*## Import data set*

**import** pandas **as** pd

data **=** pd**.**read\_csv(r"D:\Net flix\Netflix - Copy.csv")

data

Out[22]:

|  | **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 [26]:

*## Head*

*## tail*

*## Shape*

data**.**head()

data**.**tail()

data**.**shape

Out[26]:

(7789, 11)

In [27]:

*## data size number of elements*

data**.**size

Out[27]:

85679

In [28]:

*## Columns only*

data**.**columns

Out[28]:

Index(['Show\_Id', 'Category', 'Title', 'Director', 'Cast', 'Country',

'Release\_Date', 'Rating', 'Duration', 'Type', 'Description'],

dtype='object')

In [29]:

*## Data types*

data**.**dtypes

Out[29]:

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 [31]:

*## Info*

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 [32]:

*## Find duplicate record and remove duplicate records*

*## Duplicate record*

data[data**.**duplicated()] *## 2 duplicate record*

Out[32]:

|  | **Show\_Id** | **Category** | **Title** | **Director** | **Cast** | **Country** | **Release\_Date** | **Rating** | **Duration** | **Type** | **Description** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **6300** | s684 | Movie | Backfire | Dave Patten | Black Deniro, Byron "Squally" Vinson, Dominic ... | United States | April 5, 2019 | TV-MA | 97 min | Dramas, Independent Movies, Thrillers | When two would-be robbers accidentally kill a ... |
| **6622** | s6621 | Movie | The Lost Okoroshi | Abba T. Makama | Seun Ajayi, Judith Audu, Tope Tedela, Ifu Enna... | Nigeria | September 4, 2020 | TV-MA | 94 min | Comedies, Dramas, Independent Movies | A disillusioned security guard transforms into... |

In [37]:

*## Remove duplicates*

data**.**drop\_duplicates(inplace **=** **True**) *## Present data after removing duplicates*

In [35]:

Out[35]:

|  | **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 [40]:

*## Find Null value in data*

data**.**isnull() *## True present Null value*

Out[40]:

|  | **Show\_Id** | **Category** | **Title** | **Director** | **Cast** | **Country** | **Release\_Date** | **Rating** | **Duration** | **Type** | **Description** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **0** | False | False | False | True | False | False | False | False | False | False | False |
| **1** | False | False | False | False | False | False | False | False | False | False | False |
| **2** | False | False | False | False | False | False | False | False | False | False | False |
| **3** | False | False | False | False | False | False | False | False | False | False | False |
| **4** | False | False | False | False | False | False | False | False | False | False | False |
| **...** | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| **7784** | False | False | False | False | False | False | False | False | False | False | False |
| **7785** | False | False | False | False | False | False | False | False | False | False | False |
| **7786** | False | False | False | True | False | True | False | False | False | False | False |
| **7787** | False | False | False | True | False | False | False | False | False | False | False |
| **7788** | False | False | False | False | True | False | False | False | False | False | False |

7787 rows × 11 columns

In [42]:

*## Find number of Null values presnt*

data**.**isnull()**.**sum() *## number of Null value according to columns*

Out[42]:

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 [44]:

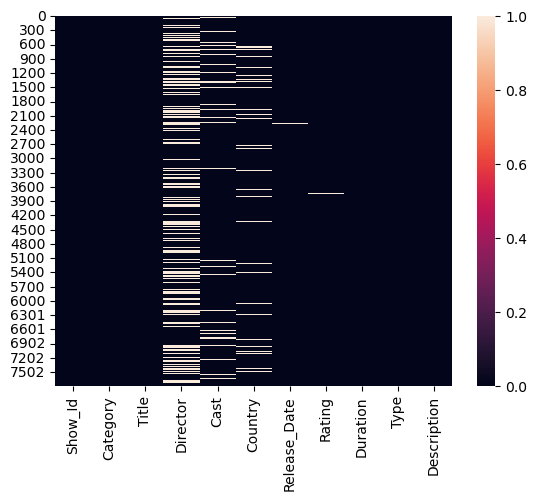
*## present null values by heatmaps*

**import** seaborn **as** sns

sns**.**heatmap(data**.**isnull())

Out[44]:

<Axes: >



In [46]:

*## For "HOPUSe of card" and who is director*

data[data['Title']**.**isin(['House of Cards'])]

Out[46]:

|  | **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 [69]:

*## Str.contains()*

data[data['Title']**.**str**.**contains('House of Cards')]

Out[69]:

|  | **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 ... |

**Highest number of TV shows and Movies were released**

In [79]:

*## Search data type of "Date"*

data**.**dtypes

Out[79]:

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 [82]:

*##To\_ Datetime*

data['Date\_N']**=**pd**.**to\_datetime(data['Release\_Date'])

In [83]:

data**.**head(5)

Out[83]:

|  | **Show\_Id** | **Category** | **Title** | **Director** | **Cast** | **Country** | **Release\_Date** | **Rating** | **Duration** | **Type** | **Description** | **Date\_N** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 |
| **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 |
| **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 |
| **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... | 2017-11-16 |
| **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... | 2020-01-01 |

**Dt.year.value count()**

In [8]:

data['Date\_N']**.**dt**.**year**.**value\_counts() *## It count oucarence of indivisual year in date column*

Syntex dt**.**year**.**value\_counts()

Out[8]:

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: Date\_N, dtype: int64

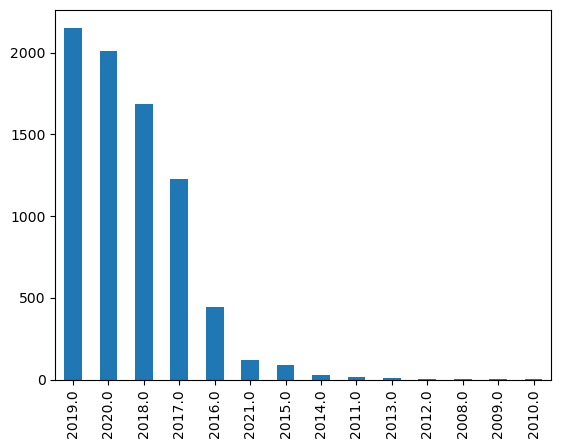
In [72]:

data['Date\_N']**=**pd**.**to\_datetime(data['Release\_Date'])

data['Date\_N']**.**dt**.**year**.**value\_counts()**.**plot(kind **=**'bar')

Out[72]:

<Axes: >



**How many Movies and TV shows are in the dataset**

In [23]:

*## GROUPBY () Function*

In [26]:

data**.**groupby('Category')**.**Category**.**count()

Out[26]:

Category

Movie 5379

TV Show 2410

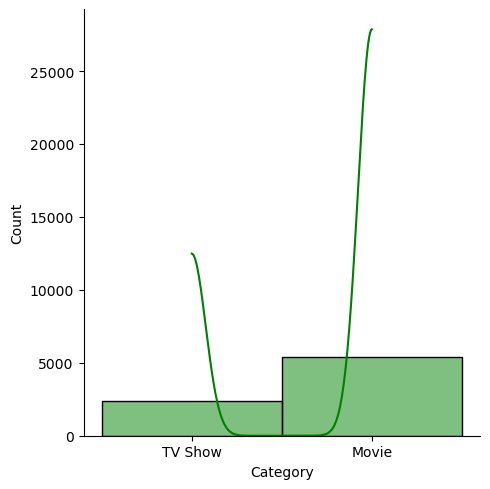
Name: Category, dtype: int64

In [78]:

**import** seaborn **as** sns

sns**.**displot(data["Category"], color **=** "green", kde**=True**)

plt**.**show()



**Show all movies realesed in 2020**

In [89]:

*## Cretaing new column of Year*

data['Year'] **=** data['Date\_N']**.**dt**.**year

data**.**head(2)

Out[89]:

|  | **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 |

In [120]:

*## filter data by MOVIE & 2020 ofv difrent column*

Movie\_2020**=**data[(data['Category']**==**'Movie') **&** (data['Year']**==**2020)]

Movie\_2020

Out[120]:

|  | **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... | 2020-01-01 | 2020.0 |
| **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 ... | 2020-06-01 | 2020.0 |
| **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 ... | 2020-03-19 | 2020.0 |
| **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 ... | 2020-09-08 | 2020.0 |
| **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... | 2020-07-01 | 2020.0 |
| **...** | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| **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 ... | 2020-05-19 | 2020.0 |
| **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... | 2020-01-11 | 2020.0 |
| **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 ... | 2020-10-19 | 2020.0 |
| **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... | 2020-09-25 | 2020.0 |
| **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... | 2020-03-01 | 2020.0 |

1313 rows × 13 columns

**Only show Title of all TV SHows that released in INDIA**

In [135]:

data[ (data['Category']**==** 'TV Show') **&** (data['Country']**==**'India') ]['Title']

Out[135]:

86 21 Sarfarosh: Saragarhi 1897

132 7 (Seven)

340 Agent Raghav

364 Akbar Birbal

533 Anjaan: Rural Myths

...

6249 The Creative Indians

6400 The Golden Years with Javed Akhtar

6469 The House That Made Me

7294 Typewriter

7705 Yeh Meri Family

Name: Title, Length: 71, dtype: object

**Show Top 10 director who gaves highest number of TV Shows & Movies to Netflix**

In [137]:

*## call dataset*

data**.**head(2)

Out[137]:

|  | **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 |

In [140]:

*## use value-count( ) function*

data['Director']**.**value\_counts()

Out[140]:

Raúl Campos, Jan Suter 18

Marcus Raboy 16

Jay Karas 14

Cathy Garcia-Molina 13

Jay Chapman 12

..

Lucien Jean-Baptiste 1

Jason Krawczyk 1

Quinn Lasher 1

Elle Callahan 1

Sam Dunn 1

Name: Director, Length: 4050, dtype: int64

In [142]:

*## For Top 10*

data['Director']**.**value\_counts()**.**head(10)

Out[142]:

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

Name: Director, dtype: int64

**Show all records of category = Movies and Type = Comedies or Country = United Kingdom**

**Fillter AND, OR Operators**

In [155]:

M\_C\_UK **=**data[(data['Category']**==**'Movie')**&**(data['Type']**==**'Comedies')

**|**(data['Country']**==**'United Kingdom')]

M\_C\_UK**.**head(10)

Out[155]:

|  | **Show\_Id** | **Category** | **Title** | **Director** | **Cast** | **Country** | **Release\_Date** | **Rating** | **Duration** | **Type** | **Description** | **Date\_N** | **Year** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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... | 2018-05-16 | 2018.0 |
| **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... | 2017-09-08 | 2017.0 |
| **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... | 2019-11-01 | 2019.0 |
| **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... | 2021-01-01 | 2021.0 |
| **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... | 2018-12-20 | 2018.0 |
| **84** | s85 | Movie | 21 & Over | Jon Lucas, Scott Moore | Miles Teller, Skylar Astin, Justin Chon, Sarah... | United States | April 16, 2019 | R | 93 min | Comedies | Jeff's straight-and-narrow life changes abrupt... | 2019-04-16 | 2019.0 |
| **85** | s86 | TV Show | 21 Again | NaN | Laura Morgan | United Kingdom | July 1, 2020 | TV-MA | 1 Season | British TV Shows, Reality TV | In a social experiment, a group of daughters s... | 2020-07-01 | 2020.0 |
| **93** | s94 | Movie | 27: Gone Too Soon | Simon Napier-Bell | Janis Joplin, Jimi Hendrix, Amy Winehouse, Jim... | United Kingdom | May 1, 2018 | TV-MA | 70 min | Documentaries | Explore the circumstances surrounding the trag... | 2018-05-01 | 2018.0 |
| **148** | s149 | Movie | A Bad Moms Christmas | Jon Lucas, Scott Moore | Mila Kunis, Kristen Bell, Kathryn Hahn, Susan ... | United States, China | February 14, 2020 | R | 104 min | Comedies | Stressed-out moms Amy, Carla and Kiki are back... | 2020-02-14 | 2020.0 |
| **174** | s175 | Movie | A Futile and Stupid Gesture | David Wain | Will Forte, Domhnall Gleeson, Martin Mull, Joe... | United States | January 26, 2018 | TV-MA | 102 min | Comedies | In a brief life full of triumph and failure, "... | 2018-01-26 | 2018.0 |

**How many movies / Shows, Tom Cruise was cast?**

In [167]:

*## Filter*

data[data['Cast']**==**'Tom Cruise']

*## It is showing "o" Result because of Null values in this rows*

*## Multiple eleiements in column is the reason for not filteration*

Out[167]:

|  | **Show\_Id** | **Category** | **Title** | **Director** | **Cast** | **Country** | **Release\_Date** | **Rating** | **Duration** | **Type** | **Description** | **Date\_N** | **Year** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

In [159]:

data[data['Cast']**.**str**.**contains('Tom Cruise')]

*## It is showing errors due to NUll values*

*## Need to eleminate Null values*

**---------------------------------------------------------------------------**

**ValueError** Traceback (most recent call last)

Cell **In[159], line 1**

**----> 1** data[data['Cast'].str.contains('Tom Cruise')]

File **~\anaconda3\Lib\site-packages\pandas\core\frame.py:3797**, in DataFrame.\_\_getitem\_\_**(self, key)**

3794 **return** self.where(key)

3796 # Do we have a (boolean) 1d indexer?

**-> 3797** **if** com.is\_bool\_indexer(key):

3798 **return** self.\_getitem\_bool\_array(key)

3800 # We are left with two options: a single key, and a collection of keys,

3801 # We interpret tuples as collections only for non-MultiIndex

File **~\anaconda3\Lib\site-packages\pandas\core\common.py:135**, in is\_bool\_indexer**(key)**

131 na\_msg = "Cannot mask with non-boolean array containing NA / NaN values"

132 **if** lib.infer\_dtype(key\_array) == "boolean" **and** isna(key\_array).any():

133 # Don't raise on e.g. ["A", "B", np.nan], see

134 # test\_loc\_getitem\_list\_of\_labels\_categoricalindex\_with\_na

**--> 135** **raise** **ValueError**(na\_msg)

136 **return** **False**

137 **return** **True**

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

**Creating data frame with out null values**

In [160]:

*## Using Dropna( ) function for elemination*

new\_data **=** data**.**dropna()

In [163]:

new\_data**.**head(2)

Out[163]:

|  | **Show\_Id** | **Category** | **Title** | **Director** | **Cast** | **Country** | **Release\_Date** | **Rating** | **Duration** | **Type** | **Description** | **Date\_N** | **Year** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 [166]:

*## Now find out*

new\_data[new\_data['Cast']**.**str**.**contains('Tom Cruise')]

Out[166]:

|  | **Show\_Id** | **Category** | **Title** | **Director** | **Cast** | **Country** | **Release\_Date** | **Rating** | **Duration** | **Type** | **Description** | **Date\_N** | **Year** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **3860** | s3861 | Movie | Magnolia | Paul Thomas Anderson | Jeremy Blackman, Tom Cruise, Melinda Dillon, A... | United States | January 1, 2020 | R | 189 min | Dramas, Independent Movies | Through chance, human action, past history and... | 2020-01-01 | 2020.0 |
| **5071** | s5071 | Movie | Rain Man | Barry Levinson | Dustin Hoffman, Tom Cruise, Valeria Golino, Ge... | United States | July 1, 2019 | R | 134 min | Classic Movies, Dramas | A fast-talking yuppie is forced to slow down w... | 2019-07-01 | 2019.0 |

**What are diffrent rating define by Netflix**

**nunique()**

In [173]:

new\_data['Rating']**.**nunique()

*## 14 is unique charecter in Rating column*

Out[173]:

14

**Unique() function to present unique character**

In [175]:

new\_data['Rating']**.**unique()

Out[175]:

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)

**How many Movies got 'TV-14' in Canada**

In [183]:

new\_data[(new\_data['Category']**==**'Movie')**&**(new\_data['Rating']**==** 'TV-14')

**&**(new\_data['Country']**==**'Canada')]**.**shape

Out[183]:

(9, 13)

**How many TV Shows gor the 'R' rating, after year 2018?**

In [186]:

*## TV Shows + R + after 2018*

data[(data['Category']**==** 'TV Show')**&**(data['Rating']**==** 'R')**&**(data['Year']**>**2018)]

Out[186]:

|  | **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 [188]:

*## Number of count()*

data[(data['Category']**==** 'TV Show')**&**(data['Rating']**==** 'R')**&**(data['Year']**>**2018)]**.**shape

Out[188]:

(1, 13)

**What is maximum duration of movie/show of netflix**

In [189]:

*## Duration coloumn has contained diffrent character*

*## where "str.split()" would be use*

In [190]:

data**.**Duration**.**dtypes

Out[190]:

dtype('O')

**str.split()**

In [192]:

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

In [195]:

data**.**head(2)

Out[195]:

|  | **Show\_Id** | **Category** | **Title** | **Director** | **Cast** | **Country** | **Release\_Date** | **Rating** | **Duration** | **Type** | **Description** | **Date\_N** | **Year** | **Minutes** | **Units** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 | 4 | Seasons |
| **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 | 93 | min |

In [196]:

data['Minutes']**.**max()

Out[196]:

'99'

In [197]:

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

Out[197]:

'1'

**Which indivisual country has height number of TV Shows**

In [200]:

*## Creating new data set*

TV\_shows **=** data[(data['Category']**==** 'TV Show')]

TV\_shows**.**head(2)

Out[200]:

|  | **Show\_Id** | **Category** | **Title** | **Director** | **Cast** | **Country** | **Release\_Date** | **Rating** | **Duration** | **Type** | **Description** | **Date\_N** | **Year** | **Minutes** | **Units** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 | 4 | Seasons |
| **5** | s6 | TV Show | 46 | Serdar Akar | Erdal Beşikçioğlu, 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... | 2017-07-01 | 2017.0 | 1 | Season |

In [204]:

*## Calcualte Hightes number of TV shows*

Hg\_country **=** TV\_shows**.**Country**.**value\_counts()**.**head(1)

Hg\_country

Out[204]:

United States 705

Name: Country, dtype: int64

**How can sort data set by "Year"**

In [10]:

*## Using sort\_value() function*

**import** pandas **as** pd

data **=** pd**.**read\_csv(r"D:\Net flix\Netflix - Copy.csv")

data['Date\_N']**=**pd**.**to\_datetime(data['Release\_Date'])

data['Year'] **=** data['Date\_N']**.**dt**.**year

data**.**sort\_values(by **=** 'Year', ascending **=False**)**.**head(10)

Out[10]:

|  | **Show\_Id** | **Category** | **Title** | **Director** | **Cast** | **Country** | **Release\_Date** | **Rating** | **Duration** | **Type** | **Description** | **Date\_N** | **Year** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **7353** | 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 min | Action & Adventure, Thrillers | Liam Neeson stars as a man who regains conscio... | 2021-01-01 | 2021.0 |
| **2013** | s2014 | Movie | Enter the Dragon | Robert Clouse | Bruce Lee, John Saxon, Jim Kelly, Ahna Capri, ... | Hong Kong, United States | January 1, 2021 | R | 103 min | Action & Adventure, Classic Movies | Recruited by a British agent, Shaolin master L... | 2021-01-01 | 2021.0 |
| **2349** | s2350 | Movie | Gangaajal | Prakash Jha | Ajay Devgn, Gracy Singh, Mohan Agashe, Mohan J... | India | January 8, 2021 | TV-MA | 148 min | Dramas, International Movies | Posted to a small, crime-ridden town, a cop so... | 2021-01-08 | 2021.0 |
| **1497** | s1498 | Movie | Cool Hand Luke | Stuart Rosenberg | Paul Newman, George Kennedy, J.D. Cannon, Lou ... | United States | January 1, 2021 | TV-14 | 127 min | Classic Movies, Dramas | Luke Jackson likes to do things his own way, w... | 2021-01-01 | 2021.0 |
| **1194** | 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 min | Comedies, Romantic Movies | At a wild high school graduation party, aspiri... | 2021-01-01 | 2021.0 |
| **104** | s105 | Movie | 30 Minutes or Less | Ruben Fleischer | Jesse Eisenberg, Danny McBride, Aziz Ansari, N... | United States | January 1, 2021 | R | 83 min | Action & Adventure, Comedies | Two crooks planning a bank heist wind up abduc... | 2021-01-01 | 2021.0 |
| **692** | s693 | Movie | Bad Grandpa .5 | Jeff Tremaine | Johnny Knoxville, Jackson Nicoll, Greg Harris,... | United States | January 1, 2021 | TV-MA | 87 min | Comedies | The geriatric antics of Irving Zisman continue... | 2021-01-01 | 2021.0 |
| **5139** | s5139 | Movie | Redemption | Steven Knight | Jason Statham, Agata Buzek, Vicky McClure, Ben... | United Kingdom, United States | January 1, 2021 | R | 100 min | Action & Adventure, Dramas, International Movies | An Afghanistan veteran haunted by his dark pas... | 2021-01-01 | 2021.0 |
| **3521** | s3522 | Movie | Lagaan | Ashutosh Gowariker | Aamir Khan, Gracy Singh, Rachel Shelley, Paul ... | India | January 10, 2021 | PG | 224 min | Dramas, International Movies, Music & Musicals | In 1890s India, an arrogant British commander ... | 2021-01-10 | 2021.0 |
| **5521** | s5521 | Movie | Sex and the City 2 | Michael Patrick King | Sarah Jessica Parker, Kim Cattrall, Cynthia Ni... | United States | January 1, 2021 | R | 146 min | Comedies, Dramas, Romantic Movies | Best friends Carrie, Miranda, Samantha and Cha... | 2021-01-01 | 2021.0 |

**Find all the instances where:**

**Category is "Movie" & "Dramas"**

**OR**

**Category is TV show & Kids TV**

In [22]:

M\_D\_T\_K **=** data[(data['Category']**==** 'Movie') **&** (data['Type'] **==** 'Drama')

**|** (data['Category']**==** 'TV Show') **&** (data['Type'] **==** "Kids' TV")]

M\_D\_T\_K**.**head

M\_D\_T\_K**.**reset\_index(drop **=** **True**)

*## Using of " " for ("Kids' TV") beacuse its already contain ( ' ) in character*

Out[22]:

|  | **Show\_Id** | **Category** | **Title** | **Director** | **Cast** | **Country** | **Release\_Date** | **Rating** | **Duration** | **Type** | **Description** | **Date\_N** | **Year** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **0** | s112 | TV Show | 44 Cats | NaN | Sarah Natochenny, 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 | 2020.0 |
| **1** | 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 | 2020.0 |
| **2** | 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 | 2020.0 |
| **3** | 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 | 2019.0 |
| **4** | s707 | TV Show | Bal Ganesh | Vijay S. Bhanushali | Meghna Erande Joshi, Parminder Ghumman | NaN | March 31, 2020 | TV-Y7 | 1 Season | Kids' TV | Watch Ganesh destroy demons, disarm invaders a... | 2020-03-31 | 2020.0 |
| **...** | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| **200** | 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 | 2017.0 |
| **201** | 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 | 2018.0 |
| **202** | 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 | 2018.0 |
| **203** | 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 | 2019.0 |
| **204** | 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 | 2018.0 |

205 rows × 13 columns

**Find TV shows and Movies are get TV-MA & PG ?**

In [24]:

*## Using of regex function to find out*

In [48]:

data**.**groupby('Rating')**.**Rating**.**count()

Out[48]:

Rating

G 39

NC-17 3

NR 84

PG 247

PG-13 386

R 665

TV-14 1931

TV-G 194

TV-MA 2865

TV-PG 806

TV-Y 280

TV-Y7 271

TV-Y7-FV 6

UR 5

Name: Rating, dtype: int64

In [90]:

*## Using of Regex function*

**import** re

r **=** clean\_data**.**loc[clean\_data['Rating']**.**str**.**contains("R|TV-MA", flags**=**re**.**I, regex **=** **True**)]

r

Out[90]:

|  | **Show\_Id** | **Category** | **Title** | **Director** | **Cast** | **Country** | **Release\_Date** | **Rating** | **Duration** | **Type** | **Description** | **Date\_N** | **Year** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 |
| **5** | s6 | TV Show | 46 | Serdar Akar | Erdal Beşikçioğlu, 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... | 2017-07-01 | 2017.0 |
| **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 ... | 2020-06-01 | 2020.0 |
| **7** | s8 | Movie | 187 | Kevin Reynolds | Samuel L. Jackson, John Heard, Kelly Rowan, Cl... | United States | November 1, 2019 | R | 119 min | Dramas | After one of his high school students attacks ... | 2019-11-01 | 2019.0 |
| **...** | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| **7775** | s7774 | Movie | Zoé: Panoramas | Rodrigo Guardiola, Gabriel Cruz Rivas | Sergio Acosta, Jesús Báez, Ángel Mosqueda, Rod... | Mexico | November 1, 2019 | TV-MA | 89 min | Documentaries, International Movies, Music & M... | This introspective rockumentary follows the ca... | 2019-11-01 | 2019.0 |
| **7776** | s7775 | Movie | Zodiac | David Fincher | Mark Ruffalo, Jake Gyllenhaal, Robert Downey J... | United States | November 20, 2019 | R | 158 min | Cult Movies, Dramas, Thrillers | A political cartoonist, a crime reporter and a... | 2019-11-20 | 2019.0 |
| **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... | 2019-11-01 | 2019.0 |
| **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... | 2018-07-01 | 2018.0 |
| **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 ... | 2020-10-19 | 2020.0 |

2389 rows × 13 columns

In [ ]:

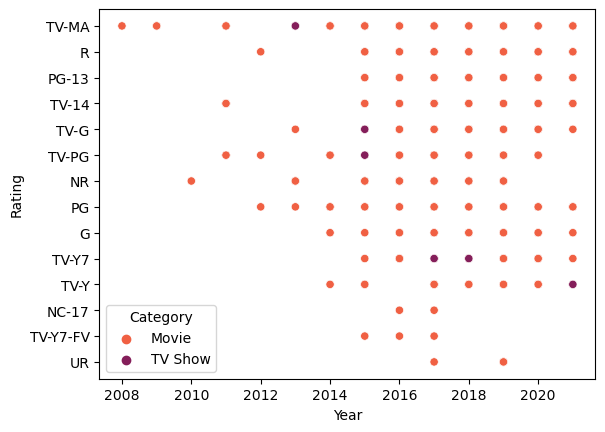
Presenation of TV Shows **and** Movies

In [117]:

sns**.**scatterplot(x**=**"Year", y**=**"Rating", data **=** clean\_data, hue **=** 'Category'

, color **=** 'Year', palette**=**'rocket\_r')

plt**.**show()



In [10]:

**import** seaborn **as** sns

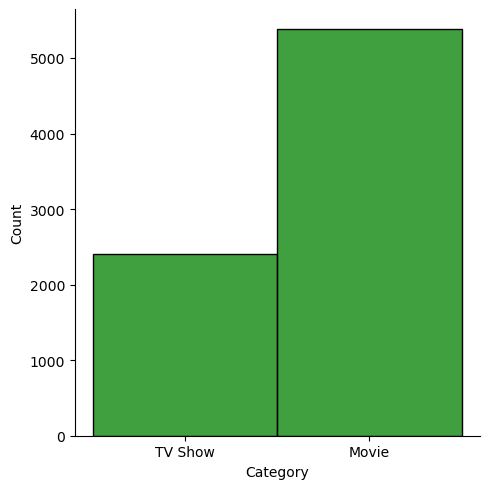
**import** pandas **as** pd

**import** matplotlib.pyplot **as** plt

data **=** pd**.**read\_csv(r"D:\Net flix\Netflix - Copy.csv")

sns**.**displot(data["Category"], color **=** "green")

plt**.**show()



In [25]:

**import** seaborn **as** sns

**import** pandas **as** pd

**import** matplotlib.pyplot **as** plt

data **=** pd**.**read\_csv(r"D:\Net flix\Netflix - Copy.csv")

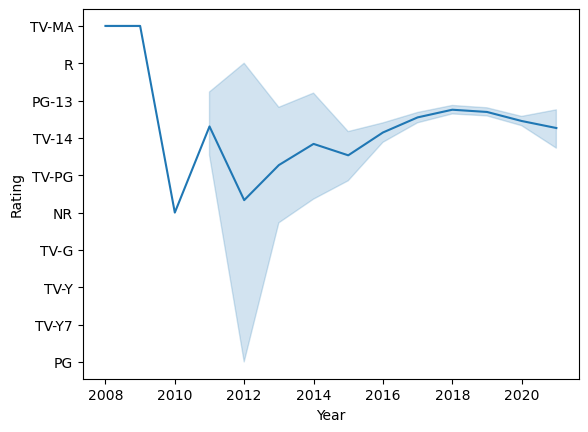
data['Date\_N']**=**pd**.**to\_datetime(data['Release\_Date'])

data['Year'] **=** data['Date\_N']**.**dt**.**year

data**.**sort\_values(by **=** 'Year', ascending **=False**)

sns**.**lineplot(x**=**"Year", y**=**"Rating", data **=** data)

plt**.**show()



In [27]:

**import** seaborn **as** sns

**import** pandas **as** pd

**import** matplotlib.pyplot **as** plt

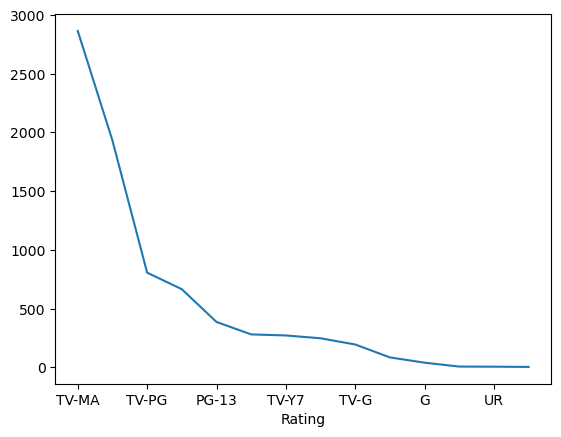
data **=** pd**.**read\_csv(r"D:\Net flix\Netflix - Copy.csv")

data1 **=** data**.**value\_counts('Rating')

data1**.**plot()

Out[27]:

<Axes: xlabel='Rating'>



In [ ]: