

In [63]:

```
import pandas as pd
```

In [64]:

```
data=pd.read_csv(r"C:\Users\Bhavya's Surface\Documents\pandas\NetflixData.csv")
```

In [65]:

```
data
```

Out[65]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	
0	s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	TV-MA	4 Seasons	International TV Shows, TV Dramas, TV Sci-Fi &...	In a future where the elite inhabit an island ...
1	s2	Movie	07:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	TV-MA	93 min	Dramas, International Movies	After a devastating earthquake hits Mexico Cit...
2	s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	R	78 min	Horror Movies, International Movies	When an army recruit is found dead, his fellow...
3	s4	Movie	9	Shane Acker	Elijah Wood, John C. Reilly, Jennifer Connelly...	United States	November 16, 2017	PG-13	80 min	Action & Adventure, Independent Movies, Sci-Fi...	In a postapocalyptic world, rag-doll robots hi...
4	s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13	123 min	Dramas	A brilliant group of students become card-coun...
...	
7784	s7783	Movie	Zozo	Josef Fares	Imad Creidi, Antoinette Turk, Elias Gergi, Car...	Sweden, Czech Republic, United Kingdom, Denmar...	October 19, 2020	TV-MA	99 min	Dramas, International Movies	When Lebanon's Civil War deprives Zozo of his ...
7785	s7784	Movie	Zubaan	Mozez Singh	Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...	India	March 2, 2019	TV-14	111 min	Dramas, International Movies, Music & Musicals	A scrappy but poor boy worms his way into a ty...
7786	s7785	Movie	Zulu Man in Japan	NaN	Nasty C	NaN	September 25, 2020	TV-MA	44 min	Documentaries, International Movies, Music & M...	In this documentary, South African rapper Nast...
7787	s7786	TV Show	Zumbo's Just Desserts	NaN	Adriano Zumbo, Rachel Khoo	Australia	October 31, 2020	TV-PG	1 Season	International TV Shows, Reality TV	Dessert wizard Adriano Zumbo looks for the nex...
7788	s7787	Movie	ZZ TOP: THAT LITTLE OL' BAND FROM TEXAS	Sam Dunn	NaN	United Kingdom, Canada, United States	March 1, 2020	TV-MA	90 min	Documentaries, Music & Musicals	This documentary delves into the mystique behi...

7789 rows × 11 columns

In [66]:

```
#To get the top 5
data.head()
```

Out[66]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	
0	s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	TV-MA	4 Seasons	International TV Shows, TV Dramas, TV Sci-Fi &...	In a future where the elite inhabit an island ...
1	s2	Movie	07:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	TV-MA	93 min	Dramas, International Movies	After a devastating earthquake hits Mexico Cit...
2	s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	R	78 min	Horror Movies, International Movies	When an army recruit is found dead, his fellow...
3	s4	Movie	9	Shane Acker	Elijah Wood, John C. Reilly, Jennifer Connelly...	United States	November 16, 2017	PG-13	80 min	Action & Adventure, Independent Movies, Sci-Fi...	In a postapocalyptic world, rag-doll robots hi...
4	s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13	123 min	Dramas	A brilliant group of students become card-coun...

In [67]:

```
#To get the bottom 5 records
data.tail()
```

Out[67]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	
7784	s7783	Movie	Zozo	Josef Fares	Imad Creidi, Antoinette Turk, Elias Gergi, Car...	Sweden, Czech Republic, United Kingdom, Denmar...	October 19, 2020	TV-MA	99 min	Dramas, International Movies	When Lebanon's Civil War deprives Zozo of his ...
7785	s7784	Movie	Zubaan	Mozez Singh	Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...	India	March 2, 2019	TV-14	111 min	Dramas, International Movies, Music & Musicals	A scrappy but poor boy worms his way into a ty...
7786	s7785	Movie	Zulu Man in Japan	NaN	Nasty C	NaN	September 25, 2020	TV-MA	44 min	Documentaries, International Movies, Music & M...	In this documentary, South African rapper Nast...
7787	s7786	TV Show	Zumbo's Just Desserts	NaN	Adriano Zumbo, Rachel Khoo	Australia	October 31, 2020	TV-PG	1 Season	International TV Shows, Reality TV	Dessert wizard Adriano Zumbo looks for the nex...
7788	s7787	Movie	ZZ TOP: THAT LITTLE OL' BAND FROM TEXAS	Sam Dunn	NaN	United Kingdom, Canada, United States	March 1, 2020	TV-MA	90 min	Documentaries, Music & Musicals	This documentary delves into the mystique behi...

In [68]:

```
#To get the rows and columns in the table
data.shape
```

Out[68]:

(7789, 11)

In [69]:

```
#To get the size of total records  
data.size
```

Out[69]:

85679

In [70]:

```
#To get the columns  
data.columns
```

Out[70]:

```
Index(['Show_Id', 'Category', 'Title', 'Director', 'Cast', 'Country',  
      'Release_Date', 'Rating', 'Duration', 'Type', 'Description'],  
      dtype='object')
```

In [71]:

```
#To get the data types  
data.dtypes
```

Out[71]:

```
Show_Id      object  
Category     object  
Title        object  
Director     object  
Cast         object  
Country      object  
Release_Date object  
Rating       object  
Duration     object  
Type         object  
Description  object  
dtype: object
```

In [72]:

```
data.info()
```

```
<class 'pandas.core.frame.DataFrame'>  
RangeIndex: 7789 entries, 0 to 7788  
Data columns (total 11 columns):  
#   Column          Non-Null Count  Dtype  
---  -  
0   Show_Id         7789 non-null  object  
1   Category        7789 non-null  object  
2   Title           7789 non-null  object  
3   Director        5401 non-null  object  
4   Cast            7071 non-null  object  
5   Country         7282 non-null  object  
6   Release_Date    7779 non-null  object  
7   Rating          7782 non-null  object  
8   Duration        7789 non-null  object  
9   Type            7789 non-null  object  
10  Description      7789 non-null  object  
dtypes: object(11)  
memory usage: 669.5+ KB
```

In [73]:

```
#To chech the duplicated records, if yes then remove  
data.duplicated()  
data[data.duplicated()]  
data.drop_duplicates(inplace=True)  
data.shape
```

Out[73]:

(7787, 11)

```
In [74]:  
  
#To check the null value, if yes then remove  
data.head()  
data.isnull()  
data.isnull().sum()
```

Out[74]:

Show_Id	0
Category	0
Title	0
Director	2388
Cast	718
Country	507
Release_Date	10
Rating	7
Duration	0
Type	0
Description	0

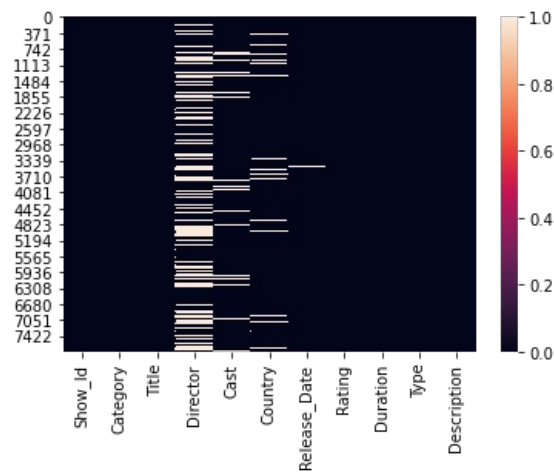
dtype: int64

```
In [75]:  
  
import seaborn as sns
```

```
In [76]:  
  
sns.heatmap(data.isnull())
```

Out[76]:

<matplotlib.axes._subplots.AxesSubplot at 0x2778d03e430>



```
In [77]:  
  
#isin fn  
data.head()  
data[data['Title'].isin(['House of Cards'])]  
#contain  
data[data['Title'].str.contains('House of Cards')]
```

Out[77]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	
2832	s2833	TV Show	House of Cards	Robin Wright, David Fincher, Gerald McRaney, J...	Kevin Spacey, Robin Wright, Kate Mara, Corey S...	United States	November 2, 2018	TV-MA	6 Seasons	TV Dramas, TV Thrillers	A ruthless politician will stop at nothing to ...

In [78]:

```
#to_datetime fn & highest no. of tv shows and movies released as a bar graph
data['Date_N']=pd.to_datetime(data['Release_Date'])
data.head()
data.dtypes
```

Out[78]:

```
Show_Id          object
Category         object
Title            object
Director         object
Cast             object
Country          object
Release_Date     object
Rating           object
Duration         object
Type            object
Description       object
Date_N           datetime64[ns]
dtype: object
```

In [79]:

```
data['Date_N'].dt.year.value_counts()
```

Out[79]:

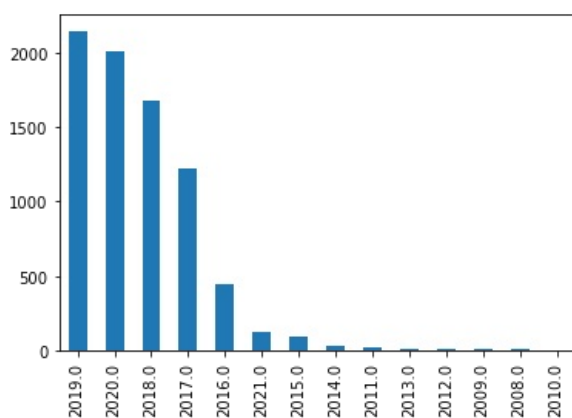
```
2019.0    2153
2020.0    2009
2018.0    1685
2017.0    1225
2016.0     443
2021.0     117
2015.0      88
2014.0      25
2011.0      13
2013.0      11
2012.0       3
2009.0       2
2008.0       2
2010.0       1
Name: Date_N, dtype: int64
```

In [80]:

```
data['Date_N'].dt.year.value_counts().plot(kind='bar')
```

Out[80]:

<matplotlib.axes._subplots.AxesSubplot at 0x2778d9307c0>

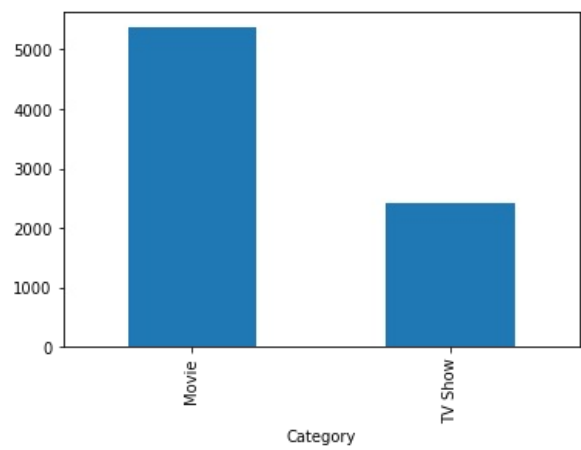


In [81]:

```
#movies and tvshows in dataset by grpby
data.head(2)
data.groupby('Category').Category.count().plot(kind="bar")
```

Out[81]:

<matplotlib.axes._subplots.AxesSubplot at 0x2778dc844c0>

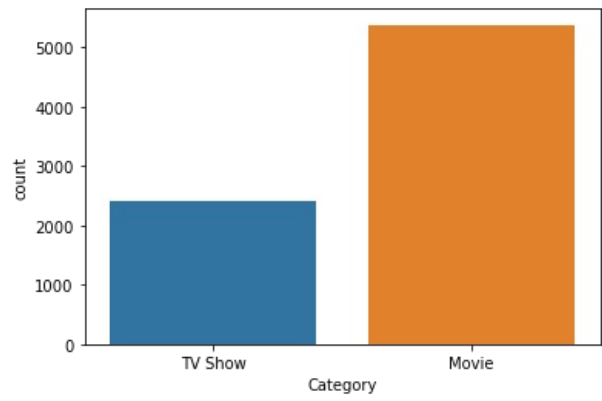


In [82]:

```
sns.countplot(data['Category'])
```

Out[82]:

<matplotlib.axes._subplots.AxesSubplot at 0x2778dcd2eb0>



In [83]:

```
#creating a new column
data.head(2)
data['Year']=data['Date_N'].dt.year
data.head(3)
```

Out[83]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date_N	Year	
0	s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	TV-MA	4 Seasons	International TV Shows, TV Dramas, TV Sci-Fi &...	In a future where the elite inhabit an island ...	2020-08-14	2020.0
1	s2	Movie	07:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	TV-MA	93 min	Dramas, International Movies	After a devastating earthquake hits Mexico Cit...	2016-12-23	2016.0
2	s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	R	78 min	Horror Movies, International Movies	When an army recruit is found dead, his fellow...	2018-12-20	2018.0

In [84]:

```
#filtering
```

```
data[(data['Category']=='Movie') & (data ['Year']==2000)]
```

Out[84]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date_N	Year
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In [85]:

```
data[(data['Category']=='Movie') & (data ['Year']==2020)]
```

Out[85]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date_N	Year
4	s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13	123 min	Dramas	A brilliant group of students become card-coun...	2020
6	s7	Movie	122	Yasir Al Yasiri	Amina Khalil, Ahmed Dawood, Tarek Lotfy, Ahmed...	Egypt	June 1, 2020	TV-MA	95 min	Horror Movies, International Movies	After an awful accident, a couple admitted to ...	2020
14	s15	Movie	3022	John Suits	Omar Epps, Kate Walsh, Miranda Cosgrove, Angus...	United States	March 19, 2020	R	91 min	Independent Movies, Sci-Fi & Fantasy, Thrillers	Stranded when the Earth is suddenly destroyed ...	2020
27	s28	Movie	#Alive	Cho Il	Yoo Ah-in, Park Shin-hye	South Korea	September 8, 2020	TV-MA	99 min	Horror Movies, International Movies, Thrillers	As a grisly virus rampages a city, a lone man ...	2020
28	s29	Movie	#AnneFrank - Parallel Stories	Sabina Fedeli, Anna Migotto	Helen Mirren, Gengher Gatti	Italy	July 1, 2020	TV-14	95 min	Documentaries, International Movies	Through her diary, Anne Frank's story is retol...	2020
...
7762	s7761	Movie	Zaki Chan	Wael Ihsan	Ahmed Helmy, Yasmin Abdulaziz, Hassan Hosny, H...	Egypt	May 19, 2020	TV-PG	109 min	Comedies, International Movies, Romantic Movies	An unqualified young man has his work cut out ...	2020
7783	s7782	Movie	Zoom	Peter Hewitt	Tim Allen, Courteney Cox, Chevy Chase, Kate Ma...	United States	January 11, 2020	PG	88 min	Children & Family Movies, Comedies	Dragged from civilian life, a former superhero...	2020
7784	s7783	Movie	Zozo	Josef Fares	Imad Creidi, Antoinette Turk, Elias Gergi, Car...	Sweden, Czech Republic, United Kingdom, Denmar...	October 19, 2020	TV-MA	99 min	Dramas, International Movies	When Lebanon's Civil War deprives Zozo of his ...	2020
7786	s7785	Movie	Zulu Man in Japan	NaN	Nasty C	NaN	September 25, 2020	TV-MA	44 min	Documentaries, International Movies, Music & M...	In this documentary, South African rapper Nast...	2020
7788	s7787	Movie	ZZ TOP: THAT LITTLE OL' BAND FROM TEXAS	Sam Dunn	NaN	United Kingdom, Canada, United States	March 1, 2020	TV-MA	90 min	Documentaries, Music & Musicals	This documentary delves into the mystique behi...	2020

1312 rows x 13 columns

In [86]:

```
#titles of tvshows and movies released in india  
data[ (data['Category']=='TV SHOW') & (data['Country']=='India') ] ['Title']
```

Out[86]:

Series([], Name: Title, dtype: object)

In [87]:

```
#top 10 directors who give highest no. of movies  
data['Director'].value_counts().head(10)
```

Out[87]:

Raúl Campos, Jan Suter	18
Marcus Raboy	16
Jay Karas	14
Cathy Garcia-Molina	13
Youssef Chahine	12
Jay Chapman	12
Martin Scorsese	12
Steven Spielberg	10
David Dhawan	9
Shannon Hartman	8

Name: Director, dtype: int64

In [88]:

```
#category is Movie and type is comedies  
data[(data['Category']=='Movie') & (data['Type']=='Comedies') | (data['Country']=='United Kingdom')]
```


Out[88]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date	
19	s20	Movie	'89	NaN	Lee Dixon, Ian Wright, Paul Merson	United Kingdom	May 16, 2018	TV-PG	87 min	Sports Movies	Mixing old footage with interviews, this is th...	2010-05-
33	s34	Movie	#realityhigh	Fernando Lebrija	Nesta Cooper, Kate Walsh, John Michael Higgins...	United States	September 8, 2017	TV-14	99 min	Comedies	When nerdy high schooler Dani finally attracts...	2010-09-
58	s59	TV Show	100% Hotter	NaN	Daniel Palmer, Melissa Sophia, Karen Williams,...	United Kingdom	November 1, 2019	TV-14	1 Season	British TV Shows, International TV Shows, Real...	A stylist, a hair designer and a makeup artist...	2010-11-
72	s73	Movie	17 Again	Burr Steers	Zac Efron, Leslie Mann, Matthew Perry, Thomas ...	United States	January 1, 2021	PG-13	102 min	Comedies	Nearing a midlife crisis, thirty-something Mik...	2020-01-
82	s83	Movie	2036 Origin Unknown	Hasraf Dulull	Katee Sackhoff, Ray Fearon, Julie Cox, Steven ...	United Kingdom	December 20, 2018	TV-14	95 min	Sci-Fi & Fantasy	Working with an artificial intelligence to inv...	2010-12-
...	
7670	s7669	TV Show	World War II in Colour	NaN	Robert Powell	United Kingdom	August 1, 2017	TV-MA	1 Season	British TV Shows, Docuseries, International TV...	Footage of the most dramatic moments from Worl...	2010-08-
7671	s7670	TV Show	World's Busiest Cities	NaN	Anita Rani, Ade Adepitan, Dan Snow	United Kingdom	February 1, 2019	TV-PG	1 Season	British TV Shows, Docuseries	From Moscow to Mexico City, three BBC journali...	2010-02-
7688	s7687	Movie	XV: Beyond the Tryline	Pierre Deschamps	NaN	United Kingdom	March 18, 2020	TV-14	91 min	Documentaries, Sports Movies	Set against the 2015 Rugby World Cup, this doc...	2020-03-
7725	s7724	Movie	You Can Tutu	James Brown	Lily O'Regan, Jeannettsy Enriquez Borges, Joel...	United Kingdom	December 31, 2017	TV-G	87 min	Children & Family Movies	A gifted young ballet dancer struggles to find...	2010-12-
7740	s7739	TV Show	Young Wallander	NaN	Adam Pålsson, Richard Dillane, Leanne Best, El...	United Kingdom	September 3, 2020	TV-MA	1 Season	Crime TV Shows, International TV Shows, TV Dramas	An incendiary hate crime stirs civil unrest, f...	2020-09-

485 rows × 13 columns

In [89]:

```
#tom cruize acted movies
data[data['Cast']=='Tom Cruize']
```

Out[89]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date_N	Year
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In [90]:

```
data[data['Cast'].str.contains('Tom Cruize')]
```

```
-----
ValueError                                Traceback (most recent call last)
<ipython-input-90-383815d73549> in <module>
----> 1 data[data['Cast'].str.contains('Tom Cruize')]

C:\anaconda3\lib\site-packages\pandas\core\frame.py in __getitem__(self, key)
    2788
    2789         # Do we have a (boolean) 1d indexer?
-> 2790         if com.is_bool_indexer(key):
    2791             return self._getitem_bool_array(key)
    2792

C:\anaconda3\lib\site-packages\pandas\core\common.py in is_bool_indexer(key)
    134         na_msg = "Cannot mask with non-boolean array containing NA / NaN values"
    135         if isna(key).any():
-> 136             raise ValueError(na_msg)
    137         return False
    138         return True

ValueError: Cannot mask with non-boolean array containing NA / NaN values
```

In [91]:

```
data
```

Out[91]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date_	
0	s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	TV-MA	4 Seasons	International TV Shows, TV Dramas, TV Sci-Fi &...	In a future where the elite inhabit an island ...	2020-08-1
1	s2	Movie	07:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	TV-MA	93 min	Dramas, International Movies	After a devastating earthquake hits Mexico Cit...	2016-12-2
2	s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	R	78 min	Horror Movies, International Movies	When an army recruit is found dead, his fellow...	2018-12-2
3	s4	Movie	9	Shane Acker	Elijah Wood, John C. Reilly, Jennifer Connelly...	United States	November 16, 2017	PG-13	80 min	Action & Adventure, Independent Movies, Sci-Fi...	In a postapocalyptic world, rag-doll robots hi...	2017-11-1
4	s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13	123 min	Dramas	A brilliant group of students become card-coun...	2020-01-0
...	
7784	s7783	Movie	Zozo	Josef Fares	Imad Creidi, Antoinette Turk, Elias Gergi, Car...	Sweden, Czech Republic, United Kingdom, Denmar...	October 19, 2020	TV-MA	99 min	Dramas, International Movies	When Lebanon's Civil War deprives Zozo of his ...	2020-10-1
7785	s7784	Movie	Zubaan	Mozez Singh	Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...	India	March 2, 2019	TV-14	111 min	Dramas, International Movies, Music & Musicals	A scrappy but poor boy worms his way into a ty...	2019-03-0
7786	s7785	Movie	Zulu Man in Japan	NaN	Nasty C	NaN	September 25, 2020	TV-MA	44 min	Documentaries, International Movies, Music & M...	In this documentary, South African rapper Nast...	2020-09-2
7787	s7786	TV Show	Zumbo's Just Desserts	NaN	Adriano Zumbo, Rachel Khoo	Australia	October 31, 2020	TV-PG	1 Season	International TV Shows, Reality TV	Dessert wizard Adriano Zumbo looks for the nex...	2020-10-3
7788	s7787	Movie	ZZ TOP: THAT LITTLE OL' BAND FROM TEXAS	Sam Dunn	NaN	United Kingdom, Canada, United States	March 1, 2020	TV-MA	90 min	Documentaries, Music & Musicals	This documentary delves into the mystique behi...	2020-03-0

7787 rows × 13 columns

In [92]:

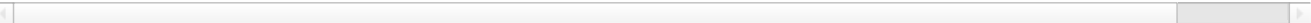
```
#to drop the rows containing the null values
data_new=data.dropna()
```

```
In [93]:
data_new
```

Out[93]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date_	
1	s2	Movie	07:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	TV-MA	93 min	Dramas, International Movies	After a devastating earthquake hits Mexico Cit...	2012-
2	s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	R	78 min	Horror Movies, International Movies	When an army recruit is found dead, his fellow...	2012-
3	s4	Movie	9	Shane Acker	Elijah Wood, John C. Reilly, Jennifer Connelly...	United States	November 16, 2017	PG-13	80 min	Action & Adventure, Independent Movies, Sci-Fi...	In a postapocalyptic world, rag-doll robots hi...	2011-
4	s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13	123 min	Dramas	A brilliant group of students become card-coun...	20201-
5	s6	TV Show	46	Serdar Akar	Erdal Besikcioglu, Yasemin Allen, Melis Birkan...	Turkey	July 1, 2017	TV-MA	1 Season	International TV Shows, TV Dramas, TV Mysteries	A genetics professor experiments with a treatm...	20107-
...	
7780	s7779	Movie	Zombieland	Ruben Fleischer	Jesse Eisenberg, Woody Harrelson, Emma Stone, ...	United States	November 1, 2019	R	88 min	Comedies, Horror Movies	Looking to survive in a world taken over by zo...	20111-
7782	s7781	Movie	Zoo	Shlok Sharma	Shashank Arora, Shweta Tripathi, Rahul Kumar, ...	India	July 1, 2018	TV-MA	94 min	Dramas, Independent Movies, International Movies	A drug dealer starts having doubts about his t...	20107-
7783	s7782	Movie	Zoom	Peter Hewitt	Tim Allen, Courteney Cox, Chevy Chase, Kate Ma...	United States	January 11, 2020	PG	88 min	Children & Family Movies, Comedies	Dragged from civilian life, a former superhero...	20201-
7784	s7783	Movie	Zozo	Josef Fares	Imad Creidi, Antoinette Turk, Elias Gergi, Car...	Sweden, Czech Republic, United Kingdom, Denmar...	October 19, 2020	TV-MA	99 min	Dramas, International Movies	When Lebanon's Civil War deprives Zozo of his ...	20210-
7785	s7784	Movie	Zubaan	Mozes Singh	Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...	India	March 2, 2019	TV-14	111 min	Dramas, International Movies, Music & Musicals	A scrappy but poor boy worms his way into a ty...	20103-

4809 rows × 13 columns



```
In [94]:
data_new[data_new['Cast']=='Tom Cruize']
```

Out[94]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date_N	Year
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In [95]:

```
data_new[data_new['Cast'].str.contains('Tom Cruize')]
```

Out[95]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date_N	Year
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In [96]:

```
#unique rating by netflix  
data.Rating.nunique()
```

Out[96]:

14

In [97]:

```
data.Rating.unique()
```

Out[97]:

```
array(['TV-MA', 'R', 'PG-13', 'TV-14', 'TV-PG', 'NR', 'TV-G', 'TV-Y', nan,  
      'TV-Y7', 'PG', 'G', 'NC-17', 'TV-Y7-FV', 'UR'], dtype=object)
```

In [98]:

```
#movies which got tv-14 rating in canada  
data[(data['Category']=='Movie') & (data['Rating']=='TV-14') & (data['Country']=='Canada')].shape
```

Out[98]:

(11, 13)

In [99]:

```
data
```

Out[99]:

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date_	
0	s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	TV-MA	4 Seasons	International TV Shows, TV Dramas, TV Sci-Fi &...	In a future where the elite inhabit an island ...	2020-08-1
1	s2	Movie	07:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	TV-MA	93 min	Dramas, International Movies	After a devastating earthquake hits Mexico Cit...	2016-12-2
2	s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	R	78 min	Horror Movies, International Movies	When an army recruit is found dead, his fellow...	2018-12-2
3	s4	Movie	9	Shane Acker	Elijah Wood, John C. Reilly, Jennifer Connelly...	United States	November 16, 2017	PG-13	80 min	Action & Adventure, Independent Movies, Sci-Fi...	In a postapocalyptic world, rag-doll robots hi...	2017-11-1
4	s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13	123 min	Dramas	A brilliant group of students become card-coun...	2020-01-C
...	
7784	s7783	Movie	Zozo	Josef Fares	Imad Creidi, Antoinette Turk, Elias Gergi, Car...	Sweden, Czech Republic, United Kingdom, Denmar...	October 19, 2020	TV-MA	99 min	Dramas, International Movies	When Lebanon's Civil War deprives Zozo of his ...	2020-10-1
7785	s7784	Movie	Zubaan	Mozez Singh	Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...	India	March 2, 2019	TV-14	111 min	Dramas, International Movies, Music & Musicals	A scrappy but poor boy worms his way into a ty...	2019-03-C
7786	s7785	Movie	Zulu Man in Japan	NaN	Nasty C	NaN	September 25, 2020	TV-MA	44 min	Documentaries, International Movies, Music & M...	In this documentary, South African rapper Nast...	2020-09-2
7787	s7786	TV Show	Zumbo's Just Desserts	NaN	Adriano Zumbo, Rachel Khoo	Australia	October 31, 2020	TV-PG	1 Season	International TV Shows, Reality TV	Dessert wizard Adriano Zumbo looks for the nex...	2020-10-3
7788	s7787	Movie	ZZ TOP: THAT LITTLE OL' BAND FROM TEXAS	Sam Dunn	NaN	United Kingdom, Canada, United States	March 1, 2020	TV-MA	90 min	Documentaries, Music & Musicals	This documentary delves into the mystique behi...	2020-03-C

7787 rows × 13 columns

In [100]:

```
#tv shows got R rating after the year 2018
data[(data['Category']=='TV Show') & (data['Rating']=='R') & (data['Year']>2018)]
```

Out[100]:

	Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date_N	Year
6437	s6436	TV Show	The Hateful Eight: Extended Version	Quentin Tarantino	Samuel L. Jackson, Kurt Russell, Jennifer Jaso...	NaN	April 25, 2019	R	1 Season	TV Shows	Trapped at a stagecoach stop as a storm rages ...	2019-04-25	2019.0

In [101]:

```
#duration of a show on netflix
data['Duration'].unique().max()
```

Out[101]:

'99 min'

In [102]:

```
#str.split()
data[['Minutes', 'Units']] = data['Duration'].str.split(' ', expand=True)
```

In [103]:

data

Out[103]:

	Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date	
	0	s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	TV-MA	4 Seasons	International TV Shows, TV Dramas, TV Sci-Fi &...	In a future where the elite inhabit an island ...	2020
	1	s2	Movie	07:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	TV-MA	93 min	Dramas, International Movies	After a devastating earthquake hits Mexico Cit...	2016
	2	s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	R	78 min	Horror Movies, International Movies	When an army recruit is found dead, his fellow...	2018
	3	s4	Movie	9	Shane Acker	Elijah Wood, John C. Reilly, Jennifer Connelly...	United States	November 16, 2017	PG-13	80 min	Action & Adventure, Independent Movies, Sci-Fi...	In a postapocalyptic world, rag-doll robots hi...	2017
	4	s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13	123 min	Dramas	A brilliant group of students become card-coun...	2020
	
	7784	s7783	Movie	Zozo	Josef Fares	Imad Creidi, Antoinette Turk, Elias Gergi, Car...	Sweden, Czech Republic, United Kingdom, Denmar...	October 19, 2020	TV-MA	99 min	Dramas, International Movies	When Lebanon's Civil War deprives Zozo of his ...	2020
	7785	s7784	Movie	Zubaan	Mozez Singh	Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...	India	March 2, 2019	TV-14	111 min	Dramas, International Movies, Music & Musicals	A scrappy but poor boy worms his way into a ty...	2020
	7786	s7785	Movie	Zulu Man in Japan	NaN	Nasty C	NaN	September 25, 2020	TV-MA	44 min	Documentaries, International Movies, Music & M...	In this documentary, South African rapper Nast...	2020
	7787	s7786	TV Show	Zumbo's Just Desserts	NaN	Adriano Zumbo, Rachel Khoo	Australia	October 31, 2020	TV-PG	1 Season	International TV Shows, Reality TV	Dessert wizard Adriano Zumbo looks for the nex...	2020
	7788	s7787	Movie	ZZ TOP: THAT LITTLE OL' BAND FROM TEXAS	Sam Dunn	NaN	United Kingdom, Canada, United States	March 1, 2020	TV-MA	90 min	Documentaries, Music & Musicals	This documentary delves into the mystique behi...	2020
7787 rows x 15 columns													

7787 rows x 15 columns

In [104]:

```
data['Minutes'].min()
```

Out[104]:

```
'1'
```

In [105]:

```
data['Minutes'].mean()
```

Out[105]:

```
inf
```

In [109]:

```
#country having the highest no. of tv shows  
data_tvshow=data[(data['Category']=='TV Show')]
```

In [110]:

```
data_tvshow.Country.value_counts()
```

Out[110]:

```
United States          705  
United Kingdom        204  
Japan                  157  
South Korea           147  
India                  71  
...  
South Korea, China    1  
Taiwan, Malaysia      1  
United Kingdom, West Germany 1  
Ireland, United Kingdom, United States 1  
Malaysia, Singapore, Hong Kong 1  
Name: Country, Length: 183, dtype: int64
```

In [111]:

```
data_tvshow.Country.value_counts().head(1)
```

Out[111]:

```
United States    705  
Name: Country, dtype: int64
```

In [113]:

```
#sorting the dataset by year  
data.sort_values(by='Year', ascending=False)
```


Out[113]:

	Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date_N
5564	s5564	Movie	Sherlock Holmes	Guy Ritchie	Robert Downey Jr., Jude Law, Rachel McAdams, M...	United States, Germany, United Kingdom, Australia	January 1, 2021	PG-13	128 min	Action & Adventure, Comedies	The game is afoot for an eccentric detective w...	2021-01-01
5919	s5919	Movie	Surf's Up	Ash Brannon, Chris Buck	Shia LaBeouf, Jeff Bridges, Zooey Deschanel, J...	United States	January 1, 2021	PG	86 min	Children & Family Movies, Comedies, Sports Movies	This Oscar-nominated animated comedy goes behi...	2021-01-01
980	s981	TV Show	Bling Empire	NaN	NaN	NaN	January 15, 2021	TV-MA	1 Season	Reality TV	Follow LA's wildly wealthy Asian and Asian Ame...	2021-01-15
5955	s5955	Movie	Taare Zameen Par	Aamir Khan	Aamir Khan, Darsheel Safary, Tanay Chheda, Tis...	India	January 10, 2021	PG	162 min	Dramas, International Movies	When daydreamer Ishaan is sent to boarding sch...	2021-01-10
366	s367	Movie	Al acecho	Francisco D'Eufemia	Rodrigo de la Serna, Belen Blanco, Walter Jako...	NaN	January 12, 2021	TV-MA	81 min	International Movies, Thrillers	Looking for a fresh start, a park ranger gets ...	2021-01-12
...
3374	s3375	TV Show	Kikoriki	NaN	Igor Dmitriev	NaN	NaN	TV-Y	2 Seasons	Kids' TV	A wacky rabbit and his gang of animal pals hav...	NaN
3492	s3493	TV Show	La Familia P. Luche	NaN	Eugenio Derbez, Consuelo Duval, Luis Manuel Áv...	United States	NaN	TV-14	3 Seasons	International TV Shows, Spanish-Language TV Sh...	This irreverent sitcom features Ludovico, Feder...	NaN
3946	s3947	TV Show	Maron	NaN	Marc Maron, Judd Hirsch, Josh Brener, Nora Zeh...	United States	NaN	TV-MA	4 Seasons	TV Comedies	Marc Maron stars as Marc Maron, who interviews...	NaN
5138	s5138	TV Show	Red vs. Blue	NaN	Burnie Burns, Jason Saldaña, Gustavo Sorola, G...	United States	NaN	NR	13 Seasons	TV Action & Adventure, TV Comedies, TV Sci-Fi ...	This parody of first-person shooter games, mil...	NaN
6066	s6066	TV Show	The Adventures of Figaro Pho	NaN	Luke Jurevicius, Craig Behenna, Charlotte Haml...	Australia	NaN	TV-Y7	2 Seasons	Kids' TV, TV Comedies	Imagine your worst fears, then multiply them: ...	NaN

7787 rows × 15 columns

In [117]:

```
#category is tvshow and type is kids
data[(data['Category']=='Movie') & (data['Type']=='Drama') | (data['Category']=='TV Show') & (data['Type']=="Kids
' TV")]
```

Out[117]:

	Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type	Description	Date_N	Y
111	s112	TV Show	44 Cats	NaN	Sarah Natchenny, Suzy Myers, Simona Berman, E...	Italy	October 1, 2020	TV-Y7	2 Seasons	Kids' TV	Paw-esome tales abound when singing furry frie...	2020-10-01	202
276	s277	TV Show	Abby Hatcher	Kyran Kelly	Macy Drouin, Wyatt White, Paul Sun-Hyung Lee, ...	United States, Canada	July 1, 2020	TV-Y	1 Season	Kids' TV	A big-hearted girl helps her Fuzzly friends wh...	2020-07-01	202
434	s435	TV Show	Alphablocks	NaN	Teresa Gallagher, David Holt, Lizzie Waterworth	United Kingdom	May 25, 2020	TV-Y	5 Seasons	Kids' TV	The letters of the alphabet come to life in Al...	2020-05-25	202
598	s599	TV Show	Ask the StoryBots	NaN	Judy Greer, Erin Fitzgerald, Fred Tatasciore, ...	United States	August 2, 2019	TV-Y	3 Seasons	Kids' TV	Five curious little creatures track down the a...	2019-08-02	201
706	s707	TV Show	Bal Ganesh	Vijay S. Bhanushali	Meghna Erande Joshi, Parminder Ghuman	NaN	March 31, 2020	TV-Y7	1 Season	Kids' TV	Watch Ganesh destroy demons, disarm invaders a...	2020-03-31	202
...
7668	s7667	TV Show	World of Winx	Iginio Straffi	Haven Paschall, Alysha Deslorieux, Jessica Paq...	Italy, United States	June 16, 2017	TV-Y7	2 Seasons	Kids' TV	The reality show "WOW!" engages the Winx in th...	2017-06-16	201
7717	s7716	TV Show	Yoko	NaN	Eileen Stevens, Alyson Leigh Rosenfeld, Sarah ...	NaN	June 23, 2018	TV-Y	1 Season	Kids' TV	Friends Mai, Oto and Vik's games at the park b...	2018-06-23	201
7719	s7718	TV Show	YOM	NaN	Sairaj, Devyani Dagaonkar, Ketan Singh, Mayur ...	NaN	June 7, 2018	TV-Y7	1 Season	Kids' TV	With the mind of a human being, and the body o...	2018-06-07	201
7758	s7757	TV Show	Z4	NaN	Apollo Costa, Gabriel Santana, Matheus Lustosa...	Brazil	February 22, 2019	TV-PG	2 Seasons	Kids' TV	Fading music biz veteran Zé realizes he has ju...	2019-02-22	201
7761	s7760	TV Show	Zak Storm	NaN	Michael Johnston, Jessica Gee-George, Christin...	United States, France, South Korea, Indonesia	September 13, 2018	TV-Y7	3 Seasons	Kids' TV	Teen surfer Zak Storm is mysteriously transpor...	2018-09-13	201

205 rows × 15 columns

In []: