

## Netflix Movies & TV Shows Analysis

### *Life Cycle Of Analysis Project*

#### 1. problem statement

#### 2) Data Collection

- Dataset Source - <https://www.kaggle.com/datasets/shivamb/netflix-shows>
- The data consists of 12 columns and 8813 rows.

##### 2.1 Import Data and Required Packages

```
!pip install numpy
```

```
Requirement already satisfied: numpy in c:\users\dell\anaconda3\lib\site-packages (2.3.5)
```

```
!pip install pandas
```

```
Requirement already satisfied: pandas in c:\users\dell\anaconda3\lib\site-packages (2.3.3)
```

```
Requirement already satisfied: numpy>=1.26.0 in c:\users\dell\anaconda3\lib\site-packages (from pandas) (2.3.5)
```

```
Requirement already satisfied: python-dateutil>=2.8.2 in c:\users\dell\anaconda3\lib\site-packages (from pandas) (2.9.0.post0)
```

```
Requirement already satisfied: pytz>=2020.1 in c:\users\dell\anaconda3\lib\site-packages (from pandas) (2025.2)
```

```
Requirement already satisfied: tzdata>=2022.7 in c:\users\dell\anaconda3\lib\site-packages (from pandas) (2025.2)
```

```
Requirement already satisfied: six>=1.5 in c:\users\dell\anaconda3\lib\site-packages (from python-dateutil>=2.8.2->pandas) (1.17.0)
```

```
!pip install matplotlib
```

```
Requirement already satisfied: matplotlib in c:\users\dell\anaconda3\lib\site-packages (3.10.6)
```

```
Requirement already satisfied: contourpy>=1.0.1 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (1.3.3)
```

```
Requirement already satisfied: cycler>=0.10 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (0.11.0)
```

```
Requirement already satisfied: fonttools>=4.22.0 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (4.60.1)
```

```
Requirement already satisfied: kiwisolver>=1.3.1 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (1.4.9)
```

```
Requirement already satisfied: numpy>=1.23 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (2.3.5)
```

```
Requirement already satisfied: packaging>=20.0 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (25.0)
```

```
Requirement already satisfied: pillow>=8 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (12.0.0)
```

Requirement already satisfied: pyparsing>=2.3.1 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (3.2.5)  
Requirement already satisfied: python-dateutil>=2.7 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (2.9.0.post0)  
Requirement already satisfied: six>=1.5 in c:\users\dell\anaconda3\lib\site-packages (from python-dateutil>=2.7->matplotlib) (1.17.0)

!pip install seaborn

Requirement already satisfied: seaborn in c:\users\dell\anaconda3\lib\site-packages (0.13.2)  
Requirement already satisfied: numpy!=1.24.0,>=1.20 in c:\users\dell\anaconda3\lib\site-packages (from seaborn) (2.3.5)  
Requirement already satisfied: pandas>=1.2 in c:\users\dell\anaconda3\lib\site-packages (from seaborn) (2.3.3)  
Requirement already satisfied: matplotlib!=3.6.1,>=3.4 in c:\users\dell\anaconda3\lib\site-packages (from seaborn) (3.10.6)  
Requirement already satisfied: contourpy>=1.0.1 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (1.3.3)  
Requirement already satisfied: cycler>=0.10 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (0.11.0)  
Requirement already satisfied: fonttools>=4.22.0 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (4.60.1)  
Requirement already satisfied: kiwisolver>=1.3.1 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (1.4.9)  
Requirement already satisfied: packaging>=20.0 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (25.0)  
Requirement already satisfied: pillow>=8 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (12.0.0)  
Requirement already satisfied: pyparsing>=2.3.1 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (3.2.5)  
Requirement already satisfied: python-dateutil>=2.7 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (2.9.0.post0)  
Requirement already satisfied: pytz>=2020.1 in c:\users\dell\anaconda3\lib\site-packages (from pandas>=1.2->seaborn) (2025.2)  
Requirement already satisfied: tzdata>=2022.7 in c:\users\dell\anaconda3\lib\site-packages (from pandas>=1.2->seaborn) (2025.2)  
Requirement already satisfied: six>=1.5 in c:\users\dell\anaconda3\lib\site-packages (from python-dateutil>=2.7->matplotlib!=3.6.1,>=3.4->seaborn) (1.17.0)

```
import numpy as np
import pandas as pd
```

```
import seaborn as sns
import matplotlib.pyplot as plt
%matplotlib inline
import warnings
warnings.filterwarnings('ignore')
```

```
df=pd.read_csv("netflix.csv")
df.tail()
```

	show_id	type	title \
8808	s8766	Movie	XX
8809	s8767	Movie	XXx
8810	s8768	Movie	XXX: State of the Union
8811	s8769	Movie	Y Tu Mamá También
8812	s8770	Movie	Y.M.I.: Yeh Mera India

	director \
8808	Jovanka Vuckovic, Annie Clark, Roxanne Benjami...
8809	Rob Cohen
8810	Lee Tamahori
8811	Alfonso Cuarón
8812	N. Chandra

	cast \
8808	Natalie Brown, Jonathan Watton, Melanie Lynske...
8809	Vin Diesel, Asia Argento, Marton Csokas, Samue...
8810	Ice Cube, Samuel L. Jackson, Willem Dafoe, Sco...
8811	Maribel Verdú, Gael García Bernal, Diego Luna,...
8812	Anupam Kher, Atul Kulkarni, Aakash Pandey, Mil...

	country	date_added	release_year	rating	duration \
8808	Canada, United States	June 22, 2017	2017	R	81 min
8809	United States	January 1, 2019	2002	PG-13	124 min
8810	United States	January 1, 2019	2005	PG-13	101 min
8811	Mexico	June 1, 2017	2001	R	106 min
8812	India	March 1, 2018	2008	TV-MA	137 min

	listed_in \
8808	Horror Movies
8809	Action & Adventure, Sports Movies
8810	Action & Adventure
8811	Dramas, Independent Movies, International Movies
8812	Dramas, Independent Movies, International Movies

```

description
8808 This four-part anthology of short horror films...
8809 A notorious underground rush-seeker deemed unt...
8810 In this action-packed follow-up to XXX, U.S. i...
8811 When rich teens Tenoch and Julio meet the allu...
8812 The lives of a middle-aged soap opera addict, ...

df.shape
(8813, 12)

```

## Dataset Information

- show\_id:Unique ID for each show
- type:Movie or TV Show
- title:Title of the content
- director:Director name
- cast:Cast details
- country:Country of production
- date\_added:Date added to Netflix
- release\_year:Release year
- rating:Content rating
- duration:Movie minutes / TV seasons
- listed\_in:Genre
- description:Summary

## 3. Data Checks to perform

### 3.1 check missing values

```

df.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
```

### 3.2 Check Duplicates

```
df.duplicated().sum()

np.int64(6)
```

### 3.3 Check data types

```
df.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 8813 entries, 0 to 8812
Data columns (total 12 columns):
 #   Column          Non-Null Count  Dtype
---  -
 0   show_id         8813 non-null   object
 1   type            8813 non-null   object
 2   title           8813 non-null   object
 3   director        6179 non-null   object
 4   cast            7988 non-null   object
 5   country         7982 non-null   object
 6   date_added      8803 non-null   object
 7   release_year    8813 non-null   int64
 8   rating          8809 non-null   object
 9   duration        8810 non-null   object
10   listed_in       8813 non-null   object
11   description      8813 non-null   object
dtypes: int64(1), object(11)
memory usage: 826.3+ KB
```

### 3.4 Checking the number of unique values of each column

```
df.nunique()

show_id      8807
type          2
title        8804
director     4528
cast         7692
country      748
```

```

date_added      1767
release_year      74
rating           17
duration         220
listed_in        514
description      8775
dtype: int64

```

### 3.5 Check statistics of data set

```

df.describe()

           release_year
count      8813.000000
mean       2014.173607
std         8.821838
min        1925.000000
25%        2013.000000
50%        2017.000000
75%        2019.000000
max        2021.000000

```

### 3.6 Checking various categories in categorical columns

```

for col in df.select_dtypes(include="object").columns:
    print(f"(col) : {df[col].unique()}")

(col) : ['s1' 's2' 's3' ... 's8805' 's8806' 's8807']
(col) : ['Movie' 'TV Show']
(col) : ['Dick Johnson Is Dead' 'Blood & Water' 'Ganglands' ...
'Zombieland'
'Zoom' 'Zubaan']
(col) : ['Kirsten Johnson' nan 'Julien Leclercq' ... 'Majid Al Ansari'
'Peter Hewitt' 'Mozez Singh']
(col) : [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, Nouredine 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']  
 (col) : ['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'  
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'United States, Norway, Canada' 'Kenya, United States'  
'France, South Korea, Japan, United States' 'Taiwan, Malaysia'  
'Uruguay, Argentina, Germany, Spain'  
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States'  
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'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']  
 (col) : ['September 25, 2021' 'September 24, 2021' 'September 23,  
 2021' ...  
 'December 6, 2018' 'March 9, 2016' 'January 11, 2020']  
 (col) : ['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']  
 (col) : ['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



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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']
(col) : ['Documentaries' 'International TV Shows, TV Dramas, TV
Mysteries'
'Crime TV Shows, International TV Shows, TV Action & Adventure'
'Docuseries, Reality TV'
'International TV Shows, Romantic TV Shows, TV Comedies'
'TV Dramas, TV Horror, TV Mysteries' 'Children & Family Movies'
'Dramas, Independent Movies, International Movies'
'British TV Shows, Reality TV' 'Comedies, Dramas'
'Crime TV Shows, Docuseries, International TV Shows'
'Dramas, International Movies' 'Children & Family Movies, Comedies'
'British TV Shows, Crime TV Shows, Docuseries' 'TV Comedies, TV
Dramas'
'Documentaries, International Movies'
'Crime TV Shows, Spanish-Language TV Shows, TV Dramas' 'Thrillers'
'International TV Shows, Spanish-Language TV Shows, TV Action &
Adventure'
'International TV Shows, TV Action & Adventure, TV Dramas'
'Comedies, International Movies'
'Comedies, International Movies, Romantic Movies'
'Docuseries, International TV Shows, Reality TV'
'Comedies, International Movies, Music & Musicals' 'Comedies'
'Horror Movies, Sci-Fi & Fantasy' 'TV Comedies'
'British TV Shows, International TV Shows, TV Comedies'

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

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

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

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

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

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

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



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

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

```
'International Movies, LGBTQ Movies, Romantic Movies'
'Cult Movies, Dramas, Thrillers']
(col) : ['As her father nears the end of his life, filmmaker Kirsten
Johnson stages his death in inventive and comical ways to help them
both face the inevitable.'
'After crossing paths at a party, a Cape Town teen sets out to prove
whether a private-school swimming star is her sister who was abducted
at birth.'
'To protect his family from a powerful drug lord, skilled thief Mehdi
and his expert team of robbers are pulled into a violent and deadly
turf war.'
...
'Looking to survive in a world taken over by zombies, a dorky college
student teams with an urban roughneck and a pair of grifter sisters.'
'Dragged from civilian life, a former superhero must train a new crop
of youthful saviors when the military preps for an attack by a
familiar villain.'
"A scrappy but poor boy worms his way into a tycoon's dysfunctional
family, while facing his fear of music and the truth about his past."]
```

## 4.Data pre-Processing

### 4.1 Handling Missing Values

```
df["director"].fillna("Not Available", inplace=True)
df["cast"].fillna("Not Available", inplace=True)
df["country"].fillna("Not Available", inplace=True)
df["date_added"].fillna(df["date_added"].mode()[0], inplace=True)
df["rating"].fillna(df["rating"].mode()[0], inplace=True)
df["duration"].fillna(df["duration"].mode()[0], inplace=True)
```

### 4.2 Handling Duplicate Records

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

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

show_id	0
type	0
title	0
director	0
cast	0
country	0
date_added	0
release_year	0
rating	0
duration	0
listed_in	0

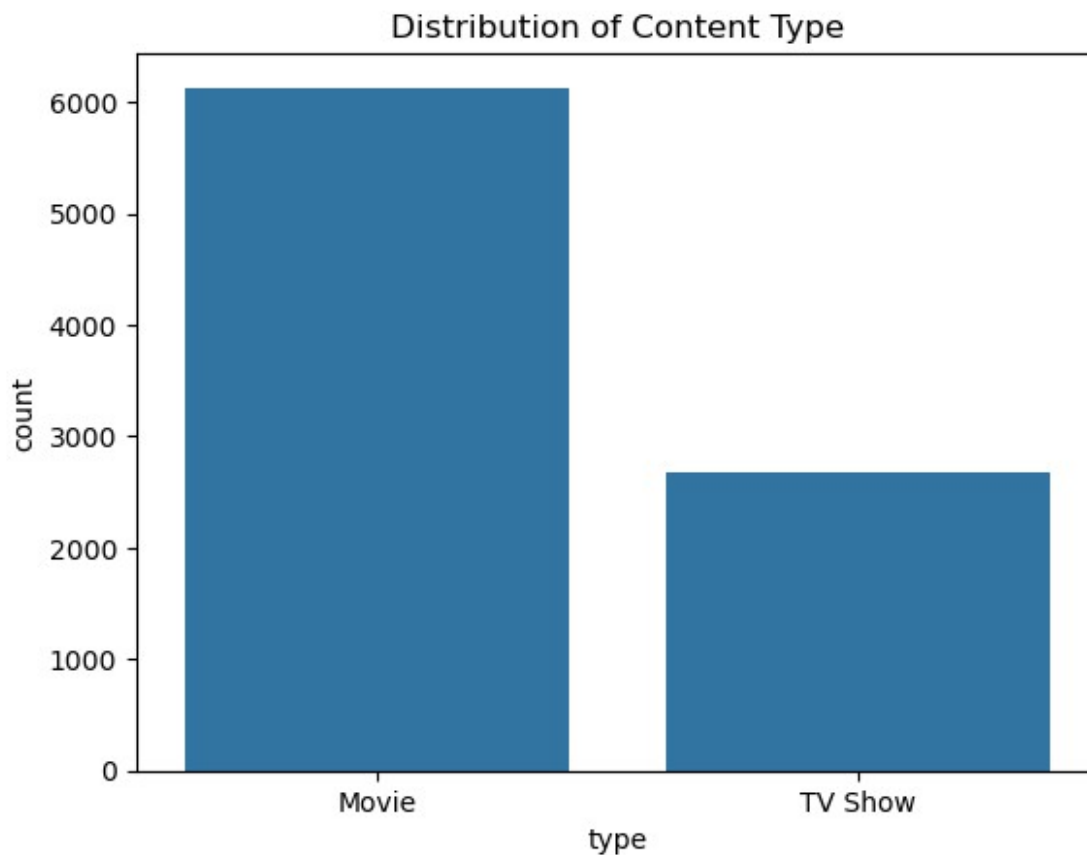
```
description      0  
dtype: int64  
  
df.duplicated().sum()  
np.int64(0)
```

## 5. Exploratory Data Analysis (EDA)

### 5.1 univariate

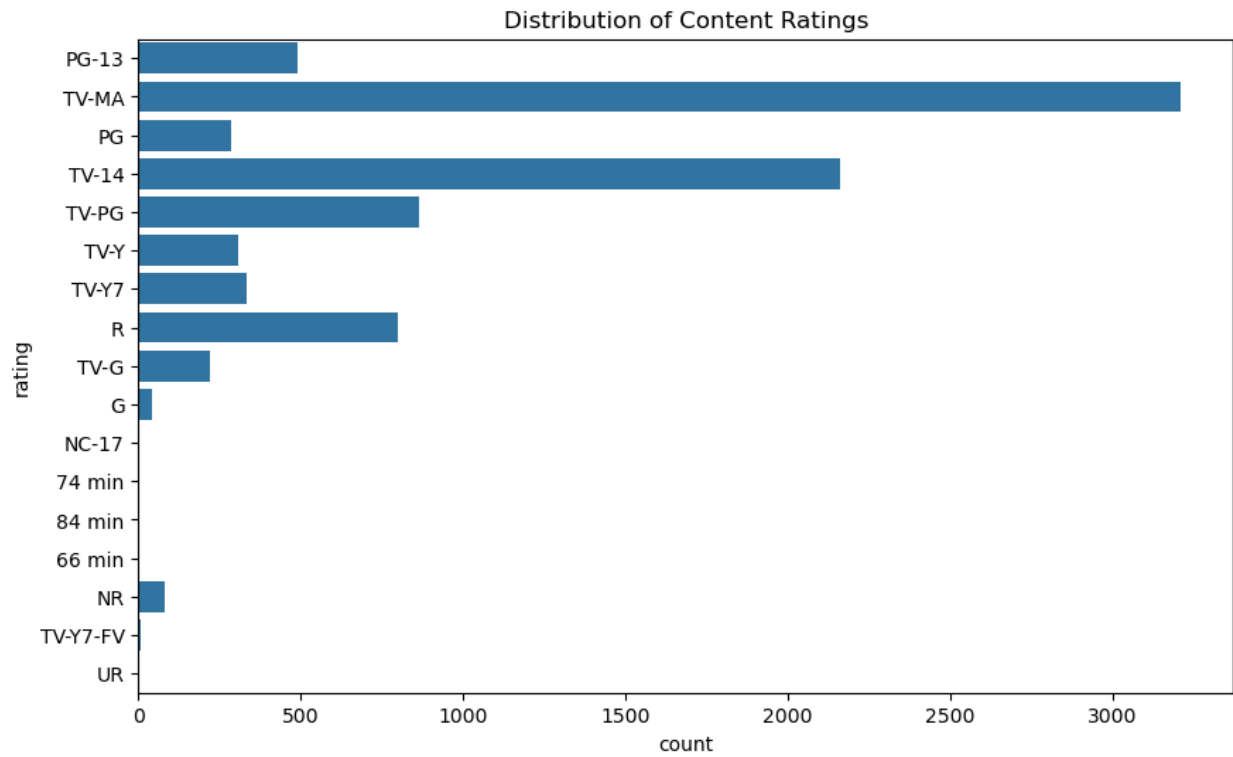
Content Type Distribution

```
sns.countplot(x='type', data=df)  
plt.title('Distribution of Content Type')  
plt.show()
```



Rating Distribution

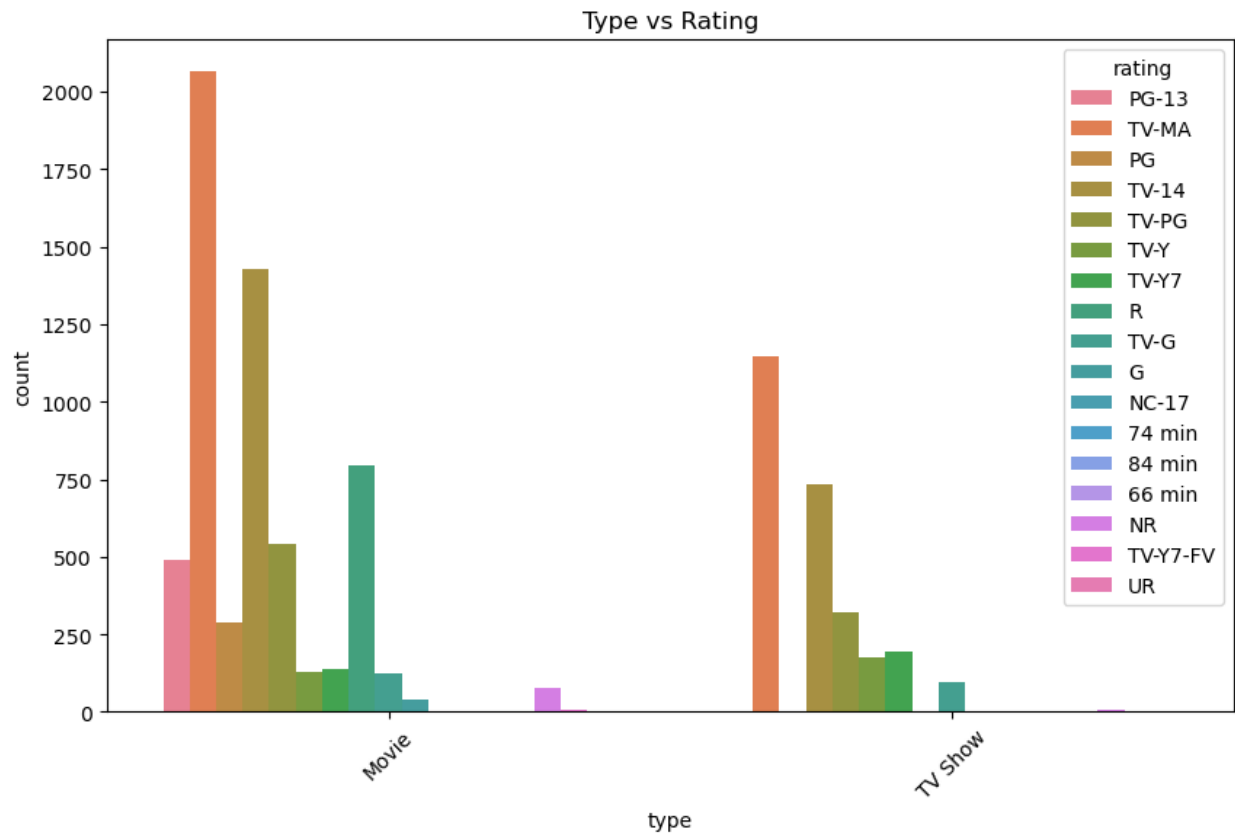
```
plt.figure(figsize=(10,6))  
sns.countplot(y='rating', data=df)  
plt.title('Distribution of Content Ratings')  
plt.show()
```



## 5.2 bivariate

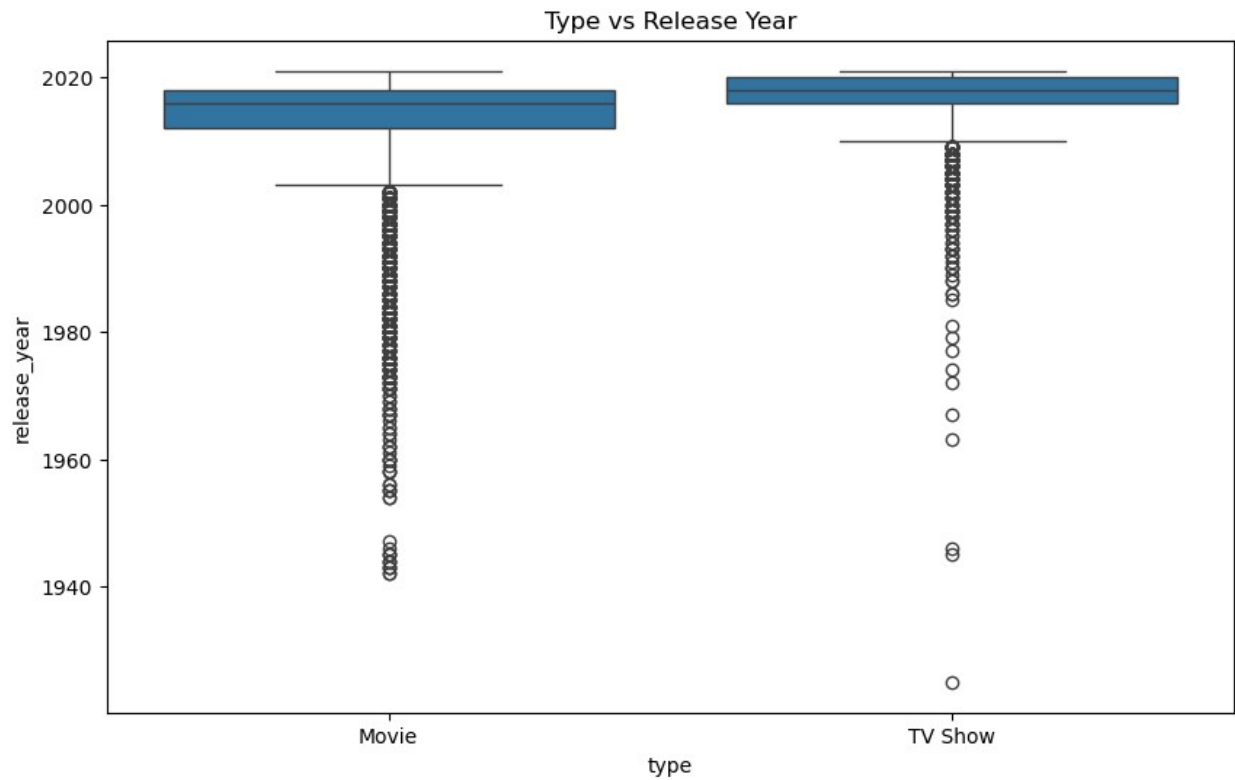
Content Type vs Rating

```
plt.figure(figsize=(10,6))
sns.countplot(x='type', hue='rating', data=df)
plt.title('Type vs Rating')
plt.xticks(rotation=45)
plt.show()
```



Content Type vs Release Year

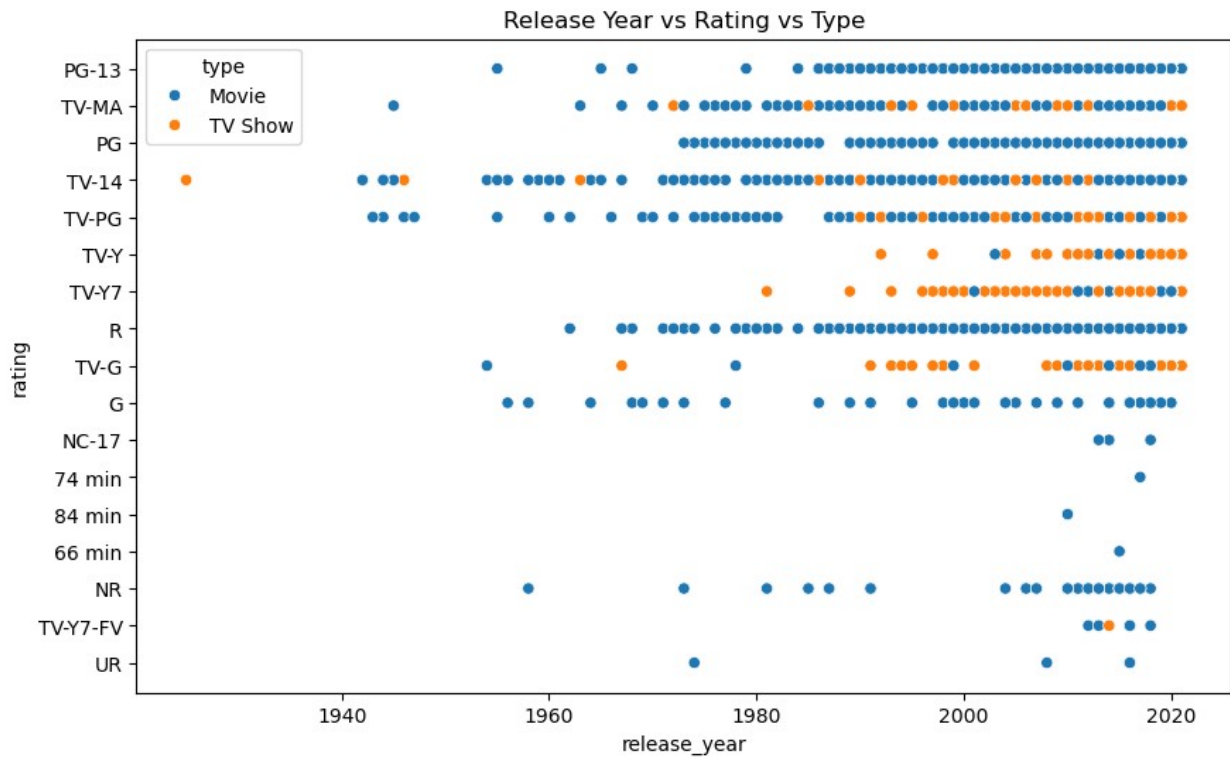
```
plt.figure(figsize=(10,6))
sns.boxplot(x='type', y='release_year', data=df)
plt.title('Type vs Release Year')
plt.show()
```



### 5.3 Multivariate Analysis

Type vs Rating vs Release Year

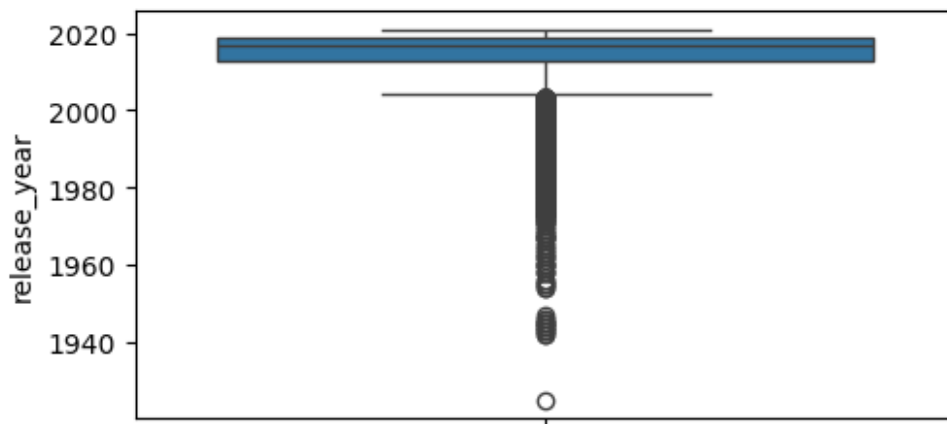
```
plt.figure(figsize=(10,6))
sns.scatterplot(x='release_year', y='rating', hue='type', data=df)
plt.title('Release Year vs Rating vs Type')
plt.show()
```



## 6 Outliers detection

```
num_cols = ["release_year"]

plt.figure(figsize=(12,6))
for i,col in enumerate(num_cols,1):
    plt.subplot(2,2,i)
    sns.boxplot(df[col])
plt.show()
```



```
Q1 = df["release_year"].quantile(0.25)
Q3 = df["release_year"].quantile(0.75)
```



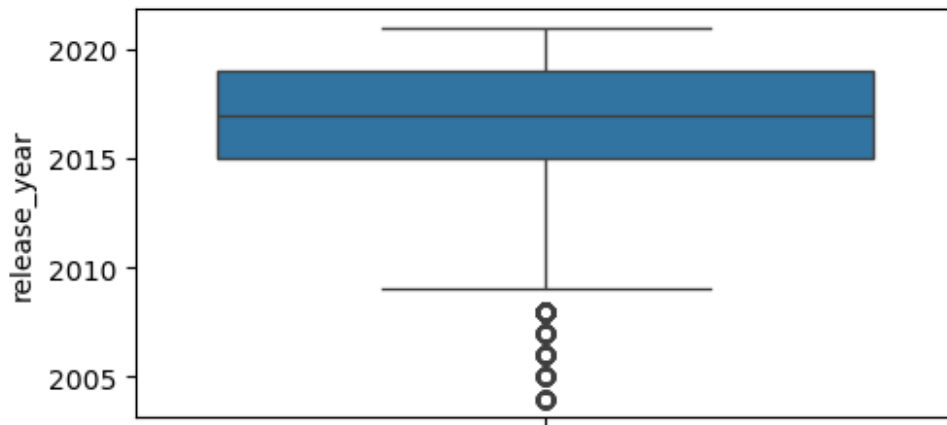
```

IQR = Q3 - Q1
df = df[(df["release_year"] >= Q1 - 1.5*IQR) & (df["release_year"] <=
Q3 + 1.5*IQR)]

num_cols = ["release_year"]

plt.figure(figsize=(12,6))
for i,col in enumerate(num_cols,1):
    plt.subplot(2,2,i)
    sns.boxplot(df[col])
plt.show()

```



```

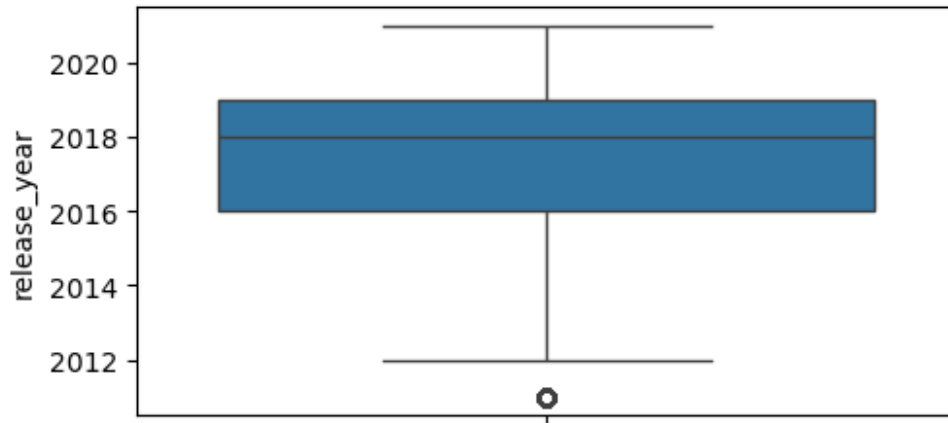
Q1 = df["release_year"].quantile(0.25)
Q3 = df["release_year"].quantile(0.75)
IQR = Q3 - Q1

# Stricter range
df = df[(df["release_year"] >= Q1 - 1.0*IQR) & (df["release_year"] <=
Q3 + 1.0*IQR)]

num_cols = ["release_year"]

plt.figure(figsize=(12,6))
for i,col in enumerate(num_cols,1):
    plt.subplot(2,2,i)
    sns.boxplot(df[col])
plt.show()

```

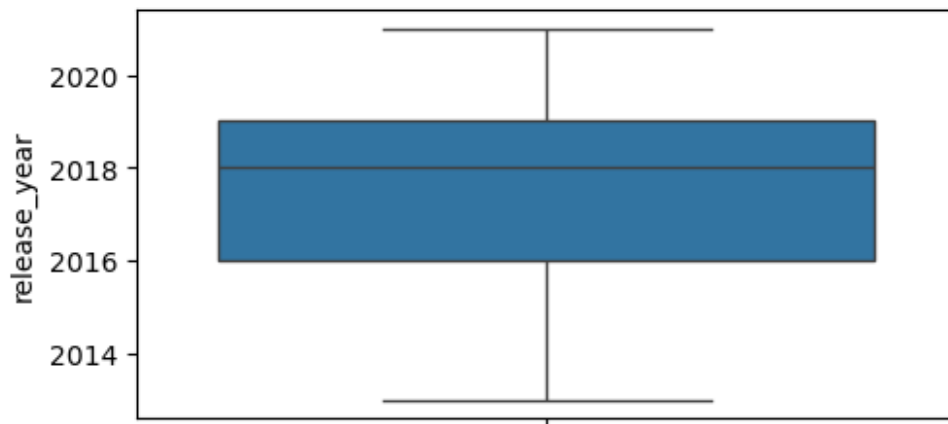


```
Q1 = df["release_year"].quantile(0.25)
Q3 = df["release_year"].quantile(0.75)
IQR = Q3 - Q1

# Stricter range
df = df[(df["release_year"] >= Q1 - 1.0*IQR) & (df["release_year"] <=
Q3 + 1.0*IQR)]

num_cols = ["release_year"]

plt.figure(figsize=(12,6))
for i,col in enumerate(num_cols,1):
    plt.subplot(2,2,i)
    sns.boxplot(df[col])
plt.show()
```



```
df.describe()
```

	release_year
count	7624.000000
mean	2016.912775

std	2.942338
min	2009.000000
25%	2015.000000
50%	2017.000000
75%	2019.000000
max	2021.000000

## key insights

### Conclusion

```
df=pd.read_csv("netflix.csv")
df.tail()
```

	show_id	type	title \
8808	s8766	Movie	XX
8809	s8767	Movie	XXx
8810	s8768	Movie	XXX: State of the Union
8811	s8769	Movie	Y Tu Mamá También
8812	s8770	Movie	Y.M.I.: Yeh Mera India

	director \
8808	Jovanka Vuckovic, Annie Clark, Roxanne Benjami...
8809	Rob Cohen
8810	Lee Tamahori
8811	Alfonso Cuarón
8812	N. Chandra

	cast \
8808	Natalie Brown, Jonathan Watton, Melanie Lynske...
8809	Vin Diesel, Asia Argento, Marton Csokas, Samue...
8810	Ice Cube, Samuel L. Jackson, Willem Dafoe, Sco...
8811	Maribel Verdú, Gael García Bernal, Diego Luna,...
8812	Anupam Kher, Atul Kulkarni, Aakash Pandey, Mil...

	country	date_added	release_year	rating
duration \				
8808	Canada, United States	June 22, 2017	2017	R 81
min				
8809	United States	January 1, 2019	2002	PG-13 124
min				
8810	United States	January 1, 2019	2005	PG-13 101
min				
8811	Mexico	June 1, 2017	2001	R 106
min				
8812	India	March 1, 2018	2008	TV-MA 137
min				

	listed_in \
8808	Horror Movies

```

8809          Action & Adventure, Sports Movies
8810          Action & Adventure
8811 Dramas, Independent Movies, International Movies
8812 Dramas, Independent Movies, International Movies

```

```

description
8808 This four-part anthology of short horror films...
8809 A notorious underground rush-seeker deemed unt...
8810 In this action-packed follow-up to XXX, U.S. i...
8811 When rich teens Tenoch and Julio meet the allu...
8812 The lives of a middle-aged soap opera addict, ...

```

```
import pandas as pd
```

```

df['date_added'] = df['date_added'].astype(str).strip()
df['date_added'] = pd.to_datetime(df['date_added'], errors='coerce')
df['day_month'] = df['date_added'].dt.strftime('%d-%m')
df['year'] = df['date_added'].dt.year

```

```
print(df.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	2021-09-25	2020	PG-13	90 min
1	2021-09-24	2021	TV-MA	2 Seasons
2	2021-09-24	2021	TV-MA	1 Season
3	2021-09-24	2021	TV-MA	1 Season
4	2021-09-24	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	day_month	year
-------------	-----------	------

0	As her father nears the end of his life, filmm...	25-09	2021.0
1	After crossing paths at a party, a Cape Town t...	24-09	2021.0
2	To protect his family from a powerful drug lor...	24-09	2021.0
3	Feuds, flirtations and toilet talk go down amo...	24-09	2021.0
4	In a city of coaching centers known to train I...	24-09	2021.0

df.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	2021-09-25	2020	PG-13	90 min	
1	2021-09-24	2021	TV-MA	2 Seasons	
2	2021-09-24	2021	TV-MA	1 Season	
3	2021-09-24	2021	TV-MA	1 Season	
4	2021-09-24	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	day_month	year
0	As her father nears the end of his life, filmm...	25-09	2021.0
1	After crossing paths at a party, a Cape Town t...	24-09	2021.0
2	To protect his family from a powerful drug lor...	24-09	2021.0
3	Feuds, flirtations and toilet talk go down amo...	24-09	2021.0

4 In a city of coaching centers known to train I... 24-09 2021.0