⌄ Netflix Dataset

⌄ Big-Data Analysis with Python

🖼️1.png

This Netflix Dataset has information about the TV Shows and Movies available on Netflix till 2021.

This dataset is collected from Flixable which is a third-party Netflix search engine, and available on Kaggle website for free.

```
# Importing the dataset
import pandas as pd
data = pd.read_csv(r"https://d2beiqkhq929f0.cloudfront.net/public_assets/assets/000/000/940/
```

```
data
```

	Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating
0	s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	TV-MA
1	s2	Movie	07:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	TV-MA
2	s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	R
3	s4	Movie	9	Shane Acker	Elijah Wood, John C. Reilly, Jennifer Connelly...	United States	November 16, 2017	PG-13
4	s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13
...	...	...	...	...	...	...	...	...
				Josef	Imad Creidi, Antoinette	Sweden, Czech Republic	October 19	

Getting some basic information about the dataset

⌄ 1. head()

```
data.head()                                        # to show top-5 records of the dataset
```

	show_id	type	title	director	cast	country	date_added	release_year	rat
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel	NaN	September 24, 2021	2021	TV-

2. tail()

```
data.tail()                                        # to show bottom-5 records of dataset
```

	Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Du
7784	s7783	Movie	Zozo	Josef Fares	Imad Creidi, Antoinette Turk, Elias Gergi, Car...	Sweden, Czech Republic, United Kingdom, Denmar...	October 19, 2020	TV-MA	
7785	s7784	Movie	Zubaan	Mozez Singh	Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...	India	March 2, 2019	TV-14	
7786	s7785	Movie	Zulu Man in	NaN	Nasty C	NaN	September 25,	TV-MA	

3. shape

```
data.shape                                        # to show the No. of Rows and Columns
```

```
(7789, 11)
```

⌄ 4. size

```
data.size                                         # to show No. of total values(elements) in th
```

```
85679
```

⌄ 5. columns

```
data.columns                                      # to show each Column Name
```

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

⌄ 7. dtypes

```
data.dtypes                                       # to show the data-type of each column
```

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

⌄ 8. info()

```
data.info()                                       # To show indexes, columns, data-types of each
```

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

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

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

∨ duplicate()

```
data.head()
```

	Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Durat:
0	s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	TV-MA	Seaso
1	s2	Movie	07:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	TV-MA	93 ı

```
data.shape
```

```
(7789, 11)
```

```
data[data.duplicated()]                                          # To check row wise and dete
```

	Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating	Dura
6300	s684	Movie	Backfire	Dave Patten	Black Deniro, Byron "Squally" Vinson, Dominic	United States	April 5, 2019	TV-MA	9

```python
data.drop_duplicates(inplace = True)                                    # To Remove the Duplicat
```

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

	Show Id	Category	Title	Director	Cast	Country	Release Date	Rating	Duration	Type

```python
data.shape
```

```
(7787, 11)
```

Task.2. Is there any Null Value present in any column ? Show with Heat-map.

∨ isnull()

```python
data.head()
```

	show_id	type	title	director	cast	country	date_added	release_year	rat
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel	NaN	September 24, 2021	2021	TV-

```
data.isnull()                                              # To show where Null value is pr
```

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

7787 rows × 11 columns

```
data.isnull().sum()                                    # To show the count of Nul
```

```
Show_Id          0
Category         0
Title            0
Director      2388
Cast           718
Country        507
Release_Date    10
Rating           7
Duration         0
Type             0
Description      0
dtype: int64
```

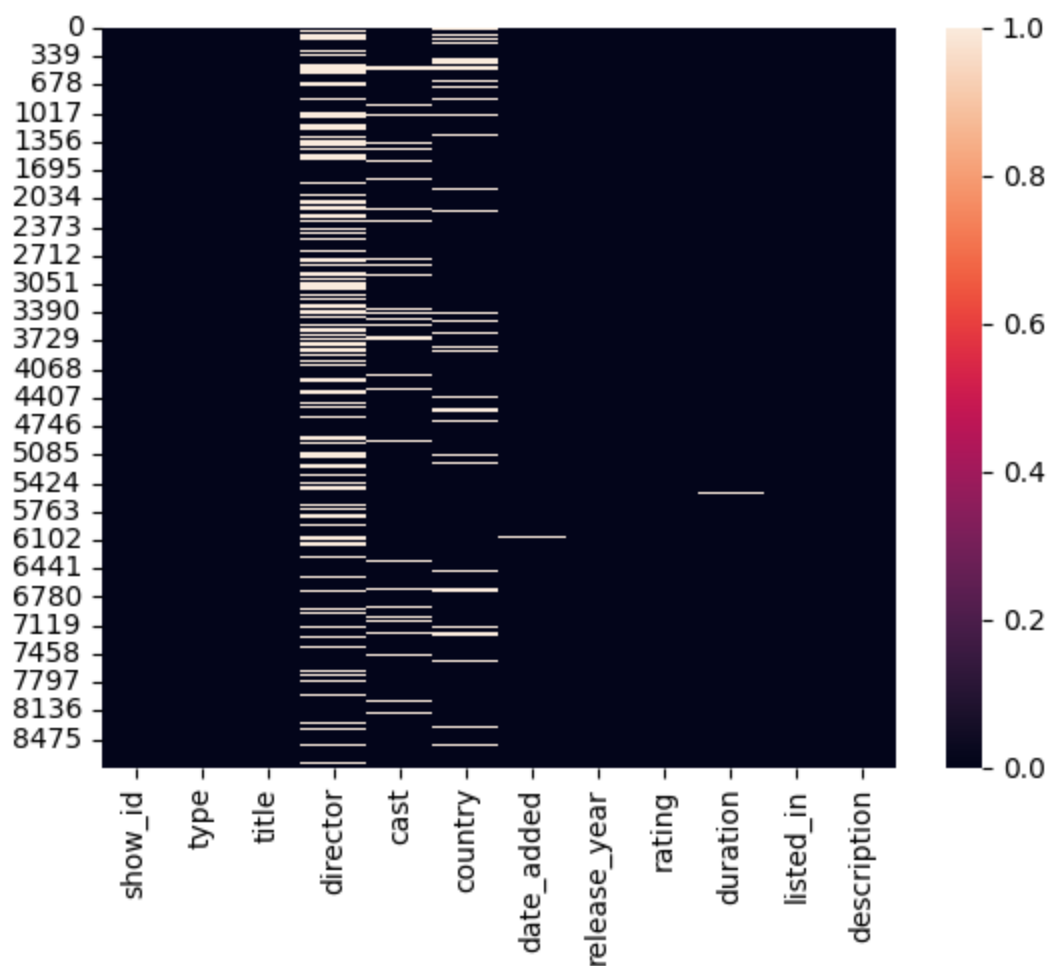## ⌄ seaborn library (heat-map)

```
import seaborn as sns                                    # To import Seaborn libr
```

```
sns.heatmap(data.isnull())                                    # Using heat-map to
```

```
<Axes: >
```

Q.1. For 'House of Cards', what is the Show Id and Who is the Director of this show ?

∨ isin()

```
data.head()
```

	show_id	type	title	director	cast	country	date_added	release_year	rat
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel	NaN	September 24, 2021	2021	TV-

```
data[data['title'].isin(['House of Cards'])]        #  To show all records of a particular it
```

	show_id	type	title	director	cast	country	date_added	release_year	rating
					Kevin Spacey,				

str.contains()

```
data[data['title'].str.contains('House of Cards')]        #  To show all records of a part
```

show_id	type	title	director	cast	country	date_added	release_year	rating
				Kevin Spacey,				

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

dtypes

```
data.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
```

to_datetime

```
data['Date_N'] = pd.to_datetime(data['date_added'])
```

```
data.head()
```

	show_id	type	title	director	cast	country	date_added	release_year	rat
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas,	NaN	September 24. 2021	2021	TV-

```
data.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
Date_N       datetime64[ns]
dtype: object
```

⌄ dt.year.value_counts()

```
data['Date_N'].dt.year.value_counts()              # It counts the occurrence of all indiv
```

```
        2019.0    2016
        2020.0    1879
        2018.0    1649
        2021.0    1498
        2017.0    1188
        2016.0     429
        2015.0      82
```
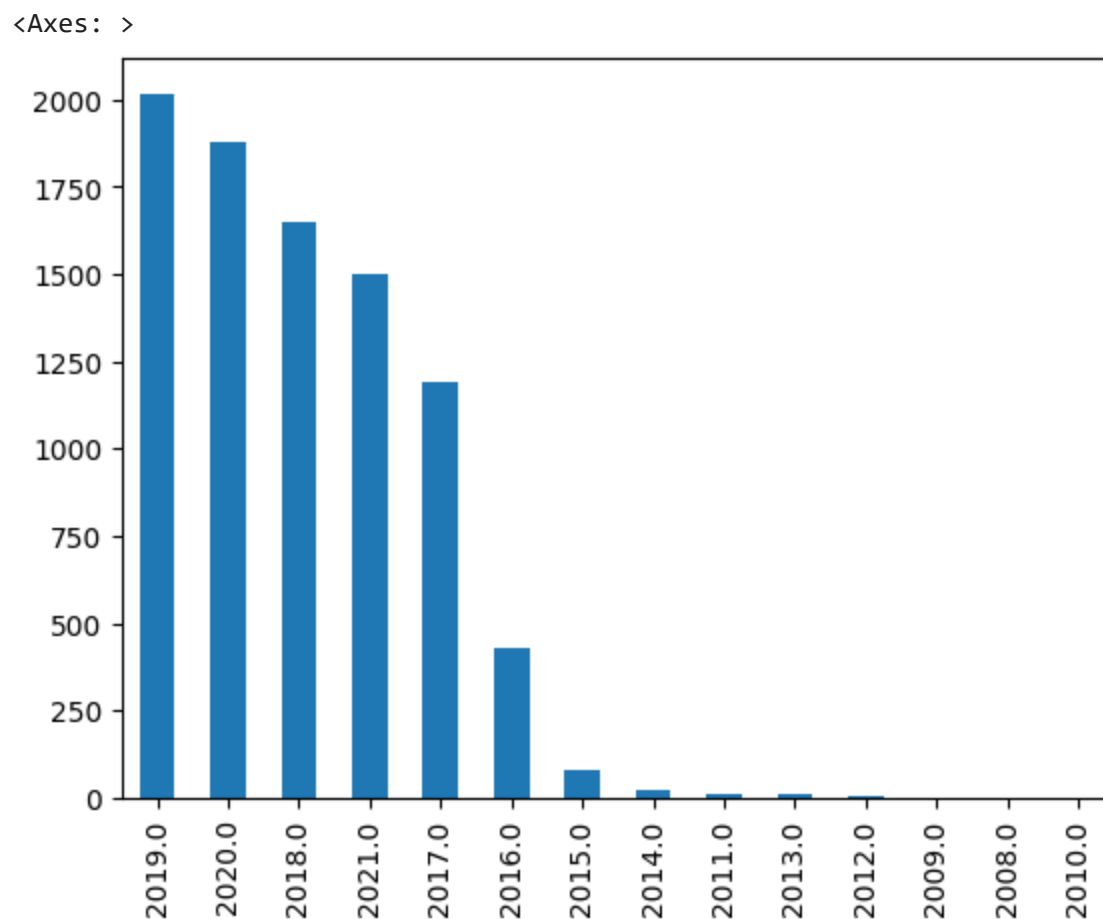
```
2014.0      24
2011.0      13
2013.0      11
2012.0       3
2009.0       2
2008.0       2
2010.0       1
Name: Date_N, dtype: int64
```

⌄ Bar Graph

```python
data['Date_N'].dt.year.value_counts().plot(kind='bar')
```

<Axes: >

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

⌄ groupby()

```
data.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	ratin
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-1
					Ama Qamata,				

```
data.groupby('type').type.count()                    # To group all unique items of a column ar
```
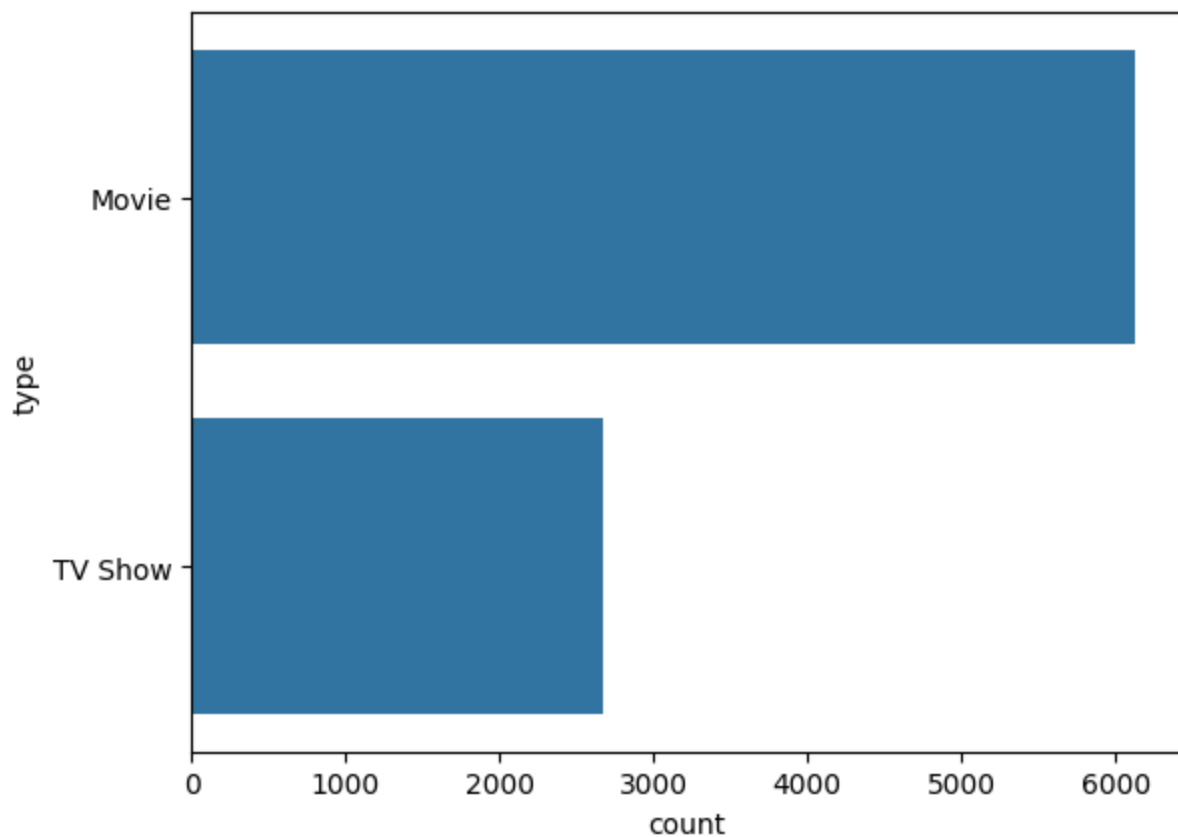
```
type
Movie      6131
TV Show    2676
Name: type, dtype: int64
```

⌄ countplot()

```
import seaborn as sns
sns.countplot(data['type'])           # To show the count of all unique values of any column ir
```

```
<Axes: xlabel='count', ylabel='type'>
```

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

∨ Creating new column

```
# data.head()
data.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	ratin
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-1
					Ama Qamata,				

```
# data['Year'] = data['Date_N'].dt.year          # to create new Year column ; it will cons

data['Year'] = data['Date_N'].dt.year

# data.head(2)

data.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	ratin
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-1
					Ama Qamata,				

◀ ▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬ ▶

∨ Filtering

```
# data[ (data['Category']=='Movie') & (data['Year']==2020) ]

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

	Show Id	Category	Title	Director	Cast	Country	Release Date	Rating	Duration	Typ

◀ ▬▬▬▬▬▬▬▬▬▬▬▬▬▬ ▶

```
data[ (data['Category'] == 'Movie') & (data['Year']==2020) ]
```

	Show_Id	Category	Title	Director	Cast	Country	Release_Date	Rating
4	s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	PG-13
6	s7	Movie	122	Yasir Al Yasiri	Amina Khalil, Ahmed Dawood, Tarek Lotfy, Ahmed...	Egypt	June 1, 2020	TV-MA
14	s15	Movie	3022	John Suits	Omar Epps, Kate Walsh, Miranda Cosgrove, Angus...	United States	March 19, 2020	R
27	s28	Movie	#Alive	Cho Il	Yoo Ah-in, Park Shin-hye	South Korea	September 8, 2020	TV-MA
28	s29	Movie	#AnneFrank - Parallel Stories	Sabina Fedeli, Anna Migotto	Helen Mirren, Gengher Gatti	Italy	July 1, 2020	TV-14
...	...	...	...	...	...	...	...	...
7762	s7761	Movie	Zaki Chan	Wael Ihsan	Ahmed Helmy, Yasmin Abdulaziz, Hassan Hosny, H...	Egypt	May 19, 2020	TV-PG
7783	s7782	Movie	Zoom	Peter Hewitt	Tim Allen, Courteney Cox, Chevy Chase, Kate Ma...	United States	January 11, 2020	PG
					Imad Creidi,	Sweden, Czech		

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

⌄ Filtering

```
# data.head(2)
```

```
data.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	ratin
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-1
					Ama Qamata,				

```
# data [ (data['type'] == 'TV Show') & (data['Country'] == 'India') ] ['Title']
```

```
data[ (data['type']=='TV Show') & (data['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
```

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

⌄ value_counts()

```
# data['Director'].value_counts().head(10)

data.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	ratin
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-1
					Ama Qamata,				

```
data['Director'].value_counts().head(10)
```

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

Q.7. Show all the Records, where "Category is Movie and Type is Comedies" or "Country is United Kingdom".

⌄ Filtering (And, Or Operators)

```
# data[(data['Category']=='Movie') & (data['Type']=='Comedies') ]

data.head()
```

	show_id	type	title	director	cast	country	date_added	release_year	rat
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	NaN	September 24, 2021	2021	TV-

```
data[ (data['type']=='Movie') & (data['listed_in']=='comedies') ]
```

	show_id	type	title	director	cast	country	date_added	release_year	rating	durat

```
# data[(data['Category']=='Movie') & (data['Type']=='Comedies') | (data['Country']=='United
```

```
data[ (data['type']=='Movie') & (data['listed_in']=='Comedies') | (data['country']=='United
```

	show_id	type	title	director	cast	country	date_added	release_y(
8	s9	TV Show	The Great British Baking Show	Andy Devonshire	Mel Giedroyc, Sue Perkins, Mary Berry, Paul Ho...	United Kingdom	September 24, 2021	2(
27	s28	Movie	Grown Ups	Dennis Dugan	Adam Sandler, Kevin James, Chris Rock, David S...	United States	September 20, 2021	2(
32	s33	TV Show	Sex Education	NaN	Asa Butterfield, Gillian Anderson, Ncuti Gatwa...	United Kingdom	September 17, 2021	2(
65	s66	TV Show	Numberblocks	NaN	Beth Chalmers, David Holt, Marcel McCalla, Ter...	United Kingdom	September 15, 2021	2(
72	s73	TV Show	Jack Whitehall: Travels with My Father	NaN	Jack Whitehall, Michael Whitehall	United Kingdom	September 14, 2021	2(
...	...	...	...	...	...	...	...	
8740	s8741	TV Show	Wild Alaska	NaN	Dougray Scott	United Kingdom	March 31, 2017	2(
8741	s8742	TV Show	Wild Arabia	NaN	Alexander Siddig	United Kingdom	March 31, 2017	2(

filtering

str.contains()

⌄ Creating new data-frame

```
# data_new = data.dropna()                              # It drops the rows that contains all or ar

data_new = data.dropna()
```

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

⌄ nunique()

```
# data.Rating.nunique()

data.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	ratin
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-1
					Ama Qamata,				

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

```
17
```

⌄ unique()

```
# data.Rating.unique()

data['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)
```

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

```
data.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	ratin
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-1
					Ama Qamata,				

```
# data[(data['Category']=='Movie') & (data['Rating'] == 'TV-14')].shape

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

```
(1427, 13)
```

```
# data[(data['Category']=='Movie') & (data['Rating'] == 'TV-14') & (data['Country']=='Canada
data[(data['type']=='Movie') & (data['rating']=='TV-14') & (data['country']=='Canada')].shar
```

```
(13, 13)
```

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

```
# data[(data['Category']=='TV Show') & (data['Rating'] == 'R')]

data.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	ratin
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-1
					Ama Qamata,				

```
data[(data['type']=='TV Show') & (data['rating']=='R')]
```

	show_id	type	title	director	cast	country	date_added	release_year	ra
3893	s3894	TV Show	The Hateful Eight: Extended Version	Quentin Tarantino	Samuel L. Jackson, Kurt Russell, Jennifer Jaso	NaN	April 25, 2019	2015	

```
# data[(data['Category']=='TV Show') & (data['Rating'] == 'R') & (data['Year'] > 2018)]

data[(data['type']=='TV Show') & (data['rating']=='R') & (data['release_year'] > 2018)]
```

	show id	type	title	director	cast	country	date added	release year	rating	durat:

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

```
# data.head(2)
```

```
data.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	ratin
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-1
					Ama Qamata,				

```
# data['Duration'].unique()
```

```
data.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)
```

```
# data.Duration.dtypes

data.duration.dtypes
```

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

⌄ str.split()

```
data.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	ratin
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-1
					Ama Qamata,				

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

data[['Minutes', 'Unit']] = data['duration'].str.split(' ', expand = True)
```

```
# data.head(2)

data.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	ratin
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-1
					Ama Qamata,				

max()

```
# data.Minutes.max()
data['Minutes'] = data['Minutes'].astype(float)
```

```
data['Minutes'].max()
```

    312.0

```
data['Minutes'].min()
```

    1.0

```
data['Minutes'].mean()
```

    69.84688777828259

```
data.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
    Date_N        datetime64[ns]
    Minutes              float64
    Unit                  object
    dtype: object
```

⌄ Q.11. Which individual country has the Highest No. of TV Shows ?

```
# data.head(2)
```

```
data.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	ratin
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-1
1	s2	TV Sh	Blood & Wat	NaN	Ama Qamata, Khosi Ngema,	South Af	September 24, 2021	2021	TV-M

```
# data_tvshow = data[data['Category'] == 'TV Show']
```

```
data_tvshow = data[data['type'] == 'TV Show']
```

```
# data_tvshow.head(2)
```

```
data_tvshow.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	rat:
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-
					Sami				

```
# data_tvshow.Country.value_counts()
```

```
data_tvshow.country.value_counts()
```

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

```
# data_tvshow.Country.value_counts().head(1)
```

```
data_tvshow.country.value_counts().head(1)
```

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

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

```
# data.head(2)
```

```
data.head(2)
```

	show_id	type	title	director	cast	country	date_added	release_year	ratin
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-1
1	s2	TV	Blood &	NaN	Ama Qamata, Khosi Ngema,	South	September	2021	TV-M

```
# data.sort_values(by='Year').head(2)

data.sort_values(by = 'release_year')
```

	show_id	type	title	director	cast	country	date_added	release_
4250	s4251	TV Show	Pioneers: First Women Filmmakers*	NaN	NaN	NaN	December 30, 2018	
7790	s7791	Movie	Prelude to War	Frank Capra	NaN	United States	March 31, 2017	
8205	s8206	Movie	The Battle of Midway	John Ford	Henry Fonda, Jane Darwell	United States	March 31, 2017	
8660	s8661	Movie	Undercover: How to Operate Behind Enemy Lines	John Ford	NaN	United States	March 31, 2017	
8739	s8740	Movie	Why We Fight: The Battle of Russia	Frank Capra, Anatole Litvak	NaN	United States	March 31, 2017	
...	...	...	...	...	...	...	...	
862	s863	TV Show	Special	NaN	Ryan O'Connell, Jessica Hecht, Punam Patel, Ma...	United States	May 20, 2021	
861	s862	Movie	Little Singham Future mein Satakli	Prakash Satam	Anamaya Verma, Ganesh Divekar, Jigna Bharadhwa...	NaN	May 20, 2021	
857	s858	TV Show	The Neighbor	NaN	Quim Gutiérrez, Clara Lago, Adrián Pino, Catel...	Spain	May 21, 2021	

| 876 | s877 | TV Show | Alma Matters | NaN | NaN | India | May 14, 2021 | |

```
# data.sort_values(by='Year', ascending=False).head(2)
```

```
data.sort_values(by = 'release_year', ascending = False).head(10)
```

	show_id	type	title	director	cast	country	date_added	release_y
693	s694	Movie	Ali & Ratu Ratu Queens	Lucky Kuswandi	Iqbaal Ramadhan, Nirina Zubir, Asri Welas, Tik...	NaN	June 17, 2021	2
781	s782	Movie	Black Holes | The Edge of All We Know	Peter Galison	NaN	NaN	June 2, 2021	2
782	s783	Movie	Sour	byeok	Soo-bin,	Korea	2021	2

Q.13. Find all the instances where :

Category is 'Movie' and Type is 'Dramas'

or

Category is 'TV Show' & Type is 'Kids' TV'

```
data.head(2)
```