```
import pandas as pd
df = pd.read csv("netflix.csv")
df
     show_id
                 type
                                        title
                                                      director
                        Dick Johnson Is Dead
0
                                               Kirsten Johnson
          s1
                Movie
1
          s2
              TV Show
                                Blood & Water
                                                            NaN
2
          s3
              TV Show
                                    Ganglands
                                               Julien Leclercq
3
          s4
              TV Show Jailbirds New Orleans
                                                            NaN
4
          s5
              TV Show
                                 Kota Factory
                                                            NaN
                                       Zodiac
                                                 David Fincher
8802
       s8803
                Movie
              TV Show
8803
       s8804
                                  Zombie Dumb
                                                            NaN
                                               Ruben Fleischer
8804
       s8805
                Movie
                                   Zombieland
8805
       s8806
                Movie
                                         Zoom
                                                  Peter Hewitt
                                       Zubaan
8806
       s8807
                Movie
                                                   Mozez Singh
                                                                 country
                                                     cast
                                                         United States
                                                      NaN
      Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... South Africa
1
2
      Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...
                                                                     NaN
3
                                                      NaN
                                                                     NaN
      Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...
                                                                   India
8802 Mark Ruffalo, Jake Gyllenhaal, Robert Downey J... United States
8803
                                                      NaN
                                                                     NaN
     Jesse Eisenberg, Woody Harrelson, Emma Stone, ... United States
8805 Tim Allen, Courteney Cox, Chevy Chase, Kate Ma... United States
8806 Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...
                                                                   India
              date added
                           release year rating
                                                 duration \
      September 25, 2021
                                   2020
                                         PG-13
                                                   90 min
      September 24, 2021
                                   2021
1
                                         TV-MA
                                                2 Seasons
2
      September 24, 2021
                                   2021
                                         TV-MA
                                                 1 Season
      September 24, 2021
3
                                   2021
                                         TV-MA
                                                 1 Season
4
      September 24, 2021
                                   2021
                                         TV-MA
                                                2 Seasons
                                    . . .
       November 20, 2019
8802
                                   2007
                                             R
                                                  158 min
```

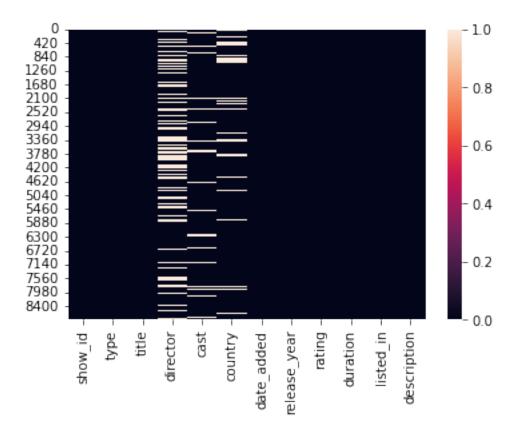
```
8803
            July 1, 2019
                                         TV-Y7
                                   2018
                                                2 Seasons
8804
        November 1, 2019
                                   2009
                                             R
                                                    88 min
8805
        January 11, 2020
                                   2006
                                            PG
                                                    88 min
           March 2, 2019
8806
                                   2015
                                                  111 min
                                         TV-14
                                                listed in
0
                                           Documentaries
1
        International TV Shows, TV Dramas, TV Mysteries
2
      Crime TV Shows, International TV Shows, TV Act...
3
                                  Docuseries, Reality TV
      International TV Shows, Romantic TV Shows, TV ...
4
8802
                          Cult Movies, Dramas, Thrillers
8803
                 Kids' TV, Korean TV Shows, TV Comedies
8804
                                 Comedies, Horror Movies
8805
                     Children & Family Movies, Comedies
         Dramas, International Movies, Music & Musicals
8806
                                             description
      As her father nears the end of his life, filmm...
1
      After crossing paths at a party, a Cape Town t...
2
      To protect his family from a powerful drug lor...
      Feuds, flirtations and toilet talk go down amo...
3
      In a city of coaching centers known to train I...
8802
     A political cartoonist, a crime reporter and a...
8803
      While living alone in a spooky town, a young g...
      Looking to survive in a world taken over by zo...
8804
      Dragged from civilian life, a former superhero...
8805
8806 A scrappy but poor boy worms his way into a ty...
[8807 rows x 12 columns]
#top 5 records
df.head()
  show id
              type
                                     title
                                                    director \
                     Dick Johnson Is Dead Kirsten Johnson
0
             Movie
       s1
1
           TV Show
                             Blood & Water
       s2
                                                         NaN
2
       s3
           TV Show
                                 Ganglands
                                            Julien Leclercq
3
           TV Show
       54
                    Jailbirds New Orleans
                                                         NaN
       s5
           TV Show
                              Kota Factory
                                                         NaN
                                                  cast
                                                              country \
                                                   NaN
                                                        United States
1
   Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...
                                                         South Africa
2
   Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...
                                                                  NaN
3
                                                                  NaN
   Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...
                                                                India
```

```
date added
                       release year rating
                                             duration \
  September 25, 2021
0
                               2020
                                     PG-13
                                                90 min
1
  September 24, 2021
                               2021
                                     TV-MA
                                            2 Seasons
   September 24, 2021
2
                               2021
                                     TV-MA
                                              1 Season
   September 24, 2021
                               2021
                                     TV-MA
                                              1 Season
4 September 24, 2021
                               2021
                                     TV-MA
                                            2 Seasons
                                            listed in \
0
                                       Documentaries
1
     International TV Shows, TV Dramas, TV Mysteries
2
  Crime TV Shows, International TV Shows, TV Act...
3
                              Docuseries, Reality TV
  International TV Shows, Romantic TV Shows, TV ...
                                          description
  As her father nears the end of his life, filmm...
  After crossing paths at a party, a Cape Town t...
  To protect his family from a powerful drug lor...
   Feuds, flirtations and toilet talk go down amo...
  In a city of coaching centers known to train I...
# bottom 5 records
df.tail()
                                            director \
     show id
                 type
                             title
       s8803
                Movie
8802
                            Zodiac
                                      David Fincher
8803
       s8804
              TV Show Zombie Dumb
                                                 NaN
8804
       s8805
                Movie
                                    Ruben Fleischer
                        Zombieland
8805
       s8806
                Movie
                              Zoom
                                       Peter Hewitt
8806
       s8807
                Movie
                            Zubaan
                                        Mozez Singh
                                                    cast
                                                                country
8802 Mark Ruffalo, Jake Gyllenhaal, Robert Downey J... United States
8803
                                                     NaN
                                                                    NaN
     Jesse Eisenberg, Woody Harrelson, Emma Stone, ... United States
8804
    Tim Allen, Courteney Cox, Chevy Chase, Kate Ma... United States
8806 Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...
                                                                  India
             date added
                         release_year rating
                                                duration \
      November 20, 2019
8802
                                                 158 min
                                 2007
                                           R
8803
           July 1, 2019
                                       TV-Y7
                                              2 Seasons
                                 2018
       November 1, 2019
8804
                                 2009
                                                  88 min
                                           R
       January 11, 2020
                                           PG
8805
                                 2006
                                                  88 min
8806
          March 2, 2019
                                 2015
                                       TV-14
                                                 111 min
```

```
listed in \
                      Cult Movies, Dramas, Thrillers
8802
8803
              Kids' TV, Korean TV Shows, TV Comedies
                             Comedies, Horror Movies
8804
                  Children & Family Movies, Comedies
8805
8806 Dramas, International Movies, Music & Musicals
                                            description
      A political cartoonist, a crime reporter and a...
8802
8803 While living alone in a spooky town, a young g...
8804 Looking to survive in a world taken over by zo...
      Dragged from civilian life, a former superhero...
8805
8806 A scrappy but poor boy worms his way into a ty...
# no of rows and columns
df.shape
(8807, 12)
# total no of values/elements on dataset
df.size
105684
#name of columns
df.columns
Index(['show_id', 'type', 'title', 'director', 'cast', 'country',
'date added',
       'release year', 'rating', 'duration', 'listed in',
'description'],
      dtype='object')
#data types of each column
df.dtypes
show id
                object
type
                object
title
                object
director
                object
cast
                object
country
                object
date added
                object
                 int64
release year
rating
                object
duration
                object
listed in
                object
description
                object
dtype: object
```

```
# to show indexes, data types of each column, memory at once
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
                   8807 non-null
     type
                                    object
 2
     title
                   8807 non-null
                                    object
 3
                   6173 non-null
     director
                                    object
 4
     cast
                   7982 non-null
                                    object
 5
                   7976 non-null
     country
                                    object
 6
     date added
                   8797 non-null
                                    object
 7
     release year
                   8807 non-null
                                    int64
 8
                   8803 non-null
     rating
                                    object
 9
     duration
                   8804 non-null
                                    obiect
 10
    listed in
                   8807 non-null
                                    object
                   8807 non-null
11
     description
                                    object
dtypes: int64(1), object(11)
memory usage: 825.8+ KB
#duplicate records
df[df.duplicated()]
Empty DataFrame
Columns: [show id, type, title, director, cast, country, date added,
release year, rating, duration, listed in, description]
Index: []
#check null values
df.isnull()
      show id
                type
                      title
                             director
                                         cast
                                               country date added \
0
        False
               False
                      False
                                 False
                                        True
                                                 False
                                                             False
1
        False
               False False
                                                 False
                                                             False
                                 True
                                        False
2
        False
               False False
                                 False
                                        False
                                                  True
                                                             False
3
        False False False
                                 True
                                        True
                                                  True
                                                             False
4
        False
               False
                      False
                                 True
                                        False
                                                 False
                                                             False
               False
8802
        False
                      False
                                 False
                                        False
                                                 False
                                                             False
8803
        False
               False
                      False
                                 True
                                        True
                                                  True
                                                             False
8804
        False
               False
                      False
                                 False
                                        False
                                                 False
                                                             False
8805
                                                 False
        False
               False
                      False
                                 False
                                        False
                                                             False
                                                 False
8806
        False
               False
                      False
                                 False
                                        False
                                                             False
      release_year
                    rating
                            duration listed in
                                                  description
0
             False
                     False
                               False
                                           False
                                                        False
1
             False
                     False
                                False
                                           False
                                                        False
```

```
2
             False
                      False
                                False
                                           False
                                                         False
             False
                      False
                                False
                                            False
                                                         False
4
             False
                      False
                                False
                                           False
                                                         False
8802
             False
                      False
                                False
                                           False
                                                         False
8803
             False
                      False
                                False
                                           False
                                                         False
             False
                      False
                                False
                                           False
                                                         False
8804
8805
             False
                      False
                                False
                                           False
                                                         False
8806
             False
                      False
                                False
                                           False
                                                         False
[8807 rows x 12 columns]
#count of null values
df.isnull().sum()
show_id
                   0
                   0
type
title
                   0
director
                2634
cast
                 825
                 831
country
date_added
                   10
                   0
release_year
                   4
rating
                   3
duration
listed in
                   0
                   0
description
dtype: int64
#searborn library (heat-map)
import seaborn as sns
sns.heatmap(df.isnull())
<AxesSubplot:>
```



Q.1. For 'House of Cards', what is the show id and who is the Director of this show? #isin() df[df['title'].isin(['House of Cards'])] title director \ show id type 1059 s1060 TV Show House of Cards cast country 1059 Kevin Spacey, Robin Wright, Kate Mara, Corey S... United States date added release year rating duration listed in \ 1059 April 14, 2021 2018 TV-MA 6 Seasons TV Dramas, TV Thrillers description 1059 A ruthless politician will stop at nothing to ... #str.contain() df[df['title'].str.contains('House of Cards')] show id type title director \ TV Show House of Cards 1059 s1060 NaN

```
cast country

1059 Kevin Spacey, Robin Wright, Kate Mara, Corey S... United States

date_added release_year rating duration

listed_in \
1059 April 14, 2021 2018 TV-MA 6 Seasons TV Dramas, TV

Thrillers

description

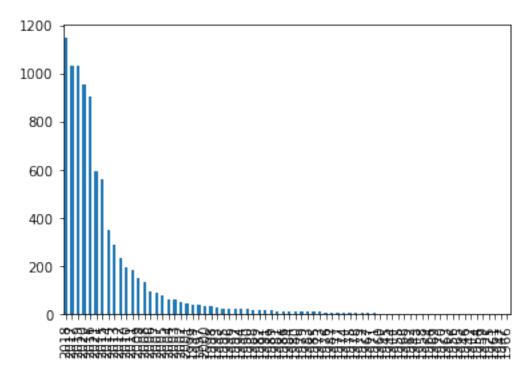
1059 A ruthless politician will stop at nothing to ...
```

Q.2 In which year highest number of the TV Shows & Movies were released? Show with Bar Graph

```
df.dtypes
show id
                object
                object
type
title
                object
director
                object
                object
cast
country
                object
date added
                object
release year
                 int64
rating
                object
duration
                object
listed in
                object
description
                object
dtype: object
df["Date N"] = pd.to datetime(df['date added'])
df.head()
                                     title
  show id
                                                   director \
              type
                     Dick Johnson Is Dead Kirsten Johnson
0
             Movie
       s1
1
       s2
           TV Show
                             Blood & Water
                                                         NaN
2
           TV Show
       s3
                                 Ganglands
                                            Julien Leclerca
3
       s4
           TV Show
                    Jailbirds New Orleans
                                                         NaN
       s5 TV Show
                              Kota Factory
                                                         NaN
                                                 cast
                                                              country \
0
                                                  NaN
                                                       United States
   Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...
1
                                                        South Africa
2
   Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...
                                                                  NaN
3
                                                  NaN
                                                                  NaN
   Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...
                                                                India
```

```
duration \
           date added
                       release year rating
  September 25, 2021
0
                               2020
                                     PG-13
                                                90 min
1
  September 24, 2021
                               2021 TV-MA
                                           2 Seasons
  September 24, 2021
2
                                    TV-MA
                               2021
                                             1 Season
3 September 24, 2021
                               2021
                                     TV-MA
                                             1 Season
4 September 24, 2021
                               2021
                                     TV-MA 2 Seasons
                                           listed in \
0
                                       Documentaries
1
     International TV Shows, TV Dramas, TV Mysteries
2
  Crime TV Shows, International TV Shows, TV Act...
3
                              Docuseries, Reality TV
  International TV Shows, Romantic TV Shows, TV ...
                                          description
                                                          Date N
  As her father nears the end of his life, filmm... 2021-09-25
  After crossing paths at a party, a Cape Town t... 2021-09-24
1
  To protect his family from a powerful drug lor... 2021-09-24
   Feuds, flirtations and toilet talk go down amo... 2021-09-24
  In a city of coaching centers known to train I... 2021-09-24
df.dtypes
show id
                        object
type
                        object
title
                        object
director
                        object
                        object
cast
                        object
country
date added
                        object
release year
                         int64
rating
                        object
duration
                        object
listed in
                        object
description
                        object
Date N
                datetime64[ns]
dtype: object
#dt.year.value counts()
#df['Date N'].dt.year.value counts()
df['release year'].value counts()
2018
        1147
2017
        1032
2019
        1030
2020
         953
2016
         902
           1
1959
```

```
1925    1
1961    1
1947    1
1966    1
Name: release_year, Length: 74, dtype: int64
df['release_year'].value_counts().plot(kind='bar')
<AxesSubplot:>
```



Q.3. How many movies & TV Shows are in the dataset? Show the Bar Graph

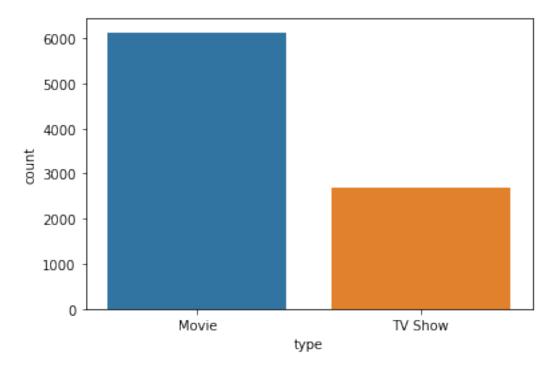
```
df.groupby('type').type.count()

type
Movie 6131
TV Show 2676
Name: type, dtype: int64

#countplot
sns.countplot(df['type'])

C:\Users\priya\anaconda3\lib\site-packages\seaborn\_decorators.py:36:
FutureWarning: Pass the following variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misinterpretation.
    warnings.warn(
```

<AxesSubplot:xlabel='type', ylabel='count'>



Q.4. Show all the movies that were released in year 2000

```
# extract year
#df['year']=df['Date_N'].dt.year
df[ (df['type'] == 'Movie') & (df['release year'] == 2000) ]
     show id
                                                                    title
               type
180
        s181
              Movie
                                     The Nutty Professor II: The Klumps
350
        s351
              Movie
                                                           Space Cowboys
359
                                            The Original Kings of Comedy
        s360
              Movie
                                                        Charlie's Angels
566
        s567
              Movie
593
        s594
              Movie
                                                                 Snow Day
779
        s780
              Movie
                                                       Battlefield Earth
                                                    The Whole Nine Yards
952
        s953
              Movie
3472
       s3473
              Movie
                                             Rugrats in Paris: The Movie
4545
       s4546
                                 Monty Python: Before the Flying Circus
              Movie
4723
       s4724
              Movie
                                                                     Fiza
```

4956	s4957	Movie	Phir Bhi Dil Hai Hindustani
5953	s5954	Movie	Joseph: King of Dreams
6006	s6007	Movie	28 Days
6147	s6148	Movie	American Psycho
6154	s6155	Movie	An American Tail: The Treasures of Manhattan I
6311	s6312	Movie	Billy Elliot
6437	s6438	Movie	Center Stage
6440	s6441	Movie	Chal Mere Bhai
6543	s6544	Movie	Crouching Tiger, Hidden Dragon
6643	s6644	Movie	Dragonheart: A New Beginning
6753	s6754	Movie	Final Destination
6912	s6913	Movie	Hamara Dil Aapke Paas Hai
7013	s7014	Movie	How the Grinch Stole Christmas
7247	s7248	Movie	Kya Kehna
7316	s7317	Movie	Little Nicky
7702	s7703	Movie	Papa the Great
7801	s7802	Movie	Pukar
7955	s7956	Movie	Scary Movie
7962	s7963	Movie	Scream 3
8196	s8197	Movie	The Art of War
8305	s8306	Movie	The Flintstones in Viva Rock Vegas
8722	s8723	Movie	What Lies Beneath
8729	s8730	Movie	Where the Money Is
180 350 359			director \ Peter Segal Clint Eastwood Spike Lee

```
566
                                 McG
593
                          Chris Koch
779
                     Roger Christian
952
                       Jonathan Lynn
3472
       Stig Bergqvist, Paul Demeyer
4545
                           Will Yapp
4723
                     Khalid Mohamed
4956
                          Aziz Mirza
5953
      Rob LaDuca, Robert C. Ramirez
6006
                        Betty Thomas
6147
                         Mary Harron
6154
                        Larry Latham
                      Stephen Daldry
6311
6437
                     Nicholas Hytner
6440
                        David Dhawan
6543
                             Ang Lee
6643
                         Doug Lefler
6753
                          James Wong
6912
                      Satish Kaushik
                          Ron Howard
7013
7247
                         Kundan Shah
7316
                         Steve Brill
7702
                           Bhaqyarai
7801
                   Rajkumar Santoshi
7955
                Keenen Ivory Wayans
7962
                          Wes Craven
8196
                    Christian Duquay
8305
                        Brian Levant
8722
                     Robert Zemeckis
8729
                     Marek Kanievska
                                                     cast
180
      Eddie Murphy, Janet Jackson, Larry Miller, Joh...
350
      Clint Eastwood, Tommy Lee Jones, Donald Suther...
359
      Steve Harvey, D.L. Hughley, Cedric the Enterta...
      Cameron Diaz, Drew Barrymore, Lucy Liu, Bill M...
566
593
      Chris Elliott, Mark Webber, Jean Smart, Schuyl...
779
      John Travolta, Barry Pepper, Forest Whitaker, ...
952
      Bruce Willis, Matthew Perry, Rosanna Arquette,...
3472
      Elizabeth Daily, Tara Strong, Cheryl Chase, Ch...
4545
      Graham Chapman, Eric Idle, Terry Jones, Michae...
      Karisma Kapoor, Jaya Bhaduri, Hrithik Roshan, ...
4723
4956
      Shah Rukh Khan, Juhi Chawla, Paresh Rawal, Sat...
5953
      Ben Affleck, Mark Hamill, Richard Herd, Mauree...
6006
      Sandra Bullock, Viggo Mortensen, Dominic West,...
      Christian Bale, Willem Dafoe, Jared Leto, Rees...
6147
6154
      Thomas Dekker, Dom DeLuise, Pat Musick, Nehemi...
6311
      Jamie Bell, Gary Lewis, Stuart Wells, Billy Fa...
      Amanda Schull, Zoe Saldana, Susan May Pratt, P...
6437
```

```
6440
      Sanjay Dutt, Salman Khan, Karisma Kapoor, Dali...
      Chow Yun Fat, Michelle Yeoh, Zhang Ziyi, Chang...
6543
6643
      Christopher Masterson, Harry Van Gorkum, Rona ...
      Devon Sawa, Ali Larter, Kerr Smith, Kristen Cl...
6753
6912
      Anil Kapoor, Aishwarya Rai Bachchan, Sonali Be...
      Jim Carrey, Taylor Momsen, Jeffrey Tambor, Chr...
7013
      Preity Zinta, Saif Ali Khan, Anupam Kher, Fari...
7247
7316
      Adam Sandler, Patricia Arguette, Harvey Keitel...
7702
      Krishan Kumar, Nagma, Satya Prakash, Master Bo...
7801
      Anil Kapoor, Madhuri Dixit, Namrata Shirodkar,...
7955
      Anna Faris, Jon Abrahams, Shannon Elizabeth, S...
7962
      David Arquette, Neve Campbell, Courteney Cox, ...
8196
      Wesley Snipes, Anne Archer, Maury Chaykin, Mar...
      Mark Addy, Stephen Baldwin, Kristen Johnston, ...
8305
8722
      Harrison Ford, Michelle Pfeiffer, Diana Scarwi...
8729
      Paul Newman, Linda Fiorentino, Dermot Mulroney...
                                              country
date added \
180
                                                  NaN
                                                        September 1,
2021
350
                                        United States
                                                           August 1,
2021
                                        United States
359
                                                           August 1,
2021
566
                               United States, Germany
                                                             July 1,
2021
593
                                        United States
                                                             July 1,
2021
779
                                        United States
                                                             June 2,
2021
952
                                        United States
                                                              May 1,
2021
3472
                               Germany, United States
                                                          October 1,
2019
4545
                                       United Kingdom
                                                          October 2,
2018
4723
                                                India
                                                           August 2,
2018
4956
                                                India
                                                            April 1,
2018
5953
               United States, France, United Kingdom
                                                       September 27,
2011
6006
                                        United States
                                                       September 30,
2020
6147
                                United States, Canada
                                                        September 1,
2019
6154
                                        United States
                                                            April 1,
2018
```

6311	United Kingdom	, France	February 1,
2019	He21 e		71
6437	United	States	January 1,
2020			D 1 01
6440		India	December 31,
2019		61.1	
6543	Taiwan, Hong Kong, United States	s, China	March 1,
2019			
6643	United	States	January 1,
2020			
6753	United	States	January 1,
2020			
6912		India	March 1,
2018			
7013	United	d States	June 1,
2017			
7247		India	April 1,
2018			
7316	United	States	December 1,
2020			
7702		India	December 8,
2017			
7801		India	March 1,
2018			
7955	Unite	d States	January 1,
2020			
7962	United	States	July 1,
2019			
8196	United States	, Canada	July 1,
2020			
8305	United	States	October 1,
2019			
8722	United	States	January 1,
2020			
8729	Germany, United States, United Kingdom	, Canada	January 15,
2020			
	release_year rating duration \		
180	2000 PG-13 107 min		
350	2000 PG-13 130 min		
359	2000 R 111 min		
566	2000 PG-13 98 min		
593	2000 PG 89 min		
779	2000 PG-13 118 min		
952	2000 R 99 min		
3472	2000 G 79 min		
4545	2000 TV-MA 56 min		
4723	2000 TV-14 163 min		
4956	2000 TV-14 159 min		

```
5953
                     TV-PG
               2000
                             75 min
                     PG-13
6006
               2000
                             104 min
6147
               2000
                         R
                             102 min
6154
               2000
                         G
                             79 min
6311
               2000
                         R
                             110 min
6437
               2000
                     PG-13
                             116 min
6440
               2000
                     TV-14
                             132 min
6543
               2000
                     PG-13
                             120 min
               2000
                             84 min
6643
                        PG
6753
               2000
                         R
                             98 min
6912
               2000
                     TV-14
                             158 min
                        PG
7013
               2000
                             105 min
7247
               2000
                     TV-PG
                             149 min
                     PG-13
                             90 min
7316
               2000
7702
               2000
                     TV-PG
                             137 min
                     TV-14
                             165 min
7801
               2000
7955
               2000
                         R
                             88 min
7962
               2000
                         R
                             117 min
8196
               2000
                         R
                             117 min
8305
                        PG
                             91 min
               2000
8722
               2000
                     PG-13
                             130 min
8729
               2000
                     PG-13
                             89 min
                                                 listed in
180
                                Comedies, Romantic Movies
350
           Action & Adventure, Dramas, Sci-Fi & Fantasy
359
                                           Stand-Up Comedy
566
                             Action & Adventure, Comedies
                      Children & Family Movies, Comedies
593
      Action & Adventure, Cult Movies, Sci-Fi & Fantasy
779
952
                             Action & Adventure, Comedies
3472
                      Children & Family Movies, Comedies
4545
                                  Comedies, Documentaries
4723
         Dramas, International Movies, Music & Musicals
                  Comedies, Dramas, International Movies
4956
5953
      Children & Family Movies, Dramas, Faith & Spir...
6006
                                         Comedies, Dramas
6147
                            Comedies, Cult Movies, Dramas
6154
                                 Children & Family Movies
6311
       Dramas, Independent Movies, International Movies
6437
                                                    Dramas
6440
        Comedies, International Movies, Romantic Movies
6543
      Action & Adventure, International Movies, Roma...
                    Action & Adventure, Sci-Fi & Fantasv
6643
6753
                   Cult Movies, Horror Movies, Thrillers
         Dramas, International Movies, Music & Musicals
6912
7013
                      Children & Family Movies, Comedies
7247
          Dramas, International Movies, Romantic Movies
7316
                                                  Comedies
```

7702 7801 7955 7962 8196 8305 8722 8729	Comedies, Dramas, International Movies Action & Adventure, Dramas, International Movies Comedies, Horror Movies Horror Movies Action & Adventure Children & Family Movies, Comedies, Romantic M Horror Movies, Thrillers Action & Adventure, Comedies, Dramas	
	description	Date N
year		20.00
180	After getting engaged, Sherman Klump prepares	2021-09-01
2021		2021 00 01
350 2021	A retired engineer agrees to help NASA prevent	2021-08-01
359	Comedians Steve Harvey, Cedric the Entertainer	2021-08-01
2021	, ,	
566	A tight-knit trio of specially trained agents	2021-07-01
2021		2021 07 01
593 2021	When a snow day shuts down the whole town, the	2021-07-01
779	In the year 3000, an alien race known as the P	2021-06-02
2021		2021 00 02
952	An unhappily married dentist becomes mixed up	2021-05-01
2021		2010 10 01
3472	The Rugrats take to the big screen and visit P	2019-10-01
2019 4545	.u Discover how six seemingly ordinary but suprem	2018-10-02
2018		2010 10 02
4723	Fiza's brother disappears during Mumbai's horr	2018-08-02
2018		
4956	In this Bollywood entertainment, two journalis	2018-04-01
2018 · 5953		2011-00-27
2011		2011-03-27
6006	After her drunken antics result in property da	2020-09-30
2020		
	With chiseled good looks that belie his insani	2019-09-01
2019	.บ When Fievel and friends go hunting for buried	2018-04-01
2018		2010-04-01
6311		2019-02-01
2019		
	Vying for a spot in the American Ballet Compan	2020-01-01
2020	.u When a secretary saves her tycoon boss's life,	2010 12 21
2019	•	2019-12-31
	A young woman in ancient China longs for an ad	2019-03-01
2019		

```
6643 This sequel introduces Draco the dragon's offs... 2020-01-01
2020.0
6753 After narrowly avoiding a fatal plane explosio... 2020-01-01
2020.0
6912 Love blooms when kind-hearted Avinash takes in... 2018-03-01
2018.0
     The Grinch decides to rob Whoville of Christma... 2017-06-01
7013
2017.0
7247 A young university student's world is shaken a... 2018-04-01
2018.0
7316
     The devil sends his sweet son Nicky to Earth t... 2020-12-01
2020.0
7702 After witnessing a murder, a meek family man m... 2017-12-08
2017.0
7801 A notorious terrorist manipulates an Indian ar... 2018-03-01
2018.0
7955 The Wayans brothers spoof some of Hollywood's ... 2020-01-01
2020.0
7962 This installment of the tongue-in-cheek horror... 2019-07-01
2019.0
8196 Framed for the murder of an ambassador, a form... 2020-07-01
2020.0
8305 Yabba-dabba-doo! Digital dinosaurs rule the da... 2019-10-01
2019.0
8722 When Claire Spencer starts hearing ghostly voi... 2020-01-01
2020.0
8729 Paul Newman proves he's still got prodigious a... 2020-01-15
2020.0
```

Q.5. Show only the Titles of all TV Shows that were released in India only

```
df[ (df['type'] == 'TV Show') & (df['country'] == 'India') ] ['title']
4
                               Kota Factory
39
                               Chhota Bheem
50
                              Dharmakshetra
66
             Raja Rasoi Aur Anya Kahaniyan
            Stories by Rabindranath Tagore
69
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
```

Q.6. Show Top 10 Directors, who gave the highest number of TV Shows & Movies to Netflix

```
df['director'].value_counts().head(10)
```

```
Rajiv Chilaka
                           19
Raúl Campos, Jan Suter
                           18
Marcus Raboy
                           16
Suhas Kadav
                           16
Jav Karas
                           14
Cathy Garcia-Molina
                           13
Martin Scorsese
                           12
Youssef Chahine
                           12
Jay Chapman
                           12
Steven Spielberg
                           11
Name: director, dtype: int64
```

Q.7 Show all the Records, where 'Type' in Movie and 'Listed In' Comedies or 'country is 'United Kingdom'

```
df[ (df['type'] == 'Movie') &
(df['listed in'].str.contains('Comedies')) | (df['country'] == 'United
Kingdom') ]
     show id
                 type
                                                   title \
8
              TV Show
                          The Great British Baking Show
          s9
9
         s10
                Movie
                                            The Starling
13
         s14
                Movie Confessions of an Invisible Girl
22
                                         Avvai Shanmughi
         s23
                Movie
24
         s25
                Movie
                                                   Jeans
8791
       s8792
                Movie
                                             Young Adult
8793
       s8794
                Movie
                                   Yours, Mine and Ours
                                                Zed Plus
8798
       s8799
                Movie
8804
                Movie
                                              Zombieland
       s8805
8805
       s8806
                Movie
                                                    Zoom
                     director \
8
              Andy Devonshire
9
               Theodore Melfi
13
                Bruno Garotti
22
               K.S. Ravikumar
24
                   S. Shankar
. . .
                Jason Reitman
8791
8793
                 Raja Gosnell
8798
      Chandra Prakash Dwivedi
8804
              Ruben Fleischer
                 Peter Hewitt
8805
                                                    cast
country \
      Mel Giedroyc, Sue Perkins, Mary Berry, Paul Ho... United
Kingdom
      Melissa McCarthy, Chris O'Dowd, Kevin Kline, T...
                                                           United
```

```
States
      Klara Castanho, Lucca Picon, Júlia Gomes, Marc...
13
NaN
22
      Kamal Hassan, Meena, Gemini Ganesan, Heera Raj...
NaN
24
      Prashanth, Aishwarya Rai Bachchan, Sri Lakshmi...
India
8791 Charlize Theron, Patton Oswalt, Patrick Wilson...
                                                           United
States
8793 Dennis Quaid, Rene Russo, Sean Faris, Katija P...
                                                           United
States
8798 Adil Hussain, Mona Singh, K.K. Raina, Sanjay M...
India
     Jesse Eisenberg, Woody Harrelson, Emma Stone, ...
8804
                                                           United
States
8805 Tim Allen, Courteney Cox, Chevy Chase, Kate Ma...
                                                           United
States
              date added
                          release_year rating
                                                 duration
      September 24, 2021
                                   2021
                                         TV-14
                                                9 Seasons
      September 24, 2021
9
                                   2021
                                         PG-13
                                                  104 min
13
      September 22, 2021
                                   2021
                                        TV-PG
                                                   91 min
22
      September 21, 2021
                                   1996
                                        TV-PG
                                                  161 min
      September 21, 2021
                                   1998
24
                                        TV-14
                                                  166 min
                                    . . .
       November 20, 2019
                                   2011
                                                   94 min
8791
                                             R
       November 20, 2019
                                            PG
8793
                                   2005
                                                   88 min
       December 31, 2019
8798
                                   2014
                                                  131 min
                                        TV-MA
8804
        November 1, 2019
                                   2009
                                             R
                                                   88 min
8805
        January 11, 2020
                                   2006
                                            PG
                                                   88 min
                                             listed in \
                         British TV Shows, Reality TV
8
9
                                      Comedies, Dramas
13
                   Children & Family Movies, Comedies
22
                       Comedies, International Movies
      Comedies, International Movies, Romantic Movies
24
. . .
8791
                 Comedies, Dramas, Independent Movies
                   Children & Family Movies, Comedies
8793
               Comedies, Dramas, International Movies
8798
8804
                               Comedies, Horror Movies
8805
                   Children & Family Movies, Comedies
                                             description
                                                             Date N
year
      A talented batch of amateur bakers face off in... 2021-09-24
2021.0
```

```
A woman adjusting to life after a loss contend... 2021-09-24
2021.0
13
     When the clever but socially-awkward Tetê join... 2021-09-22
2021.0
      Newly divorced and denied visitation rights wi... 2021-09-21
2021.0
     When the father of the man she loves insists t... 2021-09-21
24
2021.0
8791 When a divorced writer gets a letter from an o... 2019-11-20
2019.0
8793 When a father of eight and a mother of 10 prep... 2019-11-20
2019.0
8798 A philandering small-town mechanic's political... 2019-12-31
2019.0
8804 Looking to survive in a world taken over by zo... 2019-11-01
2019.0
8805 Dragged from civilian life, a former superhero... 2020-01-11
2020.0
[2061 rows \times 14 columns]
```

Q.8. In how many movies/shows, Tom Cruise was cast

```
df[df['cast'] == 'Tom Cruise']
Empty DataFrame
Columns: [show id, type, title, director, cast, country, date added,
release year, rating, duration, listed in, description, Date N, year]
Index: []
#str.contains()
df[df['cast'].str.contains('Tom Cruise')]
ValueError
                                    Traceback (most recent call
last)
Input In [94], in <cell line: 2>()
      1 #str.contains()
----> 2 df[df['cast'].str.contains('Tom Cruise')]
File ~\anaconda3\lib\site-packages\pandas\core\frame.py:3495, in
DataFrame.__getitem (self, key)
           return self.where(key)
   3494 # Do we have a (boolean) 1d indexer?
-> 3495 if com.is bool_indexer(key):
           return self. getitem bool array(key)
   3498 # We are left with two options: a single key, and a collection
```

```
of keys,
   3499 # We interpret tuples as collections only for non-MultiIndex
File ~\anaconda3\lib\site-packages\pandas\core\common.py:144, in
is bool indexer(key)
    140
            na msg = "Cannot mask with non-boolean array containing NA
/ NaN values"
            if lib.infer dtype(key) == "boolean" and isna(key).any():
    141
                # Don't raise on e.g. ["A", "B", np.nan], see
    142
    143
test_loc_getitem_list_of_labels_categoricalindex_with_na
--> 144
                raise ValueError(na msg)
    145
            return False
    146 return True
ValueError: Cannot mask with non-boolean array containing NA / NaN
values
#remove null values
df new = df.dropna()
df new
     show_id
                                                title
                 type
director
          s8
                                              Sankofa
                                                              Haile
7
                Movie
Gerima
              TV Show The Great British Baking Show
                                                           Andv
          s9
Devonshire
         s10
                Movie
                                         The Starling
                                                            Theodore
Melfi
                                         Je Suis Karl Christian
                Movie
12
         s13
Schwochow
                                                                 S.
24
         s25
                Movie
                                                Jeans
Shankar
. . .
                                                  . . .
8801 s8802
                Movie
                                              Zinzana
                                                           Majid Al
Ansari
8802
       s8803
                Movie
                                               Zodiac
                                                              David
Fincher
8804
       s8805
                Movie
                                           Zombieland
                                                           Ruben
Fleischer
                Movie
                                                 Zoom
                                                               Peter
8805
       s8806
Hewitt
8806
                Movie
                                               Zubaan
       s8807
                                                               Mozez
Singh
                                                    cast \
      Kofi Ghanaba, Oyafunmike Ogunlano, Alexandra D...
7
8
      Mel Giedroyc, Sue Perkins, Mary Berry, Paul Ho...
```

```
9
      Melissa McCarthy, Chris O'Dowd, Kevin Kline, T...
      Luna Wedler, Jannis Niewöhner, Milan Peschel, ...
12
24
      Prashanth, Aishwarya Rai Bachchan, Sri Lakshmi...
      Ali Suliman, Saleh Bakri, Yasa, Ali Al-Jabri, ...
8801
      Mark Ruffalo, Jake Gyllenhaal, Robert Downey J...
8802
      Jesse Eisenberg, Woody Harrelson, Emma Stone, ...
8804
      Tim Allen, Courteney Cox, Chevy Chase, Kate Ma...
8805
      Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...
8806
                                                  country
date added \
7
      United States, Ghana, Burkina Faso, United Kin...
                                                           September 24,
2021
                                           United Kingdom
                                                           September 24,
2021
9
                                            United States
                                                           September 24,
2021
12
                                 Germany, Czech Republic
                                                           September 23,
2021
24
                                                    India
                                                           September 21,
2021
. . .
                            United Arab Emirates, Jordan
8801
                                                                March 9,
2016
8802
                                            United States
                                                            November 20,
2019
8804
                                            United States
                                                              November 1,
2019
                                            United States
8805
                                                              January 11,
2020
8806
                                                    India
                                                                March 2,
2019
                             duration \
      release year rating
7
                              125 min
              1993
                    TV-MA
8
              2021
                    TV-14
                            9 Seasons
9
              2021
                    PG-13
                              104 min
12
              2021
                    TV-MA
                              127 min
24
              1998
                    TV-14
                              166 min
              2015
                     TV-MA
                               96 min
8801
8802
              2007
                         R
                              158 min
8804
              2009
                         R
                               88 min
                               88 min
8805
              2006
                        PG
8806
              2015
                     TV-14
                              111 min
                                               listed in \
7
      Dramas, Independent Movies, International Movies
```

```
8
                          British TV Shows, Reality TV
9
                                      Comedies, Dramas
12
                          Dramas, International Movies
       Comedies, International Movies, Romantic Movies
24
               Dramas, International Movies, Thrillers
8801
8802
                        Cult Movies, Dramas, Thrillers
8804
                               Comedies, Horror Movies
8805
                    Children & Family Movies, Comedies
8806
        Dramas, International Movies, Music & Musicals
                                            description
                                                            Date N
year
      On a photo shoot in Ghana, an American model s... 2021-09-24
2021.0
      A talented batch of amateur bakers face off in... 2021-09-24
2021.0
      A woman adjusting to life after a loss contend... 2021-09-24
2021.0
     After most of her family is murdered in a terr... 2021-09-23
2021.0
     When the father of the man she loves insists t... 2021-09-21
2021.0
. . .
. . .
8801 Recovering alcoholic Talal wakes up inside a s... 2016-03-09
2016.0
8802 A political cartoonist, a crime reporter and a... 2019-11-20
8804 Looking to survive in a world taken over by zo... 2019-11-01
2019.0
8805 Dragged from civilian life, a former superhero... 2020-01-11
2020.0
8806 A scrappy but poor boy worms his way into a ty... 2019-03-02
2019.0
[5332 rows x 14 columns]
df_new[df_new['cast'].str.contains('Tom Cruise')]
     show id
                                           director \
               type
                        title
341
        s342
              Movie
                               Paul Thomas Anderson
                     Magnolia
1254
       s1255
             Movie
                     Rain Man
                                     Barry Levinson
                                                   cast
                                                               country
341
      John C. Reilly, Philip Baker Hall, Tom Cruise,... United States
     Dustin Hoffman, Tom Cruise, Valeria Golino, Ge... United States
1254
```

```
date added
                     release year rating duration \
341
     August 1, 2021
                             1999
                                       R 189 min
1254
      March 1, 2021
                             1988
                                       R 134 min
                      listed in \
      Dramas, Independent Movies
341
1254
         Classic Movies, Dramas
                                           description
                                                           Date N
vear
     Through chance, history and divine interventio... 2021-08-01
341
2021.0
1254 Motivated by money, a selfish workaholic seeki... 2021-03-01
2021.0
```

Q.9. What are the different ratings defined by Netflix

Q.9.1 How many Movies got the "TV-14" rating in Canada

```
df[(df['type']== 'Movie') & (df['rating']=='TV-14')].shape

(1427, 14)

df[(df['type']== 'Movie') & (df['rating']=='TV-14') & (df['country']=='Canada')].shape

(13, 14)
```

Q.9.2 How many TV Show got the 'R' rating after year 2018

```
3893 Samuel L. Jackson, Kurt Russell, Jennifer Jaso... NaN

date_added release_year rating duration listed_in \
3893 April 25, 2019 2015 R 1 Season TV Shows

description Date_N
year
3893 Trapped at a stagecoach stop as a storm rages ... 2019-04-25
2019.0
```

Q.10. What is the maximum duration of a Movies/Show on Netflix df['duration'].unique() 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)
df.duration.dtypes
dtype('0')
df[['Minutes','Unit']] = df['duration'].str.split(' ', expand=True)
df
      show id
                                                                director \
                    type
                                               title
                             Dick Johnson Is Dead
0
            s1
                   Movie
                                                       Kirsten Johnson
1
            s2
                TV Show
                                     Blood & Water
                                                                      NaN
2
                TV Show
                                          Ganglands
                                                       Julien Leclerca
            s3
3
                TV Show Jailbirds New Orleans
            s4
                                                                      NaN
4
            s5
                TV Show
                                      Kota Factory
                                                                      NaN
                                                          David Fincher
8802
        s8803
                   Movie
                                              Zodiac
                TV Show
                                        Zombie Dumb
8803
        s8804
                                                                      NaN
8804
        s8805
                   Movie
                                         Zombieland
                                                        Ruben Fleischer
8805
                                                Zoom
                                                           Peter Hewitt
        s8806
                   Movie
                                              Zubaan
8806
        s8807
                   Movie
                                                            Mozez Singh
                                                              cast
                                                                            country
/
0
                                                               NaN
                                                                   United States
       Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... South Africa
2
       Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...
                                                                                 NaN
3
                                                                                 NaN
                                                               NaN
       Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...
                                                                               India
```

```
8802 Mark Ruffalo, Jake Gyllenhaal, Robert Downey J...
                                                          United States
8803
                                                      NaN
                                                                     NaN
     Jesse Eisenberg, Woody Harrelson, Emma Stone, ... United States
8805
     Tim Allen, Courteney Cox, Chevy Chase, Kate Ma... United States
8806 Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...
                                                                   India
                           release_year rating
              date added
                                                 duration \
0
      September 25, 2021
                                   2020
                                         PG-13
                                                   90 min
      September 24, 2021
                                   2021
                                         TV-MA
1
                                                2 Seasons
2
      September 24, 2021
                                   2021
                                         TV-MA
                                                 1 Season
3
      September 24, 2021
                                   2021
                                         TV-MA
                                                 1 Season
      September 24, 2021
4
                                   2021
                                         TV-MA
                                                2 Seasons
                                    . . .
                                            . . .
       November 20, 2019
                                   2007
                                                   158 min
8802
                                             R
8803
            July 1, 2019
                                   2018
                                         TV-Y7
                                                2 Seasons
        November 1, 2019
                                   2009
8804
                                             R
                                                   88 min
        January 11, 2020
8805
                                   2006
                                            PG
                                                   88 min
           March 2, 2019
                                   2015
8806
                                         TV - 14
                                                  111 min
                                               listed in \
                                           Documentaries
        International TV Shows, TV Dramas, TV Mysteries
1
2
      Crime TV Shows, International TV Shows, TV Act...
3
                                  Docuseries, Reality TV
      International TV Shows, Romantic TV Shows, TV ...
4
                         Cult Movies, Dramas, Thrillers
8802
8803
                 Kids' TV, Korean TV Shows, TV Comedies
                                 Comedies, Horror Movies
8804
8805
                     Children & Family Movies, Comedies
         Dramas, International Movies, Music & Musicals
8806
                                             description
                                                              Date N
year
      As her father nears the end of his life, filmm... 2021-09-25
2021.0
      After crossing paths at a party, a Cape Town t... 2021-09-24
2021.0
      To protect his family from a powerful drug lor... 2021-09-24
2021.0
      Feuds, flirtations and toilet talk go down amo... 2021-09-24
2021.0
      In a city of coaching centers known to train I... 2021-09-24
```

```
2021.0
. . .
8802 A political cartoonist, a crime reporter and a... 2019-11-20
2019.0
8803 While living alone in a spooky town, a young g... 2019-07-01
2019.0
8804 Looking to survive in a world taken over by zo... 2019-11-01
2019.0
8805 Dragged from civilian life, a former superhero... 2020-01-11
2020.0
8806 A scrappy but poor boy worms his way into a ty... 2019-03-02
2019.0
     Minutes
                 Unit
0
          90
                  min
1
           2
              Seasons
2
           1
               Season
3
               Season
           1
4
           2
             Seasons
8802
         158
                  min
8803
          2
              Seasons
          88
8804
                  min
8805
          88
                  min
8806
         111
                  min
[8807 rows x 16 columns]
df.dtypes
show id
                        object
                        object
type
title
                        object
director
                        object
cast
                        object
country
                        object
date_added
                        object
release year
                         int64
                        object
rating
duration
                        object
listed in
                        object
description
                        object
Date N
                datetime64[ns]
year
                       float64
Minutes
                        object
Unit
                        object
dtype: object
df['Minutes'] = pd.to_numeric(df['Minutes'], downcast='integer')
```

```
df['Minutes'].max()
312.0
df['Minutes'].min()
1.0
df['Minutes'].mean()
69.84688777828259
```

Q.11. Which Indiviual country has the highest no. of Tv Shows

```
df tvshows = df[df['type']=='TV Show']
df tvshows.country.value counts()
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
United States, France, South Korea, Indonesia
Name: country, Length: 196, dtype: int64
df tvshows.country.value counts().head(1)
United States
                760
Name: country, dtype: int64
```

Q.12 How can we sort the dataset by year

```
df.sort values("year", ascending= False).head()
    show id
                                                   title
              type
director \
                                    Dick Johnson Is Dead Kirsten
         s1
               Movie
Johnson
996
       s997
               Movie
                                              HOMUNCULUS Takashi
Shimizu
               Movie
                      Keymon and Nani in Space Adventure
1005
      s1006
NaN
1004
      s1005 TV Show
                                      Izzy's Koala World
NaN
1003
      s1004 TV Show
                                                   Zero
NaN
```

```
cast
                                                                 country
0
                                                          United States
                                                     NaN
996
      Go Ayano, Ryo Narita, Yukino Kishii, Anna Ishi...
                                                                  Japan
1005
                                                     NaN
                                                                     NaN
1004
                             Izzy Bee, Ali Bee, Tim Bee
                                                              Australia
1003 Giuseppe Dave Seke, Haroun Fall, Beatrice Gran...
                                                                   Italy
              date added
                          release_year rating
                                                 duration \
      September 25, 2021
                                   2020
                                         PG-13
                                                   90 min
          April 22, 2021
996
                                   2021
                                         TV-MA
                                                  116 min
1005
          April 20, 2021
                                   2013
                                          TV-Y
                                                   76 min
          April 20, 2021
                                          TV-Y
1004
                                   2021
                                                2 Seasons
1003
          April 21, 2021
                                   2021
                                        TV-MA
                                                 1 Season
                                            listed in \
0
                                        Documentaries
      Horror Movies, International Movies, Thrillers
996
                  Children & Family Movies, Comedies
1005
1004
                                             Kids' TV
1003
      International TV Shows, TV Comedies, TV Dramas
                                             description
                                                             Date N
year
      As her father nears the end of his life, filmm... 2021-09-25
2021.0
      Truth and illusion blurs when a homeless amnes... 2021-04-22
2021.0
1005 For Rohan and his magical pal, Keymon, a trip ... 2021-04-20
2021.0
1004 Young koala caretaker Izzy Bee and her family ... 2021-04-20
2021.0
1003 A shy teen with the power to turn invisible mu... 2021-04-21
2021.0
      Minutes
                  Unit
0
         90.0
                   min
996
        116.0
                   min
         76.0
1005
                   min
1004
          2.0
               Seasons
1003
          1.0
                Season
```

Q.13 Find all the instances where

Category is 'Movie' and Type is 'Dramas'

or

```
Category is 'TV Shows' and Type is 'Kids TV'
```

```
df[((df['type'] == 'Movie') \&
(df['listed_in'].str.contains('Dramas'))) | ((df['type'] == 'TV Show')
& (df['listed in'].str.contains("Kids' TV"))) ]
     show id
                 type
                                          title \
7
                Movie
                                        Sankofa
          s8
                                   The Starling
9
         s10
                Movie
                Movie
12
         s13
                                   Je Suis Karl
30
         s31
                Movie
                                Ankahi Kahaniya
34
         s35
              TV Show Tayo and Little Wizards
       s8800
8799
                Movie
                                          Zenda
       s8802
                Movie
                                        Zinzana
8801
8802
       s8803
                Movie
                                         Zodiac
              TV Show
8803
       s8804
                                    Zombie Dumb
8806
       s8807
                Movie
                                         Zubaan
                                                 director \
7
                                            Haile Gerima
9
                                          Theodore Melfi
12
                                     Christian Schwochow
30
      Ashwiny Iyer Tiwari, Abhishek Chaubey, Saket C...
34
. . .
8799
                                          Avadhoot Gupte
8801
                                         Majid Al Ansari
8802
                                           David Fincher
8803
                                                      NaN
8806
                                              Mozez Singh
                                                     cast
      Kofi Ghanaba, Oyafunmike Ogunlano, Alexandra D...
7
9
      Melissa McCarthy, Chris O'Dowd, Kevin Kline, T...
      Luna Wedler, Jannis Niewöhner, Milan Peschel, ...
12
30
      Abhishek Banerjee, Rinku Rajguru, Delzad Hiwal...
34
      Dami Lee, Jason Lee, Bommie Catherine Han, Jen...
8799
      Santosh Juvekar, Siddharth Chandekar, Sachit P...
      Ali Suliman, Saleh Bakri, Yasa, Ali Al-Jabri, ...
8801
8802
      Mark Ruffalo, Jake Gyllenhaal, Robert Downey J...
8803
                                                      NaN
8806 Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...
```

```
country
date added \
7
      United States, Ghana, Burkina Faso, United Kin...
                                                             September 24,
2021
                                             United States
                                                             September 24,
2021
                                  Germany, Czech Republic
                                                             September 23,
12
2021
30
                                                             September 17,
                                                       NaN
2021
34
                                                       NaN
                                                             September 17,
2021
. . .
8799
                                                     India
                                                              February 15,
2018
                             United Arab Emirates, Jordan
8801
                                                                  March 9,
2016
8802
                                             United States
                                                              November 20,
2019
8803
                                                       NaN
                                                                   July 1,
2019
8806
                                                     India
                                                                  March 2,
2019
      release year rating
                              duration \
7
               1993
                     TV-MA
                               125 min
9
               2021
                     PG-13
                               104 min
12
               2021
                     TV-MA
                               127 min
                               111 min
30
               2021
                     TV-14
               2020
                     TV-Y7
34
                              1 Season
. . .
                . . .
                     TV-14
                               120 min
8799
               2009
8801
               2015
                     TV-MA
                                96 min
8802
               2007
                               158 min
                         R
8803
               2018
                     TV-Y7
                             2 Seasons
                     TV-14
8806
               2015
                               111 min
                                                listed in \
      Dramas, Independent Movies, International Movies
7
9
                                        Comedies, Dramas
12
                            Dramas, International Movies
30
      Dramas, Independent Movies, International Movies
34
                                                 Kids' TV
8799
                            Dramas, International Movies
                Dramas, International Movies, Thrillers
8801
8802
                         Cult Movies, Dramas, Thrillers
8803
                 Kids' TV, Korean TV Shows, TV Comedies
```

```
8806
       Dramas, International Movies, Music & Musicals
                                            description
                                                             Date N
year
      On a photo shoot in Ghana, an American model s... 2021-09-24
7
2021.0
      A woman adjusting to life after a loss contend... 2021-09-24
2021.0
      After most of her family is murdered in a terr... 2021-09-23
12
2021.0
30
      As big city life buzzes around them, lonely so... 2021-09-17
2021.0
34
      Tayo speeds into an adventure when his friends... 2021-09-17
2021.0
. . .
8799 A change in the leadership of a political part... 2018-02-15
2018.0
8801 Recovering alcoholic Talal wakes up inside a s... 2016-03-09
2016.0
8802 A political cartoonist, a crime reporter and a... 2019-11-20
2019.0
8803 While living alone in a spooky town, a young g... 2019-07-01
2019.0
8806 A scrappy but poor boy worms his way into a ty... 2019-03-02
2019.0
      Minutes
                  Unit
7
        125.0
                   min
9
        104.0
                   min
12
        127.0
                   min
30
        111.0
                   min
34
          1.0
                Season
        120.0
8799
                   min
         96.0
8801
                   min
8802
        158.0
                   min
8803
          2.0
               Seasons
        111.0
8806
                   min
[2878 rows x 16 columns]
```