NetFlix Movie & TV Shows Analysis

```
display(img)
```


Import The required Librarry

```python
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import warnings
warnings.filterwarnings("ignore")
print('Librarry Loadded !!')
```

```
Librarry Loadded !!
```

```python
from PIL import Image
from IPython.display import display

img = Image.open(r'D:\Vivek_Stuff\Learning Stuff\Python_Work\
nett.webp')
```

Read dataset

```python
# importing Dataset from local machine
df_netflix= pd.read_csv(r'D:\Vivek_Stuff\Learning Stuff\Python_Work\
Python Project\netflix_titles.csv')
print('Dataset loaded !!')
```

```
Dataset loaded !!
```

Getting some basic info about Datasset

1. head()

```
# head() is ued to show Top 5 record of dataset
df_netflix.head()
```

```
  show_id      type                     title          director  \
0      s1     Movie     Dick Johnson Is Dead    Kirsten Johnson
1      s2   TV Show            Blood & Water                NaN
2      s3   TV Show                Ganglands    Julien Leclercq
3      s4   TV Show    Jailbirds New Orleans                NaN
4      s5   TV Show              Kota Factory                NaN

                                                cast        country  \
0                                                NaN  United States
1   Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...   South Africa
2   Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...            NaN
3                                                NaN            NaN
4   Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...          India

           date_added  release_year  rating    duration  \
0  September 25, 2021          2020   PG-13      90 min
1  September 24, 2021          2021   TV-MA   2 Seasons
2  September 24, 2021          2021   TV-MA    1 Season
3  September 24, 2021          2021   TV-MA    1 Season
4  September 24, 2021          2021   TV-MA   2 Seasons

                                            listed_in  \
0                                       Documentaries
1       International TV Shows, TV Dramas, TV Mysteries
2   Crime TV Shows, International TV Shows, TV Act...
3                              Docuseries, Reality TV
4   International TV Shows, Romantic TV Shows, TV ...

                                          description
0  As her father nears the end of his life, filmm...
1  After crossing paths at a party, a Cape Town t...
2  To protect his family from a powerful drug lor...
3  Feuds, flirtations and toilet talk go down amo...
4  In a city of coaching centers known to train I...
```

2. tail()

```
# tail() is ued to show bottom 5 record of dataset
df_netflix.tail()
```

```
      show_id      type          title          director  \
8802    s8803     Movie         Zodiac     David Fincher
8803    s8804   TV Show    Zombie Dumb                NaN
```

```
8804   s8805    Movie    Zombieland   Ruben Fleischer
8805   s8806    Movie         Zoom      Peter Hewitt
8806   s8807    Movie       Zubaan      Mozez Singh

                                              cast          country
\
8802  Mark Ruffalo, Jake Gyllenhaal, Robert Downey J...  United States

8803                                           NaN              NaN

8804  Jesse Eisenberg, Woody Harrelson, Emma Stone, ...  United States

8805  Tim Allen, Courteney Cox, Chevy Chase, Kate Ma...  United States

8806  Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...          India


              date_added  release_year rating    duration  \
8802  November 20, 2019          2007      R     158 min
8803       July 1, 2019          2018  TV-Y7   2 Seasons
8804   November 1, 2019          2009      R      88 min
8805   January 11, 2020          2006     PG      88 min
8806      March 2, 2019          2015  TV-14     111 min

                                        listed_in  \
8802                  Cult Movies, Dramas, Thrillers
8803          Kids' TV, Korean TV Shows, TV Comedies
8804                        Comedies, Horror Movies
8805              Children & Family Movies, Comedies
8806  Dramas, International Movies, Music & Musicals

                                      description
8802  A political cartoonist, a crime reporter and a...
8803  While living alone in a spooky town, a young g...
8804  Looking to survive in a world taken over by zo...
8805  Dragged from civilian life, a former superhero...
8806  A scrappy but poor boy worms his way into a ty...
```

3. Shape

```
# shape() is ued to show No. of Rows & columns  of dataset
df_netflix.shape
```

```
(8807, 12)
```

4. Size

```
# size is ued to show total elements of dataset
df_netflix.size
```

```
105684
```

5. Columns

```
# Columns is used to show columns of dataset
df_netflix.columns

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

6. dtypes

```
# dtypes is ued to show the data types of your each columns
df_netflix.dtypes

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

7. info()

```
# info() is used to show the Basic info about your data set, Info
returns the Total No of Rows in each column , their data types and
Null count
df_netflix.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 8807 entries, 0 to 8806
Data columns (total 12 columns):
 #   Column          Non-Null Count  Dtype
---  ------          --------------  -----
 0   show_id         8807 non-null   object
 1   type            8807 non-null   object
 2   title           8807 non-null   object
```

```
 3   director      6173 non-null   object
 4   cast          7982 non-null   object
 5   country       7976 non-null   object
 6   date_added    8797 non-null   object
 7   release_year  8807 non-null   int64
 8   rating        8803 non-null   object
 9   duration      8804 non-null   object
 10  listed_in     8807 non-null   object
 11  description   8807 non-null   object
dtypes: int64(1), object(11)
memory usage: 825.8+ KB
```

describe()

```
# describe() returnt some basic stattistic of your Numerical data
df_netflix.describe()

        release_year
count    8807.000000
mean     2014.180198
std         8.819312
min      1925.000000
25%      2013.000000
50%      2017.000000
75%      2019.000000
max      2021.000000
```

isNull()

```
## IsNull() returns the true False
df_netflix.isnull()
```

	show_id	type	title	director	cast	country	date_added \
0	False	False	False	False	True	False	False
1	False	False	False	True	False	False	False
2	False	False	False	False	False	True	False
3	False	False	False	True	True	True	False
4	False	False	False	True	False	False	False
...	...	...	...	...	...	...	...
8802	False	False	False	False	False	False	False
8803	False	False	False	True	True	True	False
8804	False	False	False	False	False	False	False
8805	False	False	False	False	False	False	False
8806	False	False	False	False	False	False	False

	release_year	rating	duration	listed_in	description
0	False	False	False	False	False
1	False	False	False	False	False
2	False	False	False	False	False
3	False	False	False	False	False

```
4          False    False     False     False      False
...          ...      ...       ...       ...        ...
8802       False    False     False     False      False
8803       False    False     False     False      False
8804       False    False     False     False      False
8805       False    False     False     False      False
8806       False    False     False     False      False

[8807 rows x 12 columns]
```

isNull().Sum()

IsNull().sum() returns Total Count od NUll values in your Datset

```
## here we are finding the total nuLl values in EACH COLUMN
df_netflix.isnull().sum()
```
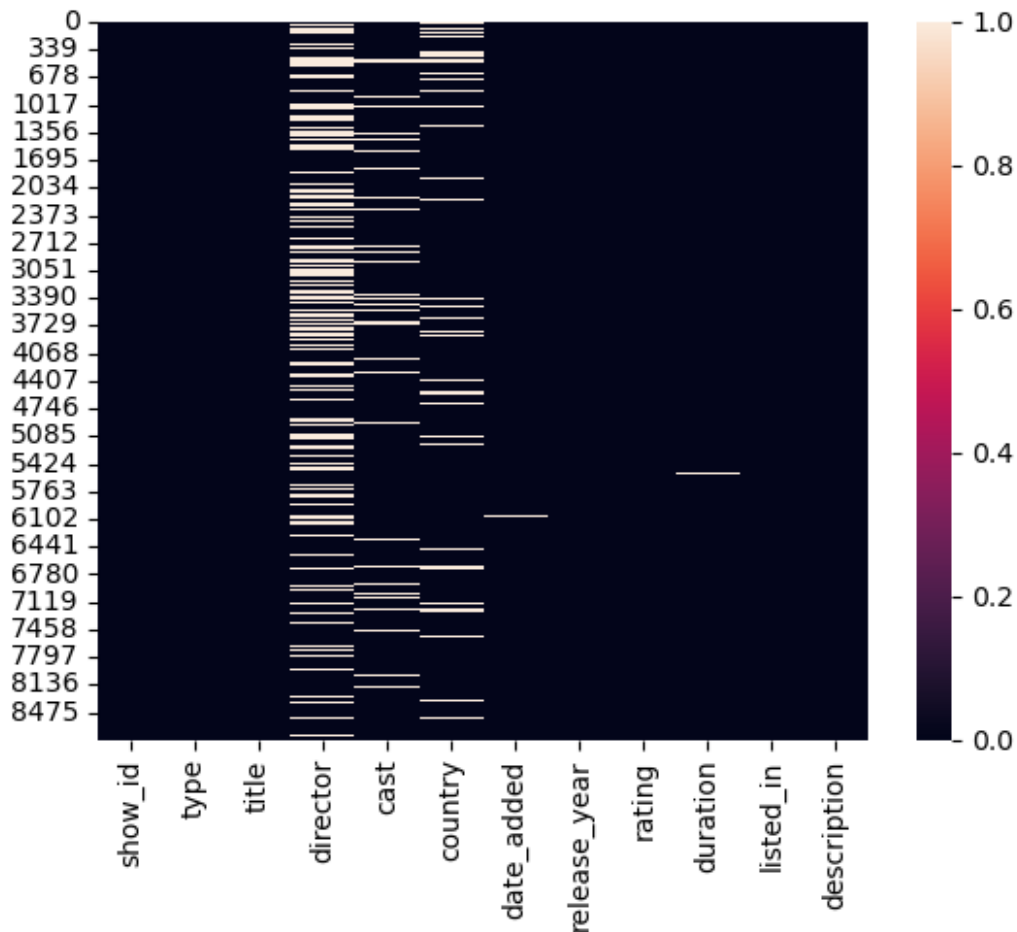
```
show_id             0
type                0
title               0
director         2634
cast              825
country           831
date_added         10
release_year        0
rating              4
duration            3
listed_in           0
description         0
dtype: int64
```

ploting the HeatMap for Null Values

```
sns.heatmap(df_netflix.isnull())
```

```
<Axes: >
```

checking the duplicate data in dataset

duplicated()

duplicated() is used to find the duplicated data from OUR DATA SET

```
df_netflix.duplicated()
```

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

duplicated().sum()

duplicated().sum() RETURNS THE TOTAL DUPLICTAE VALUE IN OUR DATA

```
df_netflix.duplicated().sum()

0
```

fillna()

fillna() used to fill the NA/Missing value

```
# filling Unknown where director is NA
df_netflix['director'].fillna('Unknown', inplace = True)
print('Valued Filled successfully!!')

Valued Filled successfully!!

# filling Unknown where country is NA
df_netflix['country'].fillna('Country Unavailable', inplace = True)
print('Valued Filled successfully!!')

Valued Filled successfully!!

# filling Unknown where cast is NA
df_netflix['cast'].fillna('Cast Unavailable', inplace = True)
print('Valued Filled successfully!!')

Valued Filled successfully!!
```

inplace= True is used to make changes permanently to datasset

Check The Missing Value

```
df_netflix.isna().sum()

show_id          0
type             0
title            0
director         0
cast             0
country          0
date_added      10
release_year     0
rating           4
duration         3
listed_in        0
```

```
description       0
dtype: int64
```

dropna()

dropna() is used to drop the missing/NA values, By default it drops the rows , if you want to drop the column, use axis =1

```python
df_netflix.columns
```

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

```python
# droping the NA from specific column
df_netflix.dropna(subset = ['rating'], inplace=True)
print('Rows dropped from Rating column successfully !!')
```

```
Rows dropped from Rating column successfully !!
```

```python
# droping the NA from specific column
df_netflix.dropna(subset = ['date_added'], inplace=True)
print('Rows dropped from date_added column successfully !!')
```

```
Rows dropped from date_added column successfully !!
```

```python
# check again the Null values in dataset
df_netflix.isnull().sum()
```

```
show_id          0
type             0
title            0
director         0
cast             0
country          0
date_added       0
release_year     0
rating           0
duration         3
listed_in        0
description      0
dtype: int64
```

To drop all missing rows from all the dataset at one code

```python
df_netflix.dropna()
```

```
      show_id     type                     title          director  \
0          s1    Movie     Dick Johnson Is Dead   Kirsten Johnson
1          s2  TV Show            Blood & Water           Unknown
2          s3  TV Show                Ganglands   Julien Leclercq
3          s4  TV Show    Jailbirds New Orleans           Unknown
4          s5  TV Show             Kota Factory           Unknown
...       ...      ...                      ...               ...
8802    s8803    Movie                   Zodiac     David Fincher
8803    s8804  TV Show              Zombie Dumb           Unknown
8804    s8805    Movie               Zombieland   Ruben Fleischer
8805    s8806    Movie                     Zoom      Peter Hewitt
8806    s8807    Movie                   Zubaan       Mozez Singh

                                                   cast
country  \
0                                      Cast Unavailable        United
States
1       Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...        South
Africa
2       Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...   Country
Unavailable
3                                      Cast Unavailable   Country
Unavailable
4       Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...
India
...                                                  ...
...
8802  Mark Ruffalo, Jake Gyllenhaal, Robert Downey J...        United
States
8803                                   Cast Unavailable   Country
Unavailable
8804  Jesse Eisenberg, Woody Harrelson, Emma Stone, ...        United
States
8805  Tim Allen, Courteney Cox, Chevy Chase, Kate Ma...        United
States
8806  Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...
India

              date_added  release_year rating   duration  \
0     September 25, 2021          2020  PG-13     90 min
1     September 24, 2021          2021  TV-MA   2 Seasons
2     September 24, 2021          2021  TV-MA    1 Season
3     September 24, 2021          2021  TV-MA    1 Season
4     September 24, 2021          2021  TV-MA   2 Seasons
...                  ...           ...    ...         ...
8802   November 20, 2019          2007      R     158 min
8803        July 1, 2019          2018  TV-Y7   2 Seasons
8804    November 1, 2019          2009      R      88 min
8805    January 11, 2020          2006     PG      88 min
8806       March 2, 2019          2015  TV-14     111 min
```

```
                                      listed_in  \
0                               Documentaries
1        International TV Shows, TV Dramas, TV Mysteries
2        Crime TV Shows, International TV Shows, TV Act...
3                               Docuseries, Reality TV
4        International TV Shows, Romantic TV Shows, TV ...
...                                   ...
8802                     Cult Movies, Dramas, Thrillers
8803            Kids' TV, Korean TV Shows, TV Comedies
8804                         Comedies, Horror Movies
8805                 Children & Family Movies, Comedies
8806     Dramas, International Movies, Music & Musicals

                                 description  Minute
Unit
0      As her father nears the end of his life, filmm...    90.0
min
1      After crossing paths at a party, a Cape Town t...     2.0
Seasons
2      To protect his family from a powerful drug lor...     1.0
Season
3      Feuds, flirtations and toilet talk go down amo...     1.0
Season
4      In a city of coaching centers known to train I...     2.0
Seasons
...                                   ...       ...      .
..
8802   A political cartoonist, a crime reporter and a...   158.0
min
8803   While living alone in a spooky town, a young g...     2.0
Seasons
8804   Looking to survive in a world taken over by zo...    88.0
min
8805   Dragged from civilian life, a former superhero...    88.0
min
8806   A scrappy but poor boy worms his way into a ty...   111.0
min

[8790 rows x 14 columns]
```

We have no NA/Missing values in our dataset now !!

nUnique()

nUnoque() returns the Unique value Count in your dataset

```
# nUnoque() retirnt the Unique value Count in your dataset
df_netflix.nunique()
```

```
show_id          8790
type                2
title            8790
director         4527
cast             7679
country           749
date_added       1765
release_year       74
rating             14
duration          220
listed_in         513
description      8758
Minute            210
Unit                3
dtype: int64
```

unique()

unique() return the all unique value from your data

```
df_netflix["type"].unique()

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

# finding the Unique Value
df_netflix["rating"].unique()

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

# finding the Unique Value
df_netflix["release_year"].unique()

array([2020, 2021, 1993, 2018, 1996, 1998, 1997, 2010, 2013, 2017,
1975,
       1978, 1983, 1987, 2012, 2001, 2014, 2002, 2003, 2004, 2011,
2008,
       2009, 2007, 2005, 2006, 1994, 2015, 2019, 2016, 1982, 1989,
1990,
       1991, 1999, 1986, 1992, 1984, 1980, 1961, 2000, 1995, 1985,
1976,
       1959, 1988, 1981, 1972, 1964, 1945, 1954, 1979, 1958, 1956,
1963,
       1970, 1973, 1925, 1974, 1960, 1966, 1971, 1962, 1969, 1977,
1967,
       1968, 1965, 1946, 1942, 1955, 1944, 1947, 1943], dtype=int64)

### nUniuqe()
#### nUniuqe() returns the no of Unique Value from data
```

```
df_netflix["listed_in"].nunique()

514
```

value_counts()

value_counts() return the Unique Value wise total count

```
df_netflix['type'].value_counts()

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

df_netflix["type"].value_counts().plot(kind = "pie", autopct = "%.2f")

<Axes: ylabel='count'>
```
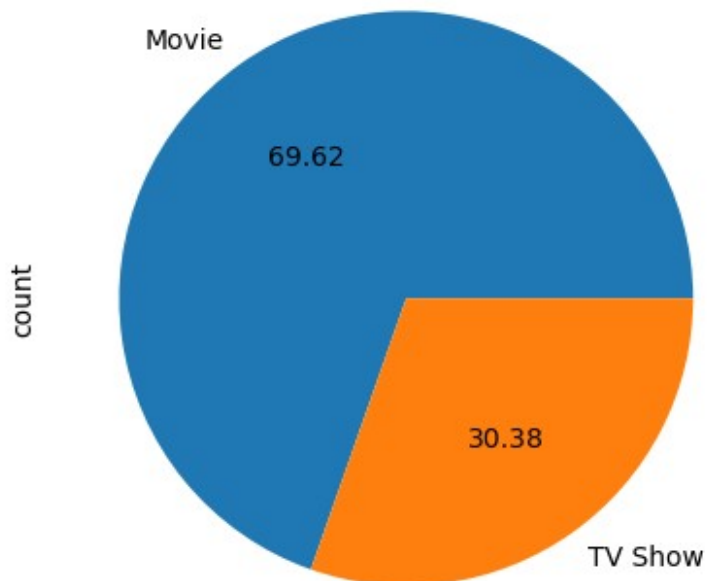

show Rating Category Wise Count

```
plt.figure(figsize = (20, 5))
#plt.style.use('seaborn-whitegrid')
ax = sns.countplot(x = 'rating', data = df_netflix)
plt.xlabel('Rating')
plt.ylabel('Count')
plt.xticks(rotation = 45)
```

```
for p in ax.patches:
    ax.annotate(int(p.get_height()), (p.get_x()+0.25, p.get_height()
+1), va = 'bottom', color = 'black')
```
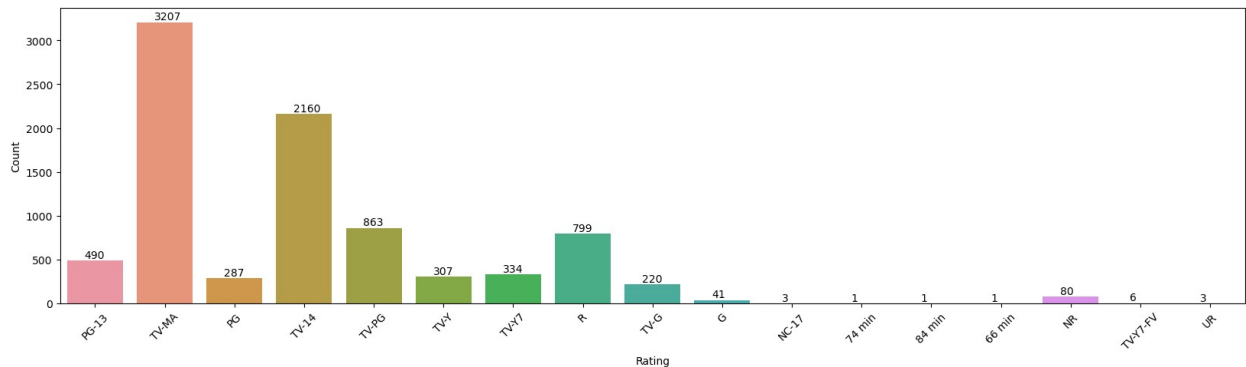

show Total Movie/TV realred per year

```
plt.figure(figsize = (25, 8))
ax = sns.countplot(x = 'release_year', data = df_netflix, palette =
"Accent")
plt.xlabel('Year of Release')
plt.ylabel('Count')
plt.xticks(rotation = 45)
for p in ax.patches:
    ax.annotate(int(p.get_height()), (p.get_x()+0.25, p.get_height()
+1), va = 'bottom', color = 'black')
```
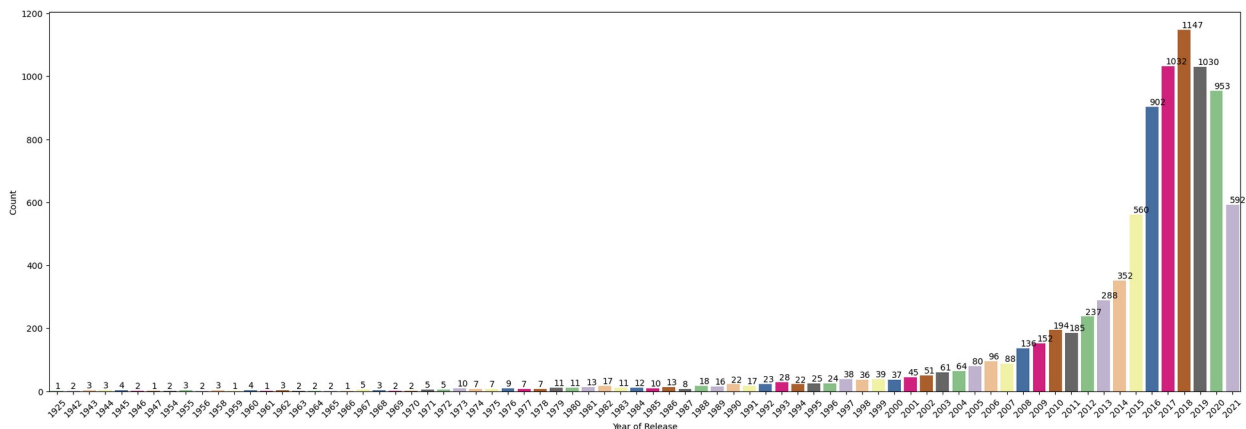

sample()

Sample() returns the random sample data from dataset

```
df_netflix.sample(5)
```

```
      show_id     type                                  title  \
4803    s4804    Movie  Bill Burr: You People Are All the Same
1986    s1987    Movie                        Nee Enge En Anbe
7767    s7768  TV Show               Power Rangers Lost Galaxy
696      s697  TV Show                            Black Summer
3596    s3597    Movie                        Hasta los dientes

                  director  \
4803             Jay Karas
1986        Sekhar Kammula
7767                   NaN
696                    NaN
3596   Alberto Arnaut Estrada

                                                   cast  \
4803                                            Bill Burr
1986   Nayantara, Vaibhav Reddy, Pasupathy, Harshvard...
7767   Archie Kao, Reggie Rolle, Danny Slavin, Valeri...
696    Jaime King, Justin Chu Cary, Christine Lee, Sa...
3596                                                 NaN

                         country         date_added   release_year
rating  \
4803                United States       June 30, 2018           2012
TV-MA
1986                          NaN  September 17, 2020           2014
TV-14
7767   United States, France, Japan     January 1, 2016           1999
TV-Y7
696           Canada, United States       June 17, 2021           2021
TV-MA
3596                       Mexico     August 13, 2019           2018
TV-MA

        duration                                          listed_in  \
4803      69 min                                    Stand-Up Comedy
1986     137 min                      International Movies, Thrillers
7767    1 Season                                           Kids' TV
696    2 Seasons   TV Action & Adventure, TV Dramas, TV Horror
3596     109 min           Documentaries, International Movies

                                             description
4803   Funnyman Bill Burr takes the stage to uncork a...
1986   As a woman scours Hyderabad for her missing hu...
7767   Five teenagers, transformed by the mystical po...
696    In the dark, early days of a zombie apocalypse...
3596   This documentary follows the controversy surro...
```

Task : How many Tv Shows releaded in 1995?

```python
df_netflix[(df_netflix["type"] == "TV Show") &
(df_netflix["release_year"] == 1995)]
```

```
     show_id     type                    title director  \
3724  s3725  TV Show  Neon Genesis Evangelion      NaN
8669  s8670  TV Show           V.R. Troopers      NaN

                                          cast        country  \
3724  Megumi Ogata, Kotono Mitsuishi, Yuriko Yamaguc...          Japan

8669  Michael Sorich, Gardner Baldwin, Mike Reynolds...  United States


          date_added  release_year rating    duration  \
3724      June 21, 2019          1995  TV-MA   1 Season
8669  January 1, 2016          1995   TV-G  2 Seasons

                                listed_in  \
3724  Anime Series, International TV Shows
8669                               Kids' TV

                                      description
3724  Fifteen years after the Second Impact, Shinji ...
8669  Three friends who study martial arts find them...
```

```python
df_netflix[(df_netflix["type"] == "TV Show") &
(df_netflix["release_year"] == 1995)].shape
```

```
(2, 14)
```

```python
df_netflix["release_year"].hist()
```

```
<Axes: >
```
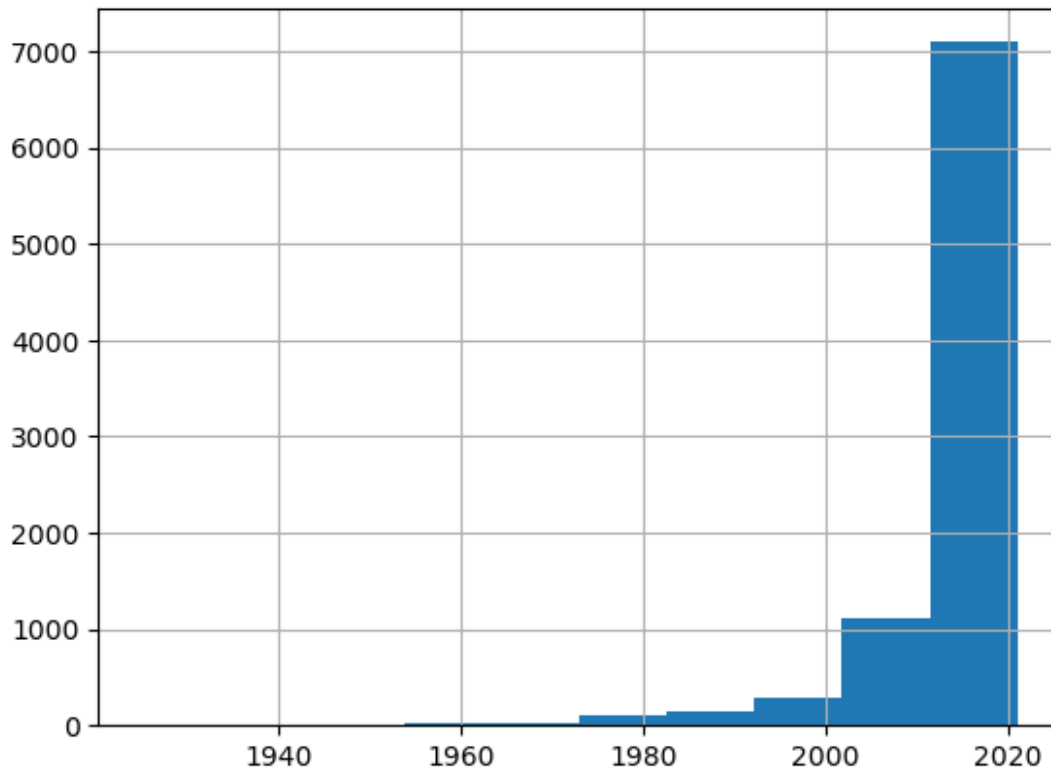
Task : Check : David Attenborough: A Life on Our Planet is availabe or not

isin() : is used to search the value if given parameter to filter the result, It rerutn the True /False

```
df_netflix[df_netflix["title"].isin(["David Attenborough: A Life on
Our Planet"])]

      show_id    type                                          title  \
1886    s1887   Movie  David Attenborough: A Life on Our Planet

                                    director
cast  \
1886  Alastair Fothergill, Jonnie Hughes, Keith Scholey   David
Attenborough

                              country        date_added   release_year
rating  \
1886  United States, United Kingdom   October 4, 2020           2020
PG

      duration        listed_in  \
```

```
1886    84 min   Documentaries

                                      description
1886   A broadcaster recounts his life, and the evolu...
```

Plot Histograme for Tv SHows /Movies Releaded per year

```python
px.histogram(df_netflix, x = "release_year", color = "release_year")
```
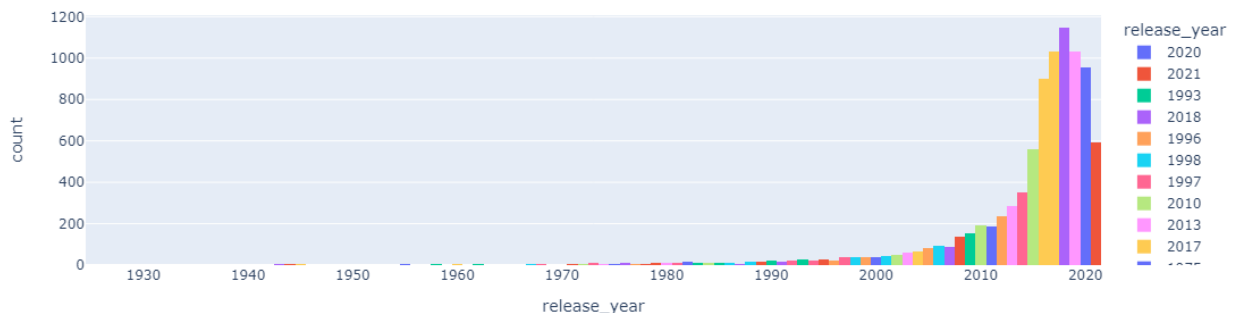

How many movie made only in japan

```python
japan_movie = df_netflix[(df_netflix['type'] == 'Movie') &
(df_netflix['country']== 'Japan')]['title']

japan_movie.count()

76


japan_movie.unique()

array(['InuYasha the Movie 2: The Castle Beyond the Looking Glass',
       'InuYasha the Movie 3: Swords of an Honorable Ruler',
       'InuYasha the Movie 4: Fire on the Mystic Island',
       'InuYasha the Movie: Affections Touching Across Time',
       'Naruto Shippuden the Movie: Blood Prison',
       'Naruto Shippûden the Movie: Bonds',
       'Naruto Shippûden the Movie: The Will of Fire',
       'Naruto Shippuden: The Movie',
       'Naruto Shippuden: The Movie: The Lost Tower',
       'Naruto the Movie 2: Legend of the Stone of Gelel',
       'Naruto the Movie 3: Guardians of the Crescent Moon Kingdom',
       'Naruto the Movie: Ninja Clash in the Land of Snow',
```

```
       'HOMUNCULUS',
       'GANTZ:O', 'Ride or Die',
       'Seven Souls in the Skull Castle: Season Flower',
       'Any Crybabies Around?', 'Blue, Painful, Fragile', 'MOTHER',
       'DTC Yukemuri Junjo Hen From High & Low', 'High & Low The
Movie',
       'High & Low The Movie 2 / End of Sky',
       'High & Low The Movie 3 / Final Mission',
       'High & Low The Red Rain', 'Road To High & Low',
       'Fate/Grand Order -First Order-', 'Romance Doll', 'A Whisker
Away',
       "Okko's Inn", 'Modest Heroes: Ponoc Short Films Theatre',
       'Sol Levante',
       'Violet Evergarden: Eternity and the Auto Memory Doll',
       'Lu Over the Wall', 'Pokémon: Mewtwo Strikes Back - Evolution',
       'Dragon Quest Your Story', '37 Seconds', 'NiNoKuni',
       'Pokémon the Movie: Power of Us', 'Hot Gimmick: Girl Meets
Boy',
       'Fireworks', 'No Game No Life: Zero', 'Girls und Panzer der
Film',
       'K-on! the movie', 'The Garden of Words', 'The Forest of Love',
       'TUNA GIRL', 'Hikaru Utada Laughter in the Dark Tour 2018',
       'EVANGELION: DEATH (TRUE)²', 'The End of Evangelion',
       'A Silent Voice', "River's Edge", 'GODZILLA The Planet Eater',
       'Pokémon the Movie: I Choose You!',
       'The Seven Deadly Sins the Movie: Prisoners of the Sky',
       'Aggretsuko: We Wish You a Metal Christmas',
       'GODZILLA City on the Edge of Battle', 'Expelled from
Paradise',
       'Lupin the 3rd: The Castle of Cagliostro: Special Edition',
       'In This Corner of the World', 'FullMetal Alchemist',
       'Berserk: The Golden Age Arc II - The Battle for Doldrey',
       'Berserk: The Golden Age Arc III - The Advent', 'BLAME!',
       'Berserk: The Golden Age Arc I - The Egg of the King',
       'Bleach The Movie: Fade to Black', 'Bleach the Movie: Hell
Verse',
       'Ghost Pain', 'Ghost Tears', 'Ghost Whispers', 'Golden Time',
       "Inuyasha the Movie - L'isola del fuoco scarlatto",
       'Inuyasha the Movie - La spada del dominatore del mondo',
       'InuYasha: The Movie 2: The Castle Beyond the Looking Glass',
       "Mary and the Witch's Flower", 'Miss Hokusai',
       'Naruto Shippuden : Blood Prison'], dtype=object)

df_netflix.columns

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

How many Tv & Movie Shows in The data set ?

```
df_netflix.groupby('type')['type'].value_counts()

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

df_netflix.groupby('type')['type'].count()

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

countplot()

```
ax = sns.countplot(x = 'type', data = df_netflix)
plt.xlabel('type')
plt.ylabel('count')
plt.xticks(rotation = 45)

##
for p in ax.patches:
    ax.annotate(int(p.get_height()), (p.get_x()+0.25, p.get_height()
+1), va = 'bottom', color = 'red')

(array([0, 1]), [Text(0, 0, 'Movie'), Text(1, 0, 'TV Show')])
```
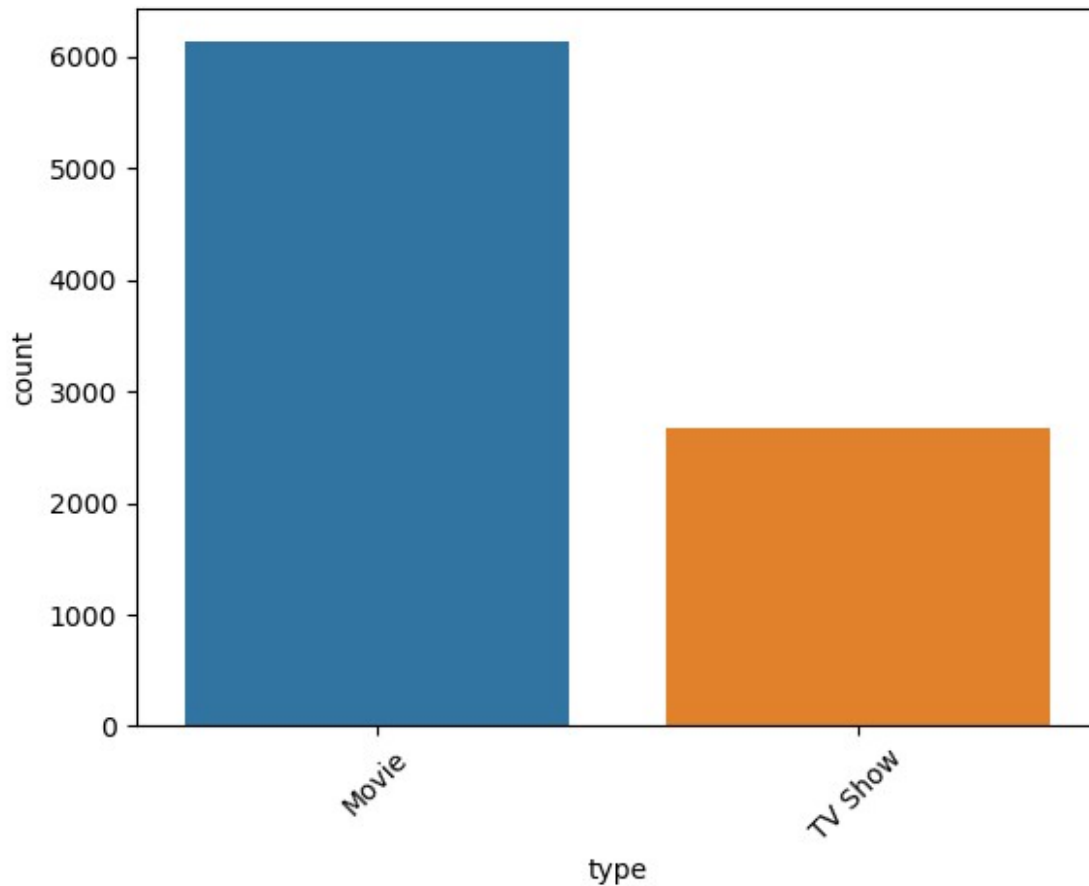
Task : show all the moview releaded in Year 2000

```
df_netflix[(df_netflix['type']=='Movie') & (df_netflix['release_year']
== 2000)].reset_index()

     index show_id    type
title  \
0      180    s181  Movie                   The Nutty Professor II: The
Klumps
1      350    s351  Movie                                         Space
Cowboys
2      359    s360  Movie                        The Original Kings of
Comedy
3      566    s567  Movie                                     Charlie's
Angels
4      593    s594  Movie
Snow Day
5      779    s780  Movie                                   Battlefield
Earth
6      952    s953  Movie                               The Whole Nine
Yards
```

```
7    3472    s3473    Movie                           Rugrats in Paris: The
Movie
8    4545    s4546    Movie              Monty Python: Before the Flying
Circus
9    4723    s4724    Movie
Fiza
10   4956    s4957    Movie                       Phir Bhi Dil Hai
Hindustani
11   5953    s5954    Movie                        Joseph: King of
Dreams
12   6006    s6007    Movie                                         28
Days
13   6147    s6148    Movie                             American
Psycho
14   6154    s6155    Movie   An American Tail: The Treasures of Manhattan
I...
15   6311    s6312    Movie                                  Billy
Elliot
16   6437    s6438    Movie                              Center
Stage
17   6440    s6441    Movie                            Chal Mere
Bhai
18   6543    s6544    Movie               Crouching Tiger, Hidden
Dragon
19   6643    s6644    Movie                       Dragonheart: A New
Beginning
20   6753    s6754    Movie                          Final
Destination
21   6912    s6913    Movie                    Hamara Dil Aapke
Paas Hai
22   7013    s7014    Movie               How the Grinch Stole
Christmas
23   7247    s7248    Movie                                    Kya
Kehna
24   7316    s7317    Movie                               Little
Nicky
25   7702    s7703    Movie                            Papa the
Great
26   7801    s7802    Movie
Pukar
27   7955    s7956    Movie                               Scary
Movie
28   7962    s7963    Movie
Scream 3
29   8196    s8197    Movie                            The Art
of War
30   8305    s8306    Movie                 The Flintstones in Viva Rock
Vegas
31   8722    s8723    Movie                          What Lies
```

```
Beneath
32   8729    s8730   Movie                                          Where the
Money Is

                              director  \
0                           Peter Segal
1                        Clint Eastwood
2                            Spike Lee
3                                  McG
4                           Chris Koch
5                       Roger Christian
6                        Jonathan Lynn
7     Stig Bergqvist, Paul Demeyer
8                            Will Yapp
9                       Khalid Mohamed
10                           Aziz Mirza
11   Rob LaDuca, Robert C. Ramirez
12                         Betty Thomas
13                          Mary Harron
14                         Larry Latham
15                       Stephen Daldry
16                      Nicholas Hytner
17                         David Dhawan
18                              Ang Lee
19                          Doug Lefler
20                          James Wong
21                       Satish Kaushik
22                           Ron Howard
23                          Kundan Shah
24                          Steve Brill
25                            Bhagyaraj
26                    Rajkumar Santoshi
27                  Keenen Ivory Wayans
28                           Wes Craven
29                     Christian Duguay
30                          Brian Levant
31                      Robert Zemeckis
32                       Marek Kanievska

                                              cast  \
0    Eddie Murphy, Janet Jackson, Larry Miller, Joh...
1    Clint Eastwood, Tommy Lee Jones, Donald Suther...
2    Steve Harvey, D.L. Hughley, Cedric the Enterta...
3    Cameron Diaz, Drew Barrymore, Lucy Liu, Bill M...
4    Chris Elliott, Mark Webber, Jean Smart, Schuyl...
5    John Travolta, Barry Pepper, Forest Whitaker, ...
6    Bruce Willis, Matthew Perry, Rosanna Arquette,...
7    Elizabeth Daily, Tara Strong, Cheryl Chase, Ch...
8    Graham Chapman, Eric Idle, Terry Jones, Michae...
```

```
9    Karisma Kapoor, Jaya Bhaduri, Hrithik Roshan, ...
10   Shah Rukh Khan, Juhi Chawla, Paresh Rawal, Sat...
11   Ben Affleck, Mark Hamill, Richard Herd, Mauree...
12   Sandra Bullock, Viggo Mortensen, Dominic West,...
13   Christian Bale, Willem Dafoe, Jared Leto, Rees...
14   Thomas Dekker, Dom DeLuise, Pat Musick, Nehemi...
15   Jamie Bell, Gary Lewis, Stuart Wells, Billy Fa...
16   Amanda Schull, Zoe Saldana, Susan May Pratt, P...
17   Sanjay Dutt, Salman Khan, Karisma Kapoor, Dali...
18   Chow Yun Fat, Michelle Yeoh, Zhang Ziyi, Chang...
19   Christopher Masterson, Harry Van Gorkum, Rona ...
20   Devon Sawa, Ali Larter, Kerr Smith, Kristen Cl...
21   Anil Kapoor, Aishwarya Rai Bachchan, Sonali Be...
22   Jim Carrey, Taylor Momsen, Jeffrey Tambor, Chr...
23   Preity Zinta, Saif Ali Khan, Anupam Kher, Fari...
24   Adam Sandler, Patricia Arquette, Harvey Keitel...
25   Krishan Kumar, Nagma, Satya Prakash, Master Bo...
26   Anil Kapoor, Madhuri Dixit, Namrata Shirodkar,...
27   Anna Faris, Jon Abrahams, Shannon Elizabeth, S...
28   David Arquette, Neve Campbell, Courteney Cox, ...
29   Wesley Snipes, Anne Archer, Maury Chaykin, Mar...
30   Mark Addy, Stephen Baldwin, Kristen Johnston, ...
31   Harrison Ford, Michelle Pfeiffer, Diana Scarwi...
32   Paul Newman, Linda Fiorentino, Dermot Mulroney...
```

	country	date_added
0	NaN	September 1, 2021
1	United States	August 1, 2021
2	United States	August 1, 2021
3	United States, Germany	July 1, 2021
4	United States	July 1, 2021
5	United States	June 2, 2021
6	United States	May 1, 2021
7	Germany, United States	October 1, 2019
8	United Kingdom	October 2, 2018
9	India	August 2, 2018
10	India	April 1, 2018
11	United States, France, United Kingdom	September 27, 2011

```
12                                                 United States  September 30, 2020

13                                        United States, Canada  September 1, 2019

14                                                 United States        April 1, 2018

15                                     United Kingdom, France  February 1, 2019

16                                                 United States    January 1, 2020

17                                                        India  December 31, 2019

18          Taiwan, Hong Kong, United States, China        March 1, 2019

19                                                 United States    January 1, 2020

20                                                 United States    January 1, 2020

21                                                        India        March 1, 2018

22                                                 United States         June 1, 2017

23                                                        India        April 1, 2018

24                                                 United States   December 1, 2020

25                                                        India   December 8, 2017

26                                                        India        March 1, 2018

27                                                 United States    January 1, 2020

28                                                 United States         July 1, 2019

29                                        United States, Canada         July 1, 2020

30                                                 United States    October 1, 2019

31                                                 United States    January 1, 2020

32  Germany, United States, United Kingdom, Canada  January 15, 2020


    release_year rating duration  \
0           2000  PG-13  107 min
1           2000  PG-13  130 min
2           2000      R  111 min
3           2000  PG-13   98 min
4           2000     PG   89 min
5           2000  PG-13  118 min
```

```
6        2000       R    99 min
7        2000       G    79 min
8        2000   TV-MA    56 min
9        2000   TV-14   163 min
10       2000   TV-14   159 min
11       2000   TV-PG    75 min
12       2000   PG-13   104 min
13       2000       R   102 min
14       2000       G    79 min
15       2000       R   110 min
16       2000   PG-13   116 min
17       2000   TV-14   132 min
18       2000   PG-13   120 min
19       2000      PG    84 min
20       2000       R    98 min
21       2000   TV-14   158 min
22       2000      PG   105 min
23       2000   TV-PG   149 min
24       2000   PG-13    90 min
25       2000   TV-PG   137 min
26       2000   TV-14   165 min
27       2000       R    88 min
28       2000       R   117 min
29       2000       R   117 min
30       2000      PG    91 min
31       2000   PG-13   130 min
32       2000   PG-13    89 min

                                              listed_in  \
0                          Comedies, Romantic Movies
1        Action & Adventure, Dramas, Sci-Fi & Fantasy
2                                     Stand-Up Comedy
3                         Action & Adventure, Comedies
4                   Children & Family Movies, Comedies
5     Action & Adventure, Cult Movies, Sci-Fi & Fantasy
6                         Action & Adventure, Comedies
7                   Children & Family Movies, Comedies
8                             Comedies, Documentaries
9       Dramas, International Movies, Music & Musicals
10              Comedies, Dramas, International Movies
11    Children & Family Movies, Dramas, Faith & Spir...
12                                    Comedies, Dramas
13                       Comedies, Cult Movies, Dramas
14                            Children & Family Movies
15      Dramas, Independent Movies, International Movies
16                                              Dramas
17      Comedies, International Movies, Romantic Movies
18    Action & Adventure, International Movies, Roma...
19                Action & Adventure, Sci-Fi & Fantasy
```

```
20               Cult Movies, Horror Movies, Thrillers
21      Dramas, International Movies, Music & Musicals
22                   Children & Family Movies, Comedies
23       Dramas, International Movies, Romantic Movies
24                                            Comedies
25             Comedies, Dramas, International Movies
26   Action & Adventure, Dramas, International Movies
27                        Comedies, Horror Movies
28                                   Horror Movies
29                              Action & Adventure
30   Children & Family Movies, Comedies, Romantic M...
31                        Horror Movies, Thrillers
32                Action & Adventure, Comedies, Dramas
```

```
                                description  Minute Unit
0   After getting engaged, Sherman Klump prepares ...  107.0  min
1   A retired engineer agrees to help NASA prevent...  130.0  min
2   Comedians Steve Harvey, Cedric the Entertainer...  111.0  min
3   A tight-knit trio of specially trained agents ...   98.0  min
4   When a snow day shuts down the whole town, the...   89.0  min
5   In the year 3000, an alien race known as the P...  118.0  min
6   An unhappily married dentist becomes mixed up ...   99.0  min
7   The Rugrats take to the big screen and visit P...   79.0  min
8   Discover how six seemingly ordinary but suprem...   56.0  min
9   Fiza's brother disappears during Mumbai's horr...  163.0  min
10  In this Bollywood entertainment, two journalis...  159.0  min
11  With his gift of dream interpretation and his ...   75.0  min
12  After her drunken antics result in property da...  104.0  min
13  With chiseled good looks that belie his insani...  102.0  min
14  When Fievel and friends go hunting for buried ...   79.0  min
15  When a boy trades boxing school for ballet les...  110.0  min
16  Vying for a spot in the American Ballet Compan...  116.0  min
17  When a secretary saves her tycoon boss's life,...  132.0  min
18  A young woman in ancient China longs for an ad...  120.0  min
19  This sequel introduces Draco the dragon's offs...   84.0  min
20  After narrowly avoiding a fatal plane explosio...   98.0  min
21  Love blooms when kind-hearted Avinash takes in...  158.0  min
22  The Grinch decides to rob Whoville of Christma...  105.0  min
23  A young university student's world is shaken a...  149.0  min
24  The devil sends his sweet son Nicky to Earth t...   90.0  min
25  After witnessing a murder, a meek family man m...  137.0  min
26  A notorious terrorist manipulates an Indian ar...  165.0  min
27  The Wayans brothers spoof some of Hollywood's ...   88.0  min
28  This installment of the tongue-in-cheek horror...  117.0  min
29  Framed for the murder of an ambassador, a form...  117.0  min
30  Yabba-dabba-doo! Digital dinosaurs rule the da...   91.0  min
31  When Claire Spencer starts hearing ghostly voi...  130.0  min
32  Paul Newman proves he's still got prodigious a...   89.0  min
```

```
df_netflix[(df_netflix['type']=='Movie') & (df_netflix['release_year']
== 2000)]['title'].count()

33
```

Task : Show All Tv shows Title that released in India

query()

Query() is used to filter the data on condition based.

```
df_netflix.query('type == "TV Show" & country =="India"')['title']

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

df_netflix.query('type == "TV Show" & country =="India"')
['title'].count()

79
```

Task : SHow the top 10 Director who gave Maximum Tv shows & Movies over Netflix ?

```
df_netflix.columns

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

df_netflix['director'].unique()

array(['Kirsten Johnson', nan, 'Julien Leclercq', ..., 'Majid Al
Ansari',
       'Peter Hewitt', 'Mozez Singh'], dtype=object)
```

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

director
Bejoy Nambiar, Priyadarshan, Karthik Narain, Vasanth Sai, Karthik
Subbaraj, Arvind Swamy, Rathindran R Prasad, Sarjun, Gautham Vasudev
Menon     1
Vijay Roche
1
Tharun Bhascker Dhaassyam, B. V. Nandini Reddy, Nag Ashwin, Sankalp
Reddy
1
Sudha Kongara, Vignesh Shivan, Gautham Vasudev Menon, Vetri Maaran
1
Soumendra Padhi
1
Patrick Graham
1
Nizar Shafi
1
Dheeraj Berry
1
Bumpy
1
Name: count, dtype: int64

df_netflix.director.count()

6173
```

Filtering with And or

Task : Show UK Country of Comedy Movie only ?

```
df_netflix[ (df_netflix['listed_in']=='Comedies')  &
(df_netflix['type']=='Movie') & (df_netflix['country'] == 'United
Kingdom') ]

      show_id    type                                               title
\
3332    s3333   Movie                                    Christmas Survival

4544    s4545   Movie    Monty Python Live (Mostly): One Down, Five to Go

4547    s4548   Movie            Monty Python: Live at The Hollywood Bowl

4554    s4555   Movie   Parrot Sketch Not Included: Twenty Years of Mo...
```

```
6576    s6577   Movie                    Dead in a Week (Or Your Money Back)

6779    s6780   Movie                                     For Love or Money

8201    s8202   Movie                               The Bad Education Movie

8536    s8537   Movie                                     The Trip to Spain


                               director  \
3332                      James Dearden
4544                          Eric Idle
4547   Terry Hughes, Ian MacNaughton
4554                 Ian MacNaughton
6576                     Tom Edmunds
6779                     Mark Murphy
8201                   Elliot Hegarty
8536             Michael Winterbottom

                                                      cast
country  \
3332  Julian Ovenden, Gemma Whelan, Joely Richardson...  United
Kingdom
4544  John Cleese, Terry Gilliam, Eric Idle, Terry J...  United
Kingdom
4547  Graham Chapman, John Cleese, Terry Gilliam, Er...  United
Kingdom
4554  Steve Martin, John Cleese, Graham Chapman, Ter...  United
Kingdom
6576  Tom Wilkinson, Aneurin Barnard, Freya Mavor, M...  United
Kingdom
6779  Robert Kazinsky, Samantha Barks, Ed Speleers, ...  United
Kingdom
8201  Jack Whitehall, Joanna Scanlan, Iain Glen, Eth...  United
Kingdom
8536  Steve Coogan, Rob Brydon, Marta Barrio, Claire...  United
Kingdom

              date_added  release_year rating duration listed_in  \
3332   November 1, 2019          2018  TV-MA  101 min  Comedies
4544    October 2, 2018          2014  TV-MA  137 min  Comedies
4547    October 2, 2018          1982      R   80 min  Comedies
4554    October 2, 2018          1989  TV-14   72 min  Comedies
6576      March 1, 2019          2018  TV-MA   90 min  Comedies
6779    August 16, 2019          2019  TV-MA   95 min  Comedies
8201  December 15, 2018          2015  TV-MA   87 min  Comedies
8536  December 12, 2017          2016  TV-MA  108 min  Comedies

                                    description  Minute Unit
```

```
3332   With Christmas just around the corner, sisters...   101.0   min
4544   Live from London in a sold-out final show, sur...   137.0   min
4547   Film clips and Terry Gilliam animations featur...    80.0   min
4554   Presented by Steve Martin, this anthology draw...    72.0   min
6576   After several failed attempts at taking his ow...    90.0   min
6779   When a goofy but likable millionaire discovers...    95.0   min
8201   Britain's most ineffective but caring teacher ...    87.0   min
8536   Comedians Steve Coogan and Rob Brydon gorge on...   108.0   min
```

Task : in How Many movies TomCruise was cast?

```
df_netflix.cast.unique()

array([nan,
       'Ama Qamata, Khosi Ngema, Gail Mabalane, Thabang Molaba, Dillon
Windvogel, Natasha Thahane, Arno Greeff, Xolile Tshabalala, Getmore
Sithole, Cindy Mahlangu, Ryle De Morny, Greteli Fincham, Sello Maake
Ka-Ncube, Odwa Gwanya, Mekaila Mathys, Sandi Schultz, Duane Williams,
Shamilla Miller, Patrick Mofokeng',
       'Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabiha Akkari, Sofia
Lesaffre, Salim Kechiouche, Noureddine Farihi, Geert Van Rampelberg,
Bakary Diombera',
       ...,
       'Jesse Eisenberg, Woody Harrelson, Emma Stone, Abigail Breslin,
Amber Heard, Bill Murray, Derek Graf',
       'Tim Allen, Courteney Cox, Chevy Chase, Kate Mara, Ryan Newman,
Michael Cassidy, Spencer Breslin, Rip Torn, Kevin Zegers',
       'Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanana, Manish
Chaudhary, Meghna Malik, Malkeet Rauni, Anita Shabdish, Chittaranjan
Tripathy'],
      dtype=object)

df_netflix[df_netflix['cast']=='Tom Cruise']

Empty DataFrame
Columns: [show_id, type, title, director, cast, country, date_added,
release_year, rating, duration, listed_in, description]
Index: []
```

we can see that , Tom Cruise was not available in our dataset

```
df_netflix.columns

Index(['show_id', 'type', 'title', 'director', 'cast', 'country',
'date_added',
       'release_year', 'rating', 'duration', 'listed_in',
```

```
'description'],
      dtype='object')
```

Task : What are the Different Rating define by NetFlix?

Unique() : for Get the Unique Value.

```
df_netflix['rating'].unique()

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

nUnique() : for Unique Value Count

```
df_netflix['rating'].nunique()

17
```

Task : how many movies got The 'TV-14' rating in Canada ?

```
# lets show the unique country
df_netflix['country'].unique()

array(['United States', 'South Africa', nan, 'India',
       'United States, Ghana, Burkina Faso, United Kingdom, Germany,
Ethiopia',
       'United Kingdom', 'Germany, Czech Republic', 'Mexico',
'Turkey',
       'Australia', 'United States, India, France', 'Finland',
       'China, Canada, United States',
       'South Africa, United States, Japan', 'Nigeria', 'Japan',
       'Spain, United States', 'France', 'Belgium',
       'United Kingdom, United States', 'United States, United
Kingdom',
       'France, United States', 'South Korea', 'Spain',
       'United States, Singapore', 'United Kingdom, Australia,
France',
       'United Kingdom, Australia, France, United States',
       'United States, Canada', 'Germany, United States',
       'South Africa, United States', 'United States, Mexico',
       'United States, Italy, France, Japan',
       'United States, Italy, Romania, United Kingdom',
       'Australia, United States', 'Argentina, Venezuela',
       'United States, United Kingdom, Canada', 'China, Hong Kong',
       'Russia', 'Canada', 'Hong Kong', 'United States, China, Hong
```

Kong',
        'Italy, United States', 'United States, Germany',
        'United Kingdom, Canada, United States', ', South Korea',
        'Ireland', 'India, Nepal',
        'New Zealand, Australia, France, United States', 'Italy',
        'Italy, Brazil, Greece', 'Argentina', 'Jordan', 'Colombia',
        'United States, Japan', 'Belgium, United Kingdom',
        'Switzerland, United Kingdom, Australia', 'Israel, United
States',
        'Canada, United States', 'Brazil', 'Argentina, Spain',
'Taiwan',
        'United States, Nigeria', 'Bulgaria, United States',
        'Spain, United Kingdom, United States', 'United States, China',
        'United States, France',
        'Spain, France, United Kingdom, United States',
        ', France, Algeria', 'Poland', 'Germany',
        'France, Israel, Germany, United States, United Kingdom',
        'New Zealand', 'Saudi Arabia', 'Thailand', 'Indonesia',
        'Egypt, Denmark, Germany', 'United States, Switzerland',
        'Hong Kong, Canada, United States', 'Kuwait, United States',
        'France, Canada, United States, Spain',
        'France, Netherlands, Singapore', 'France, Belgium',
        'Ireland, United States, United Kingdom', 'Egypt', 'Malaysia',
        'Israel', 'Australia, New Zealand', 'United Kingdom, Germany',
        'Belgium, Netherlands', 'South Korea, Czech Republic',
        'Australia, Germany', 'Vietnam', 'United Kingdom, Belgium',
        'United Kingdom, Australia, United States',
        'France, Japan, United States',
        'United Kingdom, Germany, Spain, United States',
        'United Kingdom, United States, France, Italy',
        'United States, Germany, Canada',
        'United States, France, Italy, United Kingdom',
        'United States, United Kingdom, Germany, Hungary',
        'United States, New Zealand', 'Sweden', 'China', 'Lebanon',
        'Romania', 'Finland, Germany', 'Lebanon, Syria', 'Philippines',
        'Iceland', 'Denmark', 'United States, India',
        'Philippines, Singapore, Indonesia',
        'China, United States, Canada', 'Lebanon, United Arab
Emirates',
        'Canada, United States, Denmark', 'United Arab Emirates',
        'Mexico, France, Colombia', 'Netherlands',
        'Germany, United States, France', 'United States, Bulgaria',
        'United Kingdom, France, Germany, United States',
        'Norway, Denmark', 'Syria, France, Lebanon, Qatar',
        'United States, Czech Republic', 'Mauritius',
        'Canada, South Africa', 'Austria', 'Mexico, Brazil',
        'Germany, France', 'Mexico, United States',
        'United Kingdom, France, Spain, United States',
        'United States, Australia',

'United States, United Kingdom, France', 'United States,
Russia',
        'United States, United Kingdom, New Zealand',
        'Australia, United Kingdom', 'Canada, Nigeria, United States',
        'France, United States, United Kingdom, Canada',
        'France, United Kingdom', 'India, United Kingdom',
        'Canada, United States, Mexico',
        'United Kingdom, Germany, United States',
        'Czech Republic, United Kingdom, United States',
        'China, United Kingdom', 'Italy, United Kingdom', 'China,
Taiwan',
        'United States, Brazil, Japan, Spain, India',
        'United States, China, United Kingdom', 'Cameroon',
        'Lebanon, Palestine, Denmark, Qatar', 'Japan, United States',
        'Uruguay, Germany', 'Egypt, Saudi Arabia',
        'United Kingdom, France, Poland, Germany, United States',
        'Ireland, Switzerland, United Kingdom, France, United States',
        'United Kingdom, South Africa, France',
        'Ireland, United Kingdom, France, Germany',
        'Russia, United States', 'United Kingdom, United States,
France',
        'United Kingdom,', 'United States, India, United Kingdom',
'Kenya',
        'Spain, Argentina', 'India, United Kingdom, France, Qatar',
        'Belgium, France', 'Argentina, Chile', 'United States,
Thailand',
        'Chile, Brazil', 'United States, Colombia',
        'Canada, United States, United Kingdom', 'Uruguay',
'Luxembourg',
        'United States, Cambodia, Romania', 'Bangladesh',
        'Spain, Belgium, United States',
        'United Kingdom, United States, Australia',
        'Canada, United States, France', 'Portugal, United States',
        'Portugal, Spain', 'India, United States',
        'United Kingdom, Ireland', 'United Kingdom, Spain, United
States',
        'Hungary, United States', 'United States, South Korea',
        'Canada, United States, Cayman Islands', 'India, France',
        'France, Canada', 'Canada, Hungary, United States', 'Norway',
        'Canada, United Kingdom, United States',
        'United Kingdom, Germany, France, United States',
        'Denmark, United States', 'Senegal', 'France, Algeria',
        'United Kingdom, Finland, Germany, United States, Australia,
Japan, France, Ireland',
        'Philippines, Canada, United Kingdom, United States',
        'Ireland, France, Iceland, United States, Mexico, Belgium,
United Kingdom, Hong Kong',
        'Singapore', 'Kuwait', 'United States, France, Serbia',
        'United States, Italy', 'Spain, Italy',

```
        'United States, Ireland, United Kingdom, India',
        'United Kingdom, Singapore', 'Hong Kong, United States',
        'United States, Malta, France, United Kingdom',
        'United States, China, Canada', 'Canada, United States,
Ireland',
        'Lebanon, Canada, France', 'Japan, Canada, United States',
        'Spain, France, Canada',
        'Denmark, Singapore, Canada, United States',
        'United States, France, Denmark', 'United States, China,
Colombia',
        'Spain, Thailand, United States', 'Mexico, Spain',
        'Ireland, Luxembourg, Belgium', 'China, United States',
        'Canada, Belgium', 'Canada, United Kingdom',
        'Lebanon, United Arab Emirates, France, Switzerland, Germany',
        'France, Belgium, Italy',
        'Lebanon, United States, United Arab Emirates', 'Lebanon,
France',
        'France, Lebanon', 'France, Lebanon, United Kingdom',
        'France, Norway, Lebanon, Belgium',
        'Sweden, Czech Republic, United Kingdom, Denmark, Netherlands',
        'United States, United Kingdom, India', 'Indonesia,
Netherlands',
        'Turkey, South Korea', 'Serbia, United States', 'Namibia',
        'United Kingdom, Kenya', 'United Kingdom, France, Germany,
Spain',
        'United Kingdom, France, United States, Belgium, Luxembourg,
China, Germany',
        'Thailand, United States',
        'United States, France, Canada, Belgium', 'United Kingdom,
China',
        'Germany, China, United Kingdom',
        'Australia, New Zealand, United States',
        'Hong Kong, Iceland, United States', 'France, Australia,
Germany',
        'United States, Belgium, Canada, France', 'South Africa,
Angola',
        'United States, Philippines',
        'United States, United Kingdom, Canada, China',
        'United States, Canada, United Kingdom', 'Turkey, United
States',
        'Peru, Germany, Norway', 'Mozambique', 'Brazil, France',
        'China, Spain, South Korea, United States', 'Spain, Germany',
        'Hong Kong, China', 'France, Belgium, Luxembourg, Cambodia,',
        'United Kingdom, Australia', 'Belarus',
        'Indonesia, United Kingdom',
        'Switzerland, France, Belgium, United States', 'Ghana',
        'Spain, France, Canada, United States', 'Chile, Italy',
        'United Kingdom, Nigeria', 'Chile', 'France, Egypt',
        'Egypt, France', 'France, Brazil, Spain, Belgium',
```

'Egypt, Algeria', 'Canada, South Korea, United States',
        'Nigeria, United Kingdom', 'United States, France, Canada',
        'Poland, United States',
        'United Arab Emirates, Jordan, Lebanon, Saudi Arabia',
        'United States, Mexico, Spain, Malta',
        'Saudi Arabia, United Arab Emirates', 'Zimbabwe',
        'United Kingdom, Germany, United Arab Emirates, New Zealand',
        'Romania, United States', 'Canada, Nigeria',
        'Saudi Arabia, Netherlands, Germany, Jordan, United Arab
Emirates, United States',
        'United Kingdom, Spain', 'Finland, France',
        'United Kingdom, Germany, United States, France',
        'India, United Kingdom, China, Canada, Japan, South Korea,
United States',
        'Italy, United Kingdom, France', 'United States, Mexico,
Colombia',
        'Turkey, India', 'Italy, Turkey',
        'United Kingdom, United States, Japan',
        'France, Belgium, United States',
        'Puerto Rico, United States, Colombia', 'Uruguay, Argentina',
        'United States, United Kingdom, Japan', 'United States,
Argentina',
        'United Kingdom, Italy', 'Ireland, United Kingdom',
        'United Kingdom, France, Belgium, Canada, United States',
        'Netherlands, Germany, Denmark, United Kingdom', 'Hungary',
        'Austria, Germany', 'Taiwan, China',
        'United Kingdom, United States, Ireland',
        'South Korea, United States', 'Brazil, United Kingdom',
        'Pakistan, United States', 'Romania, France, Switzerland,
Germany',
        'Romania, United Kingdom', 'France, Malta, United States',
        'Cyprus',
        'United Kingdom, France, Belgium, Ireland, United States',
        'United States, Norway, Canada', 'Kenya, United States',
        'France, South Korea, Japan, United States', 'Taiwan,
Malaysia',
        'Uruguay, Argentina, Germany, Spain',
        'United States, United Kingdom, France, Germany, Japan',
        'United States, France, Japan',
        'United Kingdom, France, United States',
        'Spain, France, United States',
        'Indonesia, South Korea, Singapore', 'United States, Spain',
        'Netherlands, Germany, Italy, Canada',
        'Spain, Germany, Denmark, United States', 'Norway, Sweden',
        'South Korea, Canada, United States, China',
        'Argentina, Uruguay, Serbia', 'France, Japan',
        'Mauritius, South Africa', 'United States, Poland',
        'United Kingdom, United States, Germany, Denmark, Belgium,
Japan',

```
        'India, Germany', 'India, United Kingdom, Canada, United
States',
        'Philippines, United States', 'Romania, Bulgaria, Hungary',
        'Uruguay, Guatemala', 'France, Senegal, Belgium',
        'United Kingdom, Canada', 'Mexico, United States, Spain,
Colombia',
        'Canada, Norway', 'Singapore, United States',
        'Finland, Germany, Belgium', 'United Kingdom, France',
        'United States, Chile', 'United Kingdom, Japan, United States',
        'Spain, United Kingdom', 'Argentina, United States, Mexico',
        'United States, South Korea, Japan', 'Canada, Australia',
        'United Kingdom, Hungary, Australia', 'Italy, Belgium',
        'United States, United Kingdom, Germany', 'Switzerland',
        'Singapore, Malaysia',
        'France, Belgium, Luxembourg, Romania, Canada, United States',
        'South Africa, Nigeria', 'Spain, France',
        'United Kingdom, Hong Kong', 'Pakistan', 'Brazil, United
States',
        'Denmark, Brazil, France, Portugal, Sweden', 'India, Turkey',
        'Malaysia, Singapore, Hong Kong', 'Philippines, Singapore',
        'Australia, Canada', 'Taiwan, China, France, United States',
        'Germany, Italy', 'Colombia, Peru, United Kingdom',
        'Thailand, China, United States', 'Argentina, United States',
        'Sweden, United States', 'Uruguay, Spain, Mexico',
        'France, Luxembourg, Canada', 'Denmark, Spain', 'Chile,
Argentina',
        'United Kingdom, Belgium, Sweden', 'Canada, Brazil',
        'Italy, France', 'Canada, Germany',
        'Pakistan, United Arab Emirates', 'Ghana, United States',
        'Mexico, Finland', 'United Arab Emirates, United Kingdom,
India',
        'Netherlands, Belgium', 'United States, Taiwan',
        'Austria, Iraq, United States', 'United Kingdom, Malawi',
        'Paraguay, Argentina', 'United Kingdom, Russia, United States',
        'India, Pakistan', 'Indonesia, Singapore', 'Spain, Belgium',
        'Iceland, Sweden, Belgium', 'Croatia', 'Uruguay, Argentina,
Spain',
        'United Kingdom, Ireland, United States',
        'Canada, Germany, France, United States', 'United Kingdom,
Japan',
        'Norway, Denmark, Netherlands, Sweden',
        'Hong Kong, China, United States', 'Ireland, Canada',
        'Italy, Switzerland, France, Germany', 'Mexico, Netherlands',
        'United States, Sweden', 'Germany, France, Russia',
        'France, Iran, United States', 'United Kingdom, India',
        'Russia, Poland, Serbia', 'Spain, Portugal', 'Peru',
        'Mexico, Argentina',
        'United Kingdom, Canada, United States, Cayman Islands',
        'Indonesia, United States',
```

'United States, Israel, United Kingdom, Canada',
        'Norway, Iceland, United States', 'Czech Republic, United
States',
        'United Kingdom, India, United States',
        'United Kingdom, West Germany', 'India, Australia',
        'United States,', 'Belgium, United Kingdom, United States',
        'India, Germany, Austria',
        'United States, Brazil, South Korea, Mexico, Japan, Germany',
        'Spain, Mexico', 'China, Japan', 'Argentina, France',
        'China, United States, United Kingdom',
        'France, Luxembourg, United States',
        'China, United States, Australia', 'Colombia, Mexico',
        'United States, Canada, Ireland', 'Chile, Peru',
        'Argentina, Italy', 'Canada, Japan, United States',
        'United Kingdom, Canada, United States, Germany',
        'Italy, Switzerland, Albania, Poland',
        'United States, Japan, Canada', 'Cambodia',
        'Italy, United States, Argentina',
        'Saudi Arabia, Syria, Egypt, Lebanon, Kuwait',
        'United States, Canada, Indonesia, United Kingdom, China,
Singapore',
        'Spain, Colombia',
        'United Kingdom, South Africa, Australia, United States',
        'Bulgaria', 'Argentina, Brazil, France, Poland, Germany,
Denmark',
        'United Kingdom, Spain, United States, Germany',
        'Philippines, Qatar', 'Netherlands, Belgium, Germany, Jordan',
        'United Arab Emirates, United States', 'Norway, Germany,
Sweden',
        'South Korea, China', 'Georgia', 'Soviet Union, India',
        'Australia, United Arab Emirates', 'Canada, Germany, South
Africa',
        'South Korea, China, United States', 'India, Soviet Union',
        'India, Mexico', 'Georgia, Germany, France',
        'United Arab Emirates, Romania', 'India, Malaysia',
        'Germany, Jordan, Netherlands', 'Turkey, France, Germany,
Poland',
        'Greece, United States', 'France, United Kingdom, United
States',
        'Norway, Germany', 'France, Morocco', 'Cambodia, United
States',
        'United States, Denmark', 'United States, Colombia, Mexico',
        'United Kingdom, Italy, Israel, Peru, United States',
        'Argentina, Uruguay, Spain, France',
        'United Kingdom, France, United States, Belgium',
        'France, Canada, China, Cambodia',
        'United Kingdom, France, Belgium, United States', 'Chile,
France',
        'Netherlands, United States', 'France, United Kingdom, India',

```
       'Czech Republic, Slovakia', 'Singapore, France',
       'Spain, Switzerland', 'United States, Australia, China',
       'South Africa, United States, Germany',
       'United States, United Kingdom, Australia',
       'Spain, Italy, Argentina', 'Chile, Spain, Argentina, Germany',
       'West Germany', 'Austria, Czech Republic', 'Lebanon, Qatar',
       'United Kingdom, Jordan, Qatar, Iran',
       'France, South Korea, Japan', 'Israel, Germany, France',
       'Canada, Japan, Netherlands', 'United States, Hungary',
       'France, Germany', 'France, Qatar',
       'United Kingdom, Germany, Canada', 'Ireland, South Africa',
       'Chile, United States, France', 'Belgium, France, Netherlands',
       'United Kingdom, Ukraine, United States',
       'Germany, Australia, France, China', 'Norway, United States',
       'United States, Bermuda, Ecuador',
       'United States, Hungary, Ireland, Canada',
       'United Kingdom, Egypt, United States',
       'United States, France, United Kingdom', 'Spain, Mexico,
France',
       'United States, South Africa', 'Hong Kong, China, Singapore',
       'South Africa, China, United States', 'Denmark, France,
Poland',
       'New Zealand, United Kingdom',
       'Netherlands, Denmark, South Africa', 'Iran, France',
       'United Kingdom, United States, France, Germany',
       'Australia, France', 'Ireland, United Kingdom, United States',
       'United Kingdom, France, Germany', 'Canada, Luxembourg',
       'Brazil, Netherlands, United States, Colombia, Austria,
Germany',
       'France, Canada, Belgium', 'Canada, France',
       'Bulgaria, United States, Spain, Canada', 'Sweden,
Netherlands',
       'France, United States, Mexico',
       'Australia, United Kingdom, United Arab Emirates, Canada',
       'Australia, Armenia, Japan, Jordan, Mexico, Mongolia, New
Zealand, Philippines, South Africa, Sweden, United States, Uruguay',
       'India, Iran', 'France, Belgium, Spain',
       'Denmark, Sweden, Israel, United States', 'United States,
Iceland',
       'United Kingdom, Russia',
       'United States, Israel, Italy, South Africa',
       'Netherlands, Denmark, France, Germany', 'South Korea, Japan',
       'United Kingdom, Pakistan', 'France, New Zealand',
       'United Kingdom, Czech Republic, United States, Germany,
Bahamas',
       'China, Germany, India, United States', 'Germany, Sri Lanka',
       'United States, India, Bangladesh',
       'United States, Canada, France', 'Brazil, France, Germany',
       'Germany, United States, Hong Kong, Singapore',
```

'France, Germany, Switzerland',
        'Germany, France, Luxembourg, United Kingdom, United States',
        'United Kingdom, Canada, Italy', 'Czech Republic, France',
        'Taiwan, Hong Kong, United States, China', 'Germany,
Australia',
        'United Kingdom, Poland, United States', 'Denmark, Zimbabwe',
        'United Kingdom, South Africa',
        'Finland, Sweden, Norway, Latvia, Germany',
        'South Africa, United States, New Zealand, Canada',
        'United States, Italy, United Kingdom, Liechtenstein',
        'Denmark, France, Belgium, Italy, Netherlands, United States,
United Kingdom',
        'United States, Australia, Mexico',
        'United Kingdom, Czech Republic, Germany, United States',
        'France, China, Japan, United States',
        'United States, South Korea, China', 'Germany, Belgium',
        'Pakistan, Norway, United States',
        'United States, Canada, Belgium, United Kingdom', 'Venezuela',
        'Canada, France, Italy, Morocco, United States',
        'Canada, Spain, France', 'United States, Indonesia',
        'Spain, France, Italy',
        'United Arab Emirates, United States, United Kingdom',
        'United Kingdom, Israel, Russia', 'Spain, Cuba',
        'United States, Brazil', 'United States, France, Mexico',
        'United States, Nicaragua',
        'United Kingdom, United States, Spain, Germany, Greece,
Canada',
        'Italy, Canada, France',
        'United Kingdom, Denmark, Canada, Croatia', 'Italy, Germany',
        'United States, France, United Kingdom, Japan',
        'United States, United Kingdom, Denmark, Sweden',
        'United States, United Kingdom, Italy',
        'United States, France, Canada, Spain',
        'Russia, United States, China', 'United States, Canada,
Germany',
        'Ireland, United States', 'United States, United Arab
Emirates',
        'United States, Ireland',
        'Ireland, United Kingdom, Italy, United States', 'Poland,',
        'Slovenia, Croatia, Germany, Czech Republic, Qatar',
        'Canada, United Kingdom, Netherlands',
        'United States, Spain, Germany', 'India, Japan',
        'China, South Korea, United States',
        'United Kingdom, France, Belgium',
        'Canada, Ireland, United States',
        'United Kingdom, United States, Dominican Republic',
        'United States, Senegal', 'Germany, United Kingdom, United
States',
        'South Africa, Germany, Netherlands, France',

```
       'Canada, United States, United Kingdom, France, Luxembourg',
       'Ireland, United States, France', 'Germany, United States,
Canada',
       'United Kingdom, Germany, Canada, United States',
       'United States, France, Canada, Lebanon, Qatar',
       'Netherlands, Belgium, United Kingdom, United States',
       'France, Belgium, China, United States',
       'United States, Chile, Israel',
       'United Kingdom, Norway, Denmark, Germany, Sweden',
       'Norway, Denmark, Sweden', 'China, India, Nepal',
       'Colombia, Mexico, United States', 'United Kingdom, South
Korea',
       'Denmark, China', 'United States, Greece, Brazil',
       'South Korea, France',
       'United States, Australia, Samoa, United Kingdom',
       'Germany, United Kingdom', 'Argentina, Chile, Peru',
       'Turkey, Azerbaijan', 'Poland, West Germany',
       'Germany, United States, Sweden', 'Canada, Spain',
       'United States, Cambodia', 'United States, Greece',
       'Norway, United Kingdom, France, Ireland',
       'United Kingdom, Poland', 'Israel, Sweden, Germany,
Netherlands',
       'Switzerland, France', 'Italy, India', 'United States,
Botswana',
       'Chile, Argentina, France, Spain, United States',
       'United States, India, South Korea, China',
       'Denmark, Germany, Belgium, United Kingdom, France',
       'Denmark, Germany, Belgium, United Kingdom, France, Sweden',
       'France, Switzerland, Spain, United States, United Arab
Emirates',
       'Brazil, India, China, United States',
       'Denmark, France, United States, Sweden', 'Australia, Iraq',
       'China, Morocco, Hong Kong', 'Canada, United States, Germany',
       'United Kingdom, Thailand', 'Venezuela, Colombia',
       'Colombia, United States',
       'France, Germany, Czech Republic, Belgium',
       'Switzerland, Vatican City, Italy, Germany, France',
       'Portugal, France, Poland, United States',
       'United States, New Zealand, Japan',
       'United States, Netherlands, Japan, France', 'India,
Switzerland',
       'Canada, India', 'United States, Morocco',
       'Singapore, Japan, France',
       'Canada, Mexico, Germany, South Africa',
       'United Kingdom, United States, Canada',
       'Germany, France, United States, Canada, United Kingdom',
       'United States, Uruguay', 'India, Canada',
       'Ireland, Canada, United Kingdom, United States',
       'United States, Germany, Australia', 'Australia, France,
```

Ireland',
       'Australia, India', 'United States, United Kingdom, Canada,
Japan',
       'Sweden, United Kingdom, Finland', 'Hong Kong, Taiwan',
       'United States, United Kingdom, Spain, South Korea',
'Guatemala',
       'Ukraine',
       'Italy, South Africa, West Germany, Australia, United States',
       'United States, Germany, United Kingdom, Australia',
       'Italy, France, Switzerland', 'Canada, France, United States',
       'Switzerland, United States', 'Thailand, Canada, United
States',
       'China, Hong Kong, United States', 'United Kingdom, New
Zealand',
       'Czech Republic, United Kingdom, France',
       'Australia, United Kingdom, Canada', 'Jamaica, United States',
       'Australia, United Kingdom, United States, New Zealand, Italy,
France',
       'France, United States, Canada',
       'United Kingdom, France, Canada, Belgium, United States',
       'Denmark, United Kingdom, Sweden', 'United States, Hong Kong',
       'United States, Kazakhstan',
       'Argentina, France, United States, Germany, Qatar',
       'United States, Germany, United Kingdom',
       'United States, Germany, United Kingdom, Italy',
       'United States, New Zealand, United Kingdom',
       'Finland, United States', 'Spain, France, Uruguay',
       'France, Canada, United States', 'United States, Canada,
China',
       'Ireland, Canada, Luxembourg, United States, United Kingdom,
Philippines, India',
       'United States, Czech Republic, United Kingdom', 'Israel,
Germany',
       'Mexico, France',
       'Israel, Germany, Poland, Luxembourg, Belgium, France, United
States',
       'Austria, United States', 'United Kingdom, Lithuania',
       'United States, Greece, United Kingdom',
       'United Kingdom, China, United States, India',
       'United States, Sweden, Norway',
       'United Kingdom, United States, Morocco',
       'United States, United Kingdom, Morocco',
       'Spain, Canada, United States',
       'United States, India, United Arab Emirates',
       'United Kingdom, Canada, France, United States',
       'India, Germany, France',
       'Belgium, Ireland, Netherlands, Germany, Afghanistan',
       'France, Canada, Italy, United States, China',
       'Ireland, United Kingdom, Greece, France, Netherlands',
       'Denmark, Indonesia, Finland, Norway, United Kingdom, Israel,

```
France, United States, Germany, Netherlands',
       'New Zealand, United States',
       'United States, Australia, South Africa, United Kingdom',
       'United States, Germany, Mexico',
       'Somalia, Kenya, Sudan, South Africa, United States',
       'United States, Canada, Japan, Panama',
       'United Kingdom, Spain, Belgium', 'Serbia, South Korea,
Slovenia',
       'Denmark, United Kingdom, South Africa, Sweden, Belgium',
       'Germany, Canada, United States',
       'Ireland, Canada, United States, United Kingdom',
       'New Zealand, United Kingdom, Australia',
       'United Kingdom, Australia, Canada, United States',
       'Germany, United States, Italy', 'United States, Venezuela',
       'United Kingdom, Canada, Japan',
       'United Kingdom, United States, Czech Republic',
       'United Kingdom, China, United States',
       'United Kingdom, Brazil, Germany',
       'United Kingdom, Namibia, South Africa, Zimbabwe, United
States',
       'Canada, United States, India, United Kingdom',
       'Switzerland, United Kingdom, United States',
       'United Kingdom, India, Sweden',
       'United States, Brazil, India, Uganda, China',
       'Peru, United States, United Kingdom',
       'Germany, United States, United Kingdom, Canada',
       'Canada, India, Thailand, United States, United Arab Emirates',
       'United States, East Germany, West Germany',
       'France, Netherlands, South Africa, Finland',
       'Egypt, Austria, United States', 'Russia, Spain',
       'Croatia, Slovenia, Serbia, Montenegro', 'Japan, Canada',
       'United States, France, South Korea, Indonesia',
       'United Arab Emirates, Jordan'], dtype=object)
```

filtering the Data For where rating is TV-14 & country is Canada in Movie Type

```
df_netflix[(df_netflix['rating'] =='TV-14') & (df_netflix['country']
=='Canada') & (df_netflix['type'] =='Movie')]
```

```
     show_id   type                                              title  \
157    s158   Movie                                           Level 16
1279   s1280  Movie   Made You Look: A True Story About Fake Art
2769   s2770  Movie                  There's Something in the Water
3424   s3425  Movie   Martin Matte: La vie, la mort...eh la la..!
5972   s5973  Movie                                  #cats_the_mewvie
5973   s5974  Movie                                              #Roxy
6192   s6193  Movie                                     At First Light
6537   s6538  Movie                           Counterfeiting in Suburbia
7334   s7335  Movie                                  Long Time Running
```

```
7916    s7917   Movie                     Sadie's Last Days on Earth
7936    s7937   Movie                                     Sardaar ji
8178    s8179   Movie                    The Accountant of Auschwitz
8566    s8567   Movie                            The Wrong Babysitter

                                    director  \
157                        Danishka Esterhazy
1279                             Barry Avrich
2769                     Ellen Page, Ian Daniel
3424                       Jean-François Blais
5972                          Michael Margolis
5973                          Michael Kennedy
6192                              Jason Stone
6537                             Jason Bourque
7334    Jennifer Baichwal, Nicholas de Pencier
7916                            Michael Seater
7936                              Rohit Jugraj
8178                          Matthew Shoychet
8566                           George Mendeluk

                                                  cast country  \
157   Katie Douglas, Celina Martin, Peter Outerbridg...  Canada
1279                                             NaN  Canada
2769                                      Ellen Page  Canada
3424                                     Martin Matte  Canada
5972                                             NaN  Canada
5973  Jake Short, Sarah Fisher, Booboo Stewart, Dann...  Canada
6192  Stefanie Scott, Theodore Pellerin, Percy Hynes...  Canada
6537  Sarah Butler, Larissa Albuquerque, Kayla Walla...  Canada
7334  Gord Downie, Paul Langlois, Gord Sinclair, Rob...  Canada
7916  Morgan Taylor Campbell, Clark Backo, Ricardo H...  Canada
7936  Diljit Dosanjh, Neeru Bajwa, Mandy Takhar, Jas...  Canada
8178                                             NaN  Canada
8566  Daphne Zuniga, Seann Gallagher, Lisa Marie Car...  Canada

             date_added  release_year rating duration  \
157    September 1, 2021          2018  TV-14  102 min
1279   February 23, 2021         2020  TV-14   90 min
2769      March 27, 2020         2019  TV-14   72 min
3424    October 14, 2019         2019  TV-14   62 min
5972    February 5, 2020         2020  TV-14   90 min
5973       April 10, 2019        2018  TV-14  105 min
6192   December 27, 2018         2018  TV-14   91 min
6537         July 1, 2018        2018  TV-14   88 min
7334   November 12, 2017        2017  TV-14   96 min
7916      August 22, 2017        2016  TV-14   94 min
7936    December 1, 2017         2015  TV-14  140 min
8178         July 1, 2019        2018  TV-14   78 min
8566       June 18, 2019        2017  TV-14   89 min
```

```
                                          listed_in  \
157                         Sci-Fi & Fantasy, Thrillers
1279              Documentaries, International Movies
2769              Documentaries, International Movies
3424                                    Stand-Up Comedy
5972              Documentaries, International Movies
5973                        Comedies, Romantic Movies
6192                         Dramas, Sci-Fi & Fantasy
6537                                  Dramas, Thrillers
7334   Documentaries, International Movies, Music & M...
7916                        Comedies, Sci-Fi & Fantasy
7936     Comedies, International Movies, Music & Musicals
8178              Documentaries, International Movies
8566                                          Thrillers

                                        description
157    In a bleak academy that teaches girls the virt...
1279   A woman walks into a New York gallery with a c...
2769   This documentary spotlights the struggle of mi...
3424   Quebecois comedy star Martin Matte serves up e...
5972   This pawesome documentary explores how our fel...
5973   A teenage hacker with a huge nose helps a cool...
6192   After mysterious lights imbue her with extraor...
6537   Two teenagers print counterfeit money in their...
7334   This documentary follows the 2016 tour of belo...
7916   High schooler Sadie Mitchell believes the worl...
7936   When a palatial wedding venue turns out to be ...
8178   Decades after WWII, a former SS officer stands...
8566   A widow searches for her missing teenage daugh...
```

```python
# Showing the total number of TV-14 rating in canada
df_netflix[(df_netflix['rating'] =='TV-14') & (df_netflix['country']
=='Canada') & (df_netflix['type'] =='Movie')]['title'].count()
```

```
13
```

Task : How many TV Shows got the ' R ' rating after 2018

```python
df_netflix['rating'].unique()
```

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

```python
# Showing the total number of TV-14 rating in canada
df_netflix[(df_netflix['rating'] =='R') & (df_netflix['release_year']
> 2018) & (df_netflix['type'] =='TV Show')]
```

```
Empty DataFrame
Columns: [show_id, type, title, director, cast, country, date_added,
release_year, rating, duration, listed_in, description]
Index: []

# Showing the total number of TV-14 rating in canada
df_netflix[(df_netflix['rating'] =='R') & (df_netflix['release_year']
> 2018) & (df_netflix['type'] =='TV Show')]['title'].count()

0
```

we can see that there is no any Tv Shows that got R tating after 2018

Task : What is the MAximumm duration of Movie/ Show on NetFlix

```
# lets show the Unique Duration
df_netflix.duration.unique()

array(['90 min', '2 Seasons', '1 Season', '91 min', '125 min',
       '9 Seasons', '104 min', '127 min', '4 Seasons', '67 min', '94
min',
       '5 Seasons', '161 min', '61 min', '166 min', '147 min', '103
min',
       '97 min', '106 min', '111 min', '3 Seasons', '110 min', '105
min',
       '96 min', '124 min', '116 min', '98 min', '23 min', '115 min',
       '122 min', '99 min', '88 min', '100 min', '6 Seasons', '102
min',
       '93 min', '95 min', '85 min', '83 min', '113 min', '13 min',
       '182 min', '48 min', '145 min', '87 min', '92 min', '80 min',
       '117 min', '128 min', '119 min', '143 min', '114 min', '118
min',
       '108 min', '63 min', '121 min', '142 min', '154 min', '120
min',
       '82 min', '109 min', '101 min', '86 min', '229 min', '76 min',
       '89 min', '156 min', '112 min', '107 min', '129 min', '135
min',
       '136 min', '165 min', '150 min', '133 min', '70 min', '84 min',
       '140 min', '78 min', '7 Seasons', '64 min', '59 min', '139
min',
       '69 min', '148 min', '189 min', '141 min', '130 min', '138
min',
       '81 min', '132 min', '10 Seasons', '123 min', '65 min', '68
min',
       '66 min', '62 min', '74 min', '131 min', '39 min', '46 min',
       '38 min', '8 Seasons', '17 Seasons', '126 min', '155 min',
       '159 min', '137 min', '12 min', '273 min', '36 min', '34 min',
       '77 min', '60 min', '49 min', '58 min', '72 min', '204 min',
```

```
        '212 min', '25 min', '73 min', '29 min', '47 min', '32 min',
        '35 min', '71 min', '149 min', '33 min', '15 min', '54 min',
        '224 min', '162 min', '37 min', '75 min', '79 min', '55 min',
        '158 min', '164 min', '173 min', '181 min', '185 min', '21
min',
        '24 min', '51 min', '151 min', '42 min', '22 min', '134 min',
        '177 min', '13 Seasons', '52 min', '14 min', '53 min', '8 min',
        '57 min', '28 min', '50 min', '9 min', '26 min', '45 min',
        '171 min', '27 min', '44 min', '146 min', '20 min', '157 min',
        '17 min', '203 min', '41 min', '30 min', '194 min', '15
Seasons',
        '233 min', '237 min', '230 min', '195 min', '253 min', '152
min',
        '190 min', '160 min', '208 min', '180 min', '144 min', '5 min',
        '174 min', '170 min', '192 min', '209 min', '187 min', '172
min',
        '16 min', '186 min', '11 min', '193 min', '176 min', '56 min',
        '169 min', '40 min', '10 min', '3 min', '168 min', '312 min',
        '153 min', '214 min', '31 min', '163 min', '19 min', '12
Seasons',
        nan, '179 min', '11 Seasons', '43 min', '200 min', '196 min',
        '167 min', '178 min', '228 min', '18 min', '205 min', '201
min',
        '191 min'], dtype=object)
```

str.split()

str.split() is used to split the string on some specific value/symbol,
delimetere

```
df_netflix[['Minute', 'Unit']] = df_netflix['duration'].str.split(' ',
expand=True)

# showing data
df_netflix.head(2)

  show_id     type                    title          director  \
0      s1    Movie  Dick Johnson Is Dead  Kirsten Johnson
1      s2  TV Show         Blood & Water              NaN


                                              cast        country  \
0                                              NaN  United States
1  Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...   South Africa


          date_added  release_year rating   duration  \
0  September 25, 2021          2020  PG-13     90 min
1  September 24, 2021          2021  TV-MA  2 Seasons


                                         listed_in  \
```

```
0                           Documentaries
1  International TV Shows, TV Dramas, TV Mysteries
```

```
                          description Minute      Unit
0  As her father nears the end of his life, filmm...     90       min
1  After crossing paths at a party, a Cape Town t...      2   Seasons
```

```
df_netflix['Minute'].dtype
```

```
dtype('float64')
```

max()

```
df_netflix['Minute'].max()
```

```
312.0
```

Min()

```
df_netflix['Minute'].min()
```

```
1.0
```

Task : Which Indiviasual Country has Highest No of Tv Shows ?

```
df_tvShow = df_netflix[df_netflix['type']=='TV Show']

df_tvShow
```

```
      show_id     type                  title         director  \
1          s2  TV Show          Blood & Water              NaN
2          s3  TV Show              Ganglands  Julien Leclercq
3          s4  TV Show  Jailbirds New Orleans              NaN
4          s5  TV Show           Kota Factory              NaN
5          s6  TV Show          Midnight Mass    Mike Flanagan
...       ...      ...                    ...              ...
8795    s8796  TV Show         Yu-Gi-Oh! Arc-V              NaN
8796    s8797  TV Show             Yunus Emre              NaN
8797    s8798  TV Show              Zak Storm              NaN
8800    s8801  TV Show      Zindagi Gulzar Hai              NaN
8803    s8804  TV Show             Zombie Dumb              NaN

                                          cast  \
1       Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...
2       Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...
3                                               NaN
4       Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...
```

```
5     Kate Siegel, Zach Gilford, Hamish Linklater, H...
...                                                  ...
8795  Mike Liscio, Emily Bauer, Billy Bob Thompson, ...
8796  Gökhan Atalay, Payidar Tüfekçioglu, Baran Akbu...
8797  Michael Johnston, Jessica Gee-George, Christin...
8800  Sanam Saeed, Fawad Khan, Ayesha Omer, Mehreen ...
8803                                                 NaN

                                             country
date_added  \
1                                       South Africa   September 24,
2021
2                                                NaN   September 24,
2021
3                                                NaN   September 24,
2021
4                                              India   September 24,
2021
5                                                NaN   September 24,
2021
...                                              ...                ..
.
8795                                   Japan, Canada         May 1,
2018
8796                                          Turkey     January 17,
2017
8797  United States, France, South Korea, Indonesia   September 13,
2018
8800                                        Pakistan    December 15,
2016
8803                                             NaN         July 1,
2019


      release_year rating   duration  \
1             2021  TV-MA  2 Seasons
2             2021  TV-MA   1 Season
3             2021  TV-MA   1 Season
4             2021  TV-MA  2 Seasons
5             2021  TV-MA   1 Season
...            ...    ...        ...
8795          2015  TV-Y7  2 Seasons
8796          2016  TV-PG  2 Seasons
8797          2016  TV-Y7  3 Seasons
8800          2012  TV-PG   1 Season
8803          2018  TV-Y7  2 Seasons

                                         listed_in  \
1        International TV Shows, TV Dramas, TV Mysteries
2      Crime TV Shows, International TV Shows, TV Act...
3                              Docuseries, Reality TV
```

```
4       International TV Shows, Romantic TV Shows, TV ...
5                       TV Dramas, TV Horror, TV Mysteries
...                                                     ...
8795                             Anime Series, Kids' TV
8796                  International TV Shows, TV Dramas
8797                                           Kids' TV
8800   International TV Shows, Romantic TV Shows, TV ...
8803            Kids' TV, Korean TV Shows, TV Comedies

                                             description  Minute
Unit
1      After crossing paths at a party, a Cape Town t...     2.0
Seasons
2      To protect his family from a powerful drug lor...     1.0
Season
3      Feuds, flirtations and toilet talk go down amo...     1.0
Season
4      In a city of coaching centers known to train I...     2.0
Seasons
5      The arrival of a charismatic young priest brin...     1.0
Season
...                                                    ...     ...    .
..
8795  Now that he's discovered the Pendulum Summonin...     2.0
Seasons
8796  During the Mongol invasions, Yunus Emre leaves...     2.0
Seasons
8797  Teen surfer Zak Storm is mysteriously transpor...     3.0
Seasons
8800  Strong-willed, middle-class Kashaf and carefre...     1.0
Season
8803  While living alone in a spooky town, a young g...     2.0
Seasons

[2676 rows x 14 columns]

df_tvShow['country'].value_counts()

country
United States                       760
United Kingdom                      213
Japan                               169
South Korea                         158
India                                79
                                    ...
Belarus                               1
United Kingdom, Australia             1
France, Australia, Germany            1
Australia, New Zealand, United States 1
```

```
United States, France, South Korea, Indonesia        1
Name: count, Length: 196, dtype: int64

df_tvShow['country'].value_counts().nlargest(1)

country
United States    760
Name: count, dtype: int64
```

United State has highest Tv SHows

Sort dataset by Year ?

Sort_values(by ='Column-name', ascending = True/false

```
df_netflix.columns

Index(['show_id', 'type', 'title', 'director', 'cast', 'country',
'date_added',
       'release_year', 'rating', 'duration', 'listed_in',
'description',
       'Minute', 'Unit'],
     dtype='object')
```

```
# by default = sort_values() sort the data by ascending
df_netflix.sort_values(by='release_year').head(2)

      show_id      type                                    title      director
cast  \
4250   s4251   TV Show  Pioneers: First Women Filmmakers*              NaN
NaN
7790   s7791     Movie                        Prelude to War   Frank Capra
NaN


            country        date_added   release_year rating   duration
\
4250             NaN   December 30, 2018            1925   TV-14   1 Season

7790   United States       March 31, 2017            1942   TV-14      52 min


                            listed_in   \
4250                        TV Shows
7790   Classic Movies, Documentaries


                                       description   Minute
```

```
                                                            Unit
4250  This collection restores films from women who ...       1.0
Season
7790  Frank Capra's documentary chronicles the rise ...      52.0
min
```

```python
df_netflix.sort_values(by='release_year', ascending =False).head(5)
```

```
     show_id     type                                        title
director  \
693     s694    Movie                   Ali & Ratu Ratu Queens   Lucky
Kuswandi
781     s782    Movie   Black Holes | The Edge of All We Know    Peter
Galison
762     s763    Movie                            Sweet & Sour   Lee Kae-
byeok
763     s764  TV Show                              Sweet Tooth
NaN
764     s765    Movie            Trippin' with the Kandasamys    Jayan
Moodley


                                                  cast        country
\
693  Iqbaal Ramadhan, Nirina Zubir, Asri Welas, Tik...          NaN

781                                                NaN          NaN

762          Jang Ki-yong, Chae Soo-bin, Jung Soo-jung    South Korea

763  Nonso Anozie, Christian Convery, Adeel Akhtar,...  United States

764  Jailoshini Naidoo, Maeshni Naicker, Madhushan ...   South Africa


          date_added  release_year rating   duration  \
693   June 17, 2021          2021  TV-14    101 min
781    June 2, 2021          2021  TV-14     99 min
762    June 4, 2021          2021  TV-14    103 min
763    June 4, 2021          2021  TV-14  1 Season
764    June 4, 2021          2021  TV-14     94 min

                                          listed_in  \
693              Comedies, Dramas, International Movies
781                                     Documentaries
762    Comedies, International Movies, Romantic Movies
763  TV Action & Adventure, TV Dramas, TV Sci-Fi & ...
764    Comedies, International Movies, Romantic Movies

                                          description  Minute    Unit

693  After his father's passing, a teenager sets ou...   101.0     min
```

781	Follow scientists on their quest to understand...	99.0	min
762	Faced with real-world opportunities and challe...	103.0	min
763	On a perilous adventure across a post-apocalyp...	1.0	Season
764	To rekindle their marriages, best friends-turn...	94.0	min

Task : Find all the instances where :

Type is Movie & Listed in Dramas

or

type is TV Show & Listed in Kids TV

```
df_netflix[(df_netflix['type']== 'Movie') & (df_netflix['listed_in']
=='Dramas')]
```

```
      show_id   type                 title             director  \
112      s113  Movie                 Worth        Sara Colangelo
129      s130  Movie     An Unfinished Life        Lasse Hallström
142      s143  Movie        Freedom Writers   Richard LaGravenese
162      s163  Movie              Marshall       Reginald Hudlin
329      s330  Movie  Catch Me If You Can      Steven Spielberg
...       ...    ...                   ...                   ...
8674    s8675  Movie       Viceroy's House       Gurinder Chadha
8675    s8676  Movie                Victor      Brandon Dickerson
8685    s8686  Movie                   VS.              Ed Lilly
8691    s8692  Movie             Wakefield          Robin Swicord
8696    s8697  Movie             War Horse      Steven Spielberg

                                                   cast  \
112   Michael Keaton, Stanley Tucci, Amy Ryan, Shuno...
129   Robert Redford, Jennifer Lopez, Morgan Freeman...
142   Hilary Swank, Patrick Dempsey, Scott Glenn, Im...
162   Chadwick Boseman, Josh Gad, Kate Hudson, Sterl...
329   Leonardo DiCaprio, Tom Hanks, Christopher Walk...
...                                                 ...
8674  Hugh Bonneville, Gillian Anderson, Manish Daya...
8675  Patrick Davis, Lisa Vidal, Josh Pence, José Zú...
8685  Connor Swindells, Fola Evans-Akingbola, Nichol...
8691  Bryan Cranston, Jennifer Garner, Jason O'Mara,...
8696  Emily Watson, David Thewlis, Peter Mullan, Nie...
```

```
                               country        date_added  release_year
rating  \
112                                NaN  September 3, 2021          2021
PG-13
129            Germany, United States  September 1, 2021          2005
PG-13
142            Germany, United States  September 1, 2021          2007
PG-13
162   United States, China, Hong Kong  September 1, 2021          2017
PG-13
329              United States, Canada     August 1, 2021          2002
PG-13
...                                ...                ...           ...
...
8674    United Kingdom, India, Sweden  December 12, 2017          2017
NR
8675                     United States      July 24, 2017          2015
PG-13
8685                    United Kingdom      June 19, 2019          2018
TV-MA
8691                     United States      March 2, 2019          2016
R
8696             United States, India        May 6, 2019          2011
PG-13

     duration listed_in
description  \
112    119 min    Dramas  In the wake of the Sept. 11 attacks, a lawyer
...
129    108 min    Dramas  A grieving widow and her daughter move in
with...
142    124 min    Dramas  While her at-risk students are reading
classic...
162    118 min    Dramas  This biopic of Thurgood Marshall, the first
Bl...
329    142 min    Dramas  An FBI agent makes it his mission to put
cunni...
...        ...       ...
...
8674   106 min    Dramas  As viceroy Lord Mountbatten arrives in Delhi
t...
8675   110 min    Dramas  In 1962 Brooklyn, a Puerto Rican teen who
join...
8685    99 min    Dramas  A young man in foster care finds his voice in
...
8691   109 min    Dramas  An unhappy father and lawyer quits his
suburba...
8696   147 min    Dramas  During World War I, the bond between a young
E...
```

```
      Minute Unit
112    119.0  min
129    108.0  min
142    124.0  min
162    118.0  min
329    142.0  min
...      ...  ...
8674   106.0  min
8675   110.0  min
8685    99.0  min
8691   109.0  min
8696   147.0  min

[138 rows x 14 columns]
```

```
df_netflix[(df_netflix['type']== 'TV Show') & (df_netflix['listed_in']
=="Kids' TV")]

      show_id      type                     title director  \
34        s35   TV Show  Tayo and Little Wizards      NaN
39        s40   TV Show             Chhota Bheem      NaN
65        s66   TV Show             Numberblocks      NaN
89        s90   TV Show              Mighty Raju      NaN
100      s101   TV Show  Tobot Galaxy Detectives      NaN
...       ...       ...                      ...      ...
8669    s8670   TV Show            V.R. Troopers      NaN
8679    s8680   TV Show       ViR: The Robot Boy      NaN
8783    s8784   TV Show                     Yoko      NaN
8785    s8786   TV Show                      YOM      NaN
8797    s8798   TV Show                Zak Storm      NaN

                                            cast  \
34    Dami Lee, Jason Lee, Bommie Catherine Han, Jen...
39    Vatsal Dubey, Julie Tejwani, Rupa Bhimani, Jig...
65    Beth Chalmers, David Holt, Marcel McCalla, Ter...
89    Julie Tejwani, Sabina Malik, Jigna Bhardwaj, R...
100   Austin Abell, Travis Turner, Cole Howard, Anna...
...                                            ...
8669  Michael Sorich, Gardner Baldwin, Mike Reynolds...
8679  Vidit Kumar, Roopa Bhimani, Anubhav Saha, Bria...
8783  Eileen Stevens, Alyson Leigh Rosenfeld, Sarah ...
8785  Sairaj, Devyani Dagaonkar, Ketan Singh, Mayur ...
8797  Michael Johnston, Jessica Gee-George, Christin...

                                         country
date_added  \
```

```
34                                         NaN   September 17,
2021
39                                       India   September 16,
2021
65                              United Kingdom   September 15,
2021
89                                         NaN    September 9,
2021
100                                        NaN    September 7,
2021
...                                        ...              ..
.
8669                              United States     January 1,
2016
8679                                       NaN      March 31,
2018
8783                                       NaN       June 23,
2018
8785                                       NaN        June 7,
2018
8797  United States, France, South Korea, Indonesia  September 13,
2018

      release_year rating   duration listed_in  \
34            2020  TV-Y7   1 Season  Kids' TV
39            2021  TV-Y7  3 Seasons  Kids' TV
65            2021   TV-Y  6 Seasons  Kids' TV
89            2017  TV-Y7  4 Seasons  Kids' TV
100           2019  TV-Y7  2 Seasons  Kids' TV
...            ...    ...        ...       ...
8669          1995   TV-G  2 Seasons  Kids' TV
8679          2013  TV-Y7  2 Seasons  Kids' TV
8783          2016   TV-Y   1 Season  Kids' TV
8785          2016  TV-Y7   1 Season  Kids' TV
8797          2016  TV-Y7  3 Seasons  Kids' TV

                                      description  Minute
Unit
34     Tayo speeds into an adventure when his friends...     1.0
Season
39     A brave, energetic little boy with superhuman ...     3.0
Seasons
65     In a place called Numberland, math adds up to ...     6.0
Seasons
89     Born with superhuman abilities, young Raju wan...     4.0
Seasons
100    An intergalactic device transforms toy cars in...     2.0
Seasons
...                                             ...     ...       .
```

```
..
8669  Three friends who study martial arts find them...      2.0
Seasons
8679  Humanoid robot boy ViR lives with his inventor...      2.0
Seasons
8783  Friends Mai, Oto and Vik's games at the park b...      1.0
Season
8785  With the mind of a human being, and the body o...      1.0
Season
8797  Teen surfer Zak Storm is mysteriously transpor...      3.0
Seasons

[220 rows x 14 columns]
```

```
df_netflix[(df_netflix['type']== 'TV Show') & (df_netflix['listed_in']
=="Kids' TV") | (df_netflix['type']== 'Movie') &
(df_netflix['listed_in'] =='Dramas')]

      show_id       type                    title          director  \
34        s35    TV Show  Tayo and Little Wizards               NaN
39        s40    TV Show            Chhota Bheem               NaN
65        s66    TV Show            Numberblocks               NaN
89        s90    TV Show              Mighty Raju               NaN
100      s101    TV Show  Tobot Galaxy Detectives               NaN
...       ...        ...                      ...               ...
8691     s8692     Movie                Wakefield    Robin Swicord
8696     s8697     Movie                War Horse  Steven Spielberg
8783     s8784   TV Show                     Yoko               NaN
8785     s8786   TV Show                      YOM               NaN
8797     s8798   TV Show                Zak Storm               NaN

                                                  cast  \
34      Dami Lee, Jason Lee, Bommie Catherine Han, Jen...
39      Vatsal Dubey, Julie Tejwani, Rupa Bhimani, Jig...
65      Beth Chalmers, David Holt, Marcel McCalla, Ter...
89      Julie Tejwani, Sabina Malik, Jigna Bhardwaj, R...
100     Austin Abell, Travis Turner, Cole Howard, Anna...
...                                                  ...
8691    Bryan Cranston, Jennifer Garner, Jason O'Mara,...
8696    Emily Watson, David Thewlis, Peter Mullan, Nie...
8783    Eileen Stevens, Alyson Leigh Rosenfeld, Sarah ...
8785    Sairaj, Devyani Dagaonkar, Ketan Singh, Mayur ...
8797    Michael Johnston, Jessica Gee-George, Christin...

                                                  country
date_added  \
34                                                    NaN  September 17,
```

```
                                                          2021
39                                          India  September 16,
                                                          2021
65                                 United Kingdom  September 15,
                                                          2021
89                                            NaN   September 9,
                                                          2021
100                                           NaN   September 7,
                                                          2021
...                                           ...            ..
                                                            .
8691                                United States      March 2,
                                                          2019
8696                        United States, India        May 6,
                                                          2019
8783                                          NaN      June 23,
                                                          2018
8785                                          NaN       June 7,
                                                          2018
8797  United States, France, South Korea, Indonesia  September 13,
                                                          2018

      release_year rating   duration listed_in  \
34            2020  TV-Y7   1 Season  Kids' TV
39            2021  TV-Y7  3 Seasons  Kids' TV
65            2021    TV-Y  6 Seasons  Kids' TV
89            2017  TV-Y7  4 Seasons  Kids' TV
100           2019  TV-Y7  2 Seasons  Kids' TV
...            ...    ...        ...       ...
8691          2016      R    109 min    Dramas
8696          2011  PG-13    147 min    Dramas
8783          2016   TV-Y    1 Season  Kids' TV
8785          2016  TV-Y7   1 Season  Kids' TV
8797          2016  TV-Y7  3 Seasons  Kids' TV

                                      description  Minute
Unit
34     Tayo speeds into an adventure when his friends...     1.0
Season
39     A brave, energetic little boy with superhuman ...     3.0
Seasons
65     In a place called Numberland, math adds up to ...     6.0
Seasons
89     Born with superhuman abilities, young Raju wan...     4.0
Seasons
100    An intergalactic device transforms toy cars in...     2.0
Seasons
...                                           ...     ...     .
..
```

```
8691   An unhappy father and lawyer quits his suburba...      109.0
min
8696   During World War I, the bond between a young E...      147.0
min
8783   Friends Mai, Oto and Vik's games at the park b...        1.0
Season
8785   With the mind of a human being, and the body o...        1.0
Season
8797   Teen surfer Zak Storm is mysteriously transpor...        3.0
Seasons

[358 rows x 14 columns]
```

Task : Find the Zombieland Title Director Name and Its shhow ID ?

isin()

isin() is used to find the value that meets the specific range of data

```
new_df_netflix.columns

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

```
## isin() is used to serch the value in particulare dataset
df_netflix[df_netflix['title'].isin(['Zombieland'])]

      show_id    type      title          director  \
8804    s8805   Movie   Zombieland   Ruben Fleischer


                                               cast          country
\
8804   Jesse Eisenberg, Woody Harrelson, Emma Stone, ...   United States


            date_added   release_year rating duration
listed_in  \
8804   November 1, 2019           2009      R    88 min   Comedies, Horror
Movies
```

```
                                          description  Minute Unit
8804  Looking to survive in a world taken over by zo...    88.0   min
```

str.contains()

```python
# str.conatains() is used to serach any string value in dataset.
df_netflix[df_netflix['title'].str.contains('Zombieland')]
     show_id   type       title          director   \
8804   s8805  Movie  Zombieland  Ruben Fleischer

                                               cast        country
\
8804   Jesse Eisenberg, Woody Harrelson, Emma Stone, ...   United States

            date_added  release_year rating duration
listed_in  \
8804  November 1, 2019          2009      R   88 min  Comedies, Horror
Movies

                                          description  Minute Unit
8804  Looking to survive in a world taken over by zo...    88.0   min

new_df_netflix[new_df_netflix['title'].str.contains('Zombieland')]
     show_id   type       title          director   \
8804   s8805  Movie  Zombieland  Ruben Fleischer

                                               cast        country
\
8804   Jesse Eisenberg, Woody Harrelson, Emma Stone, ...   United States

            date_added  release_year rating duration
listed_in  \
8804  November 1, 2019          2009      R   88 min  Comedies, Horror
Movies

                                          description
8804  Looking to survive in a world taken over by zo...
```

Task 4. In which Year, highest Movie & Tv show released ?

```python
df_netflix['release_year'].value_counts()
```

```
release_year
2018    1147
2017    1032
2019    1030
2020     953
2016     902
        ...
1959       1
1925       1
1961       1
1947       1
1966       1
Name: count, Length: 74, dtype: int64
```

We can see that in 2018, TV Shows & Movies was released the the most than others year.

Top 5 Most Watched Movies & TV Shows By their Category

```python
# here we are counting the Category wise total count
df_netflix['listed_in'].value_counts()

listed_in
Dramas, International Movies                                  362
Documentaries                                                359
Stand-Up Comedy                                              334
Comedies, Dramas, International Movies                        274
Dramas, Independent Movies, International Movies              252
                                                             ...
Crime TV Shows, International TV Shows, TV Sci-Fi & Fantasy     1
International TV Shows, TV Horror, TV Sci-Fi & Fantasy          1
Crime TV Shows, Kids' TV                                        1
Horror Movies, International Movies, Sci-Fi & Fantasy           1
Cult Movies, Dramas, Thrillers                                 1
Name: count, Length: 513, dtype: int64

df_netflix['listed_in'].value_counts().nlargest(5)

listed_in
Dramas, International Movies                      362
Documentaries                                    359
Stand-Up Comedy                                  334
Comedies, Dramas, International Movies            274
Dramas, Independent Movies, International Movies  252
Name: count, dtype: int64
```

Above we extracted most prefered category

Show top 5 Most prefered category in Tv Shows

Creating new dataset for Movie only

```
# New Dataset  that contains only Movie
netflix_movie = df_netflix[df_netflix['type']=='Movie']

# showing The data
netflix_movie.head(2)

  show_id   type                             title  \
0      s1  Movie             Dick Johnson Is Dead
6      s7  Movie  My Little Pony: A New Generation

                      director  \
0              Kirsten Johnson
6  Robert Cullen, José Luis Ucha

                                                cast
country  \
0                              Cast Unavailable        United
States
6  Vanessa Hudgens, Kimiko Glenn, James Marsden, ...  Country
Unavailable

            date_added   release_year rating duration
listed_in  \
0  September 25, 2021         2020  PG-13    90 min
Documentaries
6  September 24, 2021         2021     PG    91 min  Children & Family
Movies

                                      description  Minute Unit
0  As her father nears the end of his life, filmm...    90.0  min
6  Equestria's divided. But a bright-eyed hero be...    91.0  min
```

Counting the Values By Category & showing the Top 5 Category of Movies by user most prefered category

```
# Counting the Values By Category  & showing the Top 5 Category of
Movies by user most prefered category
netflix_movie['listed_in'].value_counts().nlargest(5)

listed_in
Dramas, International Movies                         362
Documentaries                                       359
Stand-Up Comedy                                     334
Comedies, Dramas, International Movies               274
Dramas, Independent Movies, International Movies     252
Name: count, dtype: int64
```

```
df_tvShow.head(2)
```

```
   show_id      type            title           director  \
1       s2   TV Show   Blood & Water                 NaN
2       s3   TV Show       Ganglands   Julien Leclercq


                                             cast       country  \
1   Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...  South Africa
2   Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...           NaN


            date_added   release_year  rating    duration  \
1   September 24, 2021           2021   TV-MA   2 Seasons
2   September 24, 2021           2021   TV-MA    1 Season


                                          listed_in  \
1      International TV Shows, TV Dramas, TV Mysteries
2   Crime TV Shows, International TV Shows, TV Act...


                                      description   Minute      Unit

1   After crossing paths at a party, a Cape Town t...      2.0   Seasons

2   To protect his family from a powerful drug lor...      1.0    Season
```

Counting the Values By Category & showing the Top 5 Category of TV Shows by user most prefered category

```
df_tvShow['listed_in'].value_counts().nlargest(5)

listed_in
Kids' TV                                                220
International TV Shows, TV Dramas                        121
Crime TV Shows, International TV Shows, TV Dramas        110
Kids' TV, TV Comedies                                    99
Reality TV                                               95
Name: count, dtype: int64
```

Count of TV Shows Seasons

```
df_tvShow['Unit'].value_counts()

Unit
Season      1793
Seasons      883
Name: count, dtype: int64

tvshows_seasons_df = df_tvShow.groupby(['Unit'])
['show_id'].count().sort_values(ascending = False)

tvshows_seasons_df
```
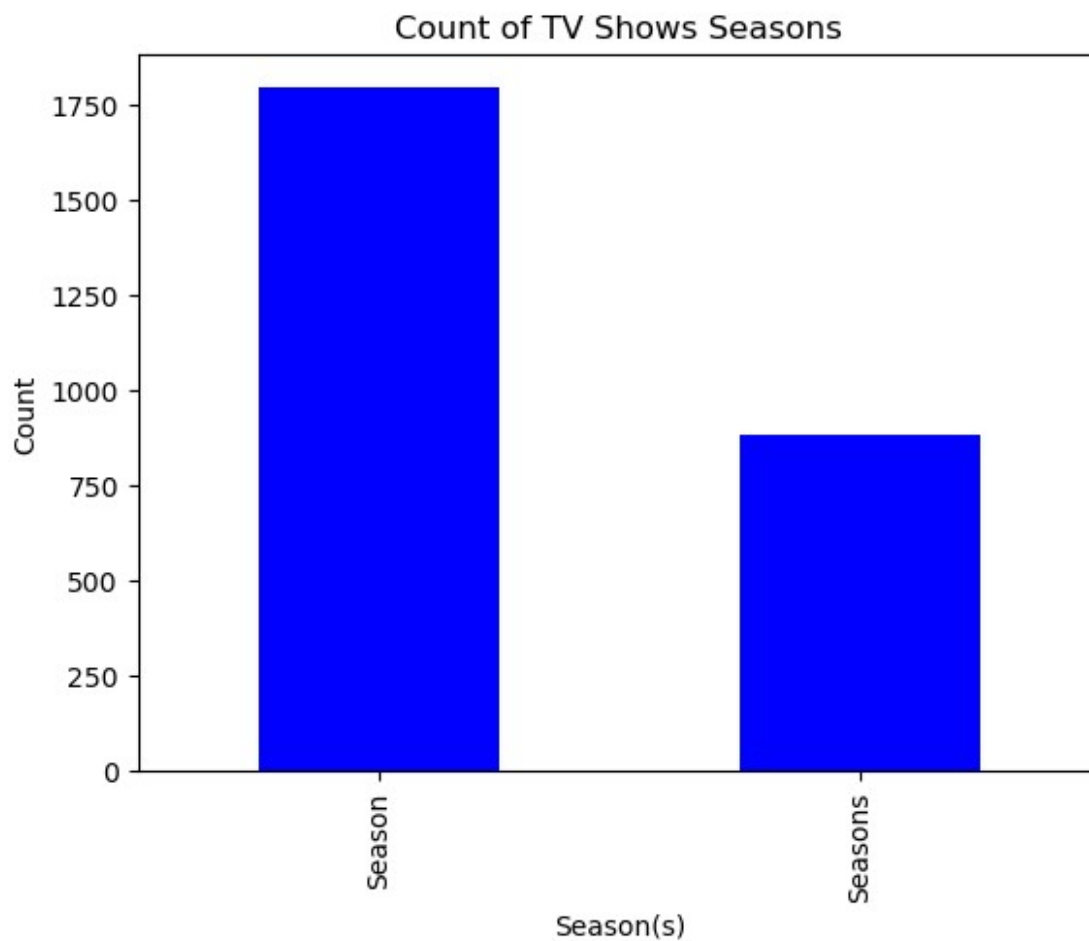
```
Unit
Season      1793
Seasons      883
Name: show_id, dtype: int64

tvshows_seasons_df.plot(kind = 'bar', color = 'b')
plt.xlabel('Season(s)')
plt.ylabel('Count')
plt.title("Count of TV Shows Seasons")
plt.show()
```


Count of TV Shows Seasons

```
df_netflix.columns

Index(['show_id', 'type', 'title', 'director', 'cast', 'country',
'date_added',
       'release_year', 'rating', 'duration', 'listed_in',
'description',
       'Minute', 'Unit'],
      dtype='object')
```

TOP 20 Show By Duration

```
df_netflix.groupby(['duration'])
['show_id'].count().sort_values(ascending = False).nlargest(20)
```

```
duration
1 Season      1791
2 Seasons      421
3 Seasons      198
90 min         152
94 min         146
93 min         146
97 min         146
91 min         144
95 min         137
96 min         130
92 min         129
102 min        122
98 min         120
99 min         118
88 min         116
101 min        116
103 min        114
106 min        111
100 min        108
89 min         106
Name: show_id, dtype: int64
```

```
plt.figure(figsize=(10, 4))
df_netflix.groupby(['duration'])
['show_id'].count().sort_values(ascending = False).head(20).plot(kind
= 'bar', color = 'c')
plt.xlabel('Duration')
plt.ylabel('Count')
plt.title("Count of Movie Duration")
plt.show()
```

Count of Movie Duration
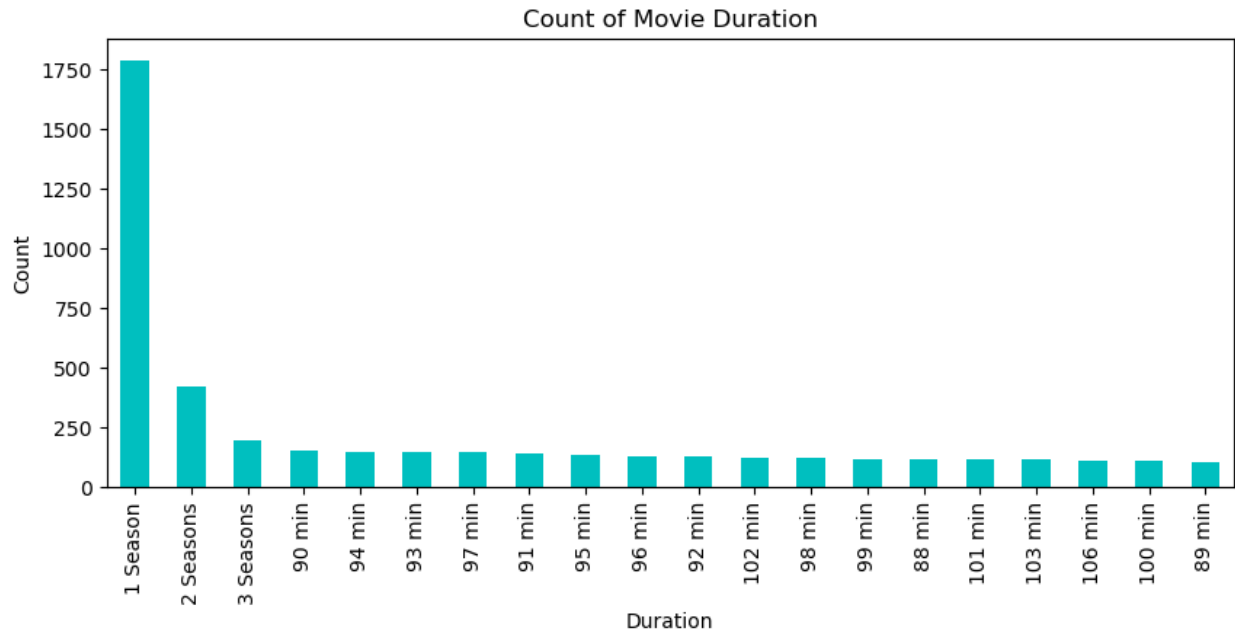
Number of Releases per Country

```
df_netflix['country'].value_counts()

country
United States                           2809
India                                    972
Country Unavailable                      829
United Kingdom                           418
Japan                                    243
                                        ...
Romania, Bulgaria, Hungary                 1
Uruguay, Guatemala                         1
France, Senegal, Belgium                   1
Mexico, United States, Spain, Colombia     1
United Arab Emirates, Jordan               1
Name: count, Length: 749, dtype: int64

df_netflix['country'].value_counts().head(20)

country
United States          2809
India                   972
Country Unavailable     829
United Kingdom          418
Japan                   243
South Korea             199
Canada                  181
Spain                   145
France                  124
Mexico                  110
```

```
Egypt                              106
Turkey                             105
Nigeria                             95
Australia                           85
Taiwan                              81
Indonesia                           79
Brazil                              77
Philippines                         75
United Kingdom, United States       75
United States, Canada               73
Name: count, dtype: int64
```

```python
df_netflix['country'].value_counts().head(10).plot(kind = 'bar', color
= 'c')
plt.xlabel('Countries')
plt.ylabel('Total Show')
plt.title("Top 10 Country Wise Show Count")
plt.show()
```

Top 10 Country Wise Show Count