

Exploratory Data Analytics on Netflix Data

Load the Packages and Data

```
In [1]: import pandas as pd          # for dataframe and manipulation
import numpy as np                # for numerical computing
import seaborn as sns            # for graphs and data visualization
import matplotlib.pyplot as plt
import plotly.graph_objects as go
```

```
In [2]: netflix = pd.read_csv(r"C:\Users\tiwbrahm\Downloads\netflix.csv")
```

```
In [3]: netflix.head(2)
```

Out[3]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating | dur |
|---|---------|---------|----------------------|-----------------|---|---------------|--------------------|--------------|--------|-----|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | NaN | United States | September 25, 2021 | 2020 | PG-13 | 9 |
| 1 | s2 | TV Show | Blood & Water | NaN | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | September 24, 2021 | 2021 | TV-MA | Se |

```
In [4]: netflix.tail(2)
```

Out[4]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating | c |
|------|---------|-------|--------|--------------|---|---------------|------------------|--------------|--------|---|
| 8805 | s8806 | Movie | Zoom | Peter Hewitt | Tim Allen, Courteney Cox, Chevy Chase, Kate Ma... | United States | January 11, 2020 | 2006 | PG | |
| 8806 | s8807 | Movie | Zubaan | Mozes Singh | Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan... | India | March 2, 2019 | 2015 | TV-14 | |

In [5]: `netflix.shape`

Out[5]: (8807, 12)

In [6]: `netflix.size`

Out[6]: 105684

In [7]: `netflix.columns`

Out[7]: Index(['show_id', 'type', 'title', 'director', 'cast', 'country', 'date_added',
 'release_year', 'rating', 'duration', 'listed_in', 'description'],
 dtype='object')

In [8]: `netflix.dtypes`

Out[8]: 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

In [9]: `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
```

```
In [10]: netflix.describe()
```

Out[10]:

| | 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 |

```
In [11]: netflix.describe(include='all')
```

Out[11]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating | duration |
|--------|---------|-------|----------------------|---------------|--------------------|---------------|-----------------|--------------|--------|----------|
| count | 8807 | 8807 | 8807 | 6173 | 7982 | 7976 | 8797 | 8807.000000 | 8803 | 8803 |
| unique | 8807 | 2 | 8807 | 4528 | 7692 | 748 | 1767 | NaN | 17 | 17 |
| top | s1 | Movie | Dick Johnson Is Dead | Rajiv Chilaka | David Attenborough | United States | January 1, 2020 | NaN | TV-MA | 5 |
| freq | 1 | 6131 | 1 | 19 | 19 | 2818 | 109 | NaN | 3207 | 3207 |
| min | NaN | NaN | NaN | NaN | NaN | NaN | NaN | 2014.180198 | NaN | NaN |
| std | NaN | NaN | NaN | NaN | NaN | NaN | NaN | 8.819312 | NaN | NaN |
| max | NaN | NaN | NaN | NaN | NaN | NaN | NaN | 1925.000000 | NaN | NaN |
| 25% | NaN | NaN | NaN | NaN | NaN | NaN | NaN | 2013.000000 | NaN | NaN |
| 50% | NaN | NaN | NaN | NaN | NaN | NaN | NaN | 2017.000000 | NaN | NaN |
| 75% | NaN | NaN | NaN | NaN | NaN | NaN | NaN | 2019.000000 | NaN | NaN |
| max | NaN | NaN | NaN | NaN | NaN | NaN | NaN | 2021.000000 | NaN | NaN |

In [12]: netflix.nunique()

Out[12]: show_id 8807
type 2
title 8807
director 4528
cast 7692
country 748
date_added 1767
release_year 74
rating 17
duration 220
listed_in 514
description 8775
dtype: int64

Data Cleaning (Handling missing & duplicate values)

In [13]: *# Find Missing Values*
netflix.isnull()

Out[13]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating | duration |
|------|---------|-------|-------|----------|-------|---------|------------|--------------|--------|----------|
| 0 | False | False | False | False | True | False | False | False | False | False |
| 1 | False | False | False | True | False | False | False | False | False | False |
| 2 | False | False | False | False | False | True | False | False | False | False |
| 3 | False | False | False | True | True | True | False | False | False | False |
| 4 | False | False | False | True | False | False | False | False | False | False |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 8802 | False | False | False | False | False | False | False | False | False | False |
| 8803 | False | False | False | True | True | True | False | False | False | False |
| 8804 | False | False | False | False | False | False | False | False | False | False |
| 8805 | False | False | False | False | False | False | False | False | False | False |
| 8806 | False | False | False | False | False | False | False | False | False | False |

8807 rows × 12 columns

```
In [14]: missing = netflix.isnull().sum() # Missing values
missing
```

```
Out[14]: 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
```

```
In [15]: missing1 = (netflix.isnull().sum()/len(netflix)*100) # Missing values in %
missing1
```

```
Out[15]: show_id      0.000000
         type        0.000000
         title       0.000000
         director    29.908028
         cast        9.367549
         country     9.435676
         date_added   0.113546
         release_year 0.000000
         rating       0.045418
         duration     0.034064
         listed_in    0.000000
         description  0.000000
         dtype: float64
```

```
In [16]: # Missing Total with %  
Missed = pd.concat([missing,missing1],axis=1,keys=['Total','Missing%'])  
Missed
```

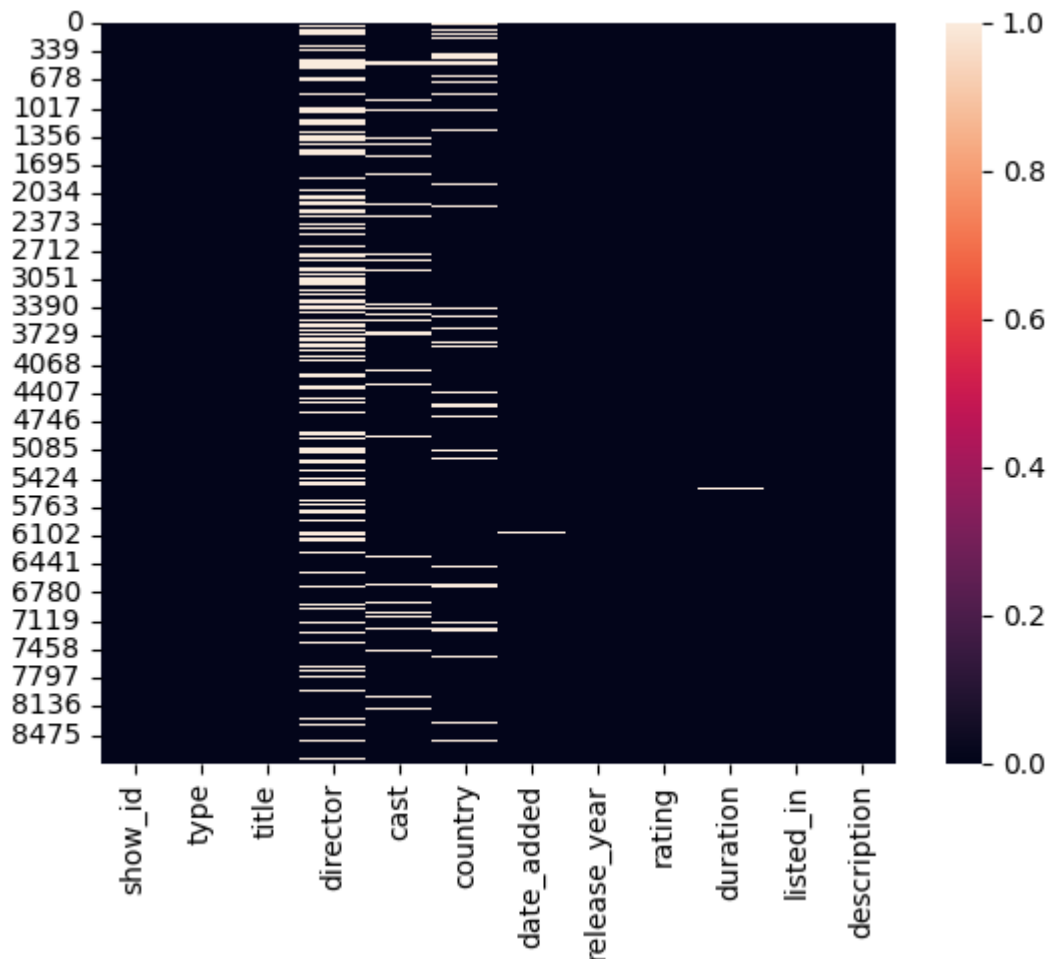
Out[16]:

| | Total | Missing% |
|---------------------|-------|-----------|
| show_id | 0 | 0.000000 |
| type | 0 | 0.000000 |
| title | 0 | 0.000000 |
| director | 2634 | 29.908028 |
| cast | 825 | 9.367549 |
| country | 831 | 9.435676 |
| date_added | 10 | 0.113546 |
| release_year | 0 | 0.000000 |
| rating | 4 | 0.045418 |
| duration | 3 | 0.034064 |
| listed_in | 0 | 0.000000 |
| description | 0 | 0.000000 |

In [17]: *# Heatmap to describe Null data in Netflix dataset*

```
sns.heatmap(netflix.isnull())
plt.xticks(rotation=90)
```

Out[17]: (array([0.5, 1.5, 2.5, 3.5, 4.5, 5.5, 6.5, 7.5, 8.5, 9.5, 10.5, 11.5]),
 [Text(0.5, 0, 'show_id'),
 Text(1.5, 0, 'type'),
 Text(2.5, 0, 'title'),
 Text(3.5, 0, 'director'),
 Text(4.5, 0, 'cast'),
 Text(5.5, 0, 'country'),
 Text(6.5, 0, 'date_added'),
 Text(7.5, 0, 'release_year'),
 Text(8.5, 0, 'rating'),
 Text(9.5, 0, 'duration'),
 Text(10.5, 0, 'listed_in'),
 Text(11.5, 0, 'description')])



- From the above output we can see that director, cast & country columns contains maximum null values.
- Filling missing (Null) values for director, cast & country as "Unknown" for the missing

```
In [18]: # making copy of dataset for changes
netflix_copy = netflix.copy()
netflix_copy.head(2)
```

Out[18]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating | dur |
|---|---------|---------|----------------------|-----------------|---|---------------|--------------------|--------------|--------|-----|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | NaN | United States | September 25, 2021 | 2020 | PG-13 | 9 |
| 1 | s2 | TV Show | Blood & Water | NaN | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | September 24, 2021 | 2021 | TV-MA | Se |

```
In [19]: netflix_copy['director']
```

```
Out[19]: 0      Kirsten Johnson
1              NaN
2      Julien Leclercq
3              NaN
4              NaN
...
8802     David Fincher
8803              NaN
8804     Ruben Fleischer
8805     Peter Hewitt
8806     Mozez Singh
Name: director, Length: 8807, dtype: object
```

```
In [20]: netflix_copy['director'].fillna('Unknown',inplace=True)
```

```
In [21]: netflix_copy['cast']
```

```
Out[21]: 0      NaN
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...
...
8802     Mark Ruffalo, Jake Gyllenhaal, Robert Downey J...
8803      NaN
8804     Jesse Eisenberg, Woody Harrelson, Emma Stone, ...
8805     Tim Allen, Courteney Cox, Chevy Chase, Kate Ma...
8806     Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan...
Name: cast, Length: 8807, dtype: object
```



```
In [22]: netflix_copy['cast'].fillna('Unknown',inplace=True)
```

```
In [23]: netflix_copy['country']
```

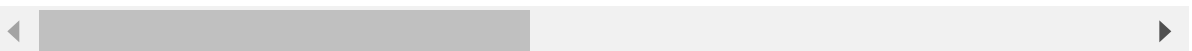
```
Out[23]: 0      United States
1      South Africa
2           NaN
3           NaN
4         India
...
8802    United States
8803           NaN
8804    United States
8805    United States
8806         India
Name: country, Length: 8807, dtype: object
```

```
In [122]: netflix_copy['country'].fillna('Unknown',inplace=True)
```

```
In [123]: netflix_copy.head(2)
```

```
Out[123]:
```

| | show_id | type | title | director | cast | country | date_added | release_year | rating | du |
|---|---------|---------|----------------------|-----------------|---|---------------|------------|--------------|--------|----|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | 2021-09-25 | 2020 | PG-13 | ! |
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | 2021-09-24 | 2021 | TV-MA | Se |



- There are 3 more fields with missing values ('date_added', 'rating', 'duration').
- Since the we have missing values less than 1%, we can remove these records for the analysis.

```
In [25]: netflix_copy.dropna(subset=['date_added','rating','duration'], inplace=True)
```

In [26]: `netflix_copy.head()`

Out[26]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating |
|---|---------|---------|-----------------------|-----------------|---|---------------|--------------------|--------------|--------|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | September 25, 2021 | 2020 | PG-13 |
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | September 24, 2021 | 2021 | TV-MA |
| 2 | s3 | TV Show | Ganglands | Julien Leclercq | Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi... | Unknown | September 24, 2021 | 2021 | TV-MA |
| 3 | s4 | TV Show | Jailbirds New Orleans | Unknown | Unknown | Unknown | September 24, 2021 | 2021 | TV-MA |
| 4 | s5 | TV Show | Kota Factory | Unknown | Mayur More, Jitendra Kumar, Ranjan Raj, Alam K... | India | September 24, 2021 | 2021 | TV-MA |

In [27]: `# Handling with duplicate rows`

In [28]: `netflix_copy[netflix_copy.duplicated()]` *# To show duplicate rows*

Out[28]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating | duration | listed |
|--|---------|------|-------|----------|------|---------|------------|--------------|--------|----------|--------|
| | | | | | | | | | | | |

In [29]: `netflix_copy.duplicated().sum()` *# Count of duplicate rows*

Out[29]: 0

- No duplicate rows are present in this dataset.

```
In [30]: netflix_copy.shape    # Size after cleaning
```

```
Out[30]: (8790, 12)
```

Exploratory Data Analysis

```
In [31]: netflix_copy.type.unique()
```

```
Out[31]: array(['Movie', 'TV Show'], dtype=object)
```

- We can see that netflix have 69% movies while 30% TV Shows

```
In [131]: netflix_movies = netflix_copy[netflix_copy['type'] == 'Movie'].copy()
          netflix_shows = netflix_copy[netflix_copy['type'] == 'TV Show'].copy()
```

```
In [132]: netflix_movies.head(2)
```

```
Out[132]:
```

| | show_id | type | title | director | cast | country | date_added | release_year | rating | |
|---|---------|-------|----------------------------------|-------------------------------|---|---------------|------------|--------------|--------|--|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | 2021-09-25 | 2020 | PG-13 | |
| 6 | s7 | Movie | My Little Pony: A New Generation | Robert Cullen, José Luis Ucha | Vanessa Hudgens, Kimiko Glenn, James Marsden, ... | Unknown | 2021-09-24 | 2021 | PG | |

In [38]: `netflix_shows.head(2)`

Out[38]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating |
|---|---------|---------|---------------|-----------------|--|--------------|--------------------|--------------|--------|
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mababane, Thabane... | South Africa | September 24, 2021 | 2021 | TV-MA |
| 2 | s3 | TV Show | Ganglands | Julien Leclercq | Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi... | Unknown | September 24, 2021 | 2021 | TV-MA |

Clean duration field in movies dataframe

In [39]: `netflix_movies['duration'] = netflix_movies.duration.str.replace(' min', '').a`

In [40]: `netflix_shows.rename(columns={'duration':'season'},inplace=True)`

In [41]: `netflix_shows.head(5)`

Out[41]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating |
|---|---------|---------|-----------------------|-----------------|---|--------------|--------------------|--------------|--------|
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | September 24, 2021 | 2021 | TV-MA |
| 2 | s3 | TV Show | Ganglands | Julien Leclercq | Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi... | Unknown | September 24, 2021 | 2021 | TV-MA |
| 3 | s4 | TV Show | Jailbirds New Orleans | Unknown | Unknown | Unknown | September 24, 2021 | 2021 | TV-MA |
| 4 | s5 | TV Show | Kota Factory | Unknown | Mayur More, Jitendra Kumar, Ranjan Raj, Alam K... | India | September 24, 2021 | 2021 | TV-MA |
| 5 | s6 | TV Show | Midnight Mass | Mike Flanagan | Kate Siegel, Zach Gilford, Hamish Linklater, H... | Unknown | September 24, 2021 | 2021 | TV-MA |

In [42]: `netflix_shows["season"] = netflix_shows.season.str.replace(" Seasons", '')`
`netflix_shows["season"] = netflix_shows.season.str.replace(" Season", '').asty`

In [43]: `netflix_shows.head()`

Out[43]:

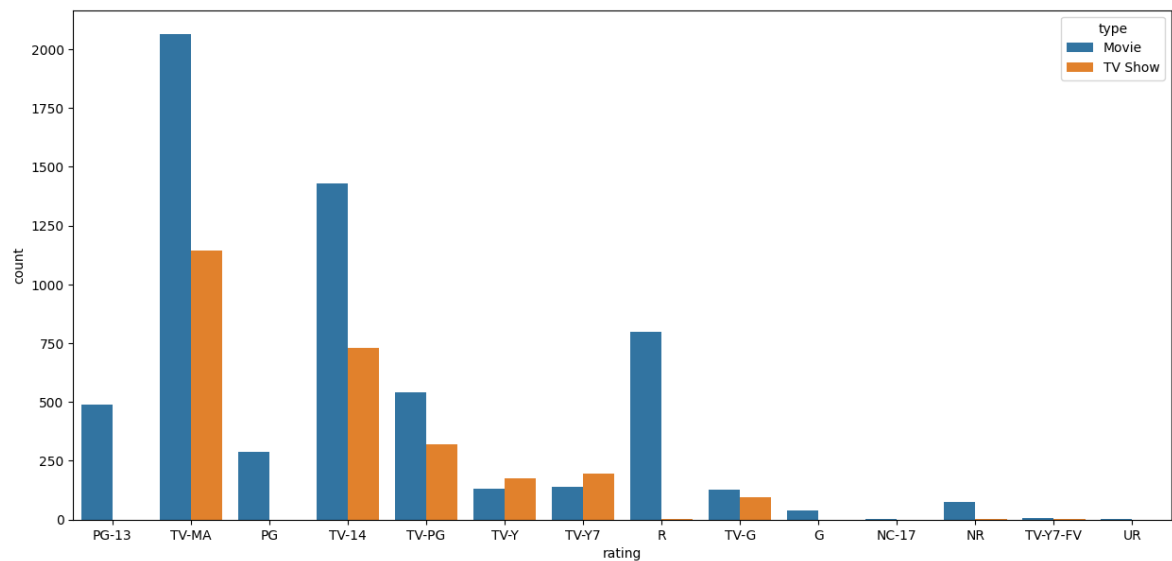
| | show_id | type | title | director | cast | country | date_added | release_year | rating | s |
|---|---------|---------|-----------------------|-----------------|---|--------------|--------------------|--------------|--------|---|
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | September 24, 2021 | 2021 | TV-MA | |
| 2 | s3 | TV Show | Ganglands | Julien Leclercq | Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi... | Unknown | September 24, 2021 | 2021 | TV-MA | |
| 3 | s4 | TV Show | Jailbirds New Orleans | Unknown | Unknown | Unknown | September 24, 2021 | 2021 | TV-MA | |
| 4 | s5 | TV Show | Kota Factory | Unknown | Mayur More, Jitendra Kumar, Ranjan Raj, Alam K... | India | September 24, 2021 | 2021 | TV-MA | |
| 5 | s6 | TV Show | Midnight Mass | Mike Flanagan | Kate Siegel, Zach Gilford, Hamish Linklater, H... | Unknown | September 24, 2021 | 2021 | TV-MA | |

1. Ratings of Movies and Seasons

In [44]: `netflix_copy.rating.unique()`

Out[44]: `array(['PG-13', 'TV-MA', 'PG', 'TV-14', 'TV-PG', 'TV-Y', 'TV-Y7', 'R', 'TV-G', 'G', 'NC-17', 'NR', 'TV-Y7-FV', 'UR'], dtype=object)`

```
In [45]: plt.figure(figsize=(15,7))
sns.countplot(netflix_copy,x=netflix_copy['rating'],hue=netflix_copy['type'])
plt.show()
```



Observation :

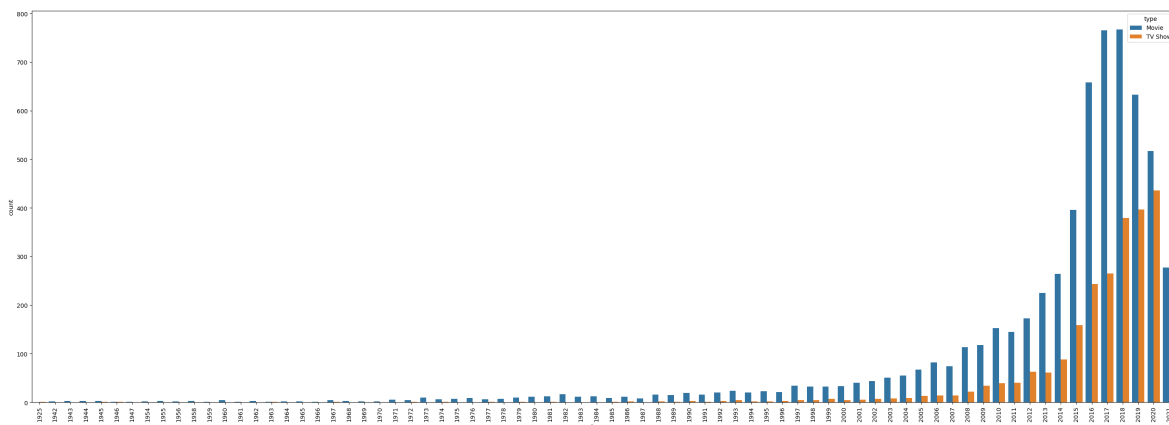
- Maximum count of ratings included TV-MA (Mature Audiences) and TV-14 (Parents strongly cautioned) for both Movies and TV shows
- 17 types of ratings on netflix

2. Movies and TV shows released in every years

```
In [46]: #No. of movies released every year
netflix_copy.groupby(['release_year'])['release_year'].count().sort_values(ascending=True)
```

```
Out[46]: release_year
2018      1146
2019      1030
2017      1030
2020       953
2016       901
...
1959         1
1961         1
1947         1
1966         1
1925         1
Name: release_year, Length: 74, dtype: int64
```

```
In [130]: plt.figure(figsize=(35,12))
sns.countplot(netflix_copy,x = netflix_copy.release_year,hue=netflix_copy.type)
plt.xticks(rotation=90)
plt.show()
```



Observation:

- Netflix touched its peak for making movies in 2018 and TV shows in 2020
- From the above we can see that with passing years more movies are being made year by year
- The above data shows that there is a sudden increase in the creation of movies in year 2016 as compared to year 2015

3. Most watched shows on the Netflix?

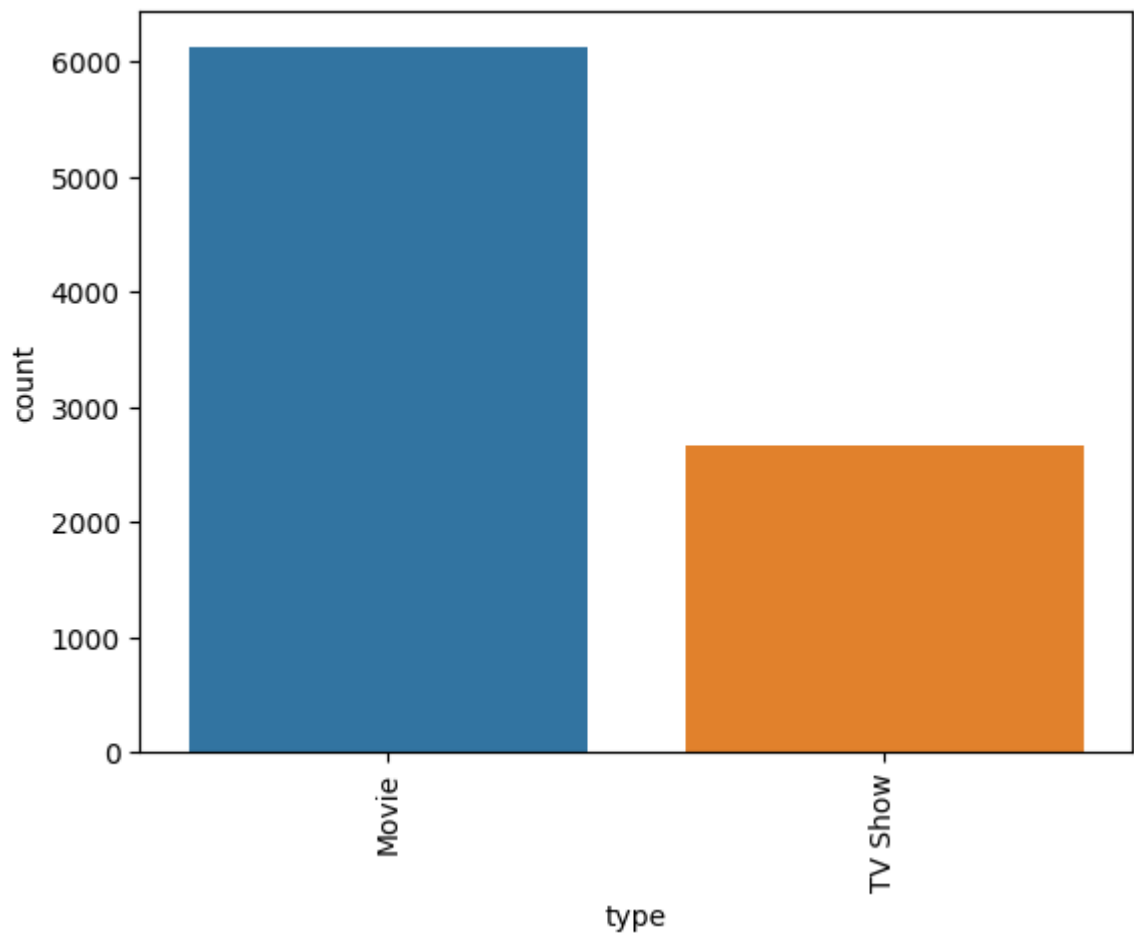
```
In [53]: netflix_copy.type.value_counts().to_frame('Value_count')
```

Out[53]:

| | Value_count |
|---------|-------------|
| type | |
| Movie | 6126 |
| TV Show | 2664 |

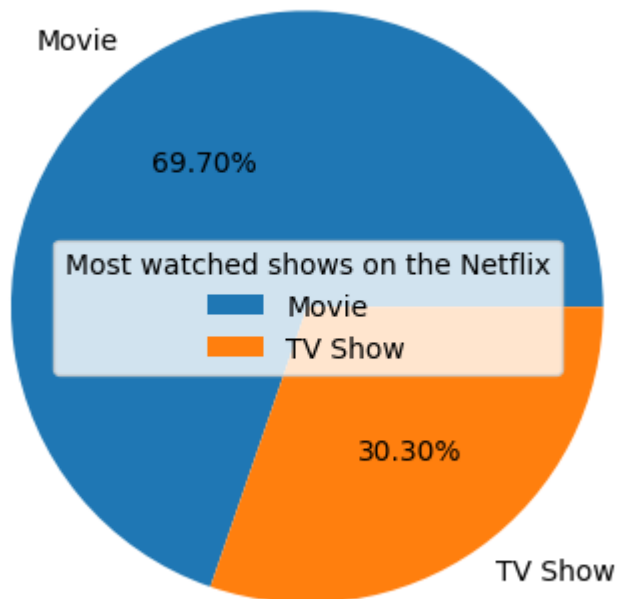

```
In [54]: sns.countplot(x=netflix_copy['type'])  
plt.xticks(rotation=90)
```

```
Out[54]: (array([0, 1]), [Text(0, 0, 'Movie'), Text(1, 0, 'TV Show')])
```



```
In [55]: # Pie chart to show value in % for most watched
type_show = ['Movie', 'TV Show']
Value_count = [6126, 2663]
plt.pie(Value_count, labels=type_show, autopct="%2.2f%%")
plt.legend(title='Most watched shows on the Netflix')
```

Out[55]: <matplotlib.legend.Legend at 0x1700d5e8130>



- Observation : Audience likes to watched mostly movies(69.70%) over TV shows(30.30%)

4 Which has the highest rating Tv show or Movies?

```
In [56]: netflix_copy.head(2)
```

Out[56]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating | du |
|---|---------|---------|----------------------|-----------------|---|---------------|--------------------|--------------|--------|----|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | September 25, 2021 | 2020 | PG-13 | ! |
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | September 24, 2021 | 2021 | TV-MA | Se |

```
In [57]: netflix.groupby("type")["rating"].agg(pd.Series.mode)
```

```
Out[57]: type
Movie      TV-MA
TV Show    TV-MA
Name: rating, dtype: object
```

```
In [58]: new_genre = netflix_copy['listed_in'].str.split(",",n = 2)
new_genre
```

```
Out[58]: 0                                [Documentaries]
1      [International TV Shows, TV Dramas, TV Myste...
2      [Crime TV Shows, International TV Shows, TV ...
3                                [Docuseries, Reality TV]
4      [International TV Shows, Romantic TV Shows, ...
...
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 & Music...
Name: listed_in, Length: 8790, dtype: object
```

```
In [59]: netflix_copy['Genre 1'] = new_genre.str.get(0)
netflix_copy['Genre 2'] = new_genre.str.get(1)
netflix_copy['Genre 3'] = new_genre.str.get(2)
netflix_copy.head(2)
```

```
Out[59]:
```

| | show_id | type | title | director | cast | country | date_added | release_year | rating | du |
|---|---------|---------|-------------------------|-----------------|---|---------------|--------------------|--------------|--------|----|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | September 25, 2021 | 2020 | PG-13 | ? |
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalan... Thaban... | South Africa | September 24, 2021 | 2021 | TV-MA | Se |

```
In [60]: netflix_copy['Genre 1'].describe(include=all)
```

```
Out[60]: count      8790
unique        36
top      Dramas
freq        1599
Name: Genre 1, dtype: object
```

```
In [61]: netflix_copy['Genre 2'].describe(include=all)
```

```
Out[61]: count          6778
unique           37
top      International Movies
freq           1722
Name: Genre 2, dtype: object
```

```
In [62]: netflix_copy['Genre 3'].describe(include=all)
```

```
Out[62]: count          3726
unique           33
top      International Movies
freq           902
Name: Genre 3, dtype: object
```

```
In [63]: netflix_copy.drop('listed_in',axis = 1,inplace = True)
netflix_copy.head(2)
```

```
Out[63]:
```

| title | director | cast | country | date_added | release_year | rating | duration | description |
|----------------------|-----------------|--|---------------|--------------------|--------------|--------|-----------|---|
| Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | September 25, 2021 | 2020 | PG-13 | 90 min | As her father nears the end of his life, filmm... |
| Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mababane, Thabane... | South Africa | September 24, 2021 | 2021 | TV-MA | 2 Seasons | After crossing paths at a party, a Cape Town t... |

```
In [64]: netflix_copy.duplicated().sum()
```

```
Out[64]: 0
```

```
In [65]: netflix_copy.groupby(['Genre 1'])['release_year'].count().sort_values(ascending=True)
```

```
Out[65]: Genre 1
Dramas                                     1599
Comedies                                  1210
Action & Adventure                        859
Documentaries                            829
International TV Shows                    773
Children & Family Movies                  605
Crime TV Shows                           399
Kids' TV                                 385
Stand-Up Comedy                          334
Horror Movies                             275
British TV Shows                         252
Docuseries                               220
Anime Series                             174
International Movies                     128
Reality TV                               120
TV Comedies                              119
Classic Movies                            80
TV Dramas                                67
Thrillers                                65
Movies                                    53
TV Action & Adventure                     39
Stand-Up Comedy & Talk Shows              34
Romantic TV Shows                        32
Anime Features                           21
Classic & Cult TV                         20
Independent Movies                       20
Music & Musicals                          18
TV Shows                                 16
Sci-Fi & Fantasy                          13
Cult Movies                              12
TV Horror                                11
Romantic Movies                           3
Spanish-Language TV Shows                2
Sports Movies                             1
TV Sci-Fi & Fantasy                       1
LGBTQ Movies                             1
Name: release_year, dtype: int64
```

```
In [66]: netflix_copy.groupby(['Genre 2'])['release_year'].count().sort_values(ascending=True)
```

```
Out[66]: Genre 2
```

| | |
|------------------------------|------|
| International Movies | 1722 |
| Dramas | 758 |
| Independent Movies | 576 |
| International TV Shows | 475 |
| Comedies | 452 |
| TV Dramas | 320 |
| TV Comedies | 263 |
| Romantic TV Shows | 239 |
| Thrillers | 232 |
| Romantic Movies | 171 |
| Docuseries | 153 |
| Music & Musicals | 148 |
| Korean TV Shows | 131 |
| Sci-Fi & Fantasy | 112 |
| Sports Movies | 100 |
| Reality TV | 95 |
| TV Action & Adventure | 83 |
| Horror Movies | 75 |
| Crime TV Shows | 70 |
| Spanish-Language TV Shows | 65 |
| Kids' TV | 62 |
| Faith & Spirituality | 54 |
| Anime Features | 50 |
| Cult Movies | 45 |
| Science & Nature TV | 45 |
| LGBTQ Movies | 45 |
| Documentaries | 39 |
| Children & Family Movies | 32 |
| Classic Movies | 30 |
| TV Horror | 30 |
| TV Mysteries | 22 |
| TV Sci-Fi & Fantasy | 21 |
| Teen TV Shows | 21 |
| Stand-Up Comedy & Talk Shows | 16 |
| TV Thrillers | 11 |
| Stand-Up Comedy | 9 |
| Classic & Cult TV | 6 |

```
Name: release_year, dtype: int64
```

```
In [67]: netflix_copy.groupby(['Genre 3'])['release_year'].count().sort_values(ascending=True)
```

```
Out[67]: Genre 3
          International Movies      902
          Romantic Movies         442
          TV Dramas               375
          Thrillers               280
          Music & Musicals         209
          TV Comedies              191
          Independent Movies       160
          Sports Movies            118
          Sci-Fi & Fantasy          118
          Spanish-Language TV Shows 106
          International TV Shows    101
          Romantic TV Shows         99
          TV Mysteries              76
          Dramas                   69
          TV Sci-Fi & Fantasy        61
          LGBTQ Movies              56
          Teen TV Shows             48
          Science & Nature TV       47
          TV Thrillers              46
          TV Action & Adventure     45
          Reality TV                40
          TV Horror                 34
          Docuseries                21
          Korean TV Shows           20
          Cult Movies               14
          Comedies                  12
          Faith & Spirituality       11
          Horror Movies              7
          Classic Movies             6
          Stand-Up Comedy & Talk Shows 6
          Children & Family Movies    4
          Kids' TV                   1
          Documentaries              1
Name: release_year, dtype: int64
```

5. Best Month for releasing content?

```
In [68]: netflix_copy.head(2)
```

```
Out[68]:
```

| title | director | cast | country | date_added | release_year | rating | duration | description |
|----------------------|-----------------|---|---------------|--------------------|--------------|--------|-----------|---|
| Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | September 25, 2021 | 2020 | PG-13 | 90 min | As her father nears the end of his life, filmm... |
| Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | September 24, 2021 | 2021 | TV-MA | 2 Seasons | After crossing paths at a party, a Cape Town t... |

```
In [102]: netflix_copy.dtypes
```

```
Out[102]: show_id          object
type          object
title         object
director      object
cast          object
country       object
date_added    datetime64[ns]
release_year  int64
rating        object
duration      object
description    object
Genre 1       object
Genre 2       object
Genre 3       object
month_added   int32
month_name_added object
year_added    int32
dtype: object
```

```
In [104]: netflix_tv = netflix_copy[netflix_copy["type"] == "TV Show"]
netflix_movies = netflix_copy[netflix_copy["type"] == "Movie"]
```

```
In [114]: netflix_copy["date_added"] = pd.to_datetime(netflix_copy['date_added'], format='%m/%d/%Y')
netflix_copy['month_added'] = netflix_copy['date_added'].dt.month
netflix_copy['month_added'] = netflix_copy['date_added'].dt.month
netflix_copy['month_name_added'] = netflix_copy['date_added'].dt.month_name()
netflix_copy['year_added'] = netflix_copy['date_added'].dt.year
```



```
In [116]: netflix_copy.head(2)
```

Out[116]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating | du |
|---|---------|---------|----------------------|-----------------|---|---------------|------------|--------------|--------|----|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | 2021-09-25 | 2020 | PG-13 | |
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | 2021-09-24 | 2021 | TV-MA | Se |

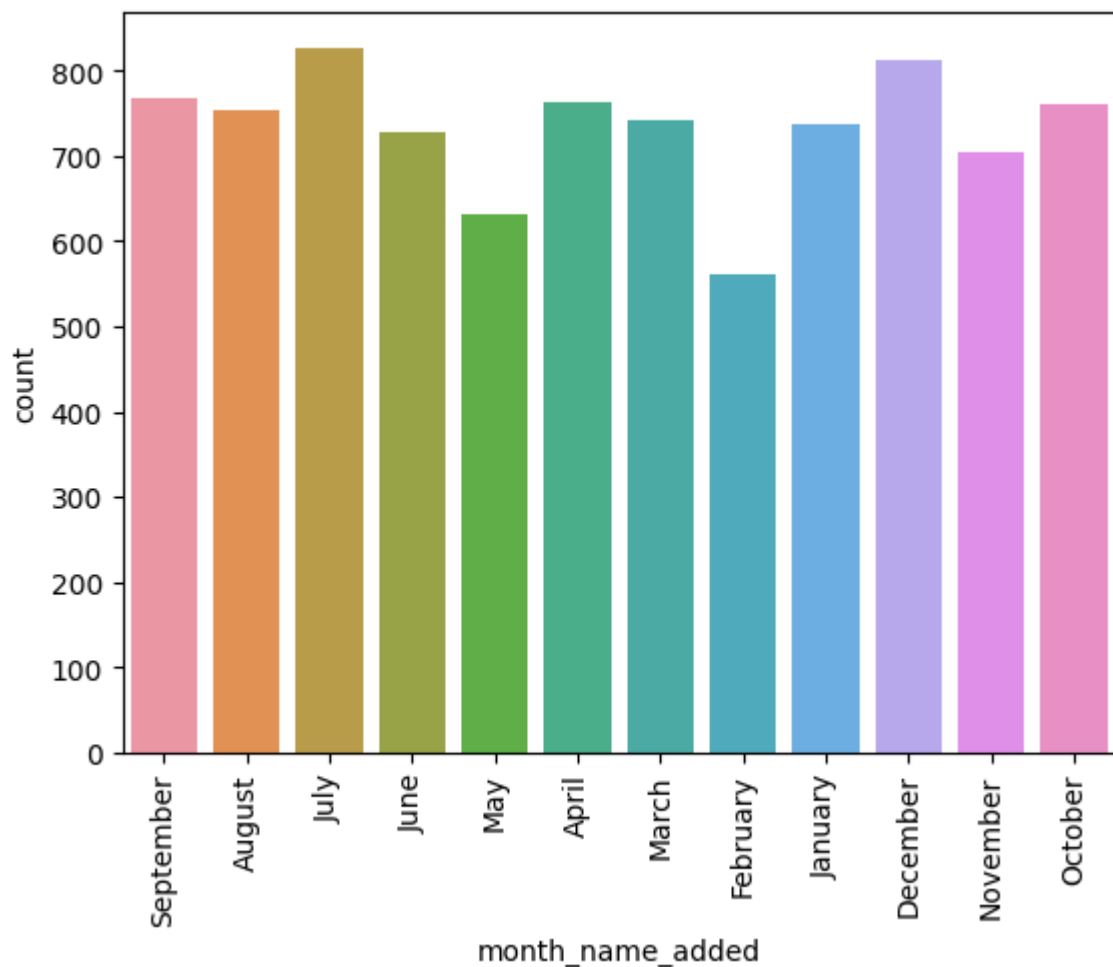
```
In [117]: netflix_copy.month_name_added.value_counts().to_frame('Value_count')
```

Out[117]:

| | Value_count |
|------------------|-------------|
| month_name_added | |
| July | 827 |
| December | 812 |
| September | 769 |
| April | 763 |
| October | 760 |
| August | 754 |
| March | 741 |
| January | 737 |
| June | 728 |
| November | 705 |
| May | 632 |
| February | 562 |

```
In [119]: sns.countplot(x=netflix_copy['month_name_added'],orient='v')  
plt.xticks(rotation=90)
```

```
Out[119]: (array([ 0,  1,  2,  3,  4,  5,  6,  7,  8,  9, 10, 11]),  
[Text(0, 0, 'September'),  
Text(1, 0, 'August'),  
Text(2, 0, 'July'),  
Text(3, 0, 'June'),  
Text(4, 0, 'May'),  
Text(5, 0, 'April'),  
Text(6, 0, 'March'),  
Text(7, 0, 'February'),  
Text(8, 0, 'January'),  
Text(9, 0, 'December'),  
Text(10, 0, 'November'),  
Text(11, 0, 'October')])
```



```

In [106]: netflix_content = netflix_copy[['month_added', 'month_name_added']].value_counts(
           0 : 'count'}).sort_values('month_added').drop('month_added',axis=1)
netflix_content['percent'] = netflix_content['count'].apply(lambda x : 100*x/

netflix_tv2 = netflix_tv[['month_added', 'month_name_added']].value_counts().r
           0 : 'count'}).sort_values('month_added').drop('month_added',axis=1)
netflix_tv2['percent'] = netflix_tv2['count'].apply(lambda x : 100*x/sum(netf

netflix_movies2 = netflix_movies[['month_added', 'month_name_added']].value_co
           0 : 'count'}).sort_values('month_added').drop('month_added',axis=1)
netflix_movies2['percent'] = netflix_movies2['count'].apply(lambda x : 100*x/

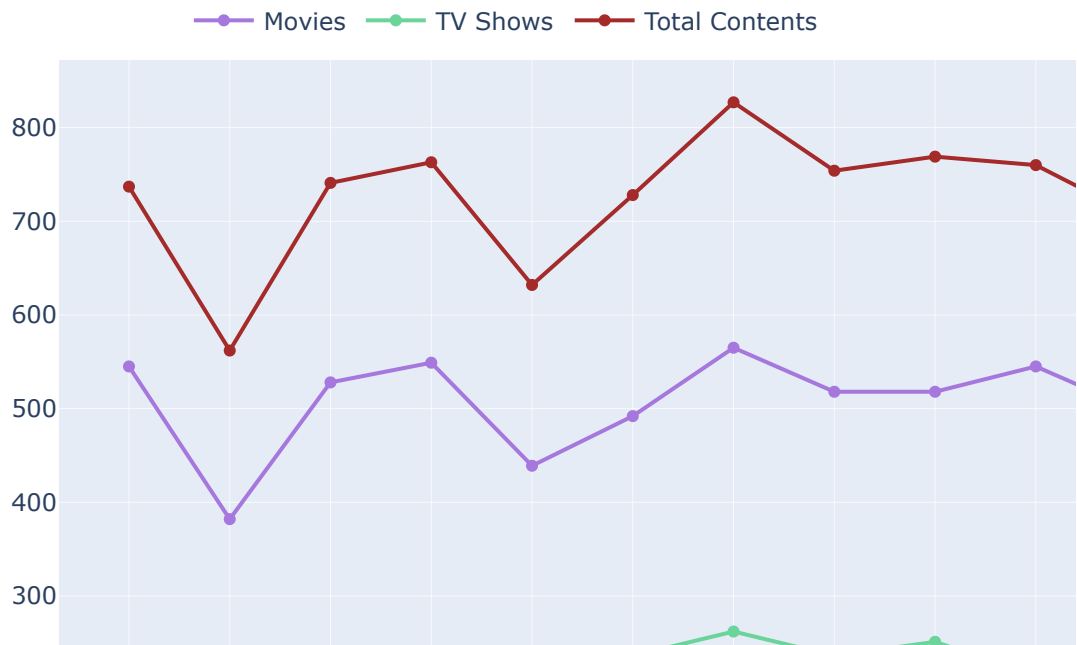
t1 = go.Scatter(x=netflix_movies2['month_name_added'], y=netflix_movies2["cou
t2 = go.Scatter(x=netflix_tv2['month_name_added'], y=netflix_tv2["count"], na
t3 = go.Scatter(x=netflix_content['month_name_added'], y=netflix_content["cou

data = [t1, t2, t3]

layout = go.Layout(title="Content added over the years", legend=dict(x=0.1, y:
fig = go.Figure(data, layout=layout)
fig.show()

```

Content added over the years



Observation :

- July has maximum numbers of movies release. Hence July is the best month for releasing content.
- The growth in contents are higher in the first three months and the last three months of the year.
- Least number of contents are added in the month of February.

6. Highest watched genres on Netflix?

In [69]: `netflix_copy.head(2)`

Out[69]:

| w_id | type | title | director | cast | country | date_added | release_year | rating | duration | d |
|------|---------|----------------------|-----------------|---|---------------|--------------------|--------------|--------|-----------|---|
| s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | September 25, 2021 | 2020 | PG-13 | 90 min | |
| s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | September 24, 2021 | 2021 | TV-MA | 2 Seasons | |

In [70]: `netflix_copy['Genre 1'].describe(include=all)`

Out[70]:

| | |
|--------|--------|
| count | 8790 |
| unique | 36 |
| top | Dramas |
| freq | 1599 |

Name: Genre 1, dtype: object

In [71]: `netflix_copy['Genre 2'].describe(include=all)`

Out[71]:

| | |
|--------|----------------------|
| count | 6778 |
| unique | 37 |
| top | International Movies |
| freq | 1722 |

Name: Genre 2, dtype: object

In [72]: `netflix_copy['Genre 3'].describe(include=all)`

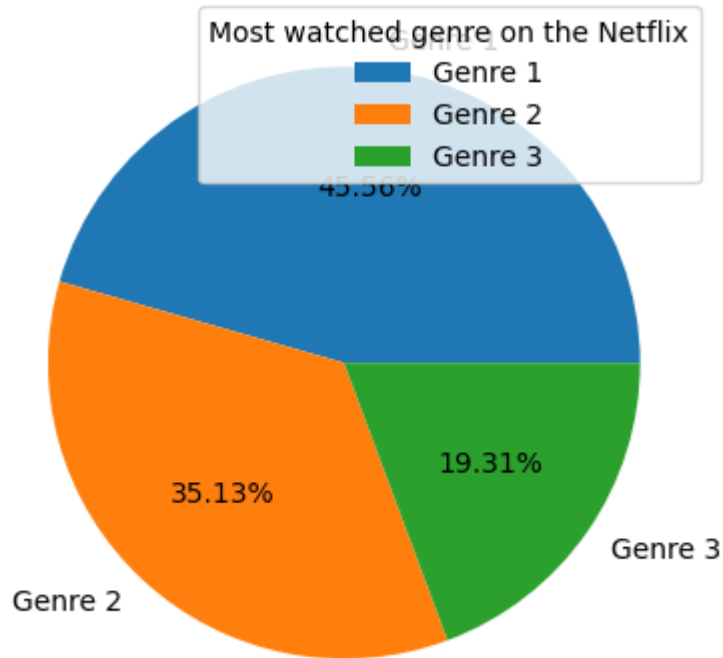
Out[72]:

| | |
|--------|----------------------|
| count | 3726 |
| unique | 33 |
| top | International Movies |
| freq | 902 |

Name: Genre 3, dtype: object

```
In [113]: # Showing most watched genre on Pie Chart
genre_types = ['Genre 1', 'Genre 2', 'Genre 3']

Value_count = [8790, 6778, 3726]
plt.pie(Value_count, labels = genre_types, autopct="%2.2f%%")
plt.legend(title='Most watched genre on the Netflix')
plt.show()
```



- Observation: Above Pi-chart Shows that Genre1 has watched maximum times.

7. Checking the time it took for movies to appear on netflix after release?

In [107]: `netflix_copy.head(2)`

Out[107]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating | du |
|---|---------|---------|----------------------|-----------------|---|---------------|------------|--------------|--------|----|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | 2021-09-25 | 2020 | PG-13 | |
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | 2021-09-24 | 2021 | TV-MA | Se |

In [108]: `netflix_copy[['release_year', 'year_added']]`

Out[108]:

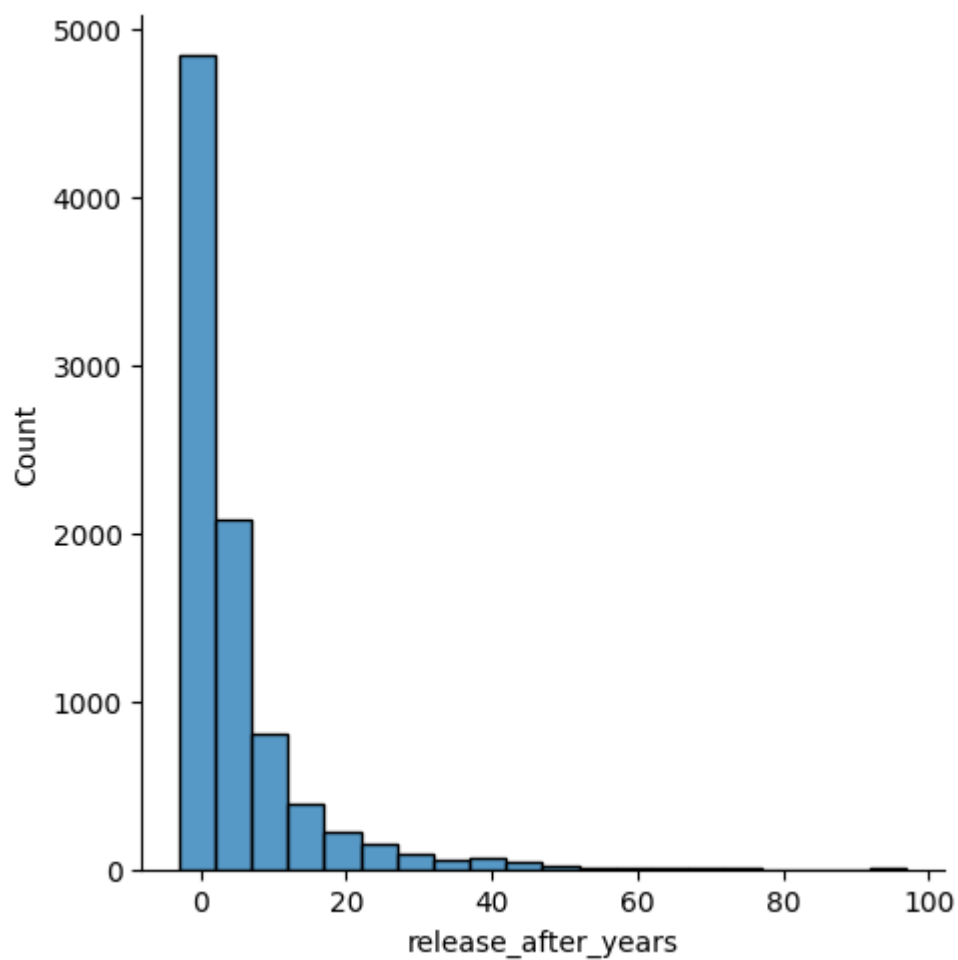
| | release_year | year_added |
|------|--------------|------------|
| 0 | 2020 | 2021 |
| 1 | 2021 | 2021 |
| 2 | 2021 | 2021 |
| 3 | 2021 | 2021 |
| 4 | 2021 | 2021 |
| ... | ... | ... |
| 8802 | 2007 | 2019 |
| 8803 | 2018 | 2019 |
| 8804 | 2009 | 2019 |
| 8805 | 2006 | 2020 |
| 8806 | 2015 | 2019 |

8790 rows × 2 columns

In [110]: `netflix_copy['release_after_years'] = netflix_copy.year_added - netflix_copy.`

```
In [112]: #Showing displot chart for time it took for movies to get publish on netflix  
sns.displot(netflix_copy, x="release_after_years", binwidth=5)
```

```
Out[112]: <seaborn.axisgrid.FacetGrid at 0x170119baf80>
```



8 Show id and director for 'Sex Education'?

In [75]: `netflix_copy.head(2)`

Out[75]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating | dura |
|---|---------|---------|----------------------|-----------------|--|---------------|--------------------|--------------|--------|------|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | September 25, 2021 | 2020 | PG-13 | 90 |
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mababane, Thabane... | South Africa | September 24, 2021 | 2021 | TV-MA | Seas |

In [76]: `netflix_copy[netflix_copy['title'].isin(['Sex Education'])]`

Out[76]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating |
|----|---------|---------|---------------|----------|---|----------------|--------------------|--------------|--------|
| 32 | s33 | TV Show | Sex Education | Unknown | Asa Butterfield, Gillian Anderson, Ncuti Gatwa... | United Kingdom | September 17, 2021 | 2020 | TV-MA |

Observation:

- For "Sex Education" the show id is s33 and No director.

9. All the movies that were released in year 2004?

In [77]: `netflix_copy.head(2)`

Out[77]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating | du |
|---|---------|---------|----------------------|-----------------|---|---------------|--------------------|--------------|--------|----|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | September 25, 2021 | 2020 | PG-13 | |
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | September 24, 2021 | 2021 | TV-MA | Se |

In [78]: `netflix[(netflix['type'] == 'Movie') & (netflix['release_year'] == 2004)]`

| | | | | | | | | | | |
|------|-------|-------|------------------------------|-----------------|---|-------------------------------|-----------------|--|--|--|
| 8401 | s8402 | Movie | Express | Zemeckis | Eddie Deezen, Nona... | States | 2021 | | | |
| 8463 | s8464 | Movie | The President's Barber | Chan-sang Lim | Kang-ho Song, So-ri Moon, Jae-eung Lee, Yeong-... | South Korea | October 1, 2017 | | | |
| 8465 | s8466 | Movie | The Prince & Me | Martha Coolidge | Julia Stiles, Luke Mably, Ben Miller, Miranda ... | United States, Czech Republic | October 1, 2020 | | | |
| 8624 | s8625 | Movie | Tremors 4: The Legend Begins | S.S. Wilson | Michael Gross, Sara Botsford, Billy Drago, Bre... | United States | January 1, 2020 | | | |
| 8682 | s8683 | Movie | Vizontele Tuuba | Yılmaz Erdoğan | Yılmaz Erdoğan, Tarık Akan, Altan | Turkey | March 10, 2017 | | | |

In [79]: `netflix[(netflix['type'] == 'Movie') & (netflix['release_year'] == 2004)].sh`

Out[79]: (55, 12)

Obeservation :

- There are 55 movies released in year 2004.

10. Only the title of all TV shows that were released in United States only.

In [80]: `netflix_copy.head(2)`

Out[80]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating | du |
|---|---------|---------|----------------------|-----------------|---|---------------|--------------------|--------------|--------|----|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | September 25, 2021 | 2020 | PG-13 | |
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | September 24, 2021 | 2021 | TV-MA | Se |

In [81]: `netflix_copy[(netflix_copy['type']=='TV Show') & (netflix_copy['country']=='U`

Out[81]:

```

15          Dear White People
40    He-Man and the Masters of the Universe
55          Nailed It
67    Saved by the Bell
82          Lucifer

...
8710          Weeds
8726    When Calls the Heart
8747    Winsanity
8755    Women Behind Bars
8780    Yo-Kai Watch
Name: title, Length: 754, dtype: object

```

In [82]: `netflix_copy[(netflix_copy['type']=='TV Show') & (netflix_copy['country']=='U`

Out[82]: (754,)

Obeservation:

- There are 754 TV shows that were released in United States only.

11. How many Movies/TV Shows, 'Salman Khan' was cast??

```
In [83]: netflix_copy.head(2)
```

```
Out[83]:
```

| | show_id | type | title | director | cast | country | date_added | release_year | rating | du |
|---|---------|---------|----------------------|-----------------|---|---------------|--------------------|--------------|--------|----|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | September 25, 2021 | 2020 | PG-13 | |
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban... | South Africa | September 24, 2021 | 2021 | TV-MA | Se |

```
In [84]: netflix_copy[netflix_copy['cast'].str.contains('Salman Khan')]
```

| | | | | | | | | | |
|------|-------|-------|----------------------|--------------------|---|-------|-------------------|-----|--|
| 7387 | s7388 | Movie | Maane Pyar Kiya | Sooraj R. Barjatya | Bhagyashree, Alok Nath, Rajeev Ve... | India | January 1, 2018 | 198 | |
| 7524 | s7525 | Movie | Mujhse Shaadi Karogi | David Dhawan | Rajpal Yadav, Amrish Puri, Kader Khan, Shashi ... | India | December 31, 2019 | 200 | |
| 7590 | s7591 | Movie | No Entry | Anees Bazmee | Anil Kapoor, Salman Khan, Fardeen Khan, Bipash... | India | March 1, 2018 | 200 | |
| 7837 | s7838 | Movie | Ready | Anees Bazmee | Salman Khan, Asin, Paresh Rawal, Mahesh Mani... | India | October 22, 2017 | 201 | |

```
In [85]: netflix_copy[netflix_copy['cast'].str.contains('Salman Khan')].shape
```

```
Out[85]: (20, 14)
```

Obeservation:

- There are 20 movies where case is Salman Khan.

12. How many movies got the "TV-14" rating in the India??

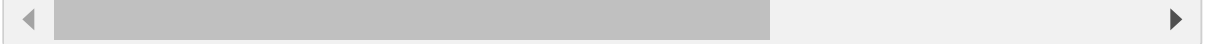
In [86]:

netflix_copy.head(2)

Out[86]:

| | show_id | type | title | director | cast | country | date_added | release_year | rating | du |
|---|---------|---------|----------------------|-----------------|---|---------------|--------------------|--------------|--------|----|
| 0 | s1 | Movie | Dick Johnson Is Dead | Kirsten Johnson | Unknown | United States | September 25, 2021 | 2020 | PG-13 | |
| 1 | s2 | TV Show | Blood & Water | Unknown | Ama Qamata, Khosi Ngema, Gail Mabalan... Thaban... | South Africa | September 24, 2021 | 2021 | TV-MA | Se |

In [87]: `netflix_copy[(netflix_copy['type']=='Movie') & (netflix_copy['country']=='Ind.`

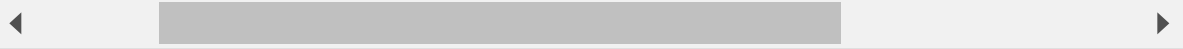


Out[87]:

| | show_id | type | title | director | cast | country | date_added | release_year | ra |
|------|---------|-------|-----------------------|----------------------|---|---------|--------------------|--------------|-----|
| 24 | s25 | Movie | Jeans | S. Shankar | Prashanth, Aishwarya Rai Bachchan, Sri Lakshmi... | India | September 21, 2021 | 1998 | T |
| 105 | s106 | Movie | Angamaly Diaries | Lijo Jose Pellissery | Antony Varghese, Reshma Rajan, Binny Rinky Ben... | India | September 5, 2021 | 2017 | T |
| 114 | s115 | Movie | Anjaam | Rahul Rawail | Madhuri Dixit, Shah Rukh Khan, Tinnu Anand, Jo... | India | September 2, 2021 | 1994 | T |
| 118 | s119 | Movie | Gurgaon | Shanker Raman | Akshay Oberoi, Pankaj Tripathi, Ragini Khanna,... | India | September 2, 2021 | 2017 | T |
| 126 | s127 | Movie | Shikara | Vidhu Vinod Chopra | Aadil Khan, Sadia Khateeb, Zain Khan Durrani, ... | India | September 2, 2021 | 2020 | T |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 8770 | s8771 | Movie | Yaadein | Subhash Ghai | Jackie Shroff, Hrithik Roshan, Kareena Kapoor,... | India | March 1, 2018 | 2001 | T |
| 8771 | s8772 | Movie | Yaara O Dildaara | Ksshitij Chaudhary | Harbhajan Mann, Tulip Joshi, Kabir Bedi, Gulza... | India | November 1, 2017 | 2011 | T |
| 8772 | s8773 | Movie | Yamla Pagla Deewana 2 | Sangeeth Sivan | Dharmendra, Sunny Deol, Bobby Deol, Neha Sharm... | India | May 1, 2017 | 2013 | T |
| 8799 | s8800 | Movie | Zenda | Avadhoot Gupte | Santosh Juvekar, Siddharth Chandekar, Sachit P... | India | February 15, 2018 | 2009 | T |
| 8806 | s8807 | Movie | Zubaan | Mozez Singh | Vicky Kaushal, Sarah-Jane Dias, Raaghav Chanan... | India | March 2, 2019 | 2015 | T |

526 rows × 14 columns

```
In [89]: (netflix_copy['type']=='Movie') & (netflix_copy['country']=='India') & (netfli
```



```
Out[89]: (526, 14)
```

Observation:

- 526 movies got the "TV-14" rating in India.

Business Insights :

1. From the above output we can see that director, cast & country columns contain maximum null values. Filling missing (Null) values for director, cast & country as "Unknown" for the missing directors.
2. We can see that Netflix has 69% movies while 30% TV Shows
3. Maximum count of ratings included TV-MA (Mature Audiences) and TV-14 (Parents strongly cautioned) for both Movies and TV shows. 17 types of ratings on Netflix
4. Netflix touched its peak for making movies in 2018 and TV shows in 2020. From the above we can see that with passing years more movies are being made year by year. The above data shows that there is a sudden increase in the creation of movies in year 2016 as compared to year 2015.
5. Audience likes to watch mostly movies (96.88%) over TV shows (3.12%).
6. July has maximum numbers of movies released. Hence July is the best month for releasing content. The growth in contents is higher in the first three months and the last three months of the year. Least number of contents are added in the month of February.
7. Genre1 has been watched maximum times.
8. For "Sex Education" the show id is s33 and No director.
9. There are 55 movies released in year 2004.
10. There are 754 TV shows that were released in United States only.
11. There are 20 movies where case is Salman Khan.
12. 526 movies got the "TV-14" rating in India.

Recommendations :

1. Considering that Netflix has a higher focus on movies than TV shows, it could be beneficial for Netflix to continue investing in movie production. This can involve acquiring more movie titles, producing original movies, and partnering with renowned filmmakers and production companies to strengthen their movie catalog.
2. Given that TV-MA and TV-14 ratings are popular among Netflix viewers, it would be advantageous for Netflix to continue offering a diverse range of content targeted towards mature audiences. This can involve acquiring or producing more content in these ratings.

- categories to cater to the preferences of their subscribers.
3. Netflix can capitalize on the increasing trend of movie production by actively scouting for new and engaging movie projects. This can involve collaborations with talented directors, screenwriters, and actors to create high-quality movies that resonate with global audiences.
 4. While movies are more popular among the audience, Netflix should not neglect TV shows entirely. They can consider strategic investments in original TV show productions to cater to the segment of their subscribers who enjoy TV series. This can involve partnering with popular showrunners and creators to develop compelling and binge-worthy TV content.
 5. Based on the data showing the higher number of movie releases in July and the growth pattern in content additions, Netflix can prioritize the release of major movies and content expansions during the first three months and the last three months of the year. This can help maximize viewership and subscriber engagement during these periods.
 6. Netflix can analyze the data further to identify the most-watched genres (Genre1) and leverage this information to curate personalized recommendations for their subscribers. By understanding the viewing preferences of their audience, Netflix can enhance the user experience by suggesting relevant content from the popular genres.
 7. It would be beneficial for Netflix to provide complete and accurate metadata for all their content, including the show "Sex Education." Having accurate show IDs and director information helps improve the overall browsing experience for users and ensures consistent and comprehensive content information.
 8. Considering the number of movies released in 2004 (55), Netflix can explore highlighting classic and noteworthy movies from that year to attract cinephiles and those interested in retro content. Creating curated collections or featuring a "Throwback" category can engage viewers who appreciate films from specific years or eras.
 9. With a significant number of TV shows released exclusively in the United States, Netflix can continue investing in regional content production and acquisitions. By catering to specific markets, they can attract and retain subscribers in the United States and strengthen their position in the local streaming landscape.
 10. The presence of movies featuring Salman Khan indicates an existing fan base for the actor. Netflix can leverage this popularity by promoting and marketing these movies prominently, targeting Salman Khan's fans, and exploring collaborations for exclusive content featuring the actor.
 11. Given the high number of movies with a "TV-14" rating in India, Netflix can further expand its content library catering to Indian viewers. By acquiring or producing more content that aligns with Indian tastes and preferences, Netflix can strengthen its position in the Indian market and attract a larger audience.