

```
In [1]: import pandas as pd
```

```
In [2]: df=pd.read_csv(r"C:\Users\DAKSH\Desktop\NETFLIX DATASET 2021.csv")
```

```
In [3]: df
```

Out[3]:

	show_id	type	title	director	cast	country	date_added	release_year	rating	...
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-13	
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-MA	\$
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	NaN	September 24, 2021	2021	TV-MA	1
3	s4	TV Show	Jailbirds New Orleans	NaN	NaN	NaN	September 24, 2021	2021	TV-MA	1
4	s5	TV Show	Kota Factory	NaN	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...	India	September 24, 2021	2021	TV-MA	\$
...
8802	s8803	Movie	Zodiac	David Fincher	Mark Ruffalo, Jake Gyllenhaal, Robert Downey J...	United States	November 20, 2019	2007	R	1
8803	s8804	TV Show	Zombie Dumb	NaN	NaN	NaN	July 1, 2019	2018	TV-Y7	\$
8804	s8805	Movie	Zombieland	Ruben Fleischer	Jesse Eisenberg, Woody Harrelson, Emma Stone, ...	United States	November 1, 2019	2009	R	

show_id	type	title	director	cast	country	date_added	release_year	rating	duration
8805	s8806	Movie	Zoom	Peter Hewitt Tim Allen, Courteney Cox, Chevy Chase, Kate Ma...	United States	January 11, 2020	2006	PG	100 min
8806	s8807	Movie	Zubaan	Mozez Singh Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...	India	March 2, 2019	2015	TV-14	100 min

In [4]: df.head()

show_id	type	title	director	cast	country	date_added	release_year	rating	duration
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson NaN	United States	September 25, 2021	2020	PG-13	90 min
1	s2	TV Show	Blood & Water	NaN Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-MA	Season 1
2	s3	TV Show	Ganglands	Julien Leclercq Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	NaN	September 24, 2021	2021	TV-MA	1 Season
3	s4	TV Show	Jailbirds New Orleans	NaN NaN	NaN	September 24, 2021	2021	TV-MA	1 Season
4	s5	TV Show	Kota Factory	NaN Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...	India	September 24, 2021	2021	TV-MA	Season 1

In [5]: `df.tail()`

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration
8802	s8803	Movie	Zodiac	David Fincher	Mark Ruffalo, Jake Gyllenhaal, Robert Downey J...	United States	November 20, 2019	2007	R	129
8803	s8804	TV Show	Zombie Dumb	NaN	NaN	NaN	July 1, 2019	2018	TV-Y7	30
8804	s8805	Movie	Zombieland	Ruben Fleischer	Jesse Eisenberg, Woody Harrelson, Emma Stone, ...	United States	November 1, 2019	2009	R	110
8805	s8806	Movie	Zoom	Peter Hewitt	Tim Allen, Courtney Cox, Chevy Chase, Kate Ma...	United States	January 11, 2020	2006	PG	100
8806	s8807	Movie	Zubaan	Mozez Singh	Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...	India	March 2, 2019	2015	TV-14	129

◀ ▶

In [6]: `df.shape` #Shape(Rows, Columns)

Out[6]: (8807, 12)

In [7]: `df.size` #Size(Rows*Columns)

Out[7]: 105684

In [8]: `df.columns`

Out[8]: Index(['show_id', 'type', 'title', 'director', 'cast', 'country', 'date_added', 'release_year', 'rating', 'duration', 'listed_in', 'description'], dtype='object')

In [9]: `df.index`

Out[9]: RangeIndex(start=0, stop=8807, step=1)

In [10]: `df.dtypes` #Datatype of each columns

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

In [11]: `df.info()`

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

In [12]: `df.nunique()` #Category based on typology in each column

```
Out[12]: show_id      8807
          type        2
          title       8804
          director    4528
          cast        7692
          country     748
          date_added  1767
          release_year 74
          rating      17
          duration    220
          listed_in   514
          description  8775
          dtype: int64
```

In [13]: `df.duplicated()` #To check the duplicate values in the dataset

```
Out[13]: 0      False
         1      False
         2      False
         3      False
         4      False
         ...
        8802     False
        8803     False
        8804     False
        8805     False
        8806     False
Length: 8807, dtype: bool
```

```
In [14]: df[df.duplicated()] #To check the duplicate values in the dataset
```

```
Out[14]: show_id  type  title  director  cast  country  date_added  release_year  rating  duration  listed_in  description
```

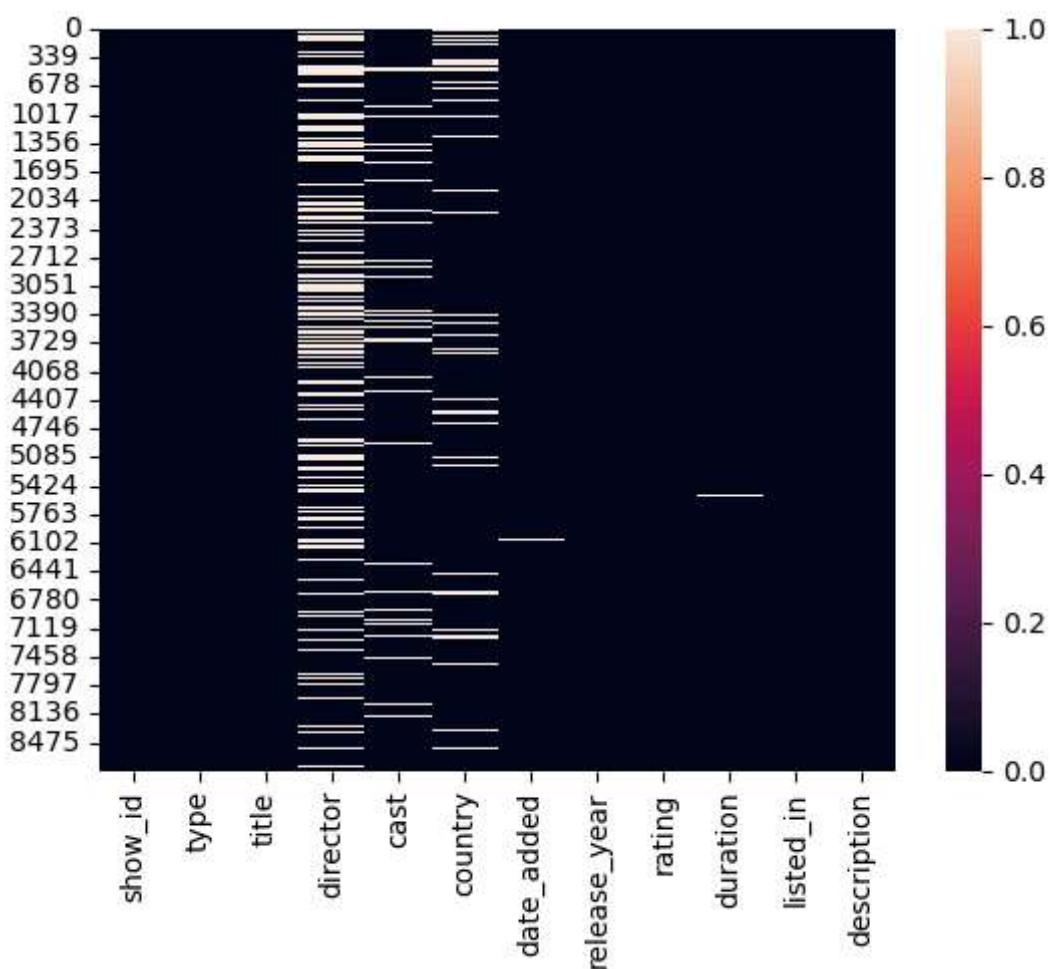
```
In [15]: df.isnull().sum() #To check the null values present in the dataset
```

```
Out[15]: show_id          0
          type            0
          title           0
          director       2634
          cast            825
          country         831
          date_added      10
          release_year     0
          rating           4
          duration          3
          listed_in         0
          description        0
          dtype: int64
```

```
In [16]: import seaborn as sns
```

```
In [17]: sns.heatmap(data=df.isnull()) #The plot shows the null values present in the dataset
```

```
Out[17]: <Axes: >
```



In [18]: #FOR ANY MOVIE/TV SHOW, SHOW ITS CAST AND DURATION.

In [19]: df[df['title'].isin(['Kota Factory'])]

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	
4	s5	TV Show	Kota Factory	NaN	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...	India	September 24, 2021	2021	TV-MA	2 Seasons	Int'l Sh

In []:

In []:

In [20]: #In which year highest no. of Movies/TV Shows were released?Show a plot for the same.

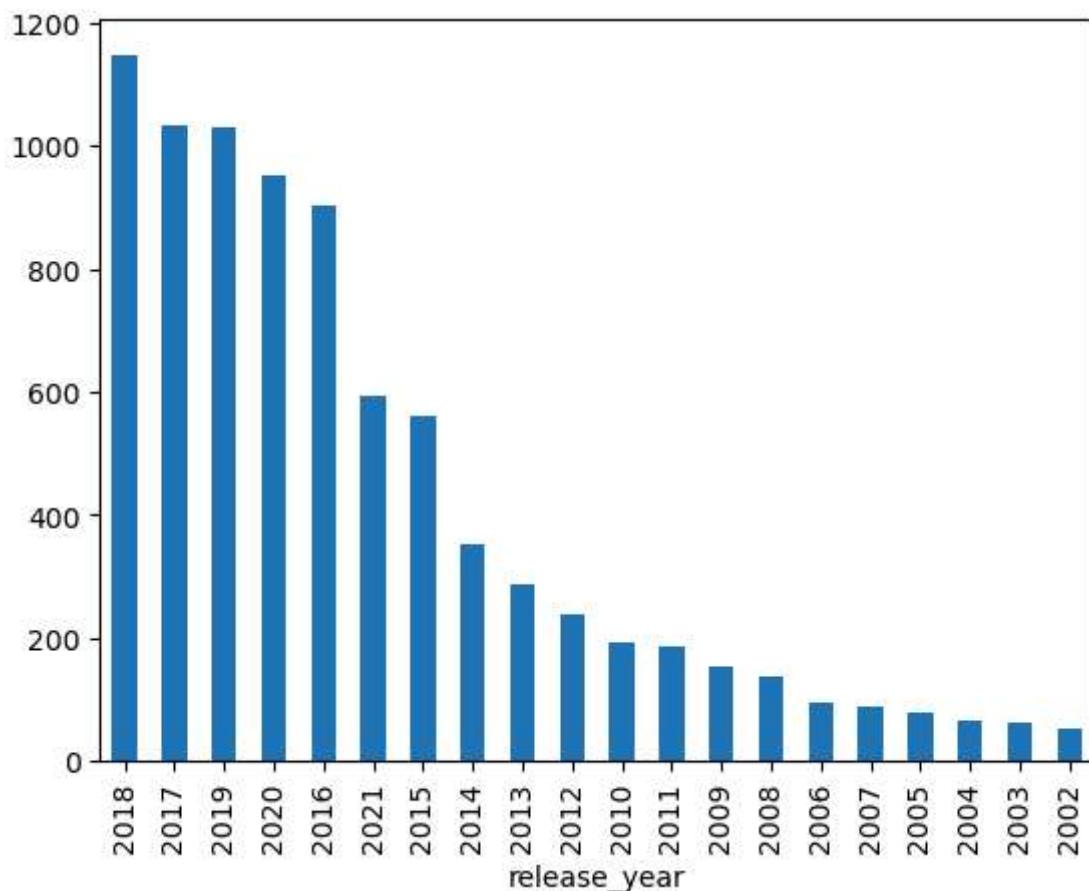
In [53]: `import matplotlib.pyplot as plt`
`import pandas as pd`

In [61]: `df['release_year'].value_counts().head(1)` #The release year 2018 had the

Out[61]: `release_year`
2018 1147
Name: count, dtype: int64

In [68]: `#In this case we've took the top 20 release year with highest number of releases and a`
`df['release_year'].value_counts().head(20).plot(kind='bar')`

Out[68]: <Axes: xlabel='release_year'>



In []:

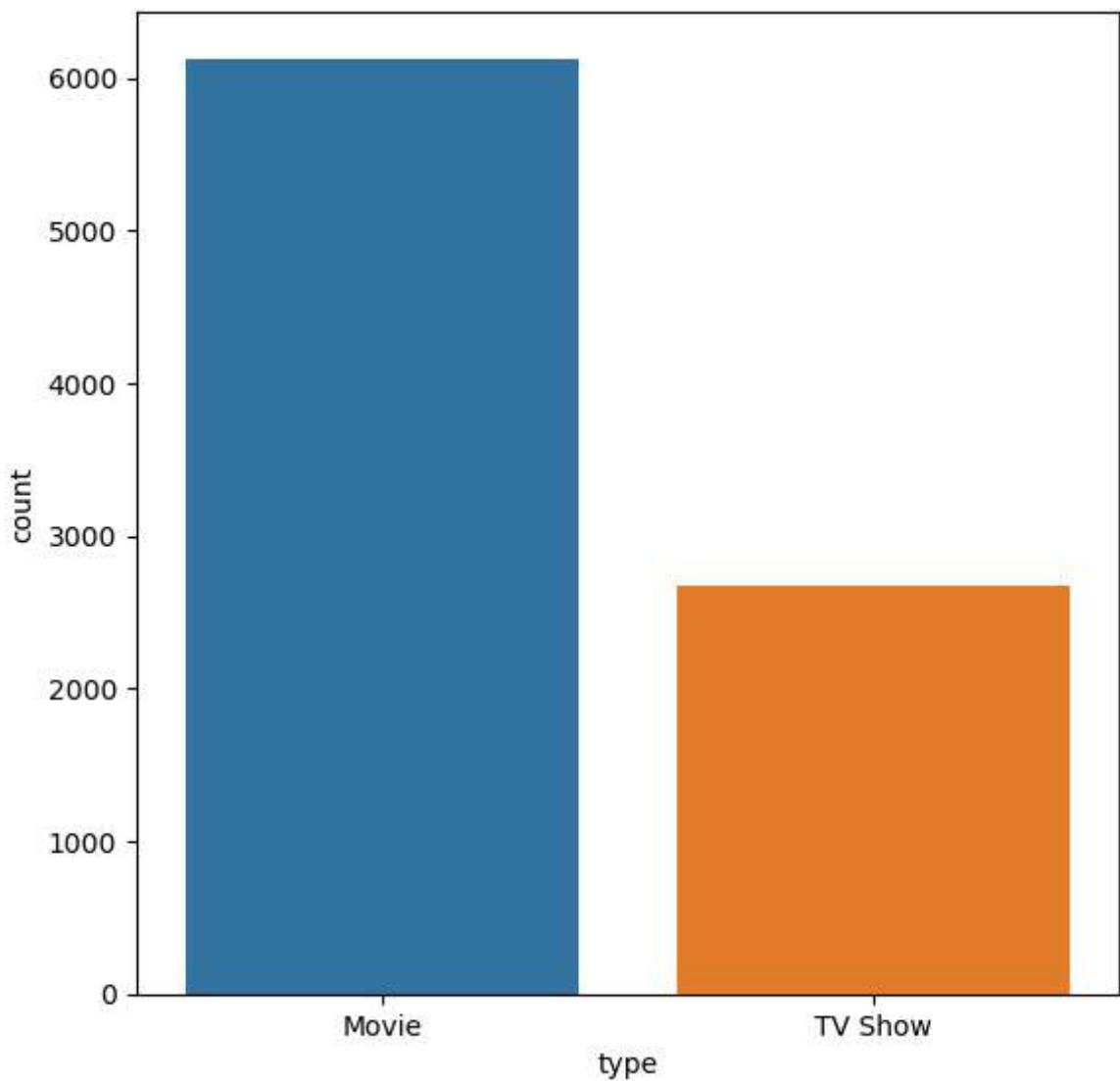
In []:

In [22]: `#How many TV Shows and how many Movies are there in total dataset?Show the plot for th`

In [23]: `df.groupby('type').type.count()`

Out[23]: `type`
Movie 6131
TV Show 2676
Name: type, dtype: int64

In [24]: `fig=plt.figure(figsize=(5,5))`
`axes=fig.add_axes([0,0,1,1])`
`axes.set_ylabel('Year of Release')`
`axes.set_xlabel('Type')`
`sns.countplot(x=df['type'])`
`plt.show()`



In []:

In []:

In [25]: *#Show the Movies that were released in year 2000.*

In [26]: `df[(df['type']=='Movie') & (df['release_year']==2000)]`

Out[26]:	show_id	type	title	director	cast	country	date_added	release_year	rating
180	s181	Movie	The Nutty Professor II: The Klumps	Peter Segal	Eddie Murphy, Janet Jackson, Larry Miller, John Goodman	NaN	September 1, 2021	2000	PG-13
350	s351	Movie	Space Cowboys	Clint Eastwood	Clint Eastwood, Tommy Lee Jones, Donald Sutherland, Frances Fisher	United States	August 1, 2021	2000	PG-13
359	s360	Movie	The Original Kings of Comedy	Spike Lee	Steve Harvey, D.L. Hughley, Cedric the Entertainer, Michael Winslow	United States	August 1, 2021	2000	I
566	s567	Movie	Charlie's Angels	McG	Cameron Diaz, Drew Barrymore, Lucy Liu, Bill Medley	United States, Germany	July 1, 2021	2000	PG-13
593	s594	Movie	Snow Day	Chris Koch	Chris Elliott, Mark Webber, Jean Smart, Schuyler Fisk	United States	July 1, 2021	2000	PG
779	s780	Movie	Battlefield Earth	Roger Christian	John Travolta, Barry Pepper, Forest Whitaker, Leah Pipes	United States	June 2, 2021	2000	PG-13
952	s953	Movie	The Whole Nine Yards	Jonathan Lynn	Bruce Willis, Matthew Perry, Rosanna Arquette, Jennifer Coolidge	United States	May 1, 2021	2000	I
3472	s3473	Movie	Rugrats in Paris: The Movie	Stig Bergqvist, Paul Demeyer	Elizabeth Daily, Tara Strong, Cheryl Chase, Christopher Meloni	Germany, United States	October 1, 2019	2000	C
4545	s4546	Movie	Monty Python: Before the Flying Circus	Will Yapp	Graham Chapman, Eric Idle, Terry Jones, Michael Palin	United Kingdom	October 2, 2018	2000	TV MA
4723	s4724	Movie	Fiza	Khalid Mohamed	Karisma Kapoor, Shabana Azmi, Neena Gupta	India	August 2, 2018	2000	TV-14

	show_id	type	title	director	cast	country	date_added	release_year	rating
					Jaya Bhaduri, Hrithik Roshan, ...				
4956	s4957	Movie	Phir Bhi Dil Hai Hindustani	Aziz Mirza	Shah Rukh Khan, Juhi Chawla, Paresh Rawal, Sat...	India	April 1, 2018	2000	TV-14
5953	s5954	Movie	Joseph: King of Dreams	Rob LaDuka, Robert C. Ramirez	Ben Affleck, Mark Hamill, Richard Herd, Maureen...	United States, France, United Kingdom	September 27, 2011	2000	TV-PG
6006	s6007	Movie	28 Days	Betty Thomas	Sandra Bullock, Viggo Mortensen, Dominic West,...	United States	September 30, 2020	2000	PG-13
6147	s6148	Movie	American Psycho	Mary Harron	Christian Bale, Willem Dafoe, Jared Leto, Rees...	United States, Canada	September 1, 2019	2000	I
6154	s6155	Movie	An American Tail: The Treasures of Manhattan I...	Larry Latham	Thomas Dekker, Dom DeLuise, Pat Musick, Nehemia...	United States	April 1, 2018	2000	C
6311	s6312	Movie	Billy Elliot	Stephen Daldry	Jamie Bell, Gary Lewis, Stuart Wells, Billy Fa...	United Kingdom, France	February 1, 2019	2000	I
6437	s6438	Movie	Center Stage	Nicholas Hytner	Amanda Schull, Zoe Saldana, Susan May Pratt, P...	United States	January 1, 2020	2000	PG-13
6440	s6441	Movie	Chal Mere Bhai	David Dhawan	Sanjay Dutt, Salman Khan, Karisma Kapoor, Dali...	India	December 31, 2019	2000	TV-14
6543	s6544	Movie	Crouching Tiger,	Ang Lee	Chow Yun Fat,	Taiwan, Hong	March 1, 2019	2000	PG-13

	show_id	type	title	director	cast	country	date_added	release_year	rating
			Hidden Dragon		Michelle Yeoh, Zhang Ziyi, Chang...	Kong, United States, China			
6643	s6644	Movie	Dragonheart: A New Beginning	Doug Lefler	Christopher Masterson, Harry Van Gorkum, Rona ...	United States	January 1, 2020	2000	PG
6753	s6754	Movie	Final Destination	James Wong	Devon Sawa, Ali Larter, Kerr Smith, Kristen Cl...	United States	January 1, 2020	2000	I
6912	s6913	Movie	Hamara Dil Aapke Paas Hai	Satish Kaushik	Anil Kapoor, Aishwarya Rai Bachchan, Sonali Be...	India	March 1, 2018	2000	TV-14
7013	s7014	Movie	How the Grinch Stole Christmas	Ron Howard	Jim Carrey, Taylor Momsen, Jeffrey Tambor, Chr...	United States	June 1, 2017	2000	PG
7247	s7248	Movie	Kya Kehna	Kundan Shah	Preity Zinta, Saif Ali Khan, Anupam Kher, Fari...	India	April 1, 2018	2000	TV-PG
7316	s7317	Movie	Little Nicky	Steve Brill	Adam Sandler, Patricia Arquette, Harvey Keitel...	United States	December 1, 2020	2000	PG-13
7702	s7703	Movie	Papa the Great	Bhagyaraj	Krishan Kumar, Nagma, Satya Prakash, Master Bo...	India	December 8, 2017	2000	TV-PG
7801	s7802	Movie	Pukar	Rajkumar Santoshi	Anil Kapoor, Madhuri Dixit, Namrata Shirodkar,...	India	March 1, 2018	2000	TV-14
7955	s7956	Movie	Scary Movie	Keenen Ivory Wayans	Anna Faris, Jon Abrahams,	United States	January 1, 2020	2000	I

	show_id	type	title	director	cast	country	date_added	release_year	rating
					Shannon Elizabeth, S...				
7962	s7963	Movie	Scream 3	Wes Craven	David Arquette, Neve Campbell, Courteney Cox, ...	United States	July 1, 2019	2000	I
8196	s8197	Movie	The Art of War	Christian Duguay	Wesley Snipes, Anne Archer, Maury Chaykin, Mar...	United States, Canada	July 1, 2020	2000	I
8305	s8306	Movie	The Flintstones in Viva Rock Vegas	Brian Levant	Mark Addy, Stephen Baldwin, Kristen Johnston, ...	United States	October 1, 2019	2000	PG
8722	s8723	Movie	What Lies Beneath	Robert Zemeckis	Harrison Ford, Michelle Pfeiffer, Diana Scarwi...	United States	January 1, 2020	2000	PG-13
8729	s8730	Movie	Where the Money Is	Marek Kanievska	Paul Newman, Linda Fiorentino, Dermot Murnaghan, ...	Germany, United States, United Kingdom, Canada	January 15, 2020	2000	PG-13

In []:

In []:

In [27]: #Show the titles only of all TV Shows that were released in India only.

In [28]: df[(df['type']=='TV Show')&(df['country']=='India')]['title']

```
Out[28]: 4                      Kota Factory
          39                     Chhota Bheem
          50                     Dharmakshetra
          66        Raja Rasoi Aur Anya Kahaniyan
          69      Stories by Rabindranath Tagore
          ...
          8173                  Thackeray
          8235                 The Calling
          8321  The Golden Years with Javed Akhtar
          8349            The House That Made Me
          8775           Yeh Meri Family
Name: title, Length: 79, dtype: object
```

In []:

In []:

In [29]: *#Show the top 5 Directors in the dataset.*

```
In [30]: df['director'].value_counts().head(5)      #These directors gave their highest rele
Out[30]: director
          Rajiv Chilaka      19
          Raúl Campos, Jan Suter 18
          Marcus Raboy       16
          Suhas Kadav       16
          Jay Karas         14
Name: count, dtype: int64
```

In []:

In []:

In [31]: *#Categorize all ratings in the dataset.*

In [32]: df['rating'].nunique()

Out[32]: 17

In [33]: df['rating'].unique()

Out[33]: array(['PG-13', 'TV-MA', 'PG', 'TV-14', 'TV-PG', 'TV-Y', 'TV-Y7', 'R',
 'TV-G', 'G', 'NC-17', '74 min', '84 min', '66 min', 'NR', nan,
 'TV-Y7-FV', 'UR'], dtype=object)

In [34]: df['rating'].unique()

Out[34]: array(['PG-13', 'TV-MA', 'PG', 'TV-14', 'TV-PG', 'TV-Y', 'TV-Y7', 'R',
 'TV-G', 'G', 'NC-17', '74 min', '84 min', '66 min', 'NR', nan,
 'TV-Y7-FV', 'UR'], dtype=object)

In []:

In []:

In [35]: *#Which Movie has the highest duration amongst all the movies in the dataset?*

In [36]: `df.head()`

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-13	90 mi
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-MA	Seaso
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	NaN	September 24, 2021	2021	TV-MA	1 Seaso
3	s4	TV Show	Jailbirds New Orleans	NaN	NaN	NaN	September 24, 2021	2021	TV-MA	1 Seaso
4	s5	TV Show	Kota Factory	NaN	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...	India	September 24, 2021	2021	TV-MA	Seaso

In [37]: `df.duration.dtypes`

Out[37]: `dtype('O')`

In [38]: `df.duration.unique()`

```
Out[38]: array(['90 min', '2 Seasons', '1 Season', '91 min', '125 min',
   '9 Seasons', '104 min', '127 min', '4 Seasons', '67 min', '94 min',
   '5 Seasons', '161 min', '61 min', '166 min', '147 min', '103 min',
   '97 min', '106 min', '111 min', '3 Seasons', '110 min', '105 min',
   '96 min', '124 min', '116 min', '98 min', '23 min', '115 min',
   '122 min', '99 min', '88 min', '100 min', '6 Seasons', '102 min',
   '93 min', '95 min', '85 min', '83 min', '113 min', '13 min',
   '182 min', '48 min', '145 min', '87 min', '92 min', '80 min',
   '117 min', '128 min', '119 min', '143 min', '114 min', '118 min',
   '108 min', '63 min', '121 min', '142 min', '154 min', '120 min',
   '82 min', '109 min', '101 min', '86 min', '229 min', '76 min',
   '89 min', '156 min', '112 min', '107 min', '129 min', '135 min',
   '136 min', '165 min', '150 min', '133 min', '70 min', '84 min',
   '140 min', '78 min', '7 Seasons', '64 min', '59 min', '139 min',
   '69 min', '148 min', '189 min', '141 min', '130 min', '138 min',
   '81 min', '132 min', '10 Seasons', '123 min', '65 min', '68 min',
   '66 min', '62 min', '74 min', '131 min', '39 min', '46 min',
   '38 min', '8 Seasons', '17 Seasons', '126 min', '155 min',
   '159 min', '137 min', '12 min', '273 min', '36 min', '34 min',
   '77 min', '60 min', '49 min', '58 min', '72 min', '204 min',
   '212 min', '25 min', '73 min', '29 min', '47 min', '32 min',
   '35 min', '71 min', '149 min', '33 min', '15 min', '54 min',
   '224 min', '162 min', '37 min', '75 min', '79 min', '55 min',
   '158 min', '164 min', '173 min', '181 min', '185 min', '21 min',
   '24 min', '51 min', '151 min', '42 min', '22 min', '134 min',
   '177 min', '13 Seasons', '52 min', '14 min', '53 min', '8 min',
   '57 min', '28 min', '50 min', '9 min', '26 min', '45 min',
   '171 min', '27 min', '44 min', '146 min', '20 min', '157 min',
   '17 min', '203 min', '41 min', '30 min', '194 min', '15 Seasons',
   '233 min', '237 min', '230 min', '195 min', '253 min', '152 min',
   '190 min', '160 min', '208 min', '180 min', '144 min', '5 min',
   '174 min', '170 min', '192 min', '209 min', '187 min', '172 min',
   '16 min', '186 min', '11 min', '193 min', '176 min', '56 min',
   '169 min', '40 min', '10 min', '3 min', '168 min', '312 min',
   '153 min', '214 min', '31 min', '163 min', '19 min', '12 Seasons',
   nan, '179 min', '11 Seasons', '43 min', '200 min', '196 min',
   '167 min', '178 min', '228 min', '18 min', '205 min', '201 min',
   '191 min'], dtype=object)
```

```
In [39]: df[['Minutes','Units']] = df['duration'].str.split(' ', expand=True)
df      #Here we splitted the blank space in the 'duration' column and created 2 new c
```

Out[39]:	show_id	type	title	director	cast	country	date_added	release_year	rating	...
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	Nan	United States	September 25, 2021	2020	PG-13	
1	s2	TV Show	Blood & Water	Nan	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-MA	\$
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	Nan	September 24, 2021	2021	TV-MA	1
3	s4	TV Show	Jailbirds New Orleans	Nan	Nan	Nan	September 24, 2021	2021	TV-MA	1
4	s5	TV Show	Kota Factory	Nan	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...	India	September 24, 2021	2021	TV-MA	\$
...
8802	s8803	Movie	Zodiac	David Fincher	Mark Ruffalo, Jake Gyllenhaal, Robert Downey J...	United States	November 20, 2019	2007	R	1
8803	s8804	TV Show	Zombie Dumb	Nan	Nan	Nan	July 1, 2019	2018	TV-Y7	\$
8804	s8805	Movie	Zombieland	Ruben Fleischer	Jesse Eisenberg, Woody Harrelson, Emma Stone, ...	United States	November 1, 2019	2009	R	

show_id	type	title	director	cast	country	date_added	release_year	rating	duration
8805	s8806	Movie	Zoom	Peter Hewitt	Tim Allen, Courteney Cox, Chevy Chase, Kate Ma...	United States	January 11, 2020	2006	PG
8806	s8807	Movie	Zubaan	Mozez Singh	Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan	India	March 2, 2019	2015	TV-14 1

```
In [40]: df[(df['type']=='Movie') & (df['Minutes'])] #We'll check for
```

Out[40]:	show_id	type	title	director	cast	country	date_added	release_year	rating
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	Nan	United States	September 25, 2021	2020	PG-1
6	s7	Movie	My Little Pony: A New Generation	Robert Cullen, José Luis Ucha	Vanessa Hudgens, Kimiko Glenn, James Marsden, ...	Nan	September 24, 2021	2021	P
7	s8	Movie	Sankofa	Haile Gerima	Kofi Ghanaba, Oyafunmi Ogunlano, Alexandra D...	United States, Ghana, Burkina Faso, United Kin...	September 24, 2021	1993	TV M
9	s10	Movie	The Starling	Theodore Melfi	Melissa McCarthy, Chris O'Dowd, Kevin Kline, T...	United States	September 24, 2021	2021	PG-1
12	s13	Movie	Je Suis Karl	Christian Schwochow	Luna Wedler, Jannis Niewöhner, Milan Peschel, ...	Germany, Czech Republic	September 23, 2021	2021	TV M
...
8801	s8802	Movie	Zinzana	Majid Al Ansari	Ali Suliman, Saleh Bakri, Yasa, Ali Al-Jabri, ...	United Arab Emirates, Jordan	March 9, 2016	2015	TV M
8802	s8803	Movie	Zodiac	David Fincher	Mark Ruffalo, Jake Gyllenhaal, Robert Downey Jr...	United States	November 20, 2019	2007	
8804	s8805	Movie	Zombieland	Ruben Fleischer	Jesse Eisenberg, Woody Harrelson, Emma Stone, ...	United States	November 1, 2019	2009	
8805	s8806	Movie	Zoom	Peter Hewitt	Tim Allen, Courteney Cox, Chevy	United States	January 11, 2020	2006	P

	show_id	type	title	director	cast	country	date_added	release_year	rating
					Chase, Kate Ma...				
8806	s8807	Movie	Zubaan	Mozez Singh	Vicky Kaushal, Sarah-Jane Dias, Raaghav Chan...	India	March 2, 2019	2015	TV-1

```
In [41]: df['Minutes']=df['Minutes'].astype(float)
df.head() #Since the 'Minutes' column was of Object dtype, so we converted it
```

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-13	90 mi
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-MA	Season
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	NaN	September 24, 2021	2021	TV-MA	1 Seaso
3	s4	TV Show	Jailbirds New Orleans	NaN	NaN	NaN	September 24, 2021	2021	TV-MA	1 Seaso
4	s5	TV Show	Kota Factory	NaN	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...	India	September 24, 2021	2021	TV-MA	Seaso

```
In [42]: df['Minutes'].max() #Hence the highest duration
```

```
Out[42]: 312.0
```

```
In [43]: df[(df['type']=='Movie') & (df['Minutes']==312.0)] #The name of the movie is
```

Out[43]:

	show_id	type	title	director	cast	country	date_added	release_year	rating
4253	s4254	Movie	Black Mirror: Bandersnatch	NaN	Fionn Whitehead, Will Poulter, Craig Parkinson...	United States	December 28, 2018	2018	TV-MA

```
In [ ]:
```

```
In [ ]:
```

```
In [44]: #Which country got the highest number of TV Show release?
```

```
In [45]: df_new=df[(df['type']=='TV Show') & (df['country'])]  
df_new
```

Out[45]:	show_id	type	title	director	cast	country	date_added	release_year	rating
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-MA
4	s5	TV Show	Kota Factory	NaN	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...	India	September 24, 2021	2021	TV-MA
8	s9	TV Show	The Great British Baking Show	Andy Devonshire	Mel Giedroyc, Sue Perkins, Mary Berry, Paul Ho...	United Kingdom	September 24, 2021	2021	TV-14
15	s16	TV Show	Dear White People	NaN	Logan Browning, Brandon P. Bell, DeRon Horton,...	United States	September 22, 2021	2021	TV-MA
17	s18	TV Show	Falsa identidad	NaN	Luis Ernesto Franco, Camila Sodi, Sergio Goyri...	Mexico	September 22, 2021	2020	TV-MA
...
8780	s8781	TV Show	Yo-Kai Watch	NaN	Johnny Yong Bosch, J.W. Terry, Alicyn Packard,...	United States	April 1, 2016	2015	TV-Y7
8795	s8796	TV Show	Yu-Gi-Oh! Arc-V	NaN	Mike Liscio, Emily Bauer, Billy Bob Thompson, ...	Japan, Canada	May 1, 2018	2015	TV-Y7
8796	s8797	TV Show	Yunus Emre	NaN	Gökhan Atalay, Payidar Tüfekçioğlu, Baran Akbu...	Turkey	January 17, 2017	2016	TV-PG
8797	s8798	TV Show	Zak Storm	NaN	Michael Johnston, Jessica Gee-	United States, France, South	September 13, 2018	2016	TV-Y7

show_id	type	title	director	cast	country	date_added	release_year	rating
				George, Christin...	Korea, Indonesia			
8800	s8801	TV Show	Zindagi Gulzar Hai	NaN	Sanam Saeed, Fawad Khan, Ayesha Omer, Mehreen ...	Pakistan	December 15, 2016	2012 TV-PG

In [46]: `df_new.country.value_counts()`

```
Out[46]: country
United States      760
United Kingdom    213
Japan              169
South Korea        158
India              79
...
Belarus             1
United Kingdom, Australia   1
France, Australia, Germany  1
Australia, New Zealand, United States  1
United States, France, South Korea, Indonesia  1
Name: count, Length: 196, dtype: int64
```

In [47]: `df_new.country.value_counts().head(1)` # United States had the hi

```
Out[47]: country
United States      760
Name: count, dtype: int64
```

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In [48]: `#Show the titles of TV Shows that were rated 'R'.`

In [49]: `df[(df['rating']=='R') & (df['type']=='TV Show')]`

Out[49]:		show_id	type	title	director	cast	country	date_added	release_year	rating	durat
3893	s3894	TV Show	The Hateful Eight: Extended Version	Quentin Tarantino	Samuel L. Jackson, Kurt Russell, Jennifer Jason Leigh, Aksel Hennie, Tuva Novotny, Anders Danielsen Lie, ...	NaN	April 25, 2019	2015	R	1 Sea	
7593	s7594	TV Show	Nobel	NaN	Aksel Hennie, Tuva Novotny, Anders Danielsen Lie, ...	Norway	December 10, 2016	2016	R	1 Sea	

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In [50]: *#In how many Movies 'Ben Affleck' was cast?*In [51]: `df_2=df.dropna()` *#It dropped all the null values in the dataset.*In [52]: `df_2[df_2['cast'].str.contains('Ben Affleck')]`

Out[52]:	show_id	type	title	director	cast	country	date_added	release_year	rating
608	s609	Movie	The Sum of All Fears	Phil Alden Robinson	Ben Affleck, Morgan Freeman, Bridget Moynahan,...	United States, Germany, Canada	July 1, 2021	2002	PG-13
947	s948	Movie	State of Play	Kevin Macdonald	Russell Crowe, Ben Affleck, Rachel McAdams, Helen...	United States, United Kingdom, France	May 1, 2021	2009	PG-13
2897	s2898	Movie	The Last Thing He Wanted	Dee Rees	Anne Hathaway, Ben Affleck, Willem Dafoe, Toby Kebbell...	United States	February 21, 2020	2020	R
4024	s4025	Movie	Triple Frontier	J.C. Chandor	Ben Affleck, Oscar Isaac, Charlie Hunnam, Pedro Pascal...	United States	March 13, 2019	2019	R
5953	s5954	Movie	Joseph: King of Dreams	Rob LaDuka, Robert C. Ramirez	Ben Affleck, Mark Hamill, Richard Herd, Maureen Teefey,...	United States, France, United Kingdom	September 27, 2011	2000	TV-PG
6450	s6451	Movie	Chasing Amy	Kevin Smith	Ben Affleck, Joey Lauren Adams, Jason Lee, David Arquette,...	United States	January 1, 2020	1997	R
7121	s7122	Movie	Jay and Silent Bob Strike Back	Kevin Smith	Jason Mewes, Kevin Smith, Ben Affleck, Jeff Anderson,...	United States	January 1, 2019	2001	R
8251	s8252	Movie	The Company Men	John Wells	Ben Affleck, Chris Cooper, Kevin Costner, Tom McCarthy,...	United States	July 28, 2018	2010	R

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#END OF THE PROJECT#