#### netflix-dataset

January 31, 2024

#### 0.1 NETFLIX DATASET

This Netflix Dataset has information about the TV shows and Movies available on Netflix till 2021. This Dataset is collected from Flixable which is a third-party Netflix search engine, and available on Kaggle website for free.

```
[]: import pandas as pd
[2]: data = pd.read_csv('D:/data analystics/Python for data analytics/Python∪
      →Projects/Netflix Dataset/file.csv')
     data.head()
[3]:
       Show_Id Category
                          Title
                                           Director
     0
            s1
                TV Show
                             3%
                                                NaN
     1
            s2
                  Movie
                          07:19
                                 Jorge Michel Grau
     2
            s3
                                      Gilbert Chan
                  Movie
                          23:59
     3
            s4
                  Movie
                              9
                                       Shane Acker
     4
            s5
                  Movie
                             21
                                    Robert Luketic
                                                        Cast
                                                                    Country \
        João Miguel, Bianca Comparato, Michel Gomes, R...
     0
                                                                   Brazil
       Demián Bichir, Héctor Bonilla, Oscar Serrano, ...
     1
                                                                   Mexico
     2 Tedd Chan, Stella Chung, Henley Hii, Lawrence ...
                                                                Singapore
        Elijah Wood, John C. Reilly, Jennifer Connelly...
                                                            United States
        Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...
                                                            United States
             Release_Date Rating
                                    Duration
     0
          August 14, 2020
                            TV-MA
                                   4 Seasons
        December 23, 2016
     1
                            TV-MA
                                       93 min
        December 20, 2018
                                R
                                       78 min
        November 16, 2017
     3
                            PG-13
                                       80 min
     4
          January 1, 2020
                            PG-13
                                      123 min
                                                        Type \
     0
        International TV Shows, TV Dramas, TV Sci-Fi &...
                              Dramas, International Movies
     1
                       Horror Movies, International Movies
     2
```

```
Description
     O In a future where the elite inhabit an island ...
     1 After a devastating earthquake hits Mexico Cit...
     2 When an army recruit is found dead, his fellow...
     3 In a postapocalyptic world, rag-doll robots hi...
     4 A brilliant group of students become card-coun...
    data.tail()
[4]:
          Show_Id Category
                                                                Title
                                                                          Director
            s7783
     7784
                     Movie
                                                                 Zozo
                                                                       Josef Fares
     7785
            s7784
                     Movie
                                                               Zubaan
                                                                       Mozez Singh
     7786
            s7785
                     Movie
                                                   Zulu Man in Japan
                                                                               NaN
                   TV Show
                                               Zumbo's Just Desserts
     7787
            s7786
                                                                               NaN
     7788
            s7787
                     Movie ZZ TOP: THAT LITTLE OL' BAND FROM TEXAS
                                                                          Sam Dunn
                                                          Cast
           Imad Creidi, Antoinette Turk, Elias Gergi, Car...
     7785
          Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...
     7786
                                                       Nasty C
     7787
                                   Adriano Zumbo, Rachel Khoo
     7788
                                                           NaN
                                                       Country
                                                                      Release_Date \
           Sweden, Czech Republic, United Kingdom, Denmar...
                                                                October 19, 2020
     7785
                                                         India
                                                                     March 2, 2019
     7786
                                                           NaN
                                                                September 25, 2020
     7787
                                                    Australia
                                                                  October 31, 2020
     7788
                       United Kingdom, Canada, United States
                                                                     March 1, 2020
          Rating
                 Duration
                                                                           Type \
     7784 TV-MA
                    99 min
                                                  Dramas, International Movies
     7785 TV-14
                   111 min
                                Dramas, International Movies, Music & Musicals
     7786 TV-MA
                    44 min Documentaries, International Movies, Music & M...
     7787 TV-PG
                  1 Season
                                            International TV Shows, Reality TV
     7788 TV-MA
                    90 min
                                               Documentaries, Music & Musicals
                                                  Description
     7784 When Lebanon's Civil War deprives Zozo of his ...
     7785 A scrappy but poor boy worms his way into a ty...
     7786 In this documentary, South African rapper Nast...
     7787 Dessert wizard Adriano Zumbo looks for the nex...
     7788 This documentary delves into the mystique behi...
```

Dramas

Action & Adventure, Independent Movies, Sci-Fi...

4

```
[5]: data.shape
[5]: (7789, 11)
     data.size
[6]: 85679
[7]:
    data.columns
[7]: Index(['Show_Id', 'Category', 'Title', 'Director', 'Cast', 'Country',
            'Release_Date', 'Rating', 'Duration', 'Type', 'Description'],
           dtype='object')
[8]: data.dtypes
[8]: Show_Id
                     object
     Category
                     object
     Title
                     object
                     object
     Director
     Cast
                     object
     Country
                     object
     Release_Date
                     object
     Rating
                     object
     Duration
                     object
     Туре
                     object
     Description
                     object
     dtype: object
[9]: data.info()
    <class 'pandas.core.frame.DataFrame'>
    RangeIndex: 7789 entries, 0 to 7788
    Data columns (total 11 columns):
         Column
                       Non-Null Count Dtype
         _____
                        _____
     0
         Show_Id
                       7789 non-null
                                        object
     1
         Category
                       7789 non-null
                                        object
     2
         Title
                        7789 non-null
                                        object
     3
         Director
                        5401 non-null
                                        object
     4
         Cast
                       7071 non-null
                                        object
     5
         Country
                       7282 non-null
                                        object
     6
         Release_Date
                       7779 non-null
                                        object
     7
         Rating
                        7782 non-null
                                        object
     8
         Duration
                        7789 non-null
                                        object
     9
         Туре
                        7789 non-null
                                        object
```

object

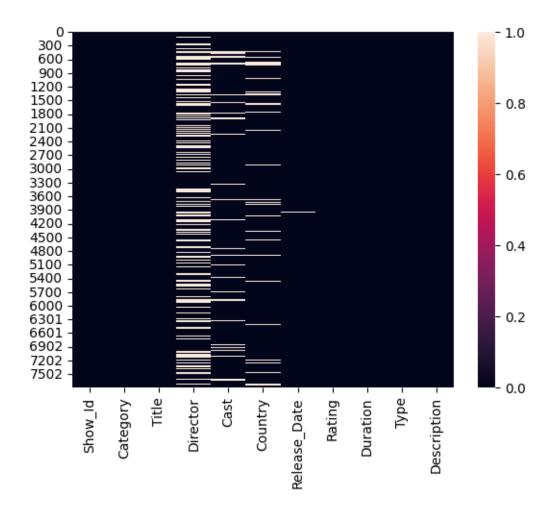
Description

7789 non-null

dtypes: object(11)
memory usage: 669.5+ KB

### 0.1.1 Task.1. Is there any duplicate Record in this dataset? if yes, then remove the duplicate records

```
data[data.duplicated()]
[10]:
           Show_Id Category
                                         Title
                                                       Director \
      6300
              s684
                      Movie
                                      Backfire
                                                    Dave Patten
      6622
             s6621
                      Movie The Lost Okoroshi Abba T. Makama
                                                          Cast
                                                                      Country \
            Black Deniro, Byron "Squally" Vinson, Dominic ... United States
            Seun Ajayi, Judith Audu, Tope Tedela, Ifu Enna...
                                                                    Nigeria
                 Release_Date Rating Duration \
      6300
                April 5, 2019
                               TV-MA
                                       97 min
            September 4, 2020
      6622
                               TV-MA
                                       94 min
                                              Type \
            Dramas, Independent Movies, Thrillers
      6300
             Comedies, Dramas, Independent Movies
      6622
                                                  Description
      6300 When two would-be robbers accidentally kill a ...
      6622 A disillusioned security guard transforms into...
[11]: data.drop_duplicates(inplace= True)
[12]: data[data.duplicated()]
[12]: Empty DataFrame
      Columns: [Show Id, Category, Title, Director, Cast, Country, Release Date,
      Rating, Duration, Type, Description]
      Index: []
     0.1.2 Task.2. Is there any Null Values present i any column? show with Heatmap
[13]: import seaborn as sns
      sns.heatmap(data.isnull())
[14]: <Axes: >
```



## 0.1.3 Question.1. For 'House of Cards', what is the show ID and who is the Director of this show?

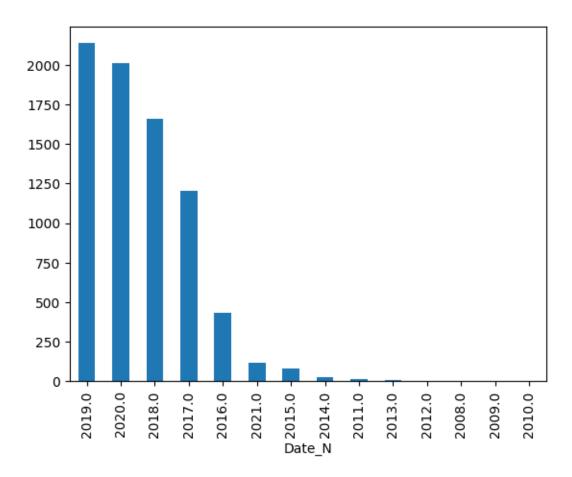
```
[15]: data[data['Title'].isin(['House of Cards'])]
                                      Title \
[15]:
           Show_Id Category
      2832
             s2833 TV Show House of Cards
                                                     Director \
           Robin Wright, David Fincher, Gerald McRaney, J...
      2832
                                                         Cast
                                                                     Country \
          Kevin Spacey, Robin Wright, Kate Mara, Corey S... United States
      2832
                Release_Date Rating
                                     Duration
                                                                   Туре
      2832 November 2, 2018 TV-MA 6 Seasons TV Dramas, TV Thrillers
```

2832 A ruthless politician will stop at nothing to ...

0.1.4 Question.2. In which year Highest number of TV shows & Movies were released ? Show with Bar Graph.

```
[16]: data.dtypes
[16]: Show_Id
                      object
      Category
                      object
      Title
                      object
      Director
                      object
      Cast
                      object
                      object
      Country
      Release_Date
                      object
      Rating
                      object
      Duration
                      object
      Type
                      object
      Description
                      object
      dtype: object
[18]: data['Date_N'] = pd.to_datetime(data['Release_Date'], format='%B %d, %Y', __
       ⇔errors='coerce')
[19]: data.head(2)
[19]:
        Show_Id Category Title
                                           Director \
      0
             s1
                TV Show
                             3%
                                                NaN
      1
             s2
                   Movie 07:19
                                 Jorge Michel Grau
                                                       Cast Country \
      O João Miguel, Bianca Comparato, Michel Gomes, R... Brazil
      1 Demián Bichir, Héctor Bonilla, Oscar Serrano, ... Mexico
              Release_Date Rating
                                    Duration \
           August 14, 2020 TV-MA 4 Seasons
      1 December 23, 2016 TV-MA
                                       93 min
                                                       Type \
        International TV Shows, TV Dramas, TV Sci-Fi &...
      0
      1
                              Dramas, International Movies
                                                Description
                                                                Date_N
      0 In a future where the elite inhabit an island \dots 2020-08-14
      1 After a devastating earthquake hits Mexico Cit... 2016-12-23
[20]: data['Date_N'].dt.year.value_counts().plot(kind='bar')
```

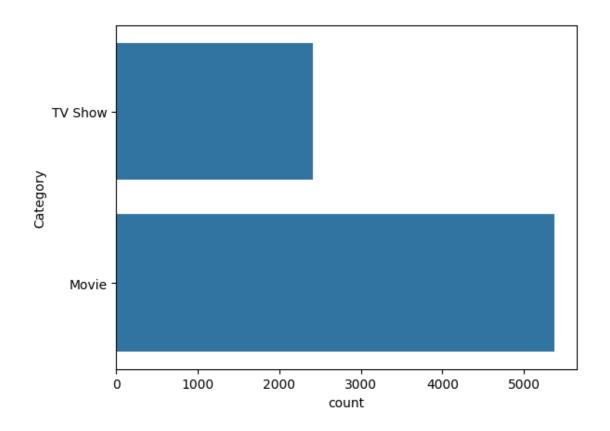
[20]: <Axes: xlabel='Date\_N'>



0.1.5 Question.3. How many Movies & TV Shows are in the dataset? Show with Bar grapgh

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

[21]: <Axes: xlabel='count', ylabel='Category'>



#### 0.1.6 Question.4. Show all the movies that were released in year 2020.

```
[23]: data['Year'] = data['Date_N'].dt.year
[24]: data[(data ['Category'] == 'Movie') & (data['Year'] == 2020)]
[24]:
           Show_Id Category
                                                                  Title
      4
                       Movie
                                                                     21
                s5
      6
                s7
                      Movie
                                                                    122
      14
               s15
                      Movie
                                                                   3022
      27
               s28
                      Movie
                                                                 #Alive
      28
               s29
                       Movie
                                         #AnneFrank - Parallel Stories
      7762
             s7761
                      Movie
                                                              Zaki Chan
      7783
             s7782
                      Movie
                                                                   Zoom
      7784
             s7783
                      Movie
                                                                   Zozo
      7786
             s7785
                      Movie
                                                     Zulu Man in Japan
      7788
             s7787
                      Movie
                              ZZ TOP: THAT LITTLE OL' BAND FROM TEXAS
                                Director
      4
                          Robert Luketic
```

```
6
                   Yasir Al Yasiri
14
                        John Suits
27
                            Cho Il
28
      Sabina Fedeli, Anna Migotto
7762
                        Wael Ihsan
                      Peter Hewitt
7783
7784
                       Josef Fares
7786
                               NaN
7788
                          Sam Dunn
                                                      Cast \
4
      Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...
6
      Amina Khalil, Ahmed Dawood, Tarek Lotfy, Ahmed...
14
      Omar Epps, Kate Walsh, Miranda Cosgrove, Angus...
27
                                Yoo Ah-in, Park Shin-hye
28
                             Helen Mirren, Gengher Gatti
7762
      Ahmed Helmy, Yasmin Abdulaziz, Hassan Hosny, H...
      Tim Allen, Courteney Cox, Chevy Chase, Kate Ma...
7783
7784
      Imad Creidi, Antoinette Turk, Elias Gergi, Car...
7786
                                                  Nasty C
7788
                                                       NaN
                                                                  Release_Date
                                                  Country
4
                                            United States
                                                               January 1, 2020
                                                                  June 1, 2020
6
                                                    Egypt
                                            United States
                                                                March 19, 2020
14
27
                                              South Korea
                                                             September 8, 2020
28
                                                                  July 1, 2020
                                                    Italy
7762
                                                                  May 19, 2020
                                                    Egypt
7783
                                            United States
                                                              January 11, 2020
7784
      Sweden, Czech Republic, United Kingdom, Denmar...
                                                            October 19, 2020
7786
                                                            September 25, 2020
7788
                   United Kingdom, Canada, United States
                                                                 March 1, 2020
     Rating Duration
                                                                      Type \
4
      PG-13
             123 min
                                                                    Dramas
6
      TV-MA
              95 min
                                      Horror Movies, International Movies
                         Independent Movies, Sci-Fi & Fantasy, Thrillers
14
              91 min
27
      TV-MA
              99 min
                          Horror Movies, International Movies, Thrillers
28
      TV-14
              95 min
                                      Documentaries, International Movies
7762
      TV-PG
             109 min
                         Comedies, International Movies, Romantic Movies
7783
                                       Children & Family Movies, Comedies
         PG
               88 min
7784
      TV-MA
               99 min
                                             Dramas, International Movies
```

```
7786 TV-MA
              44 min Documentaries, International Movies, Music & M...
7788 TV-MA
                                          Documentaries, Music & Musicals
              90 min
                                              Description
                                                              \mathtt{Date}_{\mathtt{N}}
4
      A brilliant group of students become card-coun... 2020-01-01
                                                                     2020.0
6
      After an awful accident, a couple admitted to ... 2020-06-01
                                                                     2020.0
14
      Stranded when the Earth is suddenly destroyed ... 2020-03-19
                                                                     2020.0
27
      As a grisly virus rampages a city, a lone man ... 2020-09-08
                                                                     2020.0
28
      Through her diary, Anne Frank's story is retol... 2020-07-01
                                                                     2020.0
7762 An unqualified young man has his work cut out ... 2020-05-19
                                                                     2020.0
7783 Dragged from civilian life, a former superhero... 2020-01-11
                                                                     2020.0
7784 When Lebanon's Civil War deprives Zozo of his ... 2020-10-19
                                                                     2020.0
     In this documentary, South African rapper Nast... 2020-09-25
                                                                     2020.0
7788 This documentary delves into the mystique behi... 2020-03-01
                                                                     2020.0
[1312 rows x 13 columns]
```

## 0.1.7 Question.5. Show only the Titles of all TV shows that were released in India only.

```
[27]: data[(data['Category'] == 'TV Show') & (data['Country'] == 'India')]['Title']
[27]: 86
                    21 Sarfarosh: Saragarhi 1897
      132
                                        7 (Seven)
      340
                                     Agent Raghav
                                     Akbar Birbal
      364
      533
                              Anjaan: Rural Myths
      6249
                             The Creative Indians
      6400
              The Golden Years with Javed Akhtar
      6469
                           The House That Made Me
      7294
                                       Typewriter
      7705
                                  Yeh Meri Family
      Name: Title, Length: 71, dtype: object
```

### 0.1.8 Question.6. Show Top 10 Directors, who gave the Highest Number of TV Shows & Movies to Netflix?

```
Jay Chapman 12
Youssef Chahine 12
Martin Scorsese 12
Steven Spielberg 10
David Dhawan 9
Hakan Algül 8
Name: count, dtype: int64
```

# 0.1.9 Question.7. Show all the Records, where 'Category is Movie and Type is Comedies' or 'Country is United Kingdom'.

```
[29]: data[(data['Category'] == 'Movie') & (data['Type'] == 'Comedies') |
       [29]:
                                                             Director \
           Show_Id Category
                                              Title
      19
               s20
                                                189
                     Movie
                                                                  NaN
      33
               s34
                                       #realityhigh
                                                    Fernando Lebrija
                     Movie
      58
                                        100% Hotter
               s59
                   TV Show
                                                                  NaN
      72
               s73
                     Movie
                                           17 Again
                                                          Burr Steers
      82
               s83
                                                        Hasraf Dulull
                     Movie
                                2036 Origin Unknown
                   TV Show World War II in Colour
                                                                  NaN
      7670
            s7669
                   TV Show World's Busiest Cities
      7671
            s7670
                                                                  NaN
                     Movie XV: Beyond the Tryline
     7688
             s7687
                                                    Pierre Deschamps
      7725
             s7724
                     Movie
                                       You Can Tutu
                                                          James Brown
      7740
             s7739
                   TV Show
                                    Young Wallander
                                                                  NaN
                                                         Cast
                                                                      Country \
      19
                           Lee Dixon, Ian Wright, Paul Merson United Kingdom
           Nesta Cooper, Kate Walsh, John Michael Higgins...
      33
                                                              United States
      58
           Daniel Palmer, Melissa Sophia, Karen Williams,... United Kingdom
      72
            Zac Efron, Leslie Mann, Matthew Perry, Thomas ...
                                                              United States
           Katee Sackhoff, Ray Fearon, Julie Cox, Steven ...
      82
                                                            United Kingdom
      7670
                                                Robert Powell United Kingdom
      7671
                           Anita Rani, Ade Adepitan, Dan Snow
                                                               United Kingdom
      7688
                                                          {\tt NaN}
                                                               United Kingdom
           Lily O'Regan, Jeannettsy Enriquez Borges, Joel... United Kingdom
     7725
           Adam Pålsson, Richard Dillane, Leanne Best, El... United Kingdom
      7740
                 Release_Date Rating
                                     Duration \
      19
                May 16, 2018
                              TV-PG
                                        87 min
            September 8, 2017
      33
                               TV-14
                                        99 min
      58
            November 1, 2019
                              TV-14 1 Season
      72
              January 1, 2021
                              PG-13
                                       102 min
      82
           December 20, 2018
                                        95 min
                              TV-14
      •••
```

```
7688
               March 18, 2020
                                TV-14
                                          91 min
      7725
            December 31, 2017
                                 TV-G
                                          87 min
      7740
            September 3, 2020
                                TV-MA
                                       1 Season
                                                            Type \
      19
                                                  Sports Movies
      33
                                                        Comedies
      58
            British TV Shows, International TV Shows, Real...
      72
                                                        Comedies
      82
                                               Sci-Fi & Fantasy
      7670
            British TV Shows, Docuseries, International TV...
      7671
                                  British TV Shows, Docuseries
      7688
                                  Documentaries, Sports Movies
      7725
                                       Children & Family Movies
      7740
            Crime TV Shows, International TV Shows, TV Dramas
                                                    Description
                                                                     \mathtt{Date}_{\mathtt{N}}
                                                                                Year
      19
            Mixing old footage with interviews, this is th... 2018-05-16
                                                                           2018.0
      33
            When nerdy high schooler Dani finally attracts... 2017-09-08
                                                                           2017.0
      58
            A stylist, a hair designer and a makeup artist... 2019-11-01
                                                                           2019.0
      72
            Nearing a midlife crisis, thirty-something Mik... 2021-01-01
                                                                           2021.0
      82
            Working with an artificial intelligence to inv... 2018-12-20
                                                                           2018.0
      7670 Footage of the most dramatic moments from Worl... 2017-08-01
                                                                           2017.0
      7671 From Moscow to Mexico City, three BBC journali... 2019-02-01
                                                                           2019.0
      7688
            Set against the 2015 Rugby World Cup, this doc... 2020-03-18
                                                                           2020.0
            A gifted young ballet dancer struggles to find... 2017-12-31
      7725
                                                                           2017.0
      7740
            An incendiary hate crime stirs civil unrest, f... 2020-09-03
                                                                           2020.0
      [485 rows x 13 columns]
     0.1.10 Question.8. In how many movies/shows, Tom Cruise was cast?
[30]: data_new = data.dropna()
[31]:
     data_new[data_new['Cast'].str.contains('Tom Cruise')]
[31]:
                                 Title
                                                     Director
           Show_Id Category
      3860
             s3861
                       Movie
                              Magnolia
                                        Paul Thomas Anderson
      5071
             s5071
                       Movie
                              Rain Man
                                               Barry Levinson
```

7670

7671

3860

August 1, 2017

February 1, 2019

TV-MA

TV-PG

1 Season

1 Season

Jeremy Blackman, Tom Cruise, Melinda Dillon, A... United States

Dustin Hoffman, Tom Cruise, Valeria Golino, Ge... United States

Cast

Country \

```
3860
           January 1, 2020
                                R 189 min
                                            Dramas, Independent Movies
              July 1, 2019
      5071
                                R 134 min
                                                Classic Movies, Dramas
                                                 Description
                                                                 Date_N
                                                                           Year
           Through chance, human action, past history and... 2020-01-01 2020.0
     5071 A fast-talking yuppie is forced to slow down w... 2019-07-01 2019.0
     0.1.11 Question.9. What are the Different Ratings Defined by Netflix?
[32]: data['Rating'].unique()
[32]: array(['TV-MA', 'R', 'PG-13', 'TV-14', 'TV-PG', 'NR', 'TV-G', 'TV-Y', nan,
             'TV-Y7', 'PG', 'G', 'NC-17', 'TV-Y7-FV', 'UR'], dtype=object)
     Question.9A. How many Movies got the TV-14 rating .Canada?
[34]: data[(data['Category'] == 'Movie') & (data['Rating'] == 'TV-14') &
       # 11 Movies
「34]:
          Show_Id Category
                                                                  Title \
      30
              s31
                     Movie
                                                       #cats_the_mewvie
      34
              s35
                     Movie
                                                                   #Roxy
      608
             s609
                     Movie
                                                         At First Light
      1506
            s1507
                     Movie
                                             Counterfeiting in Suburbia
      3713
            s3714
                     Movie
                                                      Long Time Running
                           Martin Matte: La vie, la mort…eh la la..!
     3956
            s3957
                     Movie
     5336
            s5336
                     Movie
                                             Sadie's Last Days on Earth
      5393
            s5393
                     Movie
                                                             Sardaar ji
      6062
            s6062
                     Movie
                                            The Accountant of Auschwitz
     7025
            s7024
                     Movie
                                                   The Wrong Babysitter
     7041
            s7040
                                         There's Something in the Water
                     Movie
                                         Director \
      30
                                 Michael Margolis
      34
                                  Michael Kennedy
      608
                                       Jason Stone
      1506
                                    Jason Bourque
      3713
           Jennifer Baichwal, Nicholas de Pencier
      3956
                               Jean-François Blais
     5336
                                   Michael Seater
     5393
                                     Rohit Jugraj
      6062
                                 Matthew Shoychet
     7025
                                  George Mendeluk
     7041
                           Ellen Page, Ian Daniel
```

Type \

Release\_Date Rating Duration

```
Cast Country \
30
                                                      NaN Canada
34
      Jake Short, Sarah Fisher, Booboo Stewart, Dann...
                                                         Canada
608
      Stefanie Scott, Theodore Pellerin, Percy Hynes...
                                                         Canada
1506
      Sarah Butler, Larissa Albuquerque, Kayla Walla...
                                                         Canada
      Gord Downie, Paul Langlois, Gord Sinclair, Rob...
3713
                                                         Canada
3956
                                            Martin Matte Canada
5336
      Morgan Taylor Campbell, Clark Backo, Ricardo H...
5393
     Diljit Dosanjh, Neeru Bajwa, Mandy Takhar, Jas...
6062
                                                      NaN Canada
7025
     Daphne Zuniga, Seann Gallagher, Lisa Marie Car... Canada
7041
                                              Ellen Page Canada
           Release_Date Rating Duration
30
       February 5, 2020
                         TV-14
                                  90 min
                         TV-14
34
         April 10, 2019
                                 105 min
608
      December 27, 2018
                         TV-14
                                  91 min
1506
           July 1, 2018
                         TV-14
                                  88 min
                         TV-14
3713
     November 12, 2017
                                  96 min
3956
       October 14, 2019
                         TV-14
                                  62 min
                         TV-14
5336
        August 22, 2017
                                  94 min
5393
       December 1, 2017
                         TV-14
                                140 min
6062
           July 1, 2019
                         TV-14
                                  78 min
7025
          June 18, 2019
                         TV-14
                                  89 min
7041
         March 27, 2020
                         TV-14
                                  72 min
                                                     Type \
30
                    Documentaries, International Movies
34
                               Comedies, Romantic Movies
608
                                Dramas, Sci-Fi & Fantasy
1506
                                       Dramas, Thrillers
3713
      Documentaries, International Movies, Music & M...
3956
                                         Stand-Up Comedy
                              Comedies, Sci-Fi & Fantasy
5336
5393
       Comedies, International Movies, Music & Musicals
                    Documentaries, International Movies
6062
7025
                                                Thrillers
7041
                    Documentaries, International Movies
                                             Description
                                                              Date N
                                                                         Year
30
      This pawesome documentary explores how our fel... 2020-02-05
                                                                    2020.0
34
      A teenage hacker with a huge nose helps a cool... 2019-04-10
                                                                    2019.0
608
      After mysterious lights imbue her with extraor... 2018-12-27
                                                                    2018.0
1506
     Two teenagers print counterfeit money in their... 2018-07-01
                                                                    2018.0
3713
      This documentary follows the 2016 tour of belo... 2017-11-12
                                                                    2017.0
3956
      Quebecois comedy star Martin Matte serves up e... 2019-10-14
```

```
5336 High schooler Sadie Mitchell believes the worl... 2017-08-22 2017.0
      5393 When a palatial wedding venue turns out to be ... 2017-12-01
                                                                         2017.0
      6062 Decades after WWII, a former SS officer stands... 2019-07-01
      7025 A widow searches for her missing teenage daugh... 2019-06-18
                                                                         2019.0
      7041 This documentary spotlights the struggle of mi... 2020-03-27
                                                                         2020.0
     Question.9B. How many TV shows got the 'R' rating, after year 2018?
[36]: data[(data['Category'] == 'TV Show') & (data['Rating'] == 'R') & (data['Year']
       →> 2018)]
                                                            Title
[36]:
           Show_Id Category
                                                                             Director \
             s6436 TV Show The Hateful Eight: Extended Version Quentin Tarantino
                                                          Cast Country \
      6437 Samuel L. Jackson, Kurt Russell, Jennifer Jaso...
                                                                 NaN
              Release_Date Rating Duration
                                                  Type \
      6437 April 25, 2019
                                R 1 Season TV Shows
                                                   Description
                                                                   \mathtt{Date}_{\mathtt{N}}
      6437 Trapped at a stagecoach stop as a storm rages ... 2019-04-25 2019.0
     0.1.12 Question.10. What is the maximum duration of a Movie/Show on Netflix?
[37]: data[['Minutes','Unit']] = data['Duration'].str.split(' ', expand=True)
[39]: data.head(2)
                                           Director \
[39]:
        Show_Id Category Title
      0
             s1
                 TV Show
                             3%
                                                NaN
      1
             s2
                   Movie 07:19 Jorge Michel Grau
                                                       Cast Country \
      O João Miguel, Bianca Comparato, Michel Gomes, R... Brazil
      1 Demián Bichir, Héctor Bonilla, Oscar Serrano, ... Mexico
              Release_Date Rating
                                    Duration \
           August 14, 2020 TV-MA 4 Seasons
      0
      1 December 23, 2016 TV-MA
                                       93 min
                                                       Type \
        International TV Shows, TV Dramas, TV Sci-Fi &...
      0
      1
                              Dramas, International Movies
                                                Description
                                                                \mathtt{Date}_{\mathtt{N}}
                                                                           Year \
      0 In a future where the elite inhabit an island ... 2020-08-14 2020.0
```

```
Minutes
                    Unit
              4
                 Seasons
      1
             93
                     min
     0.1.13 Question.11. Which Individual country has Highest No. Tv Shows?
[40]: data_TV_Show = data[data['Category'] == 'TV Show']
[41]: data_TV_Show.Country.value_counts().head(1)
[41]: Country
      United States
                       705
      Name: count, dtype: int64
     0.1.14 Question.12. How we can sort the dataset by year?
[42]: data.sort_values( by = 'Year', ascending= False).head(10)
[42]:
           Show_Id Category
                                                                           Title \
             s5564
                      Movie
                                                                 Sherlock Holmes
      5564
                      Movie
      5919
             s5919
                                                                       Surf's Up
      980
              s981 TV Show
                                                                    Bling Empire
      1355
             s1356
                      Movie Chris Rock Total Blackout: The Tamborine Exten...
      5955
             s5955
                      Movie
                                                                Taare Zameen Par
      366
              s367
                      Movie
                                                                       Al acecho
      560
              s561
                      Movie
                                                                        Apaharan
      5922
             s5922 TV Show
                                                                 Surviving Death
      4269
             s4270
                      Movie
                                                                             Mud
      1002
             s1003
                      Movie
                                                                     Blue Streak
                           Director \
      5564
                        Guy Ritchie
      5919
            Ash Brannon, Chris Buck
      980
                                 NaN
      1355
                         Chris Rock
      5955
                         Aamir Khan
                Francisco D'Eufemia
      366
      560
                        Prakash Jha
      5922
                                 NaN
      4269
                       Jeff Nichols
      1002
                       Les Mayfield
                                                          Cast \
      5564 Robert Downey Jr., Jude Law, Rachel McAdams, M...
```

1 After a devastating earthquake hits Mexico Cit... 2016-12-23 2016.0

```
5919
      Shia LaBeouf, Jeff Bridges, Zooey Deschanel, J...
980
                                                      NaN
1355
                                               Chris Rock
5955
      Aamir Khan, Darsheel Safary, Tanay Chheda, Tis...
      Rodrigo de la Serna, Belen Blanco, Walter Jako...
366
560
      Ajay Devgn, Nana Patekar, Bipasha Basu, Ayub K...
5922
4269
      Matthew McConaughey, Reese Witherspoon, Tye Sh ...
      Martin Lawrence, Luke Wilson, Peter Greene, Da...
1002
                                                  Country
                                                               Release Date \
      United States, Germany, United Kingdom, Australia
                                                            January 1, 2021
5919
                                            United States
                                                            January 1, 2021
980
                                                      NaN
                                                           January 15, 2021
1355
                                                           January 12, 2021
                                                      NaN
5955
                                                    India
                                                           January 10, 2021
366
                                                           January 12, 2021
                                                      {\tt NaN}
                                                             January 8, 2021
560
                                                    India
5922
                                            United States
                                                            January 6, 2021
                                                            January 1, 2021
4269
                                            United States
1002
                                  Germany, United States
                                                             January 1, 2021
     Rating
             Duration
                                                                       Type
5564
     PG-13
              128 min
                                              Action & Adventure, Comedies
5919
         PG
                        Children & Family Movies, Comedies, Sports Movies
               86 min
980
      TV-MA
             1 Season
                                                                 Reality TV
1355
      TV-MA
               98 min
                                                           Stand-Up Comedy
5955
              162 min
                                              Dramas, International Movies
         PG
366
      TV-MA
               81 min
                                           International Movies, Thrillers
560
      TV-14
              161 min
                                              Dramas, International Movies
5922 TV-MA
                                                    Docuseries, Reality TV
             1 Season
4269
      PG-13
              131 min
                                                Dramas, Independent Movies
1002 PG-13
               94 min
                                              Action & Adventure, Comedies
                                              Description
                                                              Date N
                                                                         Year \
5564
      The game is afoot for an eccentric detective w... 2021-01-01
                                                                     2021.0
5919
      This Oscar-nominated animated comedy goes behi... 2021-01-01
                                                                     2021.0
980
      Follow LA's wildly wealthy Asian and Asian Ame... 2021-01-15
                                                                     2021.0
1355
      In this extended cut of his 2018 special, Chri... 2021-01-12
                                                                     2021.0
5955 When daydreamer Ishaan is sent to boarding sch... 2021-01-10
                                                                     2021.0
      Looking for a fresh start, a park ranger gets ... 2021-01-12
366
                                                                     2021.0
560
      Raised under the condescending eye of his acti... 2021-01-08
                                                                     2021.0
5922 What happens after we die? This docuseries exp... 2021-01-06
                                                                     2021.0
      Two Mississippi teens meet peculiar drifter Mu... 2021-01-01
                                                                     2021.0
1002 A jewel thief returns to his hiding place afte... 2021-01-01
```

Minutes Unit

min	128	5564
min	86	5919
Season	1	980
min	98	1355
min	162	5955
min	81	366
min	161	560
Season	1	5922
min	131	4269
min	94	1002

#### 0.1.15 Question.13. Find all the instances where:

Category is 'Movie' and Type is 'Dramas'

#### 0.1.16 OR

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

```
[45]: data[((data['Category'] == 'Movie') & (data['Type'] == 'Dramas')) |
                     ((data['Category'] == 'TV Show') & (data['Type'] == "Kids' TV"))]
[45]:
           Show_Id Category
                                                    Title
                                                                 Director
      4
                s5
                      Movie
                                                       21
                                                           Robert Luketic
      7
                      Movie
                s8
                                                      187
                                                           Kevin Reynolds
              s112
                    TV Show
                                                  44 Cats
      111
                                                                       NaN
      170
              s171
                      Movie
                                            A Family Man
                                                            Mark Williams
      232
              s233
                             A Stoning in Fulham County
                                                            Larry Elikann
                      Movie
      7668
             s7667
                    TV Show
                                           World of Winx
                                                           Iginio Straffi
      7717
             s7716
                    TV Show
                                                     Yoko
      7719
                    TV Show
                                                      MOY
                                                                       NaN
             s7718
      7758
             s7757
                    TV Show
                                                       7.4
                                                                       NaN
      7761
             s7760
                    TV Show
                                                Zak Storm
                                                                       NaN
                                                           Cast \
      4
            Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...
      7
            Samuel L. Jackson, John Heard, Kelly Rowan, Cl...
            Sarah Natochenny, Suzy Myers, Simona Berman, E...
      111
            Gerard Butler, Gretchen Mol, Alison Brie, Will...
      170
      232
            Ken Olin, Jill Eikenberry, Maureen Mueller, Gr...
      7668 Haven Paschall, Alysha Deslorieux, Jessica Pag...
      7717 Eileen Stevens, Alyson Leigh Rosenfeld, Sarah ...
            Sairaj, Devyani Dagaonkar, Ketan Singh, Mayur ...
      7719
      7758
            Apollo Costa, Gabriel Santana, Matheus Lustosa...
      7761 Michael Johnston, Jessica Gee-George, Christin...
```

```
Country
                                                              Release_Date
                                                           January 1, 2020
4
                                        United States
7
                                        United States
                                                         November 1, 2019
111
                                                           October 1, 2020
                                                Italy
170
                               Canada, United States
                                                         December 15, 2019
232
                                        United States
                                                           October 1, 2011
7668
                                Italy, United States
                                                             June 16, 2017
7717
                                                             June 23, 2018
                                                  NaN
7719
                                                              June 7, 2018
                                                  NaN
7758
                                               Brazil
                                                        February 22, 2019
     United States, France, South Korea, Indonesia
                                                       September 13, 2018
7761
     Rating
              Duration
                             Type
                                  \
4
      PG-13
                123 min
                           Dramas
7
                119 min
                           Dramas
111
      TV-Y7
             2 Seasons
                         Kids' TV
170
          R
                110 min
                           Dramas
232
      TV-14
                95 min
                           Dramas
7668
      TV-Y7
             2 Seasons Kids' TV
              1 Season
7717
       TV-Y
                        Kids' TV
7719
              1 Season
                        Kids' TV
      TV-Y7
7758
      TV-PG
             2 Seasons
                         Kids' TV
7761
      TV-Y7
             3 Seasons
                        Kids' TV
                                              Description
                                                               Date_N
                                                                         Year \
      A brilliant group of students become card-coun... 2020-01-01
                                                                     2020.0
7
      After one of his high school students attacks ... 2019-11-01
                                                                     2019.0
111
      Paw-esome tales abound when singing furry frie... 2020-10-01
                                                                     2020.0
170
      A ruthless corporate headhunter battles his ri... 2019-12-15
                                                                     2019.0
232
      After reckless teens kill an Amish child, a pr... 2011-10-01
                                                                     2011.0
      The reality show "WOW!" engages the Winx in th... 2017-06-16
7668
                                                                     2017.0
      Friends Mai, Oto and Vik's games at the park b... 2018-06-23
7717
                                                                     2018.0
7719 With the mind of a human being, and the body o... 2018-06-07
                                                                     2018.0
7758 Fading music biz veteran Zé realizes he has ju... 2019-02-22
                                                                     2019.0
      Teen surfer Zak Storm is mysteriously transpor... 2018-09-13
                 Unit
     Minutes
4
         123
                  min
7
         119
                  min
              Seasons
111
           2
170
         110
                  min
232
          95
                  min
7668
           2
              Seasons
```

7717	1	Season
7719	1	Season
7758	2	Seasons
7761	3	Seasons

[322 rows x 15 columns]