In [12]:
```
import pandas as pd
df = pd.read_csv(r"C:\\Users\\SK\\netflix_titles.csv")
```

In [8]:
```
import os
os.getcwd()
```

Out[8]:
```
'C:\\Users\\SK'
```

In [9]:
```
pd.read_csv("netflix_titles.csv")
```

Out[9]:

	show_id	type	title	director	cast	country	date_added	release_year
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	NaN	September 24, 2021	2021
3	s4	TV Show	Jailbirds New Orleans	NaN	NaN	NaN	September 24, 2021	2021
4	s5	TV Show	Kota Factory	NaN	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...	India	September 24, 2021	2021
...	...	...	...	...	...	...	...	...
8802	s8803	Movie	Zodiac	David Fincher	Mark Ruffalo, Jake Gyllenhaal, Robert Downey J...	United States	November 20, 2019	2007
8803	s8804	TV Show	Zombie Dumb	NaN	NaN	NaN	July 1, 2019	2018
8804	s8805	Movie	Zombieland	Ruben Fleischer	Jesse Eisenberg, Woody	United States	November 1, 2019	2009

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

8807 rows × 12 columns

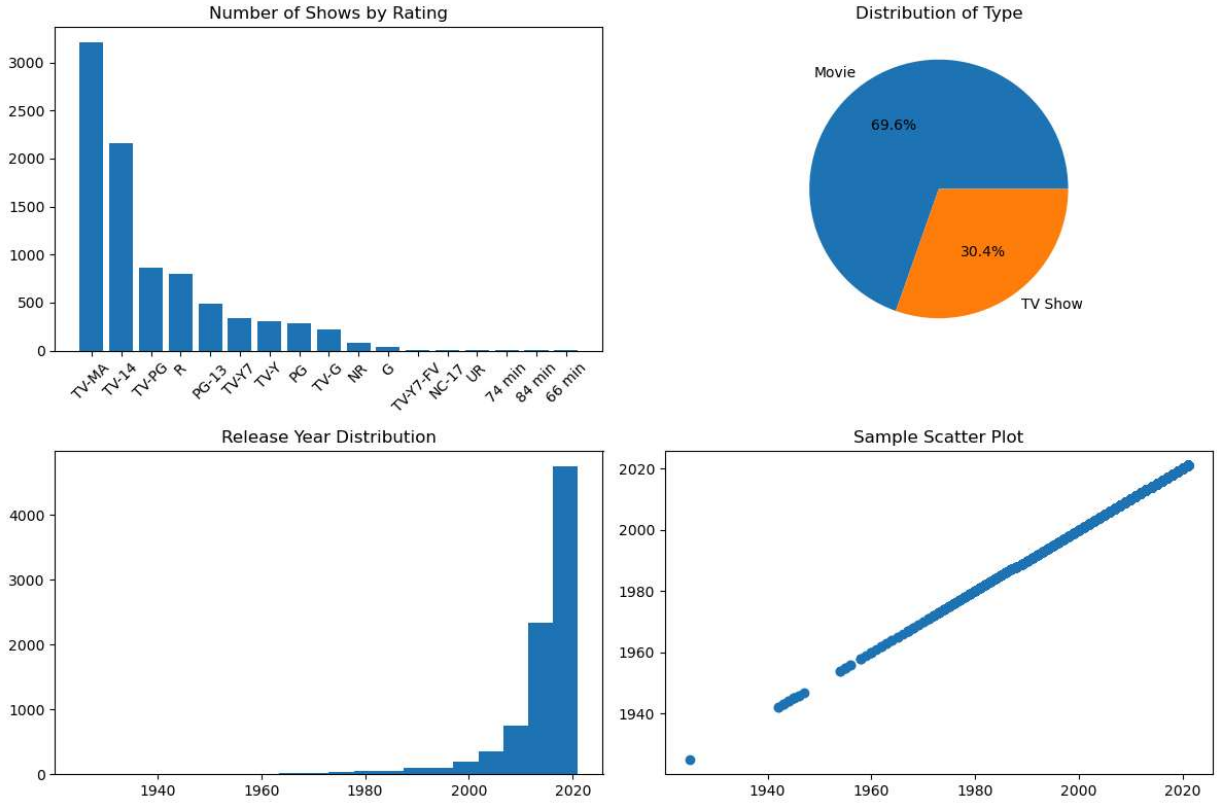
In [13]:
```
rating_count = df['rating'].value_counts()
```

In [14]:
```
import pandas as pd
df = pd.read_csv("netflix_titles.csv")
df.head()
df.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 [15]:
```
import matplotlib.pyplot as plt

fig, axes = plt.subplots(2, 2, figsize=(12, 8))


rating_counts = df['rating'].value_counts()
```

```
axes[0,0].bar(rating_counts.index, rating_counts.values)
axes[0,0].set_title("Number of Shows by Rating")
axes[0,0].tick_params(axis='x', rotation=45)


type_counts = df['type'].value_counts()
axes[0,1].pie(type_counts.values, labels=type_counts.index, autopct='%1.1f%%')
axes[0,1].set_title("Distribution of Type")


axes[1,0].hist(df['release_year'].dropna(), bins=20)
axes[1,0].set_title("Release Year Distribution")


# (Here duration might need conversion if text like '90 min')
axes[1,1].scatter(df['release_year'], df['release_year'])  # temporary placeholder
axes[1,1].set_title("Sample Scatter Plot")

plt.tight_layout()
plt.show()
```



In [17]:
```
df.head(20)
```

Out[17]:

	show_id	type	title	director	cast	country	date_added	release_ye
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	20
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	20
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	NaN	September 24, 2021	20
3	s4	TV Show	Jailbirds New Orleans	NaN	NaN	NaN	September 24, 2021	20
4	s5	TV Show	Kota Factory	NaN	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...	India	September 24, 2021	20
5	s6	TV Show	Midnight Mass	Mike Flanagan	Kate Siegel, Zach Gilford, Hamish Linklater, H...	NaN	September 24, 2021	20
6	s7	Movie	My Little Pony: A New Generation	Robert Cullen, José Luis Ucha	Vanessa Hudgens, Kimiko Glenn, James Marsden, ...	NaN	September 24, 2021	20
7	s8	Movie	Sankofa	Haile Gerima	Kofi Ghanaba, Oyafunmike Ogunlano, Alexandra D...	United States, Ghana, Burkina Faso,	September 24, 2021	19

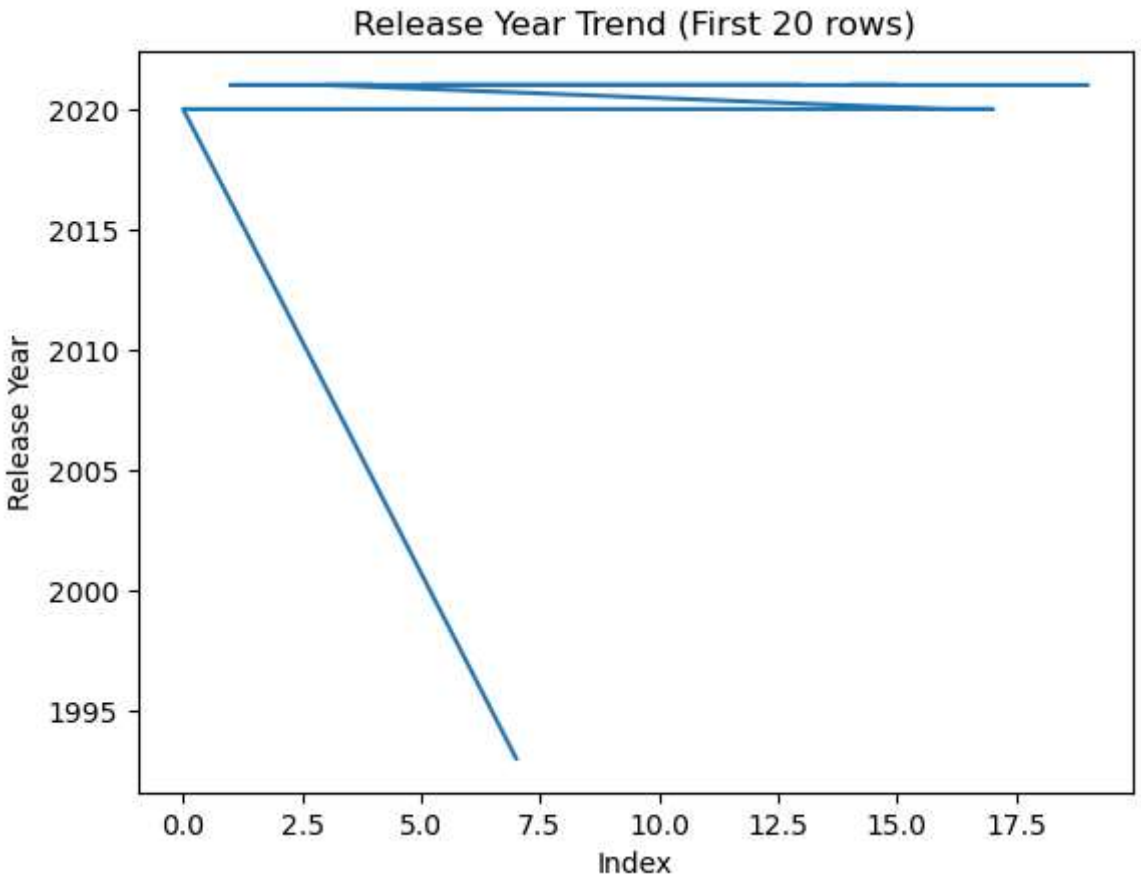
	show_id	type	title	director	cast	country	date_added	release_ye
						United Kin...		
8	s9	TV Show	The Great British Baking Show	Andy Devonshire	Mel Giedroyc, Sue Perkins, Mary Berry, Paul Ho...	United Kingdom	September 24, 2021	20
9	s10	Movie	The Starling	Theodore Melfi	Melissa McCarthy, Chris O'Dowd, Kevin Kline, T...	United States	September 24, 2021	20
10	s11	TV Show	Vendetta: Truth, Lies and The Mafia	NaN	NaN	NaN	September 24, 2021	20
11	s12	TV Show	Bangkok Breaking	Kongkiat Komesiri	Sukollawat Kanarot, Sushar Manaying, Pavarit M...	NaN	September 23, 2021	20
12	s13	Movie	Je Suis Karl	Christian Schwochow	Luna Wedler, Jannis Niewöhner, Milan Peschel, ...	Germany, Czech Republic	September 23, 2021	20
13	s14	Movie	Confessions of an Invisible Girl	Bruno Garotti	Klara Castanho, Lucca Picon, Júlia Gomes, Marc...	NaN	September 22, 2021	20
14	s15	TV Show	Crime Stories: India Detectives	NaN	NaN	NaN	September 22, 2021	20
15	s16	TV Show	Dear White People	NaN	Logan Browning, Brandon P. Bell, DeRon Horton,...	United States	September 22, 2021	20

	show_id	type	title	director	cast	country	date_added	release_ye
16	s17	Movie	Europe's Most Dangerous Man: Otto Skorzeny in ...	Pedro de Echave García, Pablo Azorín Williams	NaN	NaN	September 22, 2021	20
17	s18	TV Show	Falsa identidad	NaN	Luis Ernesto Franco, Camila Sodi, Sergio Goyri...	Mexico	September 22, 2021	20
18	s19	Movie	Intrusion	Adam Salky	Freida Pinto, Logan Marshall-Green, Robert Joh...	NaN	September 22, 2021	20
19	s20	TV Show	Jaguar	NaN	Blanca Suárez, Iván Marcos, Óscar Casas, Adriá...	NaN	September 22, 2021	20

In [19]:
```
df_20 = df.head(20)
```

In [ ]:
```
```

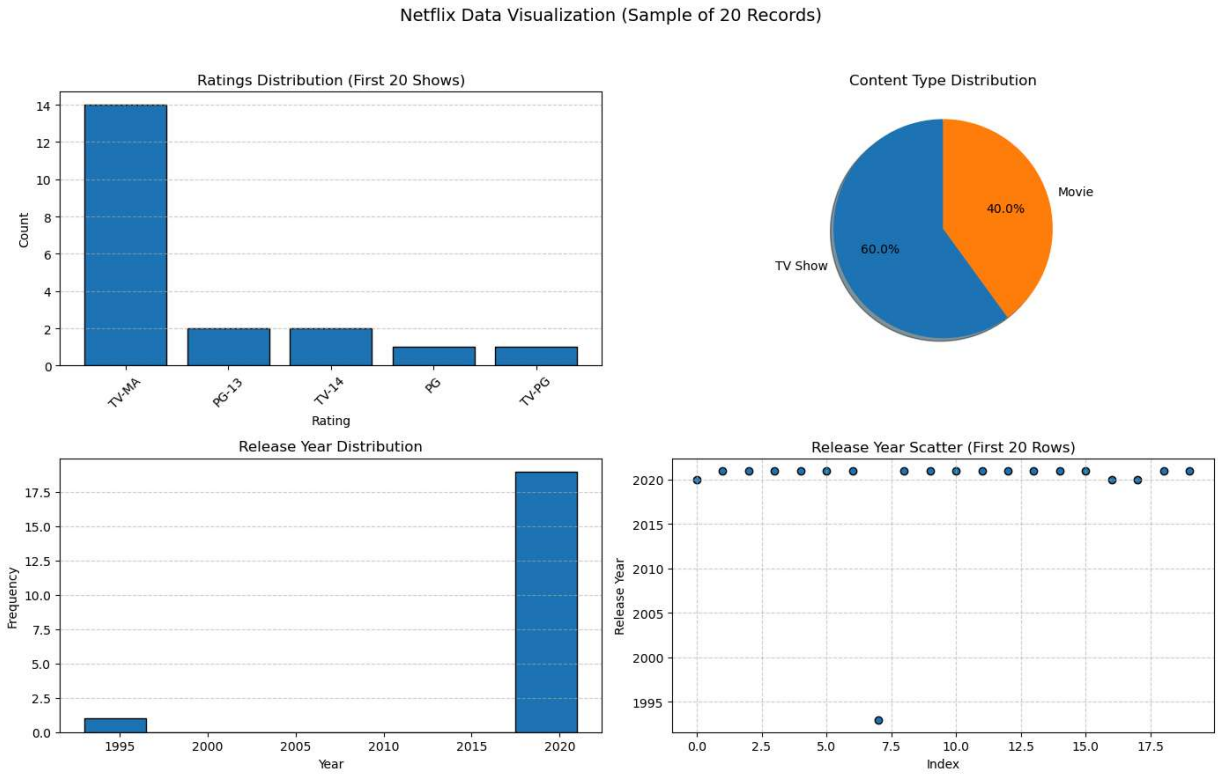
In [21]:
```
df_sorted = df_20.sort_values('release_year')

plt.plot(df_sorted['release_year'])
plt.title("Release Year Trend (First 20 rows)")
plt.xlabel("Index")
plt.ylabel("Release Year")
plt.show()
```



In [38]:

```
import matplotlib.pyplot as plt

# use only first 20 rows
df_20 = df.head(20)

fig, axes = plt.subplots(2, 2, figsize=(14, 9))

# 1️⃣ Bar Plot – Ratings
rating_count = df_20['rating'].value_counts()
axes[0,0].bar(
    rating_count.index,
    rating_count.values,
    edgecolor='black'
)
axes[0,0].set_title("Ratings Distribution (First 20 Shows)", fontsize=12)
axes[0,0].set_xlabel("Rating")
axes[0,0].set_ylabel("Count")
axes[0,0].tick_params(axis='x', rotation=45)
axes[0,0].grid(axis='y', linestyle='--', alpha=0.6)

# 2️⃣ Pie Chart – Movies vs TV Shows
type_count = df_20['type'].value_counts()
axes[0,1].pie(
    type_count.values,
    labels=type_count.index,
    autopct='%1.1f%%',
    startangle=90,
    shadow=True
```

```
)
axes[0,1].set_title("Content Type Distribution")

# 3️⃣ Histogram - Release Year
axes[1,0].hist(
    df_20['release_year'],
    bins=8,
    edgecolor='black'
)
axes[1,0].set_title("Release Year Distribution")
axes[1,0].set_xlabel("Year")
axes[1,0].set_ylabel("Frequency")
axes[1,0].grid(axis='y', linestyle='--', alpha=0.6)

# 4️⃣ Scatter Plot - Index vs Release Year
axes[1,1].scatter(
    df_20.index,
    df_20['release_year'],
    marker='o',
    edgecolors='black'
)
axes[1,1].set_title("Release Year Scatter (First 20 Rows)")
axes[1,1].set_xlabel("Index")
axes[1,1].set_ylabel("Release Year")
axes[1,1].grid(linestyle='--', alpha=0.6)

plt.suptitle("Netflix Data Visualization (Sample of 20 Records)", fontsize=14)
plt.tight_layout(rect=[0, 0, 1, 0.95])
plt.show()
```



In [41]:

In [ ]: