

In [1]: ## TASK FOR DATA CLEANING AND TAKE 500 ROW WITH ALL REQUIRE COLUMN AND ALSO SAVE TH

```
In [2]: import numpy as np
import pandas as pd
```

```
In [3]: movies = pd.read_csv(r'C:\Users\RUPA\Downloads\movies.csv')
```

In [4]: movies

Out[4]:	MOVIES	YEAR	GENRE	RATING	ONE-LINE	STARS	VOTES	RunTime
0	Blood Red Sky	-2021	\nAction, Horror, Thriller	6.1	\nA woman with a mysterious illness is forced ...	\n Director:\nPeter Thorwarth\n \n Star...	21,062	121.0
1	Masters of the Universe: Revelation	(2021-)	\nAnimation, Action, Adventure	5.0	\nThe war for Eternia begins again in what may...	\n \n Stars:\nChris Wood, \nSara...	17,870	25.0
2	The Walking Dead	(2010-2022)	\nDrama, Horror, Thriller	8.2	\nSheriff Deputy Rick Grimes wakes up from a c...	\n \n Stars:\nAndrew Lincoln, \n...	885,805	44.0
3	Rick and Morty	(2013-)	\nAnimation, Adventure, Comedy	9.2	\nAn animated series that follows the exploits...	\n \n Stars:\nJustin Roiland, \n...	414,849	23.0
4	Army of Thieves	-2021	\nAction, Crime, Horror	NaN	\nA prequel, set before the events of Army of ...	\n Director:\nMatthias Schweighöfer\n \n ...	NaN	NaN
...
9994	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
9995	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
9996	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
9997	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
9998	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

9999 rows × 9 columns

```
In [5]: selected_rows = movies.head(500)
```

```
In [6]: print(selected_rows)
```

	MOVIES	YEAR	\
0	Blood Red Sky	-2021	
1	Masters of the Universe: Revelation	(2021-)	
2	The Walking Dead	(2010-2022)	
3	Rick and Morty	(2013-)	
4	Army of Thieves	-2021	
..	
495	La catedral del mar	-2018	
496	Beckett	-2021	
497	Triple Frontier	-2019	
498	Fondeados	-2021	
499	Sweet Home	(2020-)	

	GENRE	RATING	\
0	\nAction, Horror, Thriller	6.1	
1	\nAnimation, Action, Adventure	5.0	
2	\nDrama, Horror, Thriller	8.2	
3	\nAnimation, Adventure, Comedy	9.2	
4	\nAction, Crime, Horror	NaN	
..	
495	\nDrama, History	7.5	
496	\nAction, Crime, Drama	NaN	
497	\nAction, Adventure, Crime	6.4	
498	\nComedy	4.2	
499	\nDrama, Fantasy, Horror	7.4	

	ONE-LINE	\
0	\nA woman with a mysterious illness is forced ...	
1	\nThe war for Eternia begins again in what may...	
2	\nSheriff Deputy Rick Grimes wakes up from a c...	
3	\nAn animated series that follows the exploits...	
4	\nA prequel, set before the events of Army of ...	
..	...	
495	\nBased upon Ildefonso Falcones novel.	
496	\nFollowing a tragic car accident in Greece, B...	
497	\nLoyalties are tested when five friends and f...	
498	\nTwo directionless millennial bros get high a...	
499	\nHyun, a loner high school student who lost h...	

	STARS	VOTES	RunTime	Gross
0	\n Director:\nPeter Thorwarth\n \n Star...	21,062	121.0	NaN
1	\n \n Stars:\nChris Wood, \nSara...	17,870	25.0	NaN
2	\n \n Stars:\nAndrew Lincoln, \n...	885,805	44.0	NaN
3	\n \n Stars:\nJustin Roiland, \n...	414,849	23.0	NaN
4	\n Director:\nMatthias Schweighöfer\n \n ...	NaN	NaN	NaN
..
495	\n \n Stars:\nJordi Aguilar, \nA...	3,574	55.0	NaN
496	\n Director:\nFerdinando Cito Filomarino\n ...	NaN	108.0	NaN
497	\n Director:\nJ.C. Chandor\n \n Stars:\n...	115,059	125.0	NaN
498	\n Director:\nMarcos Bucay\n \n Stars:\n...	161	97.0	NaN
499	\n \n Stars:\nSong Kang, \nLee J...	12,428	52.0	NaN

[500 rows x 9 columns]

```
In [7]: movies = movies.drop(columns=['Gross'])
```

```
In [8]: movies
```

Out[8]:

	MOVIES	YEAR	GENRE	RATING	ONE-LINE	STARS	VOTES	RunTime
0	Blood Red Sky	-2021	\nAction, Horror, Thriller	6.1	\nA woman with a mysterious illness is forced ...	\n Director:\nPeter Thorwarth\n \n Star...	21,062	121.0
1	Masters of the Universe: Revelation	(2021–)	\nAnimation, Action, Adventure	5.0	\nThe war for Eternia begins again in what may...	\n \n Stars:\nChris Wood, \nSara...	17,870	25.0
2	The Walking Dead	(2010– 2022)	\nDrama, Horror, Thriller	8.2	\nSheriff Deputy Rick Grimes wakes up from a c...	\n \n Stars:\nAndrew Lincoln, \n...	885,805	44.0
3	Rick and Morty	(2013–)	\nAnimation, Adventure, Comedy	9.2	\nAn animated series that follows the exploits...	\n \n Stars:\nJustin Roiland, \n...	414,849	23.0
4	Army of Thieves	-2021	\nAction, Crime, Horror	NaN	\nA prequel, set before the events of Army of ...	\n Director:\nMatthias Schweighöfer\n \n ...	NaN	NaN
...
9994	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
9995	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
9996	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
9997	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
9998	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

9999 rows × 8 columns



In [9]: `movies1 = movies.head(500)`

In [10]: `movies1`

Out[10]:

	MOVIES	YEAR	GENRE	RATING	ONE-LINE	STARS	VOTES	RunTim
0	Blood Red Sky	-2021	\nAction, Horror, Thriller	6.1	\nA woman with a mysterious illness is forced ...	\n Director:\nPeter Thorwarth\n \n Star...	21,062	121.
1	Masters of the Universe: Revelation	(2021–)	\nAnimation, Action, Adventure	5.0	\nThe war for Eternia begins again in what may...	\n \n Stars:\nChris Wood, \nSara...	17,870	25.
2	The Walking Dead	(2010–2022)	\nDrama, Horror, Thriller	8.2	\nSheriff Deputy Rick Grimes wakes up from a c...	\n \n Stars:\nAndrew Lincoln, \n...	885,805	44.
3	Rick and Morty	(2013–)	\nAnimation, Adventure, Comedy	9.2	\nAn animated series that follows the exploits...	\n \n Stars:\nJustin Roiland, \n...	414,849	23.
4	Army of Thieves	-2021	\nAction, Crime, Horror	NaN	\nA prequel, set before the events of Army of ...	\n Director:\nMatthias Schweighöfer\n \n ...	NaN	NaN
...
495	La catedral del mar	-2018	\nDrama, History	7.5	\nBased upon Ildefonso Falcones novel.	\n \n Stars:\nJordi Aguilar, \nA...	3,574	55.
496	Beckett	-2021	\nAction, Crime, Drama	NaN	\nFollowing a tragic car accident in Greece, B...	\n Director:\nFerdinando Cito Filomarino\n ...	NaN	108.
497	Triple Frontier	-2019	\nAction, Adventure, Crime	6.4	\nLoyalties are tested when five friends and f...	\n Director:\nJ.C. Chandor\n \n Stars:\n...	115,059	125.
498	Fondeados	-2021	\nComedy	4.2	\nTwo directionless millennial bros get high a...	\n Director:\nMarcos Bucay\n \n Stars:\n...	161	97.
499	Sweet Home	(2020–)	\nDrama, Fantasy, Horror	7.4	\nHyun, a loner high school student who lost h...	\n \n Stars:\nSong Kang, \nLee J...	12,428	52.

500 rows × 8 columns

```
In [11]: movies2 = movies1.applymap(lambda x: x.strip() if isinstance(x, str) else x)
```

```
In [12]: movies2
```

Out[12]:

	MOVIES	YEAR	GENRE	RATING	ONE-LINE	STARS	VOTES	RunTime
0	Blood Red Sky	-2021	Action, Horror, Thriller	6.1	A woman with a mysterious illness is forced in...	Director:\nPeter Thorwarth\n \nStars:\nPe...	21,062	121.0
1	Masters of the Universe: Revelation	(2021-)	Animation, Action, Adventure	5.0	The war for Eternia begins again in what may b...	Stars:\nChris Wood, \nSarah Michelle Gellar, \n...	17,870	25.0
2	The Walking Dead	(2010-2022)	Drama, Horror, Thriller	8.2	Sheriff Deputy Rick Grimes wakes up from a com...	Stars:\nAndrew Lincoln, \nNorman Reedus, \nMel...	885,805	44.0
3	Rick and Morty	(2013-)	Animation, Adventure, Comedy	9.2	An animated series that follows the exploits o...	Stars:\nJustin Roiland, \nChris Parnell, \nSpe...	414,849	23.0
4	Army of Thieves	-2021	Action, Crime, Horror	NaN	A prequel, set before the events of Army of th...	Director:\nMatthias Schweighöfer\n \nStar...	NaN	NaN
...
495	La catedral del mar	-2018	Drama, History	7.5	Based upon Ildefonso Falcones novel.	Stars:\nJordi Aguilar, \nAitor Luna, \nPablo D...	3,574	55.0
496	Beckett	-2021	Action, Crime, Drama	NaN	Following a tragic car accident in Greece, Bec...	Director:\nFerdinando Cito Filomarino\n \n...	NaN	108.0
497	Triple Frontier	-2019	Action, Adventure, Crime	6.4	Loyalties are tested when five friends and for...	Director:\nJ.C. Chandor\n \nStars:\nBen A...	115,059	125.0
498	Fondeados	-2021	Comedy	4.2	Two directionless millennial bros get high and...	Director:\nMarcos Bucay\n \nStars:\nAldo ...	161	97.0
499	Sweet Home	(2020-)	Drama, Fantasy, Horror	7.4	Hyun, a loner high school student who lost his...	Stars:\nSong Kang, \nLee Jin-Wook, \nLee Si-yo...	12,428	52.0

500 rows × 8 columns

```
In [13]: movies2['YEAR'] = movies2['YEAR'].str.replace('---', '')
```

```
C:\Users\RUPA\AppData\Local\Temp\ipykernel_10044\2444780405.py:1: FutureWarning: The default value of regex will change from True to False in a future version.  
  movies2['YEAR'] = movies2['YEAR'].str.replace('---', '')
```

```
In [14]: movies2['YEAR'] = movies2['YEAR'].str.replace('-', '')
```

```
In [15]: movies2['YEAR'] = movies2['YEAR'].str.replace(r'\(|\)', '')
```

```
C:\Users\RUPA\AppData\Local\Temp\ipykernel_10044\2568281010.py:1: FutureWarning: The default value of regex will change from True to False in a future version.  
  movies2['YEAR'] = movies2['YEAR'].str.replace(r'\(|\)', '')
```

```
In [16]: movies2
```

Out[16]:

	MOVIES	YEAR	GENRE	RATING	ONE-LINE	STARS	VOTES	RunTin
0	Blood Red Sky	2021	Action, Horror, Thriller	6.1	A woman with a mysterious illness is forced in...	Director:\nPeter Thorwarth\n \nStars:\nPe...	21,062	121
1	Masters of the Universe: Revelation	2021	Animation, Action, Adventure	5.0	The war for Eternia begins again in what may b...	Stars:\nChris Wood, \nSarah Michelle Gellar, \n...	17,870	25
2	The Walking Dead	20102022	Drama, Horror, Thriller	8.2	Sheriff Deputy Rick Grimes wakes up from a com...	Stars:\nAndrew Lincoln, \nNorman Reedus, \nMel...	885,805	44
3	Rick and Morty	2013	Animation, Adventure, Comedy	9.2	An animated series that follows the exploits o...	Stars:\nJustin Roiland, \nChris Parnell, \nSpe...	414,849	23
4	Army of Thieves	2021	Action, Crime, Horror	NaN	A prequel, set before the events of Army of th...	Director:\nMatthias Schweighöfer\n \nStar...	NaN	Na
...
495	La catedral del mar	2018	Drama, History	7.5	Based upon Ildefonso Falcones novel.	Stars:\nJordi Aguilar, \nAitor Luna, \nPablo D...	3,574	55
496	Beckett	2021	Action, Crime, Drama	NaN	Following a tragic car accident in Greece, Bec...	Director:\nFerdinando Cito Filomarino\n \n...	NaN	108
497	Triple Frontier	2019	Action, Adventure, Crime	6.4	Loyalties are tested when five friends and for...	Director:\nJ.C. Chandor\n \nStars:\nBen A...	115,059	125
498	Fondeados	2021	Comedy	4.2	Two directionless millennial bros get high and...	Director:\nMarcos Bucay\n \nStars:\nAldo ...	161	97
499	Sweet Home	2020	Drama, Fantasy, Horror	7.4	Hyun, a loner high school student who lost his...	Stars:\nSong Kang, \nLee Jin-Wook, \nLee Si-yo...	12,428	52

500 rows × 8 columns


```
In [17]: movies2['YEAR'] = movies2['YEAR'].str.replace(r'\\(|\\)', '')
```

```
C:\Users\RUPA\AppData\Local\Temp\ipykernel_10044\2568281010.py:1: FutureWarning: The default value of regex will change from True to False in a future version.  
    movies2['YEAR'] = movies2['YEAR'].str.replace(r'\\(|\\)', '')
```

```
In [18]: movies2['YEAR'] = movies2['YEAR'].str.replace('-', '')
```

```
In [19]: movies2
```

Out[19]:

	MOVIES	YEAR	GENRE	RATING	ONE-LINE	STARS	VOTES	RunTin
0	Blood Red Sky	2021	Action, Horror, Thriller	6.1	A woman with a mysterious illness is forced in...	Director:\nPeter Thorwarth\n \n Stars:\nPe...	21,062	121
1	Masters of the Universe: Revelation	2021	Animation, Action, Adventure	5.0	The war for Eternia begins again in what may b...	Stars:\nChris Wood, \nSarah Michelle Gellar, \n...	17,870	25
2	The Walking Dead	20102022	Drama, Horror, Thriller	8.2	Sheriff Deputy Rick Grimes wakes up from a com...	Stars:\nAndrew Lincoln, \nNorman Reedus, \nMel...	885,805	44
3	Rick and Morty	2013	Animation, Adventure, Comedy	9.2	An animated series that follows the exploits o...	Stars:\nJustin Roiland, \nChris Parnell, \nSpe...	414,849	23
4	Army of Thieves	2021	Action, Crime, Horror	NaN	A prequel, set before the events of Army of th...	Director:\nMatthias Schweighöfer\n \n Star...	NaN	Na
...
495	La catedral del mar	2018	Drama, History	7.5	Based upon Ildefonso Falcones novel.	Stars:\nJordi Aguilar, \nAitor Luna, \nPablo D...	3,574	55
496	Beckett	2021	Action, Crime, Drama	NaN	Following a tragic car accident in Greece, Bec...	Director:\nFerdinando Cito Filomarino\n \n ...	NaN	108
497	Triple Frontier	2019	Action, Adventure, Crime	6.4	Loyalties are tested when five friends and for...	Director:\nJ.C. Chandor\n \n Stars:\nBen A...	115,059	125
498	Fondeados	2021	Comedy	4.2	Two directionless millennial bros get high and...	Director:\nMarcos Bucay\n \n Stars:\nAldo ...	161	97
499	Sweet Home	2020	Drama, Fantasy, Horror	7.4	Hyun, a loner high school student who lost his...	Stars:\nSong Kang, \nLee Jin-Wook, \nLee Si-yo...	12,428	52

500 rows × 8 columns

```
In [20]: movies2['YEAR'] = movies2['YEAR'].map(lambda x: x[4:] if len(x) == 8 else x)
```

```
In [21]: movies2
```

Out[21]:

	MOVIES	YEAR	GENRE	RATING	ONE-LINE	STARS	VOTES	RunTime
0	Blood Red Sky	2021	Action, Horror, Thriller	6.1	A woman with a mysterious illness is forced in...	Director:\nPeter Thorwarth\n\nStars:\nPe...	21,062	121.0
1	Masters of the Universe: Revelation	2021	Animation, Action, Adventure	5.0	The war for Eternia begins again in what may b...	Stars:\nChris Wood,\n\nSarah Michelle Gellar, \n...	17,870	25.0
2	The Walking Dead	2022	Drama, Horror, Thriller	8.2	Sheriff Deputy Rick Grimes wakes up from a com...	Stars:\nAndrew Lincoln,\n\nNorman Reedus, \nMel...	885,805	44.0
3	Rick and Morty	2013	Animation, Adventure, Comedy	9.2	An animated series that follows the exploits o...	Stars:\nJustin Roiland,\n\nChris Parnell, \nSpe...	414,849	23.0
4	Army of Thieves	2021	Action, Crime, Horror	NaN	A prequel, set before the events of Army of th...	Director:\nMatthias Schweighöfer\n\nStars...	NaN	NaN
...
495	La catedral del mar	2018	Drama, History	7.5	Based upon Ildefonso Falcones novel.	Stars:\nJordi Aguilar,\n\nAitor Luna, \nPablo D...	3,574	55.0
496	Beckett	2021	Action, Crime, Drama	NaN	Following a tragic car accident in Greece, Bec...	Director:\nFerdinando Cito Filomarino\n\n...	NaN	108.0
497	Triple Frontier	2019	Action, Adventure, Crime	6.4	Loyalties are tested when five friends and for...	Director:\nJ.C. Chandor\n\nStars:\nBen A...	115,059	125.0
498	Fondeados	2021	Comedy	4.2	Two directionless millennial bros get high and...	Director:\nMarcos Bucay\n\nStars:\nAldo ...	161	97.0
499	Sweet Home	2020	Drama, Fantasy, Horror	7.4	Hyun, a loner high school student who lost his...	Stars:\nSong Kang,\n\nLee Jin-Wook, \nLee Si-yo...	12,428	52.0

500 rows × 8 columns

```
In [22]: movies2['YEAR'].unique()
```

```
Out[22]: array(['2021', '2021 ', '2022', '2013 ', '2020 ', '2013', '2019 ',  
        '2011 ', '2005 ', '2017 ', '2016 ', '2004', '2014 ', '2020',  
        '2015 ', '2003 ', 'I 2018 ', '2015', '2019', '2014', '2018',  
        '2017', '1994', '2018 ', '2012 ', '2007', '007 ', '1993', '2016',  
        '2012', '2001', '1997 ', '1999', '1998', 'I 2019', '1975', '2008',  
        '2006', '1996', '2010 ', '2000', '2021 TV Special', '2003',  
        'I 2017', '1969', '2009 ', '1991', '1995', 'I 20132016', '2002',  
        'I 2020', 'II 2016', '1976', '1978', '2008 ', '2005', '1998 ',  
        '1968', '2010', '2011', 'I 2013', '1971', '2004 ', '1989',  
        'I 2014', 'I 2015', '1997', '2002 ', 'I 2016', '017 ', 'I 2018',  
        'I 2021', 'IV 2020'], dtype=object)
```

```
In [23]: import re  
movies2['YEAR'] = movies2['YEAR'].apply(lambda x: re.findall(r'\d+', str(x)))
```

```
In [24]: movies2['YEAR']
```

```
Out[24]: 0      [2021]  
         1      [2021]  
         2      [2022]  
         3      [2013]  
         4      [2021]  
         ...  
        495     [2018]  
        496     [2021]  
        497     [2019]  
        498     [2021]  
        499     [2020]  
        Name: YEAR, Length: 500, dtype: object
```

```
In [25]: movies2['YEAR'] = movies2['YEAR'].apply(lambda x: x[0] if isinstance(x, list) else
```

```
In [26]: movies2
```

Out[26]:

	MOVIES	YEAR	GENRE	RATING	ONE-LINE	STARS	VOTES	RunTime
0	Blood Red Sky	2021	Action, Horror, Thriller	6.1	A woman with a mysterious illness is forced in...	Director:\nPeter Thorwarth\n Stars:\nPe...	21,062	121.0
1	Masters of the Universe: Revelation	2021	Animation, Action, Adventure	5.0	The war for Eternia begins again in what may b...	Stars:\nChris Wood, \nSarah Michelle Gellar, \n...	17,870	25.0
2	The Walking Dead	2022	Drama, Horror, Thriller	8.2	Sheriff Deputy Rick Grimes wakes up from a com...	Stars:\nAndrew Lincoln, \nNorman Reedus, \nMel...	885,805	44.0
3	Rick and Morty	2013	Animation, Adventure, Comedy	9.2	An animated series that follows the exploits o...	Stars:\nJustin Roiland, \nChris Parnell, \nSpe...	414,849	23.0
4	Army of Thieves	2021	Action, Crime, Horror	NaN	A prequel, set before the events of Army of th...	Director:\nMatthias Schweighöfer\n Stars...	NaN	NaN
...
495	La catedral del mar	2018	Drama, History	7.5	Based upon Ildefonso Falcones novel.	Stars:\nJordi Aguilar, \nAitor Luna, \nPablo D...	3,574	55.0
496	Beckett	2021	Action, Crime, Drama	NaN	Following a tragic car accident in Greece, Bec...	Director:\nFerdinando Cito Filomarino\n ...	NaN	108.0
497	Triple Frontier	2019	Action, Adventure, Crime	6.4	Loyalties are tested when five friends and for...	Director:\nJ.C. Chandor\n Stars:\nBen A...	115,059	125.0
498	Fondeados	2021	Comedy	4.2	Two directionless millennial bros get high and...	Director:\nMarcos Bucay\n Stars:\nAldo ...	161	97.0
499	Sweet Home	2020	Drama, Fantasy, Horror	7.4	Hyun, a loner high school student who lost his...	Stars:\nSong Kang, \nLee Jin-Wook, \nLee Si-yo...	12,428	52.0

500 rows × 8 columns

```
In [27]: movies3 = movies2.isnull().sum()
```

```
In [28]: movies3
```

```
Out[28]: MOVIES      0  
YEAR        0  
GENRE       0  
RATING      10  
ONE-LINE    0  
STARS       0  
VOTES       10  
RunTime     22  
dtype: int64
```

```
In [29]: movies2 = movies2.ffill()
```

```
In [30]: movies2
```

Out[30]:

	MOVIES	YEAR	GENRE	RATING	ONE-LINE	STARS	VOTES	RunTime
0	Blood Red Sky	2021	Action, Horror, Thriller	6.1	A woman with a mysterious illness is forced in...	Director:\nPeter Thorwarth\n\nStars:\nPe...	21,062	121.0
1	Masters of the Universe: Revelation	2021	Animation, Action, Adventure	5.0	The war for Eternia begins again in what may b...	Stars:\nChris Wood,\n\nSarah Michelle Gellar, \n...	17,870	25.0
2	The Walking Dead	2022	Drama, Horror, Thriller	8.2	Sheriff Deputy Rick Grimes wakes up from a com...	Stars:\nAndrew Lincoln,\n\nNorman Reedus, \nMel...	885,805	44.0
3	Rick and Morty	2013	Animation, Adventure, Comedy	9.2	An animated series that follows the exploits o...	Stars:\nJustin Roiland,\n\nChris Parnell, \nSpe...	414,849	23.0
4	Army of Thieves	2021	Action, Crime, Horror	9.2	A prequel, set before the events of Army of th...	Director:\nMatthias Schweighöfer\n\n\nStar...	414,849	23.0
...
495	La catedral del mar	2018	Drama, History	7.5	Based upon Ildefonso Falcones novel.	Stars:\nJordi Aguilar,\n\nAitor Luna, \nPablo D...	3,574	55.0
496	Beckett	2021	Action, Crime, Drama	7.5	Following a tragic car accident in Greece, Bec...	Director:\nFerdinando Cito Filomarino\n\n\n...	3,574	108.0
497	Triple Frontier	2019	Action, Adventure, Crime	6.4	Loyalties are tested when five friends and for...	Director:\nJ.C. Chandor\n\n\nStars:\nBen A...	115,059	125.0
498	Fondeados	2021	Comedy	4.2	Two directionless millennial bros get high and...	Director:\nMarcos Bucay\n\n\nStars:\nAldo ...	161	97.0
499	Sweet Home	2020	Drama, Fantasy, Horror	7.4	Hyun, a loner high school student who lost his...	Stars:\nSong Kang,\n\nLee Jin-Wook, \nLee Si-yo...	12,428	52.0

500 rows × 8 columns


```
In [31]: movies2['STARS'] = movies2['STARS'].map(lambda x: re.sub(r'^a-zA-Z0-9\s', '', str
```

```
In [32]: movies2['GENRE'] = movies2['GENRE'].str.replace(',','')
```

```
In [33]: movies2['VOTES'] = movies2['VOTES'].str.replace(',','')
```

```
In [34]: movies2
```

Out[34]:

	MOVIES	YEAR	GENRE	RATING	ONE-LINE	STARS	VOTES	RunTime
0	Blood Red Sky	2021	Action Horror Thriller	6.1	A woman with a mysterious illness is forced in...	DirectorPeter Thorwarth StarsPeri Baumeist...	21062	121.0
1	Masters of the Universe: Revelation	2021	Animation Action Adventure	5.0	The war for Eternia begins again in what may b...	StarsChris Wood Sarah Michelle Gellar Lena Hea...	17870	25.0
2	The Walking Dead	2022	Drama Horror Thriller	8.2	Sheriff Deputy Rick Grimes wakes up from a com...	StarsAndrew Lincoln Norman Reedus Melissa McB...	885805	44.0
3	Rick and Morty	2013	Animation Adventure Comedy	9.2	An animated series that follows the exploits o...	StarsJustin Roiland Chris Parnell Spencer Gram...	414849	23.0
4	Army of Thieves	2021	Action Crime Horror	9.2	A prequel, set before the events of Army of th...	DirectorMatthias Schweighfer StarsMatthias...	414849	23.0
...
495	La catedral del mar	2018	Drama History	7.5	Based upon Ildefonso Falcones novel.	StarsJordi Aguilar Aitor Luna Pablo Derqui Gin...	3574	55.0
496	Beckett	2021	Action Crime Drama	7.5	Following a tragic car accident in Greece, Bec...	DirectorFerdinando Cito Filomarino StarsJo...	3574	108.0
497	Triple Frontier	2019	Action Adventure Crime	6.4	Loyalties are tested when five friends and for...	DirectorJC Chandor StarsBen Affleck Oscar ...	115059	125.0
498	Fondeados	2021	Comedy	4.2	Two directionless millennial bros get high and...	DirectorMarcos Bucay StarsAldo Escalante R...	161	97.0
499	Sweet Home	2020	Drama Fantasy Horror	7.4	Hyun, a loner high school student who lost his...	StarsSong Kang Lee JinWook Lee Siyong Lee DoHyun	12428	52.0

500 rows × 8 columns

```
In [35]: movies2['YEAR']
```

```
Out[35]: 0      2021
1      2021
2      2022
3      2013
4      2021
...
495    2018
496    2021
497    2019
498    2021
499    2020
Name: YEAR, Length: 500, dtype: object
```

```
In [36]: output_file = 'movies2_cleaned.csv'
```

```
In [37]: cleaned_movies = pd.DataFrame({'MOVIES', 'YEAR', 'GENRE', 'RATING', 'ONE-LINE', 'STARS' })
```

```
In [38]: movies2.to_csv(output_file, index = False)
```

```
In [39]: print(f"CleaneD data saved to '{output_file}' ")
```

```
CleaneD data saved to 'movies2_cleaned.csv'
```

```
In [ ]:
```