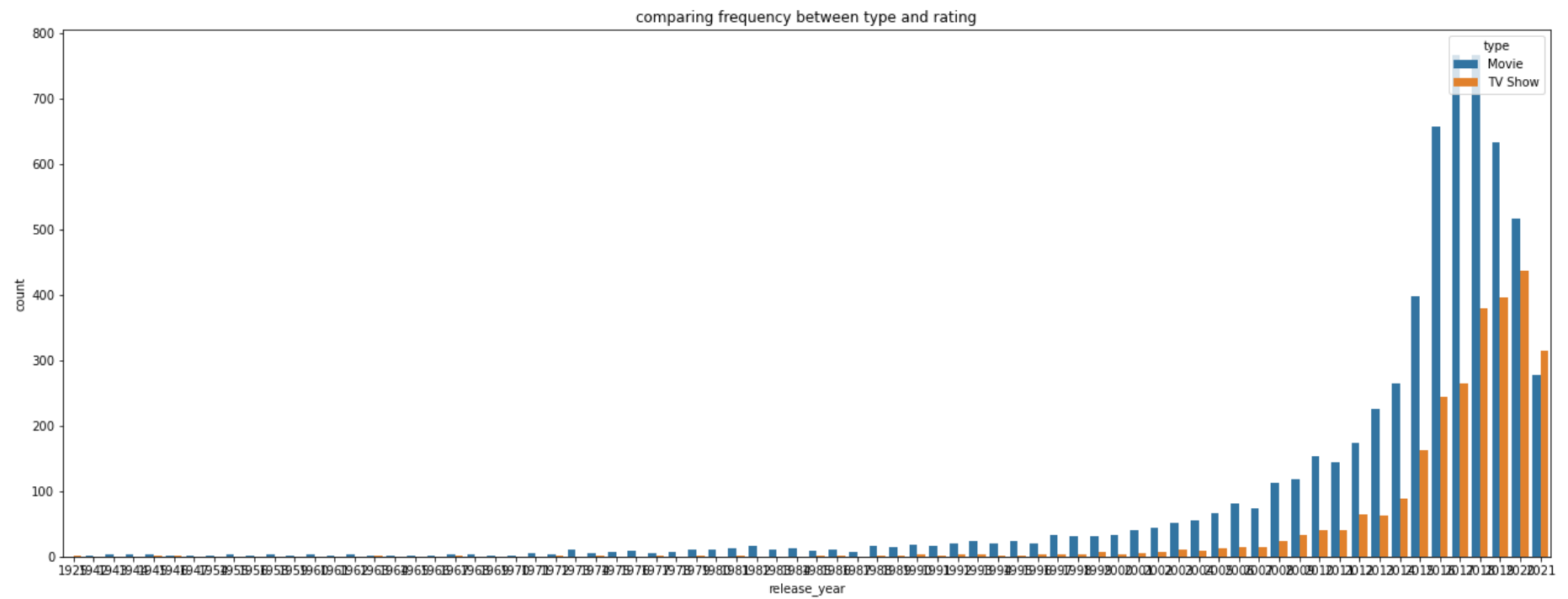
```
In [34]: import matplotlib.pyplot as plt
# This is uides for the making the visuliazation b eeter by pie chart and bar graphs
```

```
In [35]: plt.pie(x=content_types.values, labels=content_types.index,
                autopct='%0.1f%%', explode=[.3, -.1])
plt.title('The Difference in the Type of Contents')
plt.show()
```

The Difference in the Type of Contents



```
In [36]: plt.figure(figsize=(22,8))
sns.countplot(x='release_year',hue='type',data=df)
plt.title('comparing frequency between type and rating')
plt.show()
```



In [ ]: