This Netflix Dataset has inforamtion about the TV Shows and Movies available on Netflix till 2021
This Dataset is avaliable on Kaggle website for free

```python
#importing libraries
import pandas as pd
import seaborn as sns

df =  pd.read_csv(r'C:\Users\sachi\Documents\data_analyst\netflixEda\
8. Netflix Dataset.csv')

df
```

```
      Show_Id Category                                        Title  \
0          s1  TV Show                                           3%
1          s2    Movie                                        07:19
2          s3    Movie                                        23:59
3          s4    Movie                                            9
4          s5    Movie                                           21
...       ...      ...                                          ...
7784    s7783    Movie                                         Zozo
7785    s7784    Movie                                       Zubaan
7786    s7785    Movie                            Zulu Man in Japan
7787    s7786  TV Show                         Zumbo's Just Desserts
7788    s7787    Movie  ZZ TOP: THAT LITTLE OL' BAND FROM TEXAS


                 Director
Cast  \
0                     NaN  João Miguel, Bianca Comparato, Michel Gomes,
R...
1       Jorge Michel Grau  Demián Bichir, Héctor Bonilla, Oscar Serrano,
...
2            Gilbert Chan  Tedd Chan, Stella Chung, Henley Hii, Lawrence
...
3             Shane Acker  Elijah Wood, John C. Reilly, Jennifer
Connelly...
4           Robert Luketic  Jim Sturgess, Kevin Spacey, Kate Bosworth,
Aar...
...                    ...
...
7784          Josef Fares  Imad Creidi, Antoinette Turk, Elias Gergi,
Car...
7785          Mozez Singh  Vicky Kaushal, Sarah-Jane Dias, Raaghav
Chanan...
7786                  NaN
Nasty C
7787                  NaN                      Adriano Zumbo, Rachel
Khoo
7788            Sam Dunn
```

```
NaN

                                              Country Release_Date  \
0                                              Brazil     August 14, 2020
1                                              Mexico   December 23, 2016
2                                           Singapore   December 20, 2018
3                                       United States   November 16, 2017
4                                       United States    January 1, 2020
...                                               ...     ...
7784  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  \
0      TV-MA   4 Seasons  International TV Shows, TV Dramas, TV Sci-Fi &...
1      TV-MA      93 min                      Dramas, International Movies
2          R      78 min                Horror Movies, International Movies
3      PG-13      80 min  Action & Adventure, Independent Movies, Sci-Fi...
4      PG-13     123 min                                             Dramas
...      ...         ...                                               ...
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
0      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...
...                                                 ...
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...

[7789 rows x 11 columns]
```

Get some basic information about this dataset

```
df.head()

  Show_Id  Category   Title         Director  \
0      s1   TV Show      3%               NaN
1      s2     Movie   07:19  Jorge Michel Grau
2      s3     Movie   23:59       Gilbert Chan
3      s4     Movie       9        Shane Acker
4      s5     Movie      21      Robert Luketic


                                            Cast        Country  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...          Brazil
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...          Mexico
2  Tedd Chan, Stella Chung, Henley Hii, Lawrence ...       Singapore
3  Elijah Wood, John C. Reilly, Jennifer Connelly...   United States
4  Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...   United States

       Release_Date  Rating   Duration  \
0    August 14, 2020   TV-MA  4 Seasons
1  December 23, 2016   TV-MA     93 min
2  December 20, 2018       R     78 min
3  November 16, 2017   PG-13     80 min
4    January 1, 2020   PG-13    123 min

                                            Type  \
0  International TV Shows, TV Dramas, TV Sci-Fi &...
1                    Dramas, International Movies
2             Horror Movies, International Movies
3  Action & Adventure, Independent Movies, Sci-Fi...
4                                          Dramas
```

```
                                           Description
0  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...
```

```
df.tail()
```

```
      Show_Id Category                              Title
Director  \
7784    s7783    Movie                                Zozo  Josef
Fares
7785    s7784    Movie                              Zubaan  Mozez
Singh
7786    s7785    Movie                  Zulu Man in Japan
NaN
7787    s7786  TV Show              Zumbo's Just Desserts
NaN
7788    s7787    Movie  ZZ TOP: THAT LITTLE OL' BAND FROM TEXAS     Sam
Dunn

                                              Cast  \
7784  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  \
7784  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...
```

df.shape   # to show the No. of Row and Columns

```
(7789, 11)
```

df.size   # to shwo No. of total values(element) in the datset

```
85679
```

df.columns   # to show the each column names

```
Index(['Show_Id', 'Category', 'Title', 'Director', 'Cast', 'Country',
       'Release_Date', 'Rating', 'Duration', 'Type', 'Description'],
      dtype='object')
```

df.dtypes   # data type of the coulumn

```
Show_Id         object
Category        object
Title           object
Director        object
Cast            object
Country         object
Release_Date    object
Rating          object
Duration        object
Type            object
Description     object
dtype: object
```

df.info()   # To show the indexes , columns , data-type of each columns, memory at once

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 7789 entries, 0 to 7788
Data columns (total 11 columns):
 #   Column          Non-Null Count  Dtype
---  ------          --------------  -----
```

```
 0   Show_Id       7789 non-null   object
 1   Category      7789 non-null   object
 2   Title         7789 non-null   object
 3   Director      5401 non-null   object
 4   Cast          7071 non-null   object
 5   Country       7282 non-null   object
 6   Release_Date  7779 non-null   object
 7   Rating        7782 non-null   object
 8   Duration      7789 non-null   object
 9   Type          7789 non-null   object
 10  Description   7789 non-null   object
dtypes: object(11)
memory usage: 669.5+ KB
```

Task 1. Is there any duplicate records int this dataset ? If yes, then remove the duplicate records

```
df.head()

  Show_Id Category  Title            Director  \
0      s1  TV Show     3%                 NaN
1      s2    Movie  07:19  Jorge Michel Grau
2      s3    Movie  23:59       Gilbert Chan
3      s4    Movie      9        Shane Acker
4      s5    Movie     21     Robert Luketic

                                                Cast        Country  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...         Brazil
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...         Mexico
2  Tedd Chan, Stella Chung, Henley Hii, Lawrence ...      Singapore
3  Elijah Wood, John C. Reilly, Jennifer Connelly...  United States
4  Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...  United States

        Release_Date Rating   Duration  \
0    August 14, 2020  TV-MA  4 Seasons
1  December 23, 2016  TV-MA     93 min
2  December 20, 2018      R     78 min
3  November 16, 2017  PG-13     80 min
4    January 1, 2020  PG-13    123 min

                                                Type  \
0  International TV Shows, TV Dramas, TV Sci-Fi &...
1                     Dramas, International Movies
2             Horror Movies, International Movies
3  Action & Adventure, Independent Movies, Sci-Fi...
4                                          Dramas

                                         Description
```

```
0  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...
```

```python
df[df.duplicated()]
```

```
      Show_Id Category              Title         Director  \
6300    s684    Movie            Backfire      Dave Patten
6622   s6621    Movie  The Lost Okoroshi  Abba T. Makama


                                            Cast        Country
\
6300  Black Deniro, Byron "Squally" Vinson, Dominic ...  United States

6622  Seun Ajayi, Judith Audu, Tope Tedela, Ifu Enna...         Nigeria


          Release_Date Rating Duration  \
6300      April 5, 2019  TV-MA   97 min
6622  September 4, 2020  TV-MA   94 min


                                     Type  \
6300  Dramas, Independent Movies, Thrillers
6622    Comedies, Dramas, Independent Movies


                                     Description
6300  When two would-be robbers accidentally kill a ...
6622  A disillusioned security guard transforms into...
```

here we can see index no 6300 and 6622 record has duplicate records

```python
df.drop_duplicates(inplace = True)

df[df.duplicated()]

Empty DataFrame
Columns: [Show_Id, Category, Title, Director, Cast, Country,
Release_Date, Rating, Duration, Type, Description]
Index: []
```

as we can see all the duplicate records has been deleted

```python
df.shape

(7787, 11)
```

Task 2. Is there any Null values presnt in any colums ? Show with Heat-Map

```
df.isnull()
```

	Show_Id	Category	Title	Director	Cast	Country	Release_Date
0	False	False	False	True	False	False	False
1	False	False	False	False	False	False	False
2	False	False	False	False	False	False	False
3	False	False	False	False	False	False	False
4	False	False	False	False	False	False	False
...	...	...	...	...	...	...	...
7784	False	False	False	False	False	False	False
7785	False	False	False	False	False	False	False
7786	False	False	False	True	False	True	False
7787	False	False	False	True	False	False	False
7788	False	False	False	False	True	False	False

	Rating	Duration	Type	Description
0	False	False	False	False
1	False	False	False	False
2	False	False	False	False
3	False	False	False	False
4	False	False	False	False
...	...	...	...	...
7784	False	False	False	False
7785	False	False	False	False
7786	False	False	False	False
7787	False	False	False	False
7788	False	False	False	False

```
[7787 rows x 11 columns]

df.isnull().sum()
```

```
Show_Id          0
Category         0
Title            0
Director      2388
```

```
Cast              718
Country           507
Release_Date       10
Rating              7
Duration            0
Type                0
Description         0
dtype: int64

sns.heatmap(df.isnull())

<AxesSubplot:>
```
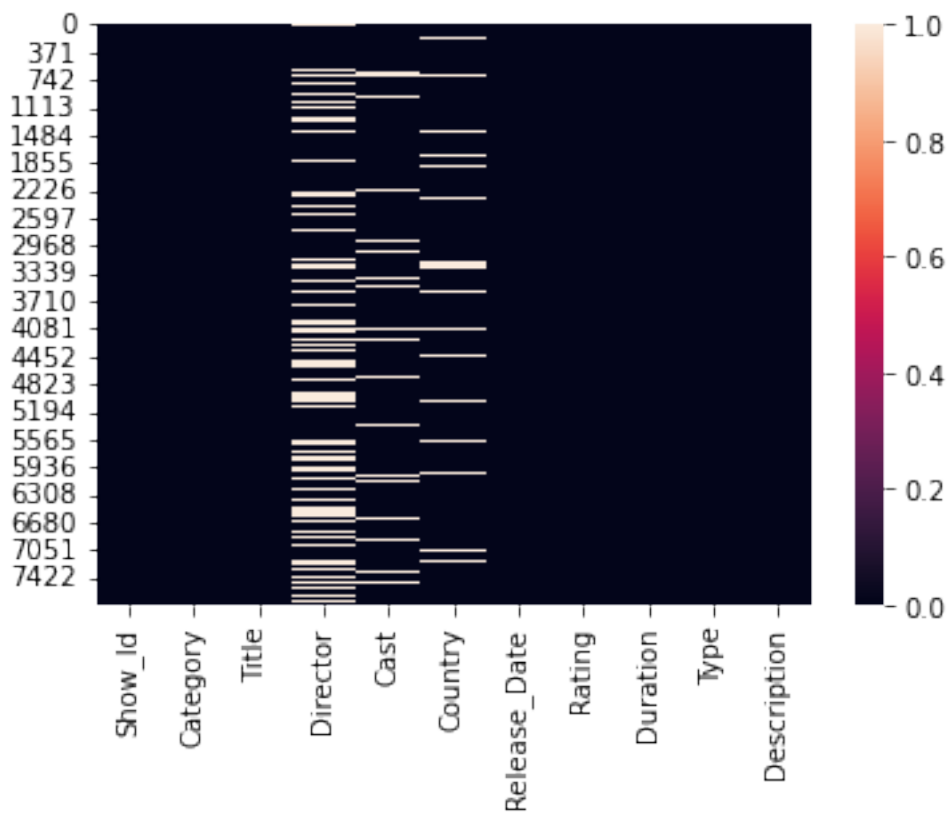

Q 1. For 'House of Cards' , What is the show id and who is director of this show

```
df.head()

  Show_Id Category  Title                 Director  \
0      s1  TV Show      3%                      NaN
1      s2    Movie  07:19  Jorge Michel Grau
```

```
2     s3    Movie   23:59        Gilbert Chan
3     s4    Movie     9          Shane Acker
4     s5    Movie    21         Robert Luketic

                                            Cast         Country  \
0   João Miguel, Bianca Comparato, Michel Gomes, R...        Brazil
1   Demián Bichir, Héctor Bonilla, Oscar Serrano, ...        Mexico
2   Tedd Chan, Stella Chung, Henley Hii, Lawrence ...     Singapore
3   Elijah Wood, John C. Reilly, Jennifer Connelly...  United States
4   Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...  United States

         Release_Date Rating    Duration  \
0      August 14, 2020  TV-MA   4 Seasons
1   December 23, 2016  TV-MA      93 min
2   December 20, 2018      R      78 min
3   November 16, 2017  PG-13      80 min
4      January 1, 2020  PG-13     123 min

                                              Type  \
0   International TV Shows, TV Dramas, TV Sci-Fi &...
1                     Dramas, International Movies
2               Horror Movies, International Movies
3   Action & Adventure, Independent Movies, Sci-Fi...
4                                           Dramas

                                       Description
0   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...
```

`df[df['Title'].isin(['House of Cards'])]`   #with the help oof isin()

```
      Show_Id Category            Title  \
2832    s2833  TV Show  House of Cards

                                            Director  \
2832  Robin Wright, David Fincher, Gerald McRaney, J...

                                           Cast         Country \
2832  Kevin Spacey, Robin Wright, Kate Mara, Corey S...  United States

         Release_Date Rating   Duration                       Type  \
2832  November 2, 2018  TV-MA  6 Seasons  TV Dramas, TV Thrillers

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

```
df[df['Title'].str.contains('House of Cards')]          # with the
help of str.contains

     Show_Id Category           Title  \
2832   s2833  TV Show  House of Cards

                                      Director  \
2832  Robin Wright, David Fincher, Gerald McRaney, J...

                                          Cast        Country
\
2832  Kevin Spacey, Robin Wright, Kate Mara, Corey S...  United States

          Release_Date Rating   Duration                      Type  \
2832  November 2, 2018  TV-MA  6 Seasons  TV Dramas, TV Thrillers

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

Q 2. In which year highest number of TV shows and movies were released ? show with bar grouph

.

```
df.dtypes

Show_Id          object
Category         object
Title            object
Director         object
Cast             object
Country          object
Release_Date     object
Rating           object
Duration         object
Type             object
Description      object
dtype: object

# change Release_Date data type
df['New_Date'] = pd.to_datetime(df['Release_Date'])

df.dtypes

Show_Id                object
Category               object
Title                  object
```

```
Director              object
Cast                  object
Country               object
Release_Date          object
Rating                object
Duration              object
Type                  object
Description           object
New_Date      datetime64[ns]
dtype: object
```

```
df.head()
```

```
  Show_Id Category  Title           Director  \
0      s1  TV Show     3%                 NaN
1      s2    Movie  07:19  Jorge Michel Grau
2      s3    Movie  23:59       Gilbert Chan
3      s4    Movie      9        Shane Acker
4      s5    Movie     21      Robert Luketic

                                                Cast        Country  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...         Brazil
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...         Mexico
2  Tedd Chan, Stella Chung, Henley Hii, Lawrence ...      Singapore
3  Elijah Wood, John C. Reilly, Jennifer Connelly...  United States
4  Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...  United States

        Release_Date Rating  Duration  \
0     August 14, 2020  TV-MA  4 Seasons
1  December 23, 2016   TV-MA     93 min
2  December 20, 2018       R     78 min
3  November 16, 2017   PG-13     80 min
4    January 1, 2020   PG-13    123 min

                                                Type  \
0  International TV Shows, TV Dramas, TV Sci-Fi &...
1                     Dramas, International Movies
2              Horror Movies, International Movies
3  Action & Adventure, Independent Movies, Sci-Fi...
4                                           Dramas

                                         Description   New_Date
0  In a future where the elite inhabit an island ...  2020-08-14
1  After a devastating earthquake hits Mexico Cit...  2016-12-23
2  When an army recruit is found dead, his fellow...  2018-12-20
3  In a postapocalyptic world, rag-doll robots hi...  2017-11-16
4  A brilliant group of students become card-coun...  2020-01-01
```
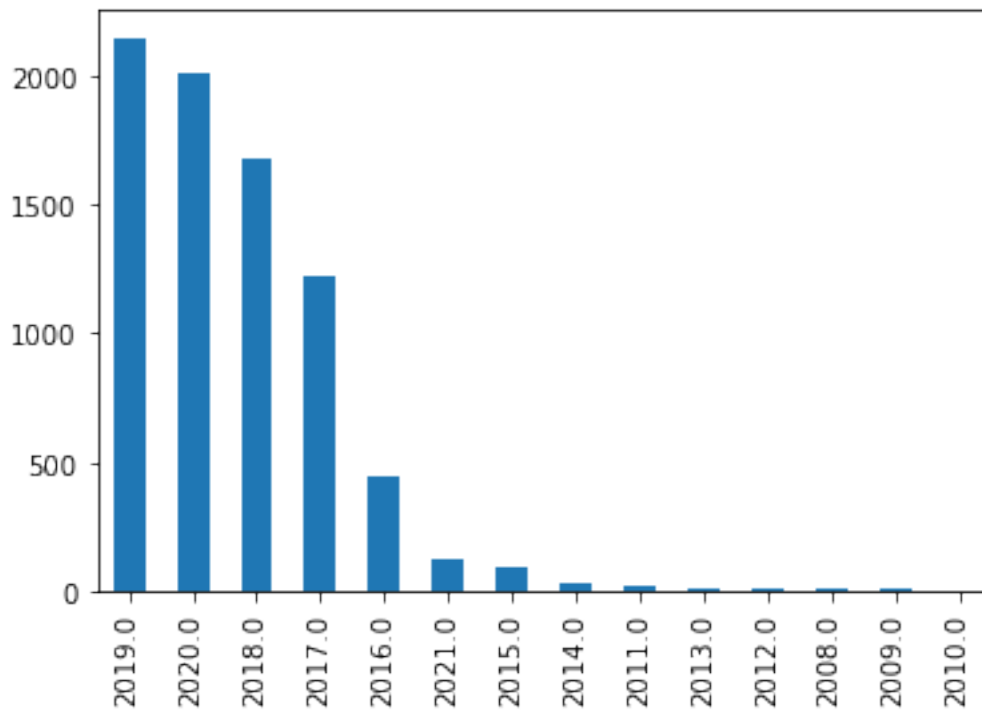
```
df['New_Date'].dt.year.value_counts()
```

```
2019.0     2153
2020.0     2009
2018.0     1685
2017.0     1225
2016.0      443
2021.0      117
2015.0       88
2014.0       25
2011.0       13
2013.0       11
2012.0        3
2008.0        2
2009.0        2
2010.0        1
Name: New_Date, dtype: int64
```

```python
df['New_Date'].dt.year.value_counts().plot(kind='bar')
```

```
<AxesSubplot:>
```


Q3. How many Movies and TV Shows are in the dataest? show with bar graph

```python
df.head()
```

```
   Show_Id Category  Title          Director  \
0      s1  TV Show      3%                NaN
1      s2    Movie   07:19  Jorge Michel Grau
2      s3    Movie   23:59        Gilbert Chan
3      s4    Movie       9         Shane Acker
4      s5    Movie      21      Robert Luketic

                                           Cast        Country  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...         Brazil
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...         Mexico
2  Tedd Chan, Stella Chung, Henley Hii, Lawrence ...      Singapore
3  Elijah Wood, John C. Reilly, Jennifer Connelly...  United States
4  Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...  United States

        Release_Date Rating   Duration  \
0     August 14, 2020  TV-MA  4 Seasons
1   December 23, 2016  TV-MA     93 min
2   December 20, 2018      R     78 min
3   November 16, 2017  PG-13     80 min
4     January 1, 2020  PG-13    123 min

                                           Type  \
0  International TV Shows, TV Dramas, TV Sci-Fi &...
1                    Dramas, International Movies
2            Horror Movies, International Movies
3  Action & Adventure, Independent Movies, Sci-Fi...
4                                         Dramas

                                     Description   New_Date
0  In a future where the elite inhabit an island ... 2020-08-14
1  After a devastating earthquake hits Mexico Cit... 2016-12-23
2  When an army recruit is found dead, his fellow... 2018-12-20
3  In a postapocalyptic world, rag-doll robots hi... 2017-11-16
4  A brilliant group of students become card-coun... 2020-01-01

df.Category.unique()

array(['TV Show', 'Movie'], dtype=object)

df['Category'].value_counts()

Movie      5377
TV Show    2410
Name: Category, dtype: int64

df['Category'].value_counts().plot (kind = 'bar')

<AxesSubplot:>
```
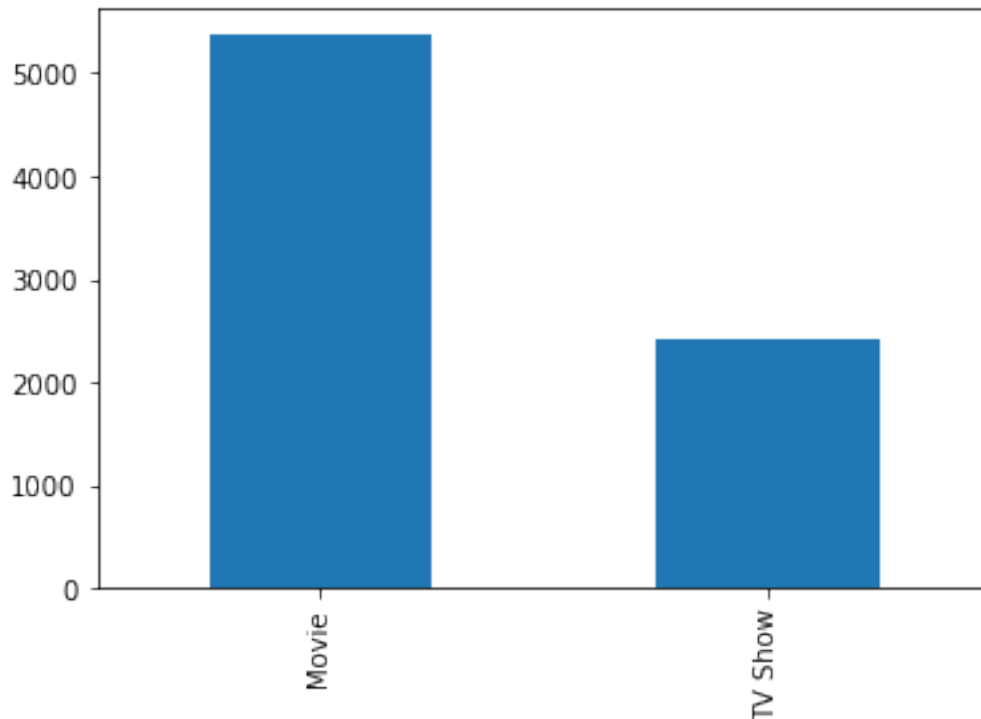
```
#we can use groupby() function as well
df.groupby('Category')

<pandas.core.groupby.generic.DataFrameGroupBy object at
0x0000025AB4A01FA0>

df.groupby('Category').Category.count()

Category
Movie      5377
TV Show    2410
Name: Category, dtype: int64

sns.countplot(df['Category'])

C:\Users\sachi\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='Category', ylabel='count'>
```
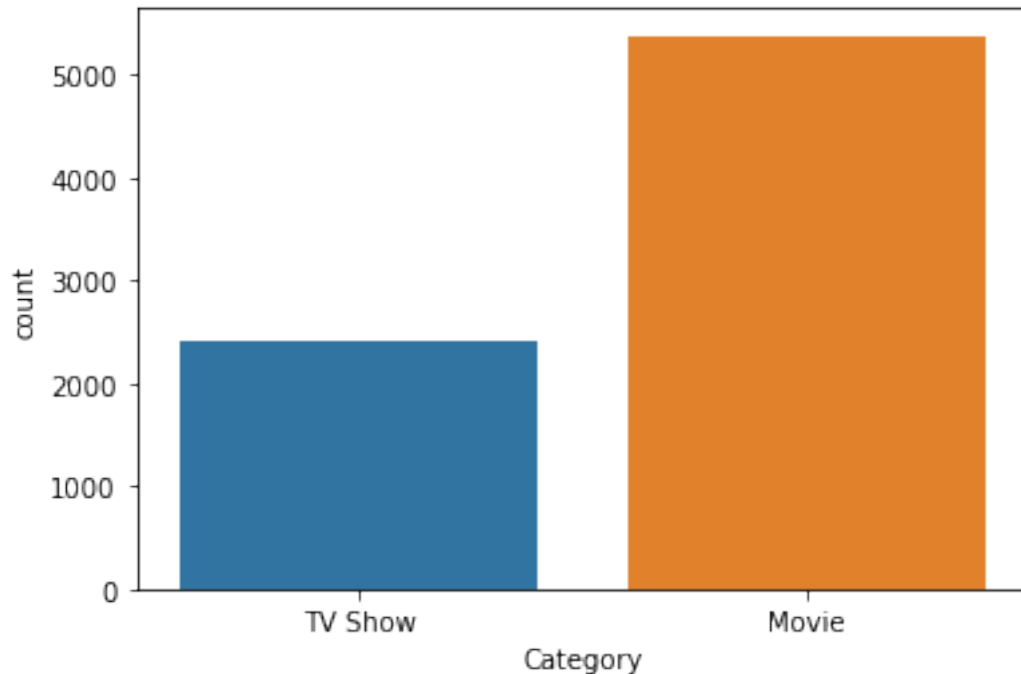
Q 4. Show all the movies that were relase in year 2000.

```
df.head()
```

```
  Show_Id Category  Title        Director  \
0      s1  TV Show     3%             NaN
1      s2    Movie  07:19  Jorge Michel Grau
2      s3    Movie  23:59      Gilbert Chan
3      s4    Movie      9       Shane Acker
4      s5    Movie     21    Robert Luketic


                                          Cast        Country  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...          Brazil
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...          Mexico
2  Tedd Chan, Stella Chung, Henley Hii, Lawrence ...       Singapore
3  Elijah Wood, John C. Reilly, Jennifer Connelly...   United States
4  Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...   United States


       Release_Date Rating   Duration  \
0    August 14, 2020  TV-MA  4 Seasons
1  December 23, 2016  TV-MA     93 min
2  December 20, 2018      R     78 min
3  November 16, 2017  PG-13     80 min
4    January 1, 2020  PG-13    123 min


                                          Type  \
0  International TV Shows, TV Dramas, TV Sci-Fi &...
```

```
1                      Dramas, International Movies
2                Horror Movies, International Movies
3    Action & Adventure, Independent Movies, Sci-Fi...
4                                              Dramas

                                             Description    New_Date
0    In a future where the elite inhabit an island ...  2020-08-14
1    After a devastating earthquake hits Mexico Cit...  2016-12-23
2    When an army recruit is found dead, his fellow...  2018-12-20
3    In a postapocalyptic world, rag-doll robots hi...  2017-11-16
4    A brilliant group of students become card-coun...  2020-01-01
```

```
Empty DataFrame
Columns: [Show_Id, Category, Title, Director, Cast, Country,
Release_Date, Rating, Duration, Type, Description, New_Date]
Index: []
```

```
df['Year'] = df['New_Date'].dt.year
```

```
df.head(1)
```

```
  Show_Id Category Title Director  \
0      s1  TV Show    3%      NaN

                                                Cast Country
Release_Date  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...  Brazil   August
14, 2020

  Rating   Duration                                               Type
\
0  TV-MA  4 Seasons  International TV Shows, TV Dramas, TV Sci-Fi &...

                                             Description    New_Date
Year
0  In a future where the elite inhabit an island ...  2020-08-14
2020.0
```

```
df[(df['Category'] == 'Movie') & (df['Year'] == 2000)]
```

```
Empty DataFrame
Columns: [Show_Id, Category, Title, Director, Cast, Country,
Release_Date, Rating, Duration, Type, Description, New_Date, Year]
Index: []
```

no movies release in 2000

Q5. Show the Titles of all TV Shows that were released in India only

```
df.head(2)
```

```
  Show_Id Category  Title          Director  \
0      s1  TV Show     3%                NaN
1      s2    Movie  07:19  Jorge Michel Grau


                                           Cast Country  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...  Brazil
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...  Mexico


        Release_Date Rating   Duration  \
0    August 14, 2020  TV-MA  4 Seasons
1  December 23, 2016  TV-MA     93 min


                                           Type  \
0  International TV Shows, TV Dramas, TV Sci-Fi &...
1                     Dramas, International Movies


                                    Description   New_Date
Year
0  In a future where the elite inhabit an island ... 2020-08-14
2020.0
1  After a devastating earthquake hits Mexico Cit... 2016-12-23
2016.0
```

```
df [(df['Category'] == 'TV Show' ) &  (df['Country'] == 'India') ]
['Title']
```

```
86             21 Sarfarosh: Saragarhi 1897
132                             7 (Seven)
340                            Agent Raghav
364                            Akbar Birbal
533                     Anjaan: Rural Myths
                            ...
6249                    The Creative Indians
6400    The Golden Years with Javed Akhtar
6469                 The House That Made Me
7294                             Typewriter
7705                       Yeh Meri Family
Name: Title, Length: 71, dtype: object
```

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

```
df.head(2)
```

```
  Show_Id Category  Title           Director  \
0     s1  TV Show     3%                 NaN
1     s2    Movie  07:19  Jorge Michel Grau


                                         Cast Country  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...  Brazil
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...  Mexico

        Release_Date Rating   Duration  \
0    August 14, 2020  TV-MA  4 Seasons
1  December 23, 2016  TV-MA     93 min

                                         Type  \
0  International TV Shows, TV Dramas, TV Sci-Fi &...
1                    Dramas, International Movies

                                    Description    New_Date
Year
0  In a future where the elite inhabit an island ... 2020-08-14
2020.0
1  After a devastating earthquake hits Mexico Cit... 2016-12-23
2016.0
```

```python
df['Director'].value_counts().head(10)
```

```
Raúl Campos, Jan Suter    18
Marcus Raboy              16
Jay Karas                 14
Cathy Garcia-Molina       13
Jay Chapman               12
Youssef Chahine           12
Martin Scorsese           12
Steven Spielberg          10
David Dhawan               9
Hakan Algül                8
Name: Director, dtype: int64
```

Q.7. show all the records, where "Category is Movies and Type is Comedies" or "Country is United Kingdom"

```python
df.head(2)
```

```
  Show_Id Category  Title           Director  \
0     s1  TV Show     3%                 NaN
1     s2    Movie  07:19  Jorge Michel Grau


                                         Cast Country  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...  Brazil
```

```
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...   Mexico

        Release_Date Rating    Duration  \
0     August 14, 2020  TV-MA   4 Seasons
1  December 23, 2016  TV-MA      93 min


                                                    Type  \
0  International TV Shows, TV Dramas, TV Sci-Fi &...
1                     Dramas, International Movies

                                            Description   New_Date
Year
0  In a future where the elite inhabit an island ... 2020-08-14
2020.0
1  After a devastating earthquake hits Mexico Cit... 2016-12-23
2016.0

df[(df['Category'] == 'Movie') & (df['Type'] == 'Comedies')]

     Show_Id Category                          Title
Director  \
33      s34    Movie                  #realityhigh      Fernando
Lebrija
72      s73    Movie                      17 Again           Burr
Steers
84      s85    Movie                      21 & Over  Jon Lucas, Scott
Moore
148    s149    Movie        A Bad Moms Christmas  Jon Lucas, Scott
Moore
174    s175    Movie  A Futile and Stupid Gesture          David
Wain
...      ...      ...                          ...
...
7341   s7340   Movie          Undercover Brother 2         Leslie
Small
7590   s7589   Movie            Where's the Money          Scott
Zabielski
7623   s7622   Movie                     Wild Oats          Andy
Tennant
7634   s7633   Movie                  Wine Country           Amy
Poehler
7664   s7663   Movie                        Work It         Laura
Terruso

                                                    Cast  \
33     Nesta Cooper, Kate Walsh, John Michael Higgins...
72     Zac Efron, Leslie Mann, Matthew Perry, Thomas ...
84     Miles Teller, Skylar Astin, Justin Chon, Sarah...
148    Mila Kunis, Kristen Bell, Kathryn Hahn, Susan ...
174    Will Forte, Domhnall Gleeson, Martin Mull, Joe...
```

```
...                                               ...
7341  Michael Jai White, Vince Swann, Barry Bostwick...
7590  Andrew Bachelor, Kat Graham, Mike Epps, Terry ...
7623  Shirley MacLaine, Jessica Lange, Billy Connoll...
7634  Amy Poehler, Maya Rudolph, Ana Gasteyer, Rache...
7664  Sabrina Carpenter, Jordan Fisher, Liza Koshy, ...

                     Country        Release_Date Rating Duration
Type  \
33              United States  September 8, 2017  TV-14   99 min
Comedies
72              United States    January 1, 2021  PG-13  102 min
Comedies
84              United States     April 16, 2019      R   93 min
Comedies
148     United States, China  February 14, 2020      R  104 min
Comedies
174             United States   January 26, 2018  TV-MA  102 min
Comedies
...                       ...                ...    ...      ...
...
7341            United States   November 5, 2019      R   85 min
Comedies
7590            United States   January 22, 2018      R   86 min
Comedies
7623  Germany, United States       May 13, 2017  PG-13   86 min
Comedies
7634            United States       May 10, 2019      R  104 min
Comedies
7664            United States    August 7, 2020  TV-14   94 min
Comedies

                                   Description   New_Date
Year
33     When nerdy high schooler Dani finally attracts... 2017-09-08
2017.0
72     Nearing a midlife crisis, thirty-something Mik... 2021-01-01
2021.0
84     Jeff's straight-and-narrow life changes abrupt... 2019-04-16
2019.0
148    Stressed-out moms Amy, Carla and Kiki are back... 2020-02-14
2020.0
174    In a brief life full of triumph and failure, "... 2018-01-26
2018.0
...                                            ...        ...
...
7341  When a beloved secret agent falls deep into a ... 2019-11-05
2019.0
7590  Hunting for a stash of stolen money, a sharp-w... 2018-01-22
```

```
2018.0
7623  When insurance accidentally pays her millions,... 2017-05-13
2017.0
7634  When longtime friends meet up for a wine-soake... 2019-05-10
2019.0
7664  A brilliant but clumsy high school senior vows... 2020-08-07
2020.0

[97 rows x 13 columns]

df[(df['Category'] == 'Movie') & (df['Type'] == 'Comedies')  |
(df['Country'] == 'Unites kingdom')]

      Show_Id Category                          Title
Director  \
33        s34    Movie                     #realityhigh       Fernando
Lebrija
72        s73    Movie                         17 Again            Burr
Steers
84        s85    Movie                        21 & Over  Jon Lucas, Scott
Moore
148      s149    Movie        A Bad Moms Christmas  Jon Lucas, Scott
Moore
174      s175    Movie  A Futile and Stupid Gesture           David
Wain
...       ...     ...                              ...
...
7341    s7340    Movie          Undercover Brother 2          Leslie
Small
7590    s7589    Movie              Where's the Money         Scott
Zabielski
7623    s7622    Movie                        Wild Oats          Andy
Tennant
7634    s7633    Movie                    Wine Country           Amy
Poehler
7664    s7663    Movie                          Work It         Laura
Terruso

                                                    Cast  \
33    Nesta Cooper, Kate Walsh, John Michael Higgins...
72    Zac Efron, Leslie Mann, Matthew Perry, Thomas ...
84    Miles Teller, Skylar Astin, Justin Chon, Sarah...
148   Mila Kunis, Kristen Bell, Kathryn Hahn, Susan ...
174   Will Forte, Domhnall Gleeson, Martin Mull, Joe...
...                                                  ...
7341  Michael Jai White, Vince Swann, Barry Bostwick...
7590  Andrew Bachelor, Kat Graham, Mike Epps, Terry ...
7623  Shirley MacLaine, Jessica Lange, Billy Connoll...
7634  Amy Poehler, Maya Rudolph, Ana Gasteyer, Rache...
7664  Sabrina Carpenter, Jordan Fisher, Liza Koshy, ...
```

```
                    Country      Release_Date Rating Duration
Type   \
33              United States   September 8, 2017  TV-14    99 min
Comedies
72              United States     January 1, 2021  PG-13   102 min
Comedies
84              United States      April 16, 2019      R    93 min
Comedies
148      United States, China  February 14, 2020      R   104 min
Comedies
174              United States    January 26, 2018  TV-MA   102 min
Comedies
...                       ...               ...    ...      ...
...
7341            United States   November 5, 2019       R    85 min
Comedies
7590            United States    January 22, 2018      R    86 min
Comedies
7623  Germany, United States      May 13, 2017  PG-13    86 min
Comedies
7634            United States       May 10, 2019      R   104 min
Comedies
7664            United States     August 7, 2020  TV-14    94 min
Comedies

                                            Description   New_Date
Year
33     When nerdy high schooler Dani finally attracts... 2017-09-08
2017.0
72     Nearing a midlife crisis, thirty-something Mik... 2021-01-01
2021.0
84     Jeff's straight-and-narrow life changes abrupt... 2019-04-16
2019.0
148    Stressed-out moms Amy, Carla and Kiki are back... 2020-02-14
2020.0
174    In a brief life full of triumph and failure, "... 2018-01-26
2018.0
...                                                  ...        ...
...
7341  When a beloved secret agent falls deep into a ... 2019-11-05
2019.0
7590  Hunting for a stash of stolen money, a sharp-w... 2018-01-22
2018.0
7623  When insurance accidentally pays her millions,... 2017-05-13
2017.0
7634  When longtime friends meet up for a wine-soake... 2019-05-10
2019.0
7664  A brilliant but clumsy high school senior vows... 2020-08-07
```

```
2020.0

[97 rows x 13 columns]
```

Q.8. In how man Movies/TV Shows , Tom Cruise was cast?

```
df.head(2)

  Show_Id Category  Title           Director  \
0      s1  TV Show     3%                 NaN
1      s2    Movie  07:19  Jorge Michel Grau

                                                Cast Country  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...  Brazil
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...  Mexico

        Release_Date Rating   Duration  \
0     August 14, 2020  TV-MA   4 Seasons
1  December 23, 2016  TV-MA      93 min

                                                Type  \
0  International TV Shows, TV Dramas, TV Sci-Fi &...
1                     Dramas, International Movies

                                         Description   New_Date
Year
0  In a future where the elite inhabit an island ... 2020-08-14
2020.0
1  After a devastating earthquake hits Mexico Cit... 2016-12-23
2016.0

df['Cast'].unique()

array(['João Miguel, Bianca Comparato, Michel Gomes, Rodolfo Valente,
Vaneza Oliveira, Rafael Lozano, Viviane Porto, Mel Fronckowiak, Sergio
Mamberti, Zezé Motta, Celso Frateschi',
       'Demián Bichir, Héctor Bonilla, Oscar Serrano, Azalia Ortiz,
Octavio Michel, Carmen Beato',
       'Tedd Chan, Stella Chung, Henley Hii, Lawrence Koh, Tommy Kuan,
Josh Lai, Mark Lee, Susan Leong, Benjamin Lim',
       ...,
       'Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanana, Manish
Chaudhary, Meghna Malik, Malkeet Rauni, Anita Shabdish, Chittaranjan
Tripathy',
       'Nasty C', 'Adriano Zumbo, Rachel Khoo'], dtype=object)

df[(df['Cast'] == 'Tom Cruise')]
```

```
Empty DataFrame
Columns: [Show_Id, Category, Title, Director, Cast, Country,
Release_Date, Rating, Duration, Type, Description, New_Date, Year]
Index: []

df[(df['Cast'].str.contains('Tom Cruise'))]

--------------------------------------------------------------------
-----
ValueError                                 Traceback (most recent call
last)
Input In [125], in <cell line: 1>()
----> 1 df[(df['Cast'].str.contains('Tom Cruise'))]

File ~\anaconda3\lib\site-packages\pandas\core\frame.py:3495, in
DataFrame.__getitem__(self, key)
   3492     return self.where(key)
   3494 # Do we have a (boolean) 1d indexer?
-> 3495 if com.is_bool_indexer(key):
   3496     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"
    141     if lib.infer_dtype(key) == "boolean" and isna(key).any():
    142         # Don't raise on e.g. ["A", "B", np.nan], see
    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
```

create new dataframe

```
df_new = df.dropna()

df_new.shape

(4809, 15)

df_new.head(2)

  Show_Id Category  Title            Director  \
1      s2    Movie  07:19  Jorge Michel Grau
```

```
2       s3      Movie   23:59           Gilbert Chan

                                                Cast        Country  \
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...      Mexico
2  Tedd Chan, Stella Chung, Henley Hii, Lawrence ...   Singapore

         Release_Date Rating Duration
Type  \
1  December 23, 2016  TV-MA    93 min           Dramas, International
Movies
2  December 20, 2018      R    78 min   Horror Movies, International
Movies

                                                Description    New_Date
Year  \
1  After a devastating earthquake hits Mexico Cit... 2016-12-23
2016.0
2  When an army recruit is found dead, his fellow... 2018-12-20
2018.0

  Minutes Unit
1      93  min
2      78  min

df_new[df_new['Cast'].str.contains('Tom Cruise')]

       Show_Id Category     Title               Director  \
3860    s3861     Movie  Magnolia  Paul Thomas Anderson
5071    s5071     Movie  Rain Man        Barry Levinson

                                                Cast        Country
\
3860   Jeremy Blackman, Tom Cruise, Melinda Dillon, A...  United States

5071   Dustin Hoffman, Tom Cruise, Valeria Golino, Ge...  United States


         Release_Date Rating Duration                          Type  \
3860   January 1, 2020      R  189 min  Dramas, Independent Movies
5071      July 1, 2019      R  134 min       Classic Movies, Dramas

                                                Description    New_Date
Year  \
3860  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

      Minutes Unit
3860      189  min
5071      134  min
```

Q.9. What are the different Ratings defined by Netfilix?

```
df.head(2)
```

```
  Show_Id Category  Title          Director  \
0      s1  TV Show     3%                NaN
1      s2    Movie  07:19  Jorge Michel Grau

                                           Cast Country  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...  Brazil
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...  Mexico

        Release_Date Rating  Duration  \
0    August 14, 2020  TV-MA  4 Seasons
1  December 23, 2016  TV-MA     93 min

                                           Type  \
0  International TV Shows, TV Dramas, TV Sci-Fi &...
1                    Dramas, International Movies

                                      Description   New_Date
Year
0  In a future where the elite inhabit an island ... 2020-08-14
2020.0
1  After a devastating earthquake hits Mexico Cit... 2016-12-23
2016.0
```

```
df['Rating'].unique()
```

```
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)
```

```
df['Rating'].nunique()
```

```
14
```

Q.9.1 How many Movies Got the 'TV-14' rating, in Canada?

```
df.head(2)
```

```
  Show_Id Category  Title          Director  \
0      s1  TV Show     3%                NaN
1      s2    Movie  07:19  Jorge Michel Grau

                                           Cast Country  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...  Brazil
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...  Mexico

        Release_Date Rating  Duration  \
```

```
0      August 14, 2020  TV-MA  4 Seasons
1   December 23, 2016  TV-MA     93 min

                                                Type  \
0   International TV Shows, TV Dramas, TV Sci-Fi &...
1                       Dramas, International Movies

                                          Description   New_Date
Year
0   In a future where the elite inhabit an island ... 2020-08-14
2020.0
1   After a devastating earthquake hits Mexico Cit... 2016-12-23
2016.0

df[(df['Rating'] == 'TV-14')  &  (df['Country'] == 'Canada') &
(df['Category'] == 'Movie')]

      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
3956   s3957    Movie   Martin Matte: La vie, la mort...eh la la..!
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    Movie     There's Something in the Water

                               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

                                          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
3713   Gord Downie, Paul Langlois, Gord Sinclair, Rob...  Canada
3956                                Martin Matte  Canada
```

```
5336   Morgan Taylor Campbell, Clark Backo, Ricardo H...   Canada
5393   Diljit Dosanjh, Neeru Bajwa, Mandy Takhar, Jas...   Canada
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
34         April 10, 2019  TV-14   105 min
608    December 27, 2018  TV-14    91 min
1506         July 1, 2018  TV-14    88 min
3713   November 12, 2017  TV-14    96 min
3956    October 14, 2019  TV-14    62 min
5336     August 22, 2017  TV-14    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
5336                        Comedies, Sci-Fi & Fantasy
5393    Comedies, International Movies, Music & Musicals
6062                Documentaries, International Movies
7025                                           Thrillers
7041                Documentaries, International Movies

                                             Description   New_Date
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
2019.0
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
2019.0
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

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

(11, 13)
```

Q.9.2.How may TV Show got the 'R' rating, after year 2018?

```
df.head(1)

  Show_Id Category Title Director  \
0      s1  TV Show     3%       NaN


                                                Cast Country
Release_Date  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...  Brazil  August
14, 2020

  Rating  Duration                                            Type
\
0  TV-MA  4 Seasons  International TV Shows, TV Dramas, TV Sci-Fi &...


                                         Description   New_Date
Year
0  In a future where the elite inhabit an island ... 2020-08-14
2020.0

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

       Show_Id Category                                 Title
Director  \
6437    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   New_Date
Year
```

```
6437  Trapped at a stagecoach stop as a storm rages ... 2019-04-25
2019.0
```

Q.10 What is the maximum duration of a Movie/Shows on Netflix?

```python
df['Duration'].unique()
```

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

```
min',
       '224 min', '233 min', '189 min', '152 min', '19 min', '15
Seasons',
       '208 min', '237 min', '31 min', '178 min', '230 min', '194
min',
       '228 min', '195 min', '3 min', '16 min', '5 min', '18 min',
       '205 min', '190 min', '36 min', '201 min', '253 min', '203
min',
       '191 min'], dtype=object)
```

```python
df.Duration.dtype
```

```
dtype('O')
```

str.split()

```python
df[['Minutes', 'Unit']] = df['Duration'].str.split(' ', expand=True)

df.head(2)
```

```
  Show_Id Category  Title          Director  \
0      s1  TV Show     3%                NaN
1      s2    Movie  07:19  Jorge Michel Grau

                                           Cast Country  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...  Brazil
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...  Mexico

        Release_Date Rating   Duration  \
0    August 14, 2020  TV-MA  4 Seasons
1  December 23, 2016  TV-MA     93 min

                                           Type  \
0  International TV Shows, TV Dramas, TV Sci-Fi &...
1                      Dramas, International Movies

                                         Description   New_Date
Year  \
0  In a future where the elite inhabit an island ... 2020-08-14
2020.0
1  After a devastating earthquake hits Mexico Cit... 2016-12-23
2016.0

  Minutes      Unit
0       4  Seasons
1      93       min
```

```python
df['Minutes'].max()
```

```
'99'
```

```python
df.Minutes.min()
```

```
'1'
```

Q.11.Which Individual country has the Highest No. of TV Show?

```
df_tvshow = df[(df['Category'] == 'TV Show') ]

df_tvshow .head(2)

  Show_Id Category Title     Director  \
0      s1  TV Show    3%          NaN
5      s6  TV Show    46  Serdar Akar

                                         Cast Country
Release_Date  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...  Brazil  August
14, 2020
5  Erdal Beşikçioğlu, Yasemin Allen, Melis Birkan...  Turkey     July
1, 2017

  Rating    Duration                                            Type
\
0  TV-MA  4 Seasons  International TV Shows, TV Dramas, TV Sci-Fi &...

5  TV-MA   1 Season    International TV Shows, TV Dramas, TV Mysteries


                                     Description   New_Date
Year  \
0  In a future where the elite inhabit an island ... 2020-08-14
2020.0
5  A genetics professor experiments with a treatm... 2017-07-01
2017.0

  Minutes     Unit
0       4  Seasons
5       1   Season

df_tvshow['Country'].value_counts()

United States                                                   705
United Kingdom                                                  204
Japan                                                           157
South Korea                                                     147
India                                                            71
                                                               ...
Canada, United States, United Kingdom, France, Luxembourg        1
United States, Italy                                             1
Chile, Italy                                                     1
Canada, United Kingdom                                           1
```

```
United States, France, South Korea, Indonesia                      1
Name: Country, Length: 183, dtype: int64

df_tvshow['Country'].value_counts().head(1)

United States    705
Name: Country, dtype: int64
```

Q.12. How can we sort the dataset by Year?

```
df.head(2)

  Show_Id Category  Title           Director  \
0      s1  TV Show     3%                 NaN
1      s2    Movie  07:19  Jorge Michel Grau


                                         Cast Country  \
0  João Miguel, Bianca Comparato, Michel Gomes, R...   Brazil
1  Demián Bichir, Héctor Bonilla, Oscar Serrano, ...   Mexico


      Release_Date Rating   Duration  \
0    August 14, 2020  TV-MA  4 Seasons
1  December 23, 2016  TV-MA     93 min


                                         Type  \
0  International TV Shows, TV Dramas, TV Sci-Fi &...
1                   Dramas, International Movies


                                      Description    New_Date
Year  \
0  In a future where the elite inhabit an island ... 2020-08-14
2020.0
1  After a devastating earthquake hits Mexico Cit... 2016-12-23
2016.0

  Minutes     Unit
0       4  Seasons
1      93      min

df.sort_values(by='Year').head()

      Show_Id Category                              Title
Director  \
7115    s7114    Movie         To and From New York  Sorin Dan
Mihalcescu
1765    s1766  TV Show              Dinner for Five
NaN
3248    s3249    Movie     Just Another Love Story         Ole
Bornedal
```

```
5766    s5766    Movie                            Splatter              Joe
Dante
3840    s3841    Movie  Mad Ron's Prevues from Hell              Jim
Monaco

                                                     Cast           Country
\
7115  Barbara King, Shaana Diya, John Krisiukenas, Y...   United States

1765                                                  NaN   United States

3248  Anders W. Berthelsen, Rebecka Hemse, Nikolaj L...         Denmark

5766  Corey Feldman, Tony Todd, Tara Leigh, Erin Way...   United States

3840  Nick Pawlow, Jordu Schell, Jay Kushwara, Micha...   United States


           Release_Date Rating   Duration  \
7115      January 1, 2008   TV-MA     81 min
1765      February 4, 2008   TV-MA   1 Season
3248         May 5, 2009   TV-MA    104 min
5766  November 18, 2009   TV-MA     29 min
3840   November 1, 2010      NR     84 min

                                          Type  \
7115  Dramas, Independent Movies, Thrillers
1765           Stand-Up Comedy & Talk Shows
3248           Dramas, International Movies
5766                          Horror Movies
3840            Cult Movies, Horror Movies

                                       Description   New_Date
Year  \
7115  While covering a story in New York City, a Sea... 2008-01-01
2008.0
1765  In each episode, four celebrities join host Jo... 2008-02-04
2008.0
3248  When he causes a car accident that leaves a yo... 2009-05-05
2009.0
5766  After committing suicide, a washed-up rocker r... 2009-11-18
2009.0
3840  This collection cherry-picks trailers, forgott... 2010-11-01
2010.0

    Minutes    Unit
7115       81     min
1765        1  Season
3248      104     min
```

```
5766       29     min
3840       84     min
```

```python
df.sort_values(by='Year', ascending=False).head()
```

```
      Show_Id Category              Title                   Director  \
5564    s5564    Movie     Sherlock Holmes                Guy Ritchie
5919    s5919    Movie          Surf's Up  Ash Brannon, Chris Buck
980      s981  TV Show        Bling Empire                        NaN
5955    s5955    Movie   Taare Zameen Par                 Aamir Khan
366      s367    Movie           Al acecho     Francisco D'Eufemia

                                                    Cast  \
5564   Robert Downey Jr., Jude Law, Rachel McAdams, M...
5919   Shia LaBeouf, Jeff Bridges, Zooey Deschanel, J...
980                                                  NaN
5955   Aamir Khan, Darsheel Safary, Tanay Chheda, Tis...
366    Rodrigo de la Serna, Belen Blanco, Walter Jako...

                                                 Country
Release_Date  \
5564  United States, Germany, United Kingdom, Australia    January 1,
2021
5919                                        United States   January 1,
2021
980                                                   NaN  January 15,
2021
5955                                                India  January 10,
2021
366                                                   NaN  January 12,
2021

      Rating  Duration
Type  \
5564  PG-13    128 min                         Action & Adventure,
Comedies
5919     PG     86 min  Children & Family Movies, Comedies, Sports
Movies
980    TV-MA  1 Season                                      Reality
TV
5955     PG    162 min                       Dramas, International
Movies
366    TV-MA     81 min                       International Movies,
Thrillers

                                             Description   New_Date
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
5955   When daydreamer Ishaan is sent to boarding sch... 2021-01-10
2021.0
366    Looking for a fresh start, a park ranger gets ... 2021-01-12
2021.0

      Minutes    Unit
5564      128     min
5919       86     min
980         1  Season
5955      162     min
366        81     min
```

Q.13. Find all the instances where:

Category is 'Movie' and Type is 'Dramas'

OR

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

```
df.Type.unique()

array(['International TV Shows, TV Dramas, TV Sci-Fi & Fantasy',
       'Dramas, International Movies',
       'Horror Movies, International Movies',
       'Action & Adventure, Independent Movies, Sci-Fi & Fantasy',
       'Dramas', 'International TV Shows, TV Dramas, TV Mysteries',
       'Horror Movies, International Movies, Thrillers',
       'Dramas, Thrillers',
       'Crime TV Shows, International TV Shows, TV Dramas',
       'Crime TV Shows, Docuseries, International TV Shows',
       'Documentaries, International Movies, Sports Movies',
       'Independent Movies, Sci-Fi & Fantasy, Thrillers',
       'Dramas, International Movies, Thrillers',
       'International TV Shows, TV Dramas',
       'Comedies, Dramas, Independent Movies', 'Sports Movies',
       'Dramas, Independent Movies, International Movies',
       'Action & Adventure, Dramas, International Movies',
       'Anime Series, International TV Shows', 'Documentaries',
       'Reality TV', 'Documentaries, International Movies', 'TV
Comedies',
       'Dramas, International Movies, Romantic Movies', 'Comedies',
       'Comedies, Romantic Movies', 'Documentaries, Sports Movies',
       'Comedies, Dramas, International Movies',
```

```
        'International TV Shows, Romantic TV Shows, TV Comedies',
        'Comedies, International Movies',
        'Action & Adventure, Sci-Fi & Fantasy', 'Dramas, Romantic
Movies',
        'Dramas, Romantic Movies, Sports Movies',
        'Comedies, International Movies, Romantic Movies',
        'Action & Adventure',
        'International TV Shows, Romantic TV Shows, TV Dramas',
        'Docuseries, Science & Nature TV',
        'Dramas, International Movies, Sports Movies', 'Movies',
        'British TV Shows, International TV Shows, Reality TV',
        'Dramas, Independent Movies, Sports Movies',
        'International TV Shows, Korean TV Shows, Romantic TV Shows',
        'Horror Movies, Independent Movies, Thrillers',
        'Crime TV Shows, TV Dramas, TV Mysteries',
        'Crime TV Shows, Docuseries', 'Horror Movies, Thrillers',
        'Action & Adventure, International Movies',
        'Horror Movies, Independent Movies',
        'Documentaries, Music & Musicals',
        'International Movies, Music & Musicals', 'Sci-Fi & Fantasy',
        'Dramas, Independent Movies', 'British TV Shows, Reality TV',
        'Action & Adventure, Comedies, International Movies',
        'Comedies, Dramas', 'Dramas, LGBTQ Movies',
        'Documentaries, Faith & Spirituality',
        'Action & Adventure, Comedies',
        "Kids' TV, TV Action & Adventure, TV Sci-Fi & Fantasy",
        'International Movies, Thrillers', "Kids' TV",
        'International TV Shows, Romantic TV Shows, Spanish-Language TV
Shows',
        'Children & Family Movies, Comedies', 'Comedies, LGBTQ Movies',
        'Comedies, Dramas, Romantic Movies', 'Action & Adventure,
Dramas',
        'Dramas, Independent Movies, Romantic Movies',
        'Comedies, Independent Movies, Thrillers', 'TV Shows',
        'Docuseries', 'Comedies, International Movies, Music &
Musicals',
        'Docuseries, International TV Shows, Science & Nature TV',
        'British TV Shows, Docuseries, Science & Nature TV',
        'Children & Family Movies, Dramas, Sports Movies',
        'Children & Family Movies', 'Dramas, Sci-Fi & Fantasy',
        'International TV Shows, TV Comedies, TV Dramas',
        'Action & Adventure, Classic Movies, Dramas',
        'Children & Family Movies, Dramas',
        'Action & Adventure, International Movies, Romantic Movies',
        'Children & Family Movies, Dramas, Romantic Movies',
        'Children & Family Movies, Comedies, Music & Musicals',
        'Classic Movies, Cult Movies, Dramas',
        'Action & Adventure, International Movies, Sci-Fi & Fantasy',
        'Comedies, Independent Movies', 'Comedies, Horror Movies',
```

```
        'Children & Family Movies, Comedies, Romantic Movies',
        'International TV Shows, TV Dramas, TV Horror', 'Thrillers',
        'Stand-Up Comedy & Talk Shows, TV Comedies',
        'International TV Shows, Romantic TV Shows, Teen TV Shows',
        'Crime TV Shows, International TV Shows, Korean TV Shows',
        'Comedies, International Movies, Sports Movies',
        'Dramas, LGBTQ Movies, Romantic Movies', 'Comedies, Cult
Movies',
        'Dramas, Independent Movies, LGBTQ Movies',
        'International TV Shows, Reality TV', 'Stand-Up Comedy',
        'Documentaries, LGBTQ Movies',
        "Kids' TV, TV Action & Adventure, TV Comedies",
        'Anime Features, International Movies',
        'Music & Musicals, Romantic Movies', 'Comedies, Music &
Musicals',
        'International TV Shows, TV Comedies',
        'International Movies, Romantic Movies',
        'Anime Features, Children & Family Movies, International
Movies',
        'British TV Shows, TV Comedies, TV Dramas', 'TV Dramas',
        'Horror Movies',
        'Action & Adventure, Children & Family Movies, Independent
Movies',
        'Dramas, International Movies, Music & Musicals',
        'Comedies, International Movies, Sci-Fi & Fantasy',
        'International TV Shows, Korean TV Shows, Stand-Up Comedy &
Talk Shows',
        'Docuseries, Science & Nature TV, TV Comedies',
        'Dramas, Sports Movies',
        'Dramas, Music & Musicals, Romantic Movies',
        'Children & Family Movies, Comedies, International Movies',
        'Action & Adventure, Documentaries, International Movies',
        'Comedies, International Movies, Thrillers',
        'Action & Adventure, Dramas, Romantic Movies',
        'Horror Movies, Independent Movies, International Movies',
        'Dramas, Independent Movies, Sci-Fi & Fantasy',
        'International Movies, Sci-Fi & Fantasy',
        'Docuseries, Reality TV, Science & Nature TV',
        'British TV Shows, Docuseries, International TV Shows',
        'Docuseries, International TV Shows',
        'British TV Shows, International TV Shows, TV Comedies',
        'Action & Adventure, Horror Movies',
        'British TV Shows, Reality TV, Romantic TV Shows',
        'Crime TV Shows, International TV Shows, TV Action &
Adventure',
        'International TV Shows, Reality TV, Romantic TV Shows',
        'International Movies, Music & Musicals, Romantic Movies',
        'TV Comedies, TV Dramas',
        'Anime Series, Crime TV Shows, International TV Shows',
```

```
        "Kids' TV, TV Comedies, TV Dramas",
        'Action & Adventure, Comedies, Dramas',
        'Documentaries, International Movies, Music & Musicals',
        "Kids' TV, TV Comedies",
        'Classic Movies, Dramas, International Movies',
        'Comedies, Independent Movies, International Movies',
        'Classic Movies, Comedies, Dramas',
        'International TV Shows, TV Action & Adventure, TV Mysteries',
        'Comedies, International Movies, LGBTQ Movies',
        'Children & Family Movies, Comedies, Sci-Fi & Fantasy',
        'TV Dramas, Teen TV Shows',
        'Children & Family Movies, Independent Movies',
        'International TV Shows, Spanish-Language TV Shows, TV
Comedies',
        'Crime TV Shows, TV Action & Adventure, TV Dramas',
        'Action & Adventure, Anime Features, International Movies',
        'Action & Adventure, Classic Movies, Comedies',
        'Crime TV Shows, TV Dramas',
        'TV Horror, TV Mysteries, TV Thrillers', 'TV Dramas, TV
Thrillers',
        'Comedies, Cult Movies, Dramas',
        'Crime TV Shows, TV Comedies, Teen TV Shows',
        'Dramas, Faith & Spirituality', 'Comedies, Dramas, LGBTQ
Movies',
        'Action & Adventure, Comedies, Cult Movies',
        'International TV Shows, TV Action & Adventure, TV Comedies',
        'Dramas, Independent Movies, Music & Musicals',
        'International TV Shows, TV Horror, TV Thrillers',
        'International TV Shows, TV Horror, TV Mysteries',
        'International TV Shows, TV Dramas, Teen TV Shows',
        'Anime Series, International TV Shows, Teen TV Shows',
        'Dramas, Sci-Fi & Fantasy, Thrillers',
        'TV Action & Adventure, TV Dramas, TV Mysteries',
        'Crime TV Shows, International TV Shows, TV Comedies',
        'Action & Adventure, Comedies, Sci-Fi & Fantasy',
        "Anime Series, Kids' TV",
        'Crime TV Shows, International TV Shows, Spanish-Language TV
Shows',
        'Horror Movies, Sci-Fi & Fantasy, Thrillers',
        'International TV Shows, Korean TV Shows, TV Dramas',
        'Stand-Up Comedy & Talk Shows',
        'International Movies, Sci-Fi & Fantasy, Thrillers',
        'Crime TV Shows, TV Action & Adventure',
        'International TV Shows, Korean TV Shows, TV Action &
Adventure',
        'TV Action & Adventure, TV Comedies, TV Horror',
        'International TV Shows, Romantic TV Shows',
        "Crime TV Shows, Kids' TV, TV Comedies",
        'TV Comedies, TV Dramas, Teen TV Shows',
```

```
    'Docuseries, International TV Shows, Reality TV',
    "Classic & Cult TV, Kids' TV, TV Action & Adventure",
    'Horror Movies, Sci-Fi & Fantasy',
    'Romantic TV Shows, TV Dramas, TV Sci-Fi & Fantasy',
    'Dramas, International Movies, Sci-Fi & Fantasy',
    'Children & Family Movies, Sports Movies',
    'Dramas, Independent Movies, Thrillers',
    'Independent Movies, International Movies, Thrillers',
    'British TV Shows, TV Comedies',
    'International TV Shows, Spanish-Language TV Shows, TV Dramas',
    'Action & Adventure, Comedies, Independent Movies',
    'International TV Shows, TV Action & Adventure, TV Dramas',
    'Children & Family Movies, Music & Musicals', 'Music &
Musicals',
    'Action & Adventure, International Movies, Music & Musicals',
    'Comedies, Sports Movies', 'Classic Movies, Thrillers',
    'Docuseries, Reality TV', 'Crime TV Shows, TV Dramas, TV
Horror',
    'Crime TV Shows, TV Comedies, TV Dramas',
    'British TV Shows, Docuseries, Reality TV',
    'Reality TV, Science & Nature TV, TV Action & Adventure',
    'Children & Family Movies, Documentaries, International
Movies',
    'Crime TV Shows, Romantic TV Shows, TV Dramas',
    'British TV Shows, Docuseries',
    'Documentaries, LGBTQ Movies, Music & Musicals',
    'Romantic TV Shows, TV Dramas', 'Independent Movies,
Thrillers',
    'International TV Shows, TV Action & Adventure, TV Horror',
    'Children & Family Movies, Documentaries, Sports Movies',
    'Stand-Up Comedy & Talk Shows, TV Mysteries, TV Sci-Fi &
Fantasy',
    'International TV Shows, Reality TV, TV Comedies',
    'Dramas, International Movies, LGBTQ Movies',
    'Action & Adventure, Dramas, Independent Movies',
    'British TV Shows, International TV Shows, TV Dramas',
    'TV Action & Adventure, TV Dramas, TV Sci-Fi & Fantasy',
    'TV Action & Adventure, TV Dramas, TV Horror',
    'Action & Adventure, Anime Features, Sci-Fi & Fantasy',
    'Anime Series', 'TV Dramas, TV Mysteries, TV Thrillers',
    'Music & Musicals, Stand-Up Comedy',
    'Docuseries, International TV Shows, Spanish-Language TV
Shows',
    'Crime TV Shows, International TV Shows, Reality TV',
    "British TV Shows, Kids' TV",
    'Docuseries, Spanish-Language TV Shows',
    'Crime TV Shows, TV Dramas, TV Thrillers',
    'Documentaries, International Movies, LGBTQ Movies',
    'British TV Shows, Crime TV Shows, International TV Shows',
```

```
'Action & Adventure, Independent Movies',
'Classic Movies, Dramas, Romantic Movies',
'Crime TV Shows, Romantic TV Shows, Spanish-Language TV Shows',
'Children & Family Movies, Comedies, Dramas',
'Cult Movies, Horror Movies', "Kids' TV, TV Thrillers",
'Classic Movies, Cult Movies, Horror Movies',
'Anime Series, Crime TV Shows, TV Thrillers',
'Anime Series, TV Horror, TV Thrillers', 'Classic Movies,
Dramas',
'British TV Shows, Crime TV Shows, Docuseries',
'Action & Adventure, International Movies, Thrillers',
'Anime Series, Teen TV Shows',
'Children & Family Movies, Dramas, International Movies',
'Dramas, Faith & Spirituality, International Movies',
'TV Horror, TV Mysteries, Teen TV Shows',
'Children & Family Movies, Classic Movies',
'TV Dramas, TV Sci-Fi & Fantasy', 'Reality TV, Teen TV Shows',
'Docuseries, Reality TV, Teen TV Shows',
'Classic & Cult TV, TV Comedies',
'International TV Shows, Korean TV Shows, Reality TV',
'International TV Shows, Stand-Up Comedy & Talk Shows, TV
Comedies',
'British TV Shows, International TV Shows, Romantic TV Shows',
'International TV Shows, TV Dramas, TV Thrillers',
'Anime Features', 'TV Horror, TV Mysteries, TV Sci-Fi &
Fantasy',
'Children & Family Movies, Classic Movies, Comedies',
'Comedies, Faith & Spirituality, Romantic Movies',
'Classic Movies, Comedies, International Movies',
'Action & Adventure, Horror Movies, Sci-Fi & Fantasy',
'Action & Adventure, Classic Movies',
'TV Dramas, TV Sci-Fi & Fantasy, TV Thrillers',
'Comedies, Sci-Fi & Fantasy',
'Action & Adventure, Cult Movies, Dramas',
'TV Action & Adventure, TV Dramas', "Kids' TV, Korean TV
Shows",
'Action & Adventure, Independent Movies, International Movies',
'Dramas, Faith & Spirituality, Independent Movies',
'Docuseries, TV Comedies',
'Documentaries, Faith & Spirituality, Music & Musicals',
'Romantic TV Shows, TV Comedies',
"Kids' TV, Spanish-Language TV Shows",
"British TV Shows, Kids' TV, TV Thrillers",
'Action & Adventure, Romantic Movies',
'British TV Shows, Classic & Cult TV, TV Comedies',
'Action & Adventure, Horror Movies, International Movies',
'Children & Family Movies, Documentaries',
"British TV Shows, Kids' TV, TV Comedies",
'Horror Movies, Independent Movies, Sci-Fi & Fantasy',
```

'TV Sci-Fi & Fantasy, TV Thrillers',
        'Romantic TV Shows, TV Comedies, TV Dramas',
        'Reality TV, Romantic TV Shows',
        'Classic Movies, Dramas, Independent Movies',
        'Romantic TV Shows, TV Dramas, Teen TV Shows',
        'TV Action & Adventure, TV Sci-Fi & Fantasy',
        'British TV Shows, TV Horror, TV Thrillers',
        'International Movies, Sports Movies', 'International Movies',
        'Anime Series, International TV Shows, TV Horror',
        'International TV Shows',
        'Dramas, Music & Musicals, Sports Movies',
        'International TV Shows, Spanish-Language TV Shows, TV Action &
Adventure',
        'Cult Movies, Dramas, International Movies',
        'TV Action & Adventure, TV Comedies, TV Sci-Fi & Fantasy',
        'Reality TV, Science & Nature TV',
        'Action & Adventure, Anime Features, Children & Family Movies',
        "Kids' TV, TV Action & Adventure",
        'Children & Family Movies, Sci-Fi & Fantasy',
        "Crime TV Shows, Kids' TV",
        'International Movies, Music & Musicals, Thrillers',
        'Crime TV Shows, Spanish-Language TV Shows, TV Action &
Adventure',
        "Classic & Cult TV, Kids' TV, Spanish-Language TV Shows",
        'Romantic TV Shows, Spanish-Language TV Shows, TV Dramas',
        'Action & Adventure, Cult Movies, International Movies',
        'Crime TV Shows, Spanish-Language TV Shows, TV Dramas',
        'Action & Adventure, Children & Family Movies, Dramas',
        'Dramas, Romantic Movies, Sci-Fi & Fantasy',
        'Action & Adventure, Dramas, Sci-Fi & Fantasy',
        'International TV Shows, TV Mysteries, TV Thrillers',
        'Anime Series, International TV Shows, TV Thrillers',
        'Horror Movies, International Movies, Sci-Fi & Fantasy',
        'Comedies, Cult Movies, International Movies',
        'Comedies, Music & Musicals, Romantic Movies',
        'Children & Family Movies, Comedies, Faith & Spirituality',
        'Crime TV Shows, Docuseries, TV Mysteries',
        'Crime TV Shows, Docuseries, Science & Nature TV',
        'British TV Shows, Crime TV Shows, TV Dramas',
        'Classic Movies, Comedies, Cult Movies',
        'International Movies, Romantic Movies, Thrillers',
        'Classic Movies, Dramas, Music & Musicals',
        'Cult Movies, Horror Movies, Thrillers',
        'Anime Features, Romantic Movies',
        'Comedies, Dramas, Music & Musicals',
        'Anime Features, International Movies, Romantic Movies',
        'Documentaries, Faith & Spirituality, International Movies',
        'Action & Adventure, Classic Movies, Sci-Fi & Fantasy',
        'International TV Shows, Stand-Up Comedy & Talk Shows',

```
       "British TV Shows, Kids' TV, TV Dramas",
       'Classic & Cult TV, TV Action & Adventure, TV Horror',
       'Children & Family Movies, Dramas, Faith & Spirituality',
       'TV Action & Adventure, TV Comedies',
       'Action & Adventure, Anime Features, Horror Movies',
       'Crime TV Shows, International TV Shows, Romantic TV Shows',
       'Classic Movies, Comedies, Music & Musicals',
       'Comedies, Horror Movies, International Movies',
       "Kids' TV, Spanish-Language TV Shows, Teen TV Shows",
       'Independent Movies',
       'Crime TV Shows, International TV Shows, TV Mysteries',
       'Action & Adventure, Thrillers',
       "Kids' TV, TV Dramas, Teen TV Shows",
       'Anime Series, Crime TV Shows', "Kids' TV, TV Dramas",
       'Crime TV Shows, TV Action & Adventure, TV Comedies',
       'TV Comedies, Teen TV Shows',
       'Reality TV, TV Horror, TV Thrillers',
       'Documentaries, Horror Movies',
       'Classic & Cult TV, TV Horror, TV Mysteries',
       'Action & Adventure, Cult Movies, Sci-Fi & Fantasy',
       'Anime Series, International TV Shows, Romantic TV Shows',
       'Action & Adventure, Comedies, Romantic Movies',
       'Comedies, Dramas, Faith & Spirituality',
       'Comedies, Faith & Spirituality, International Movies',
       'Romantic Movies', 'Dramas, Horror Movies, Sci-Fi & Fantasy',
       'International TV Shows, Korean TV Shows, TV Comedies',
       'Comedies, Independent Movies, LGBTQ Movies',
       'TV Comedies, TV Dramas, TV Sci-Fi & Fantasy',
       'Dramas, Music & Musicals',
       'Dramas, Faith & Spirituality, Romantic Movies',
       'International TV Shows, TV Action & Adventure, TV Sci-Fi &
Fantasy',
       'Reality TV, TV Comedies',
       "Docuseries, Kids' TV, Science & Nature TV",
       'Action & Adventure, Sci-Fi & Fantasy, Thrillers',
       'Action & Adventure, Children & Family Movies, Sci-Fi &
Fantasy',
       'Action & Adventure, Children & Family Movies, Classic Movies',
       'Horror Movies, International Movies, Romantic Movies',
       'TV Action & Adventure', 'TV Comedies, TV Dramas, TV Horror',
       'British TV Shows, International TV Shows, Stand-Up Comedy &
Talk Shows',
       'Dramas, Music & Musicals, Sci-Fi & Fantasy',
       'Spanish-Language TV Shows, TV Dramas',
       'Documentaries, Stand-Up Comedy',
       'Classic & Cult TV, TV Action & Adventure, TV Dramas',
       'British TV Shows, TV Dramas, TV Sci-Fi & Fantasy',
       'Anime Features, Music & Musicals',
       'International TV Shows, TV Comedies, TV Sci-Fi & Fantasy',
```

```
'Comedies, Independent Movies, Romantic Movies',
'Comedies, Cult Movies, Horror Movies',
'Comedies, Cult Movies, Sports Movies',
'Classic Movies, Documentaries', 'Sci-Fi & Fantasy, Thrillers',
'Classic & Cult TV, Crime TV Shows, International TV Shows',
"Kids' TV, Korean TV Shows, TV Comedies",
'British TV Shows, Romantic TV Shows, TV Dramas',
'Action & Adventure, Faith & Spirituality, Sci-Fi & Fantasy',
'TV Dramas, TV Sci-Fi & Fantasy, Teen TV Shows',
'Action & Adventure, Children & Family Movies',
'Comedies, Horror Movies, Independent Movies',
'Action & Adventure, Classic Movies, Cult Movies',
'TV Dramas, TV Horror, TV Mysteries',
'International Movies, Romantic Movies, Sci-Fi & Fantasy',
'Anime Series, Romantic TV Shows, Teen TV Shows',
'TV Action & Adventure, TV Horror, TV Sci-Fi & Fantasy',
'Anime Features, Music & Musicals, Sci-Fi & Fantasy',
'Action & Adventure, Anime Features, Classic Movies',
'International TV Shows, Reality TV, Spanish-Language TV
Shows',
'Anime Series, Romantic TV Shows',
'International TV Shows, Reality TV, TV Action & Adventure',
'TV Comedies, TV Dramas, TV Mysteries',
'Docuseries, Science & Nature TV, TV Dramas',
'Crime TV Shows, TV Action & Adventure, TV Thrillers',
'Anime Features, Children & Family Movies',
'Docuseries, TV Dramas',
'British TV Shows, International TV Shows, TV Action &
Adventure',
'Comedies, Cult Movies, Independent Movies',
'Action & Adventure, Horror Movies, Independent Movies',
'British TV Shows, Docuseries, TV Comedies',
'Comedies, Documentaries',
'British TV Shows, Classic & Cult TV, International TV Shows',
'TV Comedies, TV Sci-Fi & Fantasy',
'TV Comedies, TV Sci-Fi & Fantasy, Teen TV Shows',
'Documentaries, Dramas, International Movies',
'Action & Adventure, Classic Movies, International Movies',
'Cult Movies, Independent Movies, Thrillers',
'Comedies, Independent Movies, Music & Musicals',
'TV Action & Adventure, TV Dramas, Teen TV Shows',
'Romantic TV Shows, TV Action & Adventure, TV Dramas',
'Crime TV Shows, TV Comedies',
'Classic Movies, Cult Movies, Documentaries',
'Children & Family Movies, Comedies, Cult Movies',
"Classic & Cult TV, Kids' TV, TV Comedies",
'Classic Movies, Dramas, LGBTQ Movies',
'Comedies, Romantic Movies, Sports Movies',
"Anime Series, Kids' TV, TV Action & Adventure",
```

'Action & Adventure, Children & Family Movies, Comedies',
        'Reality TV, TV Comedies, TV Horror',
        'Classic Movies, Dramas, Sports Movies',
        "Kids' TV, TV Action & Adventure, TV Dramas",
        'Action & Adventure, Sci-Fi & Fantasy, Sports Movies',
        'Dramas, Romantic Movies, Thrillers',
        'Action & Adventure, Cult Movies',
        'Children & Family Movies, Dramas, Independent Movies',
        'Children & Family Movies, Comedies, LGBTQ Movies',
        'Action & Adventure, Comedies, Music & Musicals',
        'Classic Movies, Horror Movies, Thrillers',
        'Classic & Cult TV, TV Dramas, TV Sci-Fi & Fantasy',
        'Children & Family Movies, Comedies, Sports Movies',
        'Docuseries, Stand-Up Comedy & Talk Shows',
        'Action & Adventure, Dramas, Faith & Spirituality',
        'TV Comedies, TV Horror, TV Thrillers',
        'Classic Movies, Comedies, Independent Movies',
        'Crime TV Shows, TV Horror, TV Mysteries',
        'Children & Family Movies, Classic Movies, Dramas',
        'Romantic TV Shows, Spanish-Language TV Shows, TV Comedies',
        'Dramas, Faith & Spirituality, Sports Movies',
        'Classic & Cult TV, TV Action & Adventure, TV Sci-Fi &
Fantasy',
        'International TV Shows, Korean TV Shows, TV Horror',
        'Classic Movies, Comedies, Romantic Movies',
        'Dramas, Horror Movies, Music & Musicals',
        'Cult Movies, Horror Movies, Independent Movies',
        'Classic Movies, Dramas, Thrillers',
        'TV Dramas, TV Mysteries, TV Sci-Fi & Fantasy',
        'Classic Movies, Independent Movies, Thrillers',
        'TV Comedies, TV Mysteries',
        'International TV Shows, Romantic TV Shows, TV Mysteries',
        "Kids' TV, TV Comedies, Teen TV Shows",
        'Crime TV Shows, TV Action & Adventure, TV Sci-Fi & Fantasy',
        "Kids' TV, TV Comedies, TV Sci-Fi & Fantasy",
        'Anime Series, International TV Shows, Spanish-Language TV
Shows',
        'Cult Movies, Dramas, Thrillers',
        'International TV Shows, Spanish-Language TV Shows, TV Horror',
        'Children & Family Movies, Faith & Spirituality',
        'Comedies, Music & Musicals, Sports Movies',
        'Classic Movies, Comedies, Sports Movies',
        'Comedies, Dramas, Sports Movies',
        'Action & Adventure, Dramas, Sports Movies',
        "Kids' TV, Reality TV, TV Dramas",
        'Horror Movies, LGBTQ Movies, Music & Musicals',
        'Comedies, LGBTQ Movies, Music & Musicals',
        'International TV Shows, Romantic TV Shows, TV Action &
Adventure',

```
        'Cult Movies, Documentaries, LGBTQ Movies',
        'Action & Adventure, Romantic Movies, Sci-Fi & Fantasy',
        'Classic & Cult TV, TV Sci-Fi & Fantasy',
        'TV Action & Adventure, TV Mysteries, TV Sci-Fi & Fantasy',
        'Children & Family Movies, Dramas, Music & Musicals',
        'Docuseries, TV Sci-Fi & Fantasy',
        "British TV Shows, Classic & Cult TV, Kids' TV",
        'Action & Adventure, International Movies, Sports Movies',
        'Docuseries, Science & Nature TV, TV Action & Adventure',
        'Comedies, Cult Movies, LGBTQ Movies',
        'Crime TV Shows, International TV Shows, TV Sci-Fi & Fantasy',
        'Comedies, Horror Movies, Sci-Fi & Fantasy',
        'Action & Adventure, Comedies, Horror Movies',
        'Classic & Cult TV, Crime TV Shows, TV Dramas',
        'TV Horror, Teen TV Shows',
        'Reality TV, Spanish-Language TV Shows',
        'Action & Adventure, Documentaries, Sports Movies',
        'Anime Features, International Movies, Sci-Fi & Fantasy',
        'LGBTQ Movies, Thrillers', 'Action & Adventure, Sports Movies',
        'International Movies, LGBTQ Movies, Romantic Movies',
        "Kids' TV, Reality TV, Science & Nature TV",
        'International TV Shows, Spanish-Language TV Shows, Stand-Up
Comedy & Talk Shows'],
      dtype=object)
```

```python
df[(df['Category'] == 'Movie') & (df['Type'] == 'Dramas')].head(2)
```

```
  Show_Id Category Title        Director  \
4      s5    Movie    21  Robert Luketic
7      s8    Movie   187  Kevin Reynolds


                                        Cast        Country  \
4  Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...  United States
7  Samuel L. Jackson, John Heard, Kelly Rowan, Cl...  United States


      Release_Date Rating Duration     Type  \
4   January 1, 2020  PG-13  123 min   Dramas
7  November 1, 2019      R  119 min   Dramas


                                        Description   New_Date
Year  \
4  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

  Minutes Unit
4     123  min
7     119  min
```

```
df[(df['Category'] == 'TV Show') & (df['Type'] == "Kids' TV")].head(2)
```

```
     Show_Id Category          Title      Director  \
111     s112  TV Show        44 Cats           NaN
276     s277  TV Show  Abby Hatcher   Kyran Kelly

                                                  Cast
Country  \
111  Sarah Natochenny, Suzy Myers, Simona Berman, E...
Italy
276  Macy Drouin, Wyatt White, Paul Sun-Hyung Lee, ...  United States,
Canada

         Release_Date Rating   Duration      Type  \
111  October 1, 2020  TV-Y7  2 Seasons  Kids' TV
276      July 1, 2020   TV-Y   1 Season  Kids' TV

                                          Description   New_Date
Year  \
111  Paw-esome tales abound when singing furry frie... 2020-10-01
2020.0
276  A big-hearted girl helps her Fuzzly friends wh... 2020-07-01
2020.0

     Minutes      Unit
111        2   Seasons
276        1    Season
```

```
df[(df['Category'] == 'Movie') & (df['Type'] == 'Dramas') |
(df['Category'] == 'TV Show') & (df['Type'] == "Kids' TV")]
```

```
      Show_Id Category                       Title         Director  \
4          s5    Movie                          21  Robert Luketic
7          s8    Movie                         187  Kevin Reynolds
111      s112  TV Show                     44 Cats             NaN
170      s171    Movie               A Family Man   Mark Williams
232      s233    Movie  A Stoning in Fulham County   Larry Elikann
...       ...      ...                         ...              ...
7668    s7667  TV Show                World of Winx  Iginio Straffi
7717    s7716  TV Show                        Yoko             NaN
7719    s7718  TV Show                         YOM             NaN
7758    s7757  TV Show                          Z4             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...
111     Sarah Natochenny, Suzy Myers, Simona Berman, E...
170     Gerard Butler, Gretchen Mol, Alison Brie, Will...
232     Ken Olin, Jill Eikenberry, Maureen Mueller, Gr...
```

```
...                                                 ...
7668  Haven Paschall, Alysha Deslorieux, Jessica Paq...
7717  Eileen Stevens, Alyson Leigh Rosenfeld, Sarah ...
7719  Sairaj, Devyani Dagaonkar, Ketan Singh, Mayur ...
7758  Apollo Costa, Gabriel Santana, Matheus Lustosa...
7761  Michael Johnston, Jessica Gee-George, Christin...

                                               Country  \
Release_Date
4                                        United States   January 1,
2020
7                                        United States   November 1,
2019
111                                              Italy    October 1,
2020
170                             Canada, United States   December 15,
2019
232                                      United States    October 1,
2011
...                                                ...           ..
.
7668                          Italy, United States    June 16,
2017
7717                                            NaN    June 23,
2018
7719                                            NaN      June 7,
2018
7758                                         Brazil   February 22,
2019
7761  United States, France, South Korea, Indonesia   September 13,
2018

     Rating   Duration      Type  \
4     PG-13    123 min     Dramas
7         R    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
7717    TV-Y   1 Season  Kids' TV
7719   TV-Y7   1 Season  Kids' TV
7758   TV-PG  2 Seasons  Kids' TV
7761   TV-Y7  3 Seasons  Kids' TV

                                            Description    New_Date
Year  \
4      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
...                                                   ...        ...
...
7668  The reality show "WOW!" engages the Winx in th... 2017-06-16
2017.0
7717  Friends Mai, Oto and Vik's games at the park b... 2018-06-23
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
7761  Teen surfer Zak Storm is mysteriously transpor... 2018-09-13
2018.0

      Minutes      Unit
4         123       min
7         119       min
111         2   Seasons
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]
```

By- Sachin Borse(Data Analyst)