

```
In [76]: import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
```

```
In [105... data=pd.read_csv(r"D:\Documents\python\projects\Netflix.csv", index_col=0)
#Remove the index column
```

```
In [78]: data.head(5)
```

```
Out[78]:
```

	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration
--	----------	-------	----------	------	---------	--------------	--------	----------

Show_Id

s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	TV-MA	4 Seasons
----	---------	----	-----	---	--------	-----------------	-------	-----------

s2	Movie	07:19	Jorge Michel Grau	Demian Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	TV-MA	93 min
----	-------	-------	-------------------	---	--------	-------------------	-------	--------

s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	R	78 min
----	-------	-------	--------------	---	-----------	-------------------	---	--------

s4	Movie	9	Shane Acker	Elijah Wood, John C. Reilly, Jennifer Connelly...	United States	November 16, 2017	PG-13	80 min
----	-------	---	-------------	---	---------------	-------------------	-------	--------

s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13	123 min
----	-------	----	----------------	---	---------------	-----------------	-------	---------



```
In [73]: data.Release_Date.isnull().sum()
#Check for null values
```

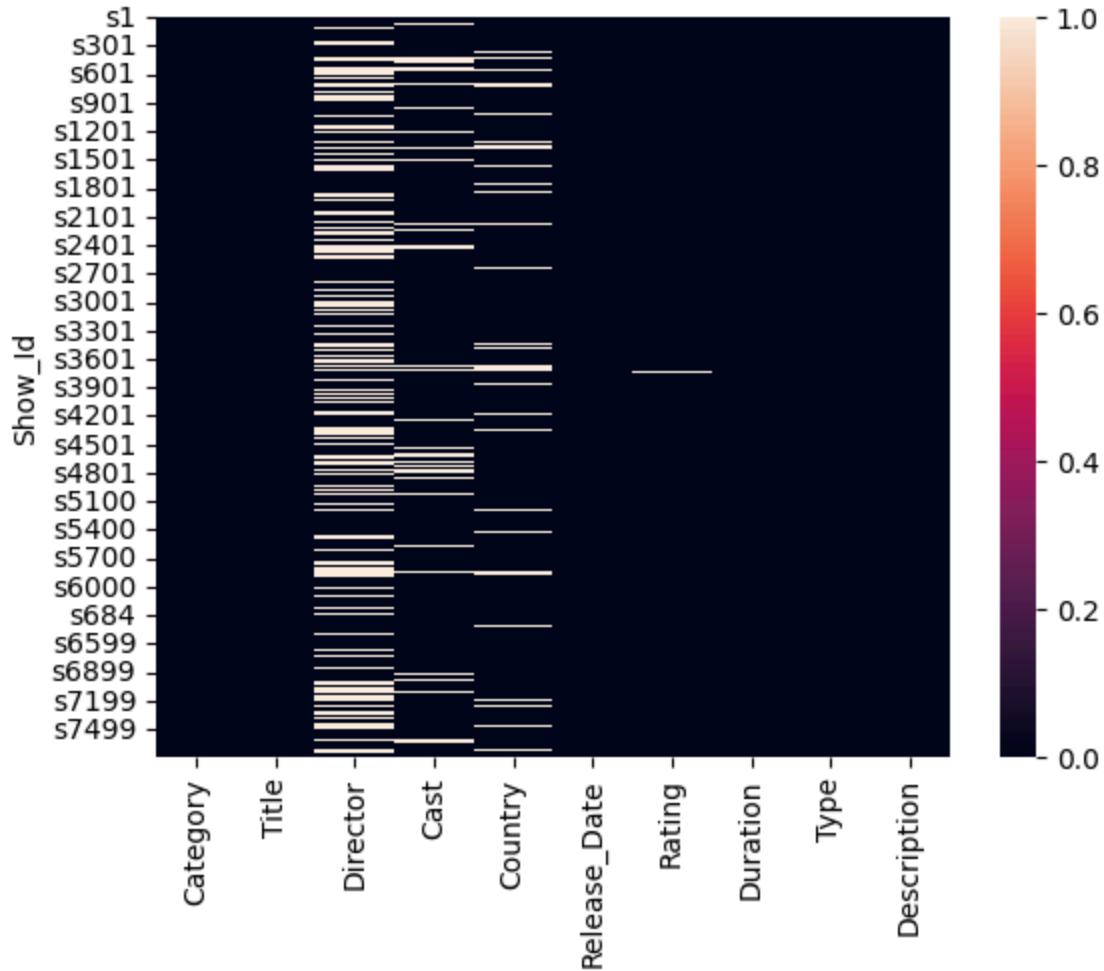
```
Out[73]: 0
```

```
In [80]: data['Release_Date']=data.Release_Date.fillna('December 30,1999')
```

```
In [100... data.Release_Date.isnull().sum()
```

```
Out[100... 0
```

```
In [82]: sns.heatmap(data.isnull())
plt.show()
```



```
In [102... data[data.Release_Date.isnull()].head(5)
#Print the null values
```

```
Out[102...      Category  Title  Director  Cast  Country  Release_Date  Rating  Duration  Type
Show_Id
```



```
In [84]: data.fillna('',inplace=True)
#To remove the null values
```

```
In [85]: data.isnull().sum()
#All the null values are cleaned
```

```
Out[85]: Category      0
         Title         0
         Director      0
         Cast          0
         Country       0
         Release_Date  0
         Rating        0
         Duration      0
         Type          0
         Description   0
         dtype: int64
```

```
In [86]: print(data.Country.describe())
         data.Country.unique()
         #The Country that has the most movies is the US at afrequency of 2556 films.
```

```
count      7789
unique      682
top         United States
freq        2556
Name: Country, dtype: object
```

```
Out[86]: 682
```

```
In [87]: data.Director.describe()
```

```
Out[87]: count      7789
         unique     4051
         top
         freq       2388
         Name: Director, dtype: object
```

```
In [88]: print(f" The number of Directors in the dataset is {data.Director.nunique()}")
         The number of Directors in the dataset is 4051
```

```
In [89]: print(data.Category.nunique())
         data.Category.unique()
         print(data.Category.value_counts())
```

```
2
Category
Movie      5379
TV Show    2410
Name: count, dtype: int64
```

```
In [90]: print(data.Type.nunique())
         data.Type.unique()
         print(data.Type.value_counts())
```

```

492
Type
Documentaries 3
34
Stand-Up Comedy 3
21
Dramas, International Movies 3
20
Comedies, Dramas, International Movies 2
43
Dramas, Independent Movies, International Movies 2
15

...
Crime TV Shows, Romantic TV Shows, Spanish-Language TV Shows
1
Crime TV Shows, International TV Shows, Reality TV
1
International Movies, Romantic Movies, Sci-Fi & Fantasy
1
Stand-Up Comedy & Talk Shows, TV Mysteries, TV Sci-Fi & Fantasy
1
International TV Shows, Spanish-Language TV Shows, Stand-Up Comedy & Talk Shows
1
Name: count, Length: 492, dtype: int64

```

```

In [91]: print(data.Rating.nunique())
         data.Rating.unique()
         print(data.Rating.value_counts())

```

```

15
Rating
TV-MA      2865
TV-14      1931
TV-PG       806
R           665
PG-13       386
TV-Y        280
TV-Y7       271
PG          247
TV-G        194
NR           84
G           39
            7
TV-Y7-FV    6
UR           5
NC-17       3
Name: count, dtype: int64

```

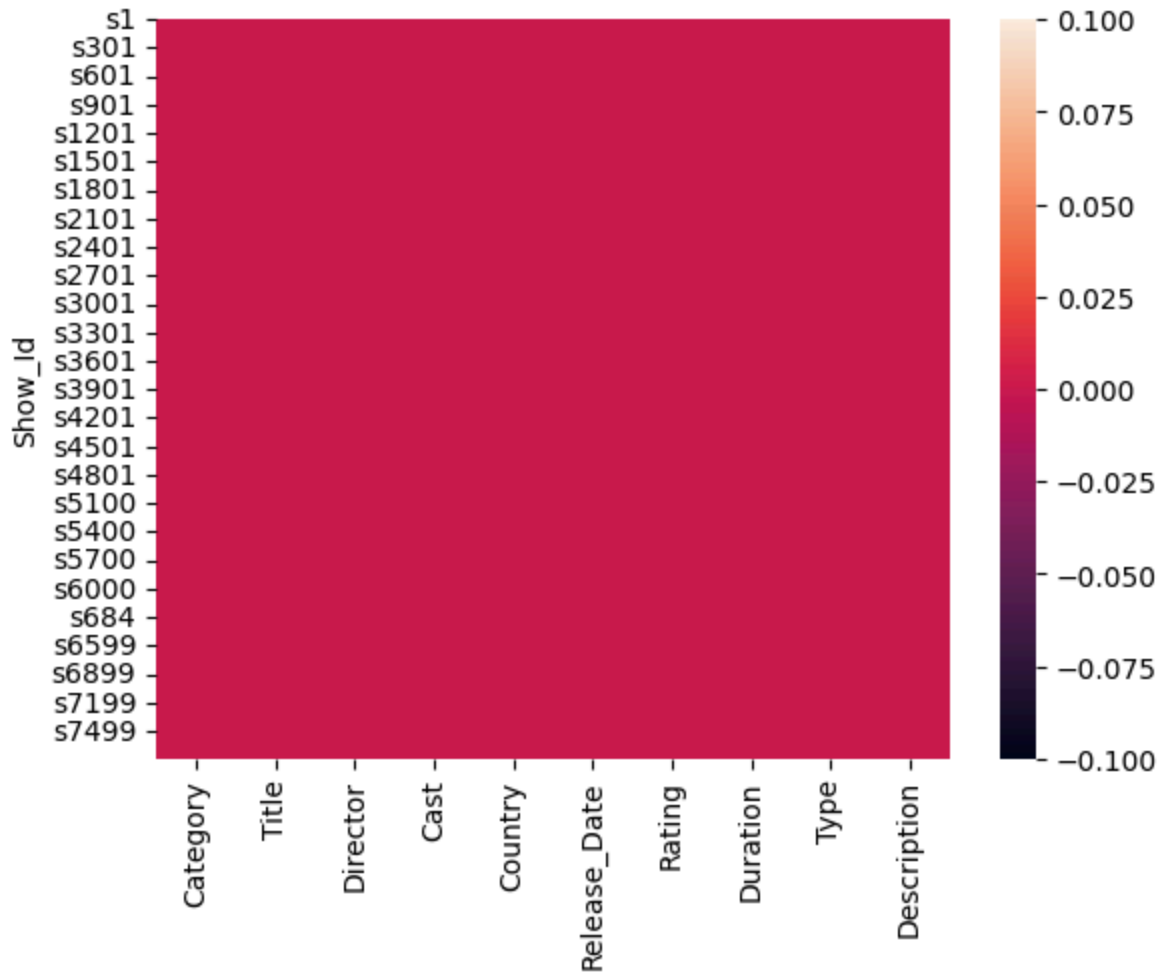
```

In [92]: print('data.dtypes')

sns.heatmap(data.isnull())
plt.show()

```

```
data.dtypes
```



In [93]: `data.info()`

```
<class 'pandas.core.frame.DataFrame'>
Index: 7789 entries, s1 to s7787
Data columns (total 10 columns):
#   Column          Non-Null Count  Dtype
---  -
0   Category        7789 non-null   object
1   Title           7789 non-null   object
2   Director        7789 non-null   object
3   Cast            7789 non-null   object
4   Country         7789 non-null   object
5   Release_Date    7789 non-null   object
6   Rating          7789 non-null   object
7   Duration        7789 non-null   object
8   Type            7789 non-null   object
9   Description      7789 non-null   object
dtypes: object(10)
memory usage: 927.4+ KB
```

In [94]: `data.size`

Out[94]: 77890

In [95]: `data.dtypes`


```
Out[98]: Category      object
         Title         object
         Director      object
         Cast          object
         Country       object
         Release_Date   object
         Rating        object
         Duration      object
         Type          object
         Description    object
         dtype: object
```

```
In [110... data['Release_Date'].str.replace('[^a-zA-Z0-9]', '')
          print(len(data.Release_Date.iloc[207]))

          #data['Date_Formatted']=pd.to_datetime(data['Release_Date'])
```

14

```
In [119... print(data.Release_Date.iloc[219])
```

November 1, 2019

```
In [122... data['Date_Formatted']=pd.to_datetime(data['Release_Date'],format='mixed')
```

```
In [120... data.head(5)
          data.dtypes
```

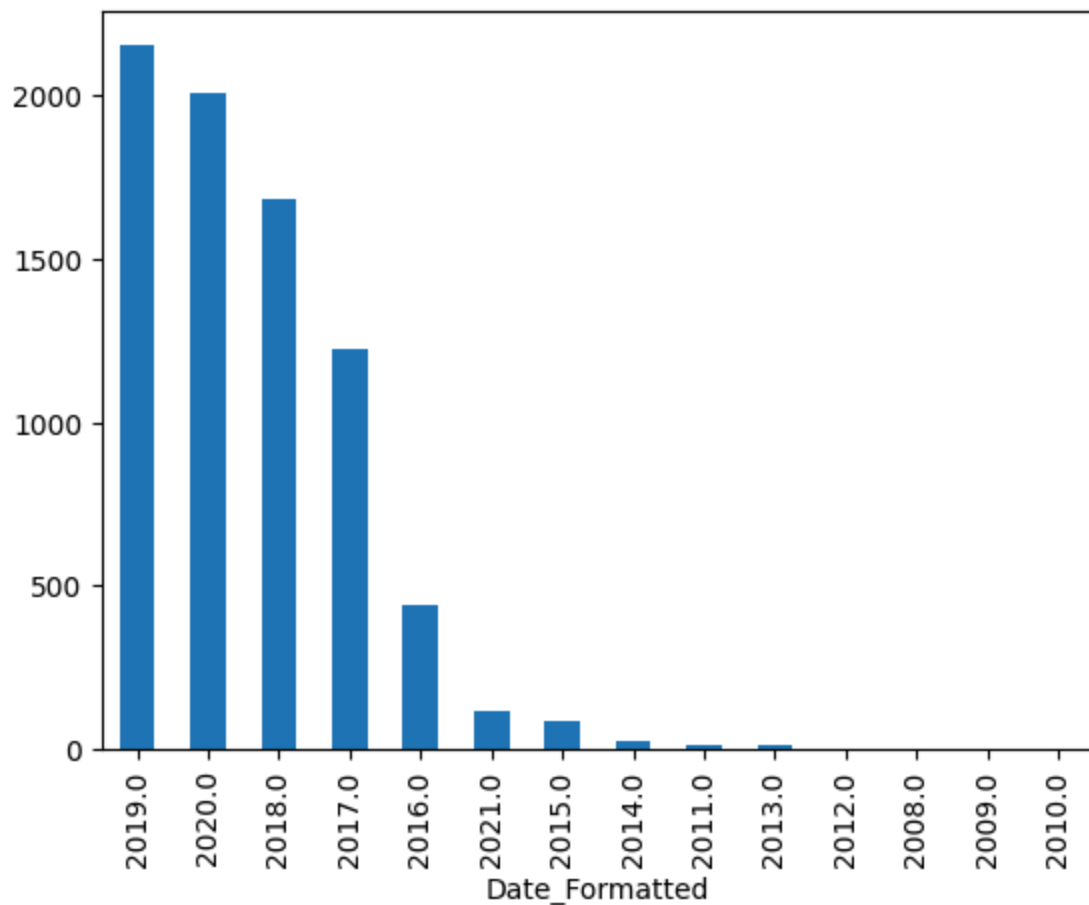
```
Out[120... Category      object
         Title         object
         Director      object
         Cast          object
         Country       object
         Release_Date   object
         Rating        object
         Duration      object
         Type          object
         Description    object
         Date_Formatted  datetime64[ns]
         dtype: object
```

```
In [123... data['Date_Formatted'].dt.year.value_counts()
```

```
Out[123... Date_Formatted
2019.0    2154
2020.0    2010
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
2008.0       2
2009.0       2
2010.0       1
Name: count, dtype: int64
```

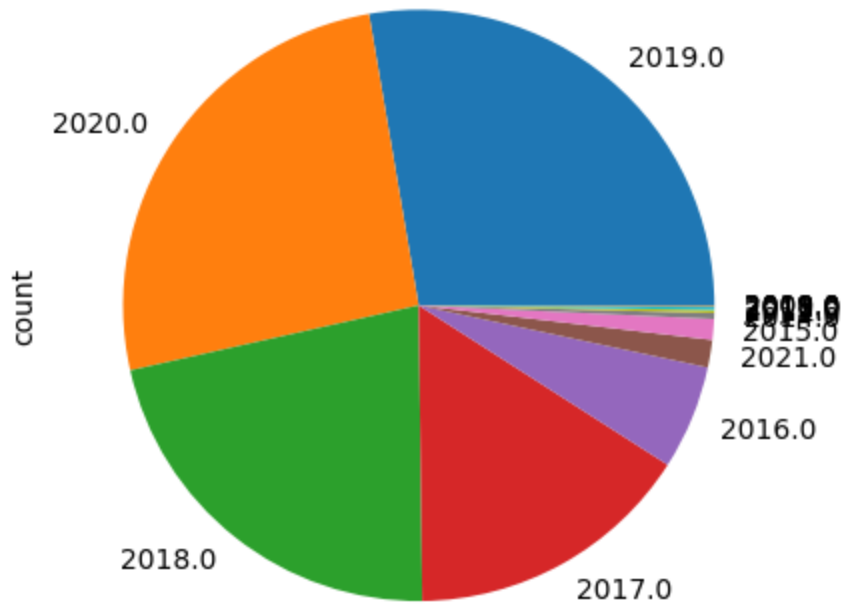
```
In [128... #Bar graph
data['Date_Formatted'].dt.year.value_counts().plot(kind='bar')
```

```
Out[128... <Axes: xlabel='Date_Formatted'>
```



```
In [125... data['Date_Formatted'].dt.year.value_counts().plot(kind='pie')
```

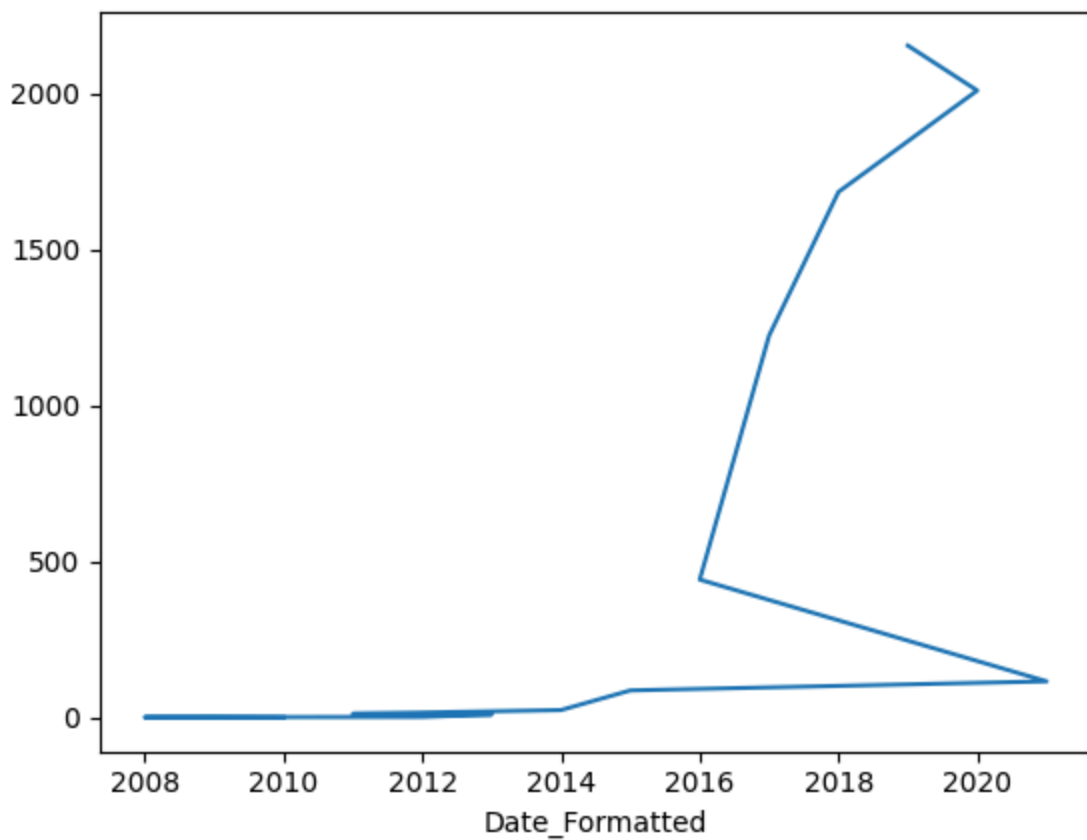
```
Out[125... <Axes: ylabel='count'>
```

In []:

In [129... `data['Date_Formatted'].dt.year.value_counts().plot(kind='line')`

Out[129... `<Axes: xlabel='Date_Formatted'>`



```
In [131... #How many Movies and TV Shows . Bar Graph  
data['Category'].nunique()
```

```
Out[131... 2
```

```
In [141... data.groupby('Category').Category.count()
```

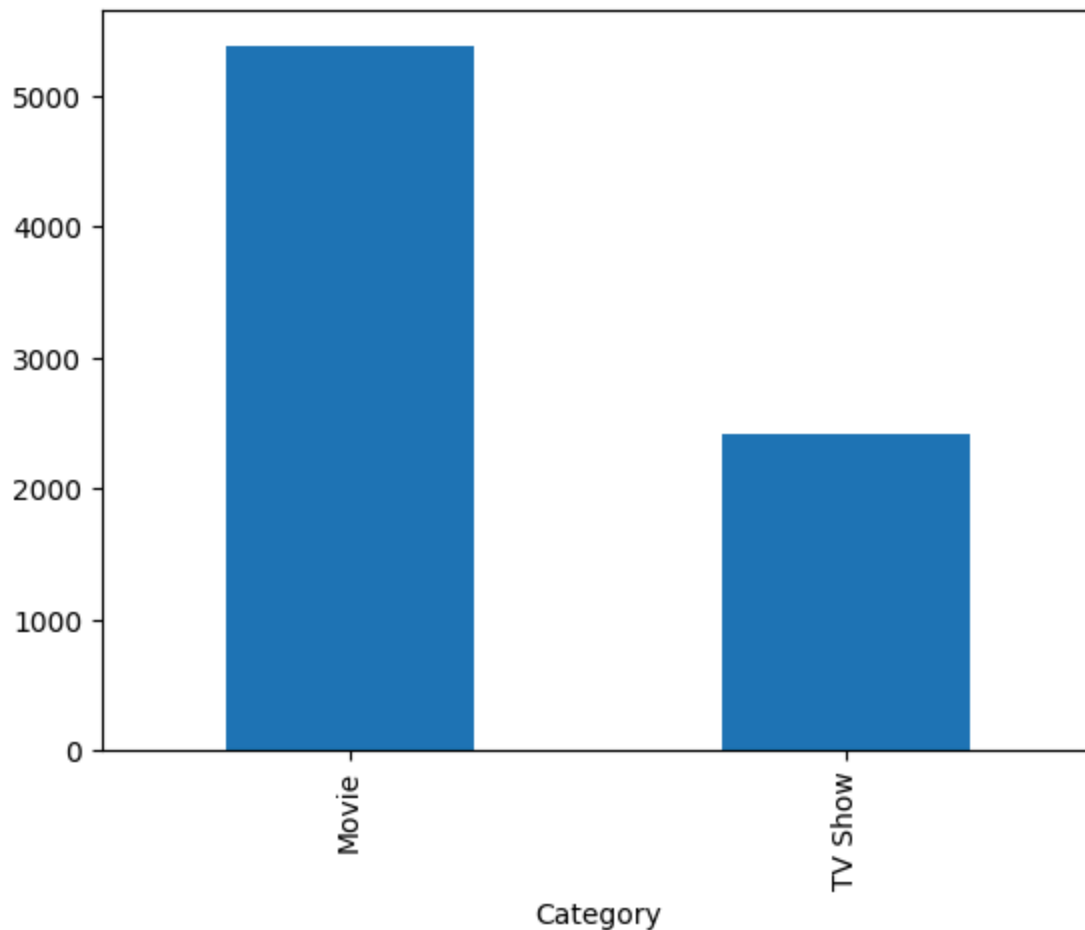
```
Out[141... Category  
Movie      5379  
TV Show    2410  
Name: Category, dtype: int64
```

```
In [134... print(data.Category.value_counts())
```

```
Category  
Movie      5379  
TV Show    2410  
Name: count, dtype: int64
```

```
In [136... data.Category.value_counts().plot(kind='bar')
```

```
Out[136... <Axes: xlabel='Category'>
```



```
In [ ]:
```

```
In [144... #Show all the Movies Only released in 2000  
#Create a new Column year
```

```
data['year']=data['Date_Formatted'].dt.year
data.head(4)
```

Out[144...

	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration
Show_Id								
s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	TV-MA	4 Seasons
s2	Movie	07:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	TV-MA	93 min
s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	R	78 min
s4	Movie	9	Shane Acker	Elijah Wood, John C. Reilly, Jennifer Connelly...	United States	November 16, 2017	PG-13	80 min

In [148...

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

Out[148...

	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration	Type
Show_Id									

In [153...

```
#For 2020
data[(data['Category']=='Movie') & (data['year']==2020)].head(5)
```

Out[153...

Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Durati
s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13	123 r
s7	Movie	122	Yasir Al Yasiri	Amina Khalil, Ahmed Dawood, Tarek Lotfy, Ahmed...	Egypt	June 1, 2020	TV-MA	95 r
s15	Movie	3022	John Suits	Omar Epps, Kate Walsh, Miranda Cosgrove, Angus...	United States	March 19, 2020	R	91 r
s28	Movie	#Alive	Cho Il	Yoo Ah-in, Park Shin-hye	South Korea	September 8, 2020	TV-MA	99 r
s29	Movie	#AnneFrank - Parallel Stories	Sabina Fedeli, Anna Migotto	Helen Mirren, Gengher Gatti	Italy	July 1, 2020	TV-14	95 r



In [154...

```
print(f"The total number was {((data['Category']=='Movie') & (data['year']==2020)).
```

The total number was 1313

In [171...

```
#Show the Titles of TV Shows released in Brazil
data[(data['Category']=='TV Show')&(data['Country']=='Brazil')]['Title']
```

```

Out[171... Show_Id
s1 3%
s219 A Queen Is Born
s323 Afronta! Facing It!
s532 Anitta: Made In Honório
s990 Blood Pact
s1053 Borges
s1116 Brotherhood
s1627 Dating Around: Brazil
s1906 Earth to Luna!
s2487 Good Morning, Verônica
s3417 Kissing Game
s3815 Lugar de Mulher
s4234 Most Beautiful Thing
s4370 Mystery Lab
s4503 Nobody's Looking
s4612 Omniscient
s5121 Reality Z
s5363 Samantha!
s5636 Sintonia
s5747 Spectros
s5892 Super Drags
s6125 The Beginning of Life: The Series
s6216 The Chosen One
s6656 The Mechanism
s7384 Vai Anitta
s7757 Z4
Name: Title, dtype: object

```

```

In [172... #Show the Titles of TV Shows released in Mexico
data[(data['Category']=='TV Show')&(data['Country']=='Mexico')]['Title']

```

```

Out[172... Show_Id
s13 1994
s801 Becoming Champions
s1438 Club of Crows
s1491 Control Z
s1535 Crime Diaries: Night Out
s1536 Crime Diaries: The Candidate
s1595 Dandy
s1614 Dark Desire
s1743 Diablero
s1950 El Chavo
s1956 El Dragón: Return of a Warrior
s2895 I Am Me!
s2999 Ingobernable
s3229 Juana Inés
s3502 La Piloto
s3506 La Rosa de Guadalupe
s3573 Legend Quest
s3574 Legend Quest: Masters of Myth
s3692 Lo que la vida me robó
s3816 Luis Miguel - The Series
s4135 Miss Dynamite
s4174 Monarca
s5124 Rebelde
s5284 Rosario Tijeras
s5293 Rubi
s6024 Teresa
s6230 The Club
s6465 The House of Flowers
s6493 The Inmate
s6854 The Search
s7086 Tijuana
s7364 Unstoppable
s7699 Yankee
s7726 You Cannot Hide
s7780 Zona Rosa
Name: Title, dtype: object

```

```

In [179... #Show top 10 directors in TV Shows and Movies in netflix
data.Director.value_counts().head(13)

```

```
Out[179... Director
Raúl Campos, Jan Suter    18
Marcus Raboy              16
Jay Karas                 14
Cathy Garcia-Molina      13
Jay Chapman              12
Youssef Chahine          12
Martin Scorsese          12
Steven Spielberg         10
David Dhawan              9
Robert Rodriguez          8
Quentin Tarantino         8
Shannon Hartman           8
Ryan Polito               8
Name: count, dtype: int64
```

```
In [181... #All records where category is movie and type is comedies or country is united king
data[(data.Category=='Movie')&(data.Type=='Comedies')|(data.Country=="United Kingdo
```

Out[181...

	Category		Title	Director	Cast	Country	Release_Date	Rating	Dur
Show_Id									
s20	Movie		'89	NaN	Lee Dixon, Ian Wright, Paul Merson	United Kingdom	May 16, 2018	TV-PG	8
s34	Movie	#realityhigh		Fernando Lebrija	Nesta Cooper, Kate Walsh, John Michael Higgins...	United States	September 8, 2017	TV-14	9
s59	TV Show		100% Hotter	NaN	Daniel Palmer, Melissa Sophia, Karen Williams,...	United Kingdom	November 1, 2019	TV-14	1 S
s73	Movie		17 Again	Burr Steers	Zac Efron, Leslie Mann, Matthew Perry, Thomas ...	United States	January 1, 2021	PG-13	10
s83	Movie		2036 Origin Unknown	Hasraf Dulull	Katee Sackhoff, Ray Fearon, Julie Cox, Steven ...	United Kingdom	December 20, 2018	TV-14	9
s85	Movie		21 & Over	Jon Lucas, Scott Moore	Miles Teller, Skylar Astin, Justin Chon, Sarah...	United States	April 16, 2019	R	9
s86	TV Show		21 Again	NaN	Laura Morgan	United Kingdom	July 1, 2020	TV-MA	1 S
s94	Movie		27: Gone Too Soon	Simon Napier-Bell	Janis Joplin, Jimi Hendrix, Amy Winehouse, Jim...	United Kingdom	May 1, 2018	TV-MA	7
s149	Movie		A Bad Moms Christmas	Jon Lucas,	Mila Kunis, Kristen Bell, Kathryn	United States, China	February 14, 2020	R	10

	Category	Title	Director	Cast	Country	Release_Date	Rating	Dur
Show_Id								
			Scott Moore	Hahn, Susan ...				
s175	Movie	A Futile and Stupid Gesture	David Wain	Will Forte, Domhnall Gleeson, Martin Mull, Joe...	United States	January 26, 2018	TV-MA	10

```
In [192... #Tom Cruise is in how many movies
#data[data['Cast'].str.contains('Tom Cruise')]
#Drop null values
dataN=data.dropna()
```

```
In [193... dataN.isnull().sum()
```

Out[193... Category 0
Title 0
Director 0
Cast 0
Country 0
Release_Date 0
Rating 0
Duration 0
Type 0
Description 0
Date_Formatted 0
year 0
dtype: int64

```
In [195... dataN[dataN['Cast'].str.contains('Tom Cruise')]
```

Out[195...

	Category	Title	Director	Cast	Country	Release_Date	Rating	Duratio
Show_Id								
s3861	Movie	Magnolia	Paul Thomas Anderson	Jeremy Blackman, Tom Cruise, Melinda Dillon, A...	United States	January 1, 2020	R	189 m
s5071	Movie	Rain Man	Barry Levinson	Dustin Hoffman, Tom Cruise, Valeria Golino, Ge...	United States	July 1, 2019	R	134 m

In [197...

```
dataN[dataN['Cast'].str.contains('Tessa Thompson')]
```

Out[197...

	Category	Title	Director	Cast	Country	Release_Date	Rating	Dur
Show_Id								
s2222	Movie	For Colored Girls	Tyler Perry	Kimberly Elise, Janet Jackson, Loretta Devine,...	United States	May 1, 2020	R	13
s7059	Movie	Thor: Ragnarok	Taika Waititi	Chris Hemsworth, Tom Hiddleston, Cate Blanchet...	United States	June 5, 2018	PG-13	13
s7481	Movie	War on Everyone	John Michael McDonagh	Alexander Skarsgård, Michael Peña, Theo James,...	United Kingdom	December 3, 2019	R	9

In [205...

```
#The differernt ratings defined by Netflix are
print(dataN.Rating.nunique())

dataN.Rating.unique()
```

14

Out[205...

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

In [212...

#How many are TV-14 in Canada

```
data[(data.Category=='Movie')&(data.Rating=='TV-14')&(data.Country=='Canada')]
```

Out[212...

	Category	Title	Director	Cast	Country	Release_Date	Rating
Show_Id							
s31	Movie	#cats_the_mewvie	Michael Margolis	NaN	Canada	February 5, 2020	TV-
s35	Movie	#Roxy	Michael Kennedy	Jake Short, Sarah Fisher, Booboo Stewart, Dann...	Canada	April 10, 2019	TV-
s609	Movie	At First Light	Jason Stone	Stefanie Scott, Theodore Pellerin, Percy Hynes...	Canada	December 27, 2018	TV-
s1507	Movie	Counterfeiting in Suburbia	Jason Bourque	Sarah Butler, Larissa Albuquerque, Kayla Walla...	Canada	July 1, 2018	TV-
s3714	Movie	Long Time Running	Jennifer Baichwal, Nicholas de Pencier	Gord Downie, Paul Langlois, Gord Sinclair, Rob...	Canada	November 12, 2017	TV-
s3957	Movie	Martin Matte: La vie, la mort...eh la la..!	Jean-François Blais	Martin Matte	Canada	October 14, 2019	TV-
s5336	Movie	Sadie's Last Days on Earth	Michael Seater	Morgan Taylor Campbell, Clark Backo, Ricardo H...	Canada	August 22, 2017	TV-
s5393	Movie	Sardaar ji	Rohit Jugraj	Diljit Dosanjh, Neeru Bajwa, Mandy Takhar, Jas...	Canada	December 1, 2017	TV-
s6062	Movie	The Accountant of Auschwitz	Matthew Shoychet	NaN	Canada	July 1, 2019	TV-

	Category	Title	Director	Cast	Country	Release_Date	Rating
Show_Id							
s7024	Movie	The Wrong Babysitter	George Mendeluk	Daphne Zuniga, Seann Gallagher, Lisa Marie Car...	Canada	June 18, 2019	TV-
s7040	Movie	There's Something in the Water	Ellen Page, Ian Daniel	Ellen Page	Canada	March 27, 2020	TV-

In [213... `print(f"They are {((data.Category=='Movie')&(data.Rating=='TV-14')&(data.Country=='`

They are 11 movies in total

In [216... `print(f"TV shows with the R rating after 2018 are \n {((data.Category=='TV Show')&(`

TV shows with the R rating after 2018 are

1

In [215... `data[(data.Category=='TV Show')&(data.Rating=='R')&(data.year>2018)]`

Out[215...

	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration
Show_Id								

s6436	TV Show	The Hateful Eight: Extended Version	Quentin Tarantino	Samuel L. Jackson, Kurt Russell, Jennifer Jaso...	NaN	April 25, 2019	R	1 Season
--------------	---------	-------------------------------------	-------------------	---	-----	----------------	---	----------



In [217... `#"The maximum duration of a movie or show on Netflix is
data.Duration.unique()`

The maximum duration of a movie or show on Netflix is

```
Out[217... array(['4 Seasons', '93 min', '78 min', '80 min', '123 min', '1 Season',
      '95 min', '119 min', '118 min', '143 min', '103 min', '89 min',
      '91 min', '149 min', '144 min', '124 min', '87 min', '110 min',
      '128 min', '117 min', '100 min', '2 Seasons', '84 min', '99 min',
      '90 min', '102 min', '104 min', '105 min', '56 min', '125 min',
      '81 min', '97 min', '106 min', '107 min', '109 min', '44 min',
      '75 min', '101 min', '3 Seasons', '37 min', '113 min', '114 min',
      '130 min', '94 min', '140 min', '135 min', '82 min', '70 min',
      '121 min', '92 min', '164 min', '53 min', '83 min', '116 min',
      '86 min', '120 min', '96 min', '126 min', '129 min', '77 min',
      '137 min', '148 min', '28 min', '122 min', '176 min', '85 min',
      '22 min', '68 min', '111 min', '29 min', '142 min', '168 min',
      '21 min', '59 min', '20 min', '98 min', '108 min', '76 min',
      '26 min', '156 min', '30 min', '57 min', '150 min', '133 min',
      '115 min', '154 min', '127 min', '146 min', '136 min', '88 min',
      '131 min', '24 min', '112 min', '74 min', '63 min', '38 min',
      '25 min', '174 min', '60 min', '153 min', '158 min', '151 min',
      '162 min', '54 min', '51 min', '69 min', '64 min', '147 min',
      '42 min', '79 min', '5 Seasons', '40 min', '45 min', '172 min',
      '10 min', '163 min', '9 Seasons', '55 min', '72 min', '61 min',
      '71 min', '160 min', '171 min', '48 min', '139 min', '157 min',
      '15 min', '65 min', '134 min', '161 min', '62 min', '8 Seasons',
      '186 min', '49 min', '73 min', '58 min', '165 min', '166 min',
      '138 min', '159 min', '141 min', '132 min', '52 min', '67 min',
      '34 min', '66 min', '312 min', '180 min', '47 min', '6 Seasons',
      '155 min', '14 min', '177 min', '11 min', '9 min', '46 min',
      '145 min', '11 Seasons', '7 Seasons', '13 Seasons', '8 min',
      '12 min', '12 Seasons', '10 Seasons', '43 min', '50 min', '23 min',
      '185 min', '200 min', '169 min', '27 min', '170 min', '196 min',
      '33 min', '181 min', '204 min', '32 min', '35 min', '167 min',
      '16 Seasons', '179 min', '193 min', '13 min', '214 min', '17 min',
      '173 min', '192 min', '209 min', '187 min', '41 min', '182 min',
      '224 min', '233 min', '189 min', '152 min', '19 min', '15 Seasons',
      '208 min', '237 min', '31 min', '178 min', '230 min', '194 min',
      '228 min', '195 min', '3 min', '16 min', '5 min', '18 min',
      '205 min', '190 min', '36 min', '201 min', '253 min', '203 min',
      '191 min'], dtype=object)
```

```
In [219... len(data.Duration.unique())
```

```
Out[219... 216
```

```
In [220... #Ignore Seasons consider minutes
data[['Minute', 'Unit']] = data.Duration.str.split(' ', expand=True)
```

```
In [221... data.head()
```

Out[221...

	Category	Title	Director	Cast	Country	Release_Date	Rating	Duration
Show_Id								
s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	TV-MA	4 Seasons
s2	Movie	07:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	TV-MA	93 min
s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	R	78 min
s4	Movie	9	Shane Acker	Elijah Wood, John C. Reilly, Jennifer Connelly...	United States	November 16, 2017	PG-13	80 min
s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13	123 min



In [224... `print(f"The maximum duration of a movie or show on Netflix is {data.Minute.max()} m`

The maximum duration of a movie or show on Netflix is
99 minutes

In [225... `print(f"The minimum duration of a movie or show on Netflix is {data.Minute.min()} m`

The minimum duration of a movie or show on Netflix is 1 minutes

In [226... `data.Minute=pd.to_numeric(data.Minute)`

In [227... `data.dtypes`

```
Out[227... Category          object
          Title            object
          Director         object
          Cast              object
          Country           object
          Release_Date      object
          Rating            object
          Duration          object
          Type              object
          Description        object
          Date_Formatted    datetime64[ns]
          year              float64
          Minute            int64
          Unit              object
          dtype: object
```

```
In [228... print(f"The mean duration of a movie or show on Netflix is {data.Minute.mean()} min
```

The mean duration of a movie or show on Netflix is 69.12954166131725 minutes

```
In [229... #Which individual country has the highest number of tv shows
          dataTV=data[data.Category=='TV Show']
```

```
In [231... dataTV.Country.value_counts().head()
```

```
Out[231... Country
          United States    705
          United Kingdom   204
          Japan            157
          South Korea       147
          India             71
          Name: count, dtype: int64
```

```
In [239... print("Sort the data set by year \n ")
          data.sort_values(by='year',ascending=False).head()
```

Sort the data set by year

Out [239...

	Category	Title	Director	Cast	Country	Release_Date	Rating	Durat
Show_Id								
s7352	Movie	Unknown	Jaume Collet-Serra	Liam Neeson, Diane Kruger, January Jones, Aida...	United Kingdom, Germany, France, United States	January 1, 2021	PG-13	113
s2014	Movie	Enter the Dragon	Robert Clouse	Bruce Lee, John Saxon, Jim Kelly, Ahna Capri, ...	Hong Kong, United States	January 1, 2021	R	103
s2350	Movie	Gangaajal	Prakash Jha	Ajay Devgn, Gracy Singh, Mohan Agashe, Mohan J...	India	January 8, 2021	TV-MA	148
s1498	Movie	Cool Hand Luke	Stuart Rosenberg	Paul Newman, George Kennedy, J.D. Cannon, Lou ...	United States	January 1, 2021	TV-14	127
s1195	Movie	Can't Hardly Wait	Harry Elfont, Deborah Kaplan	Jennifer Love Hewitt, Ethan Embry, Charlie Kor...	United States	January 1, 2021	PG-13	101



```
In [ ]: #Find all instances where
#Category is Movie, type=== Drama
#OR
#Category=TV show, Type=="Kids' TV"
```

```
In [241... data[(data.Category=='Movie')&(data.Type=="Dramas")]
```

Out[241...

	Category	Title	Director	Cast	Country	Release_Date	Rating	Durat
Show_Id								
s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13	123
s8	Movie	187	Kevin Reynolds	Samuel L. Jackson, John Heard, Kelly Rowan, Cl...	United States	November 1, 2019	R	119
s171	Movie	A Family Man	Mark Williams	Gerard Butler, Gretchen Mol, Alison Brie, Will...	Canada, United States	December 15, 2019	R	110
s233	Movie	A Stoning in Fulham County	Larry Elikann	Ken Olin, Jill Eikenberry, Maureen Mueller, Gr...	United States	October 1, 2011	TV-14	95
s296	Movie	Across Grace Alley	Ralph Macchio	Ben Hyland, Marsha Mason, Karina Smirnoff, Col...	United States	December 1, 2016	TV-PG	24
...
s7416	Movie	Victor	Brandon Dickerson	Patrick Davis, Lisa Vidal, Josh Pence, José Zú...	United States	July 24, 2017	PG-13	110
s7421	Movie	Villain	Philip Barantini	Craig Fairbrass, George Russo, Robert Gleniste...	United Kingdom	September 5, 2020	R	97

	Category	Title	Director	Cast	Country	Release_Date	Rating	Durat
Show_Id								
s7448	Movie	VS.	Ed Lilly	Connor Swindells, Fola Evans-Akingbola, Nichol...	United Kingdom	June 19, 2019	TV-MA	99
s7464	Movie	Wakefield	Robin Swicord	Bryan Cranston, Jennifer Garner, Jason O'Mara,...	United States	March 2, 2019	R	109
s7479	Movie	War Horse	Steven Spielberg	Emily Watson, David Thewlis, Peter Mullan, Nie...	United States, India	May 6, 2019	PG-13	147

117 rows × 14 columns

In [242...

```
data[(data.Category=='TV Show')&(data.Type=="Kids' TV")]
```

Out[242...

	Category	Title	Director	Cast	Country	Release_Date	Rating
Show_Id							
s112	TV Show	44 Cats	NaN	Sarah Natchenny, Suzy Myers, Simona Berman, E...	Italy	October 1, 2020	TV-Y7
s277	TV Show	Abby Hatcher	Kyran Kelly	Macy Drouin, Wyatt White, Paul Sun-Hyung Lee, ...	United States, Canada	July 1, 2020	TV-Y
s435	TV Show	Alphablocks	NaN	Teresa Gallagher, David Holt, Lizzie Waterworth	United Kingdom	May 25, 2020	TV-Y
s599	TV Show	Ask the StoryBots	NaN	Judy Greer, Erin Fitzgerald, Fred Tatasciore, ...	United States	August 2, 2019	TV-Y
s707	TV Show	Bal Ganesh	Vijay S. Bhanushali	Meghna Erande Joshi, Parminder Ghuman	NaN	March 31, 2020	TV-Y7
...
s7667	TV Show	World of Winx	Iginio Straffi	Haven Paschall, Alysha Deslorieux, Jessica Paq...	Italy, United States	June 16, 2017	TV-Y7
s7716	TV Show	Yoko	NaN	Eileen Stevens, Alyson Leigh Rosenfeld, Sarah ...	NaN	June 23, 2018	TV-Y
s7718	TV Show	YOM	NaN	Sairaj, Devyani Dagaonkar, Ketan Singh, Mayur ...	NaN	June 7, 2018	TV-Y7

	Category	Title	Director	Cast	Country	Release_Date	Rating	
Show_Id								
s7757	TV Show	Z4	NaN	Apollo Costa, Gabriel Santana, Matheus Lustosa...	Brazil	February 22, 2019	TV-PG	
s7760	TV Show	Zak Storm	NaN	Michael Johnston, Jessica Gee-George, Christin...	United States, France, South Korea, Indonesia	September 13, 2018	TV-Y7	

205 rows × 14 columns

In [247...

```
print(f"""\n#Find all instances where
#Category is Movie, type=== Drama or
#Category=TV show, Type=="Kids' TV" """)
data[((data.Category=='Movie')&(data.Type=="Dramas")) | ((data.Category=='TV Show'))]
```

```
#Find all instances where
#Category is Movie, type=== Drama
#Category=TV show, Type=="Kids' TV"
```

Out[247...

	Category	Title	Director	Cast	Country	Release_Date	Rating	Durati
Show_Id								
s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13	123 r
s8	Movie	187	Kevin Reynolds	Samuel L. Jackson, John Heard, Kelly Rowan, Cl...	United States	November 1, 2019	R	119 r
s112	TV Show	44 Cats	NaN	Sarah Natochenny, Suzy Myers, Simona Berman, E...	Italy	October 1, 2020	TV-Y7	Seasc
s171	Movie	A Family Man	Mark Williams	Gerard Butler, Gretchen Mol, Alison Brie, Will...	Canada, United States	December 15, 2019	R	110 r
s233	Movie	A Stoning in Fulham County	Larry Elikann	Ken Olin, Jill Eikenberry, Maureen Mueller, Gr...	United States	October 1, 2011	TV-14	95 r
...
s7667	TV Show	World of Winx	Iginio Straffi	Haven Paschall, Alysha Deslorieux, Jessica Paq...	Italy, United States	June 16, 2017	TV-Y7	Seasc
s7716	TV Show	Yoko	NaN	Eileen Stevens, Alyson Leigh Rosenfeld, Sarah ...	NaN	June 23, 2018	TV-Y	1 Seas
s7718	TV Show	YOM	NaN	Sairaj, Devyani Dagaonkar, Ketan Singh, Mayur ...	NaN	June 7, 2018	TV-Y7	1 Seas

	Category	Title	Director	Cast	Country	Release_Date	Rating	Durati
Show_Id								
s7757	TV Show	Z4	NaN	Apollo Costa, Gabriel Santana, Matheus Lustosa...	Brazil	February 22, 2019	TV-PG	Seasc
s7760	TV Show	Zak Storm	NaN	Michael Johnston, Jessica Gee-George, Christin...	United States, France, South Korea, Indonesia	September 13, 2018	TV-Y7	Seasc

322 rows × 14 columns

In []: