```
In [67]: import pandas as pd
         import matplotlib.pyplot as plt
In [68]: | studData=pd.read_csv('flixpatrol.csv')
         print(studData)
                    Rank
                                                          Title
                                                                    Type
                                                                          Premiere
         0
                     1.0
                                               The Night Agent TV Show
                                                                            2023.0
                                               Ginny & Georgia
         1
                     2.0
                                                                TV Show
                                                                            2021.0
         2
                     3.0
                                                     The Glory
                                                                TV Show
                                                                            2022.0
         3
                     4.0
                                                     Wednesday TV Show
                                                                            2022.0
                          Queen Charlotte: A Bridgerton Story
         4
                     5.0
                                                                 TV Show
                                                                            2023.0
                     . . .
                                                                     . . .
          . . .
                                                                                . . .
         18159
                18210.0
                                               Spiritual House TV Show
                                                                            2017.0
         18160 18211.0
                                               Suite Francaise
                                                                   Movie
                                                                            2014.0
         18161 18212.0
                                          The Bishop's Bedroom
                                                                   Movie
                                                                            1977.0
                                              30 Chưa Phải Tết
         18162
                18213.0
                                                                   Movie
                                                                            2020.0
         18163 18214.0
                                             The Promised Land
                                                                   Movie
                                                                            2019.0
                              Watchtime Watchtime in Million
                     Genre
         0
                    Action 812,100,000
                                                       812.1M
         1
                     Drama 665,100,000
                                                       665.1M
         2
                  Thriller 622,800,000
                                                       622.8M
         3
                   Fantasy 507,700,000
                                                       507.7M
         4
                     Drama 503,000,000
                                                       503.0M
                       . . .
                                     . . .
                                                           . . .
         18159 Talk Show
                                100,000
                                                         0.1M
         18160
                       War
                                100,000
                                                          0.1M
                    Comedy
                                100,000
         18161
                                                         0.1M
         18162
                    Comedy
                                100,000
                                                          0.1M
                     Crime
         18163
                                100,000
                                                          0.1M
         [18164 rows x 7 columns]
In [69]: | print(studData.loc[12801])
```

Rank 12852.0
Title All About Me
Type Movie
Premiere 2018.0
Genre Drama
Watchtime 200,000
Watchtime in Million 0.2M

Name: 12801, dtype: object

In [70]: print(studData['Type']) 0 TV Show TV Show 1 2 TV Show TV Show TV Show 18159 TV Show 18160 Movie Movie 18161 18162 Movie Movie 18163 Name: Type, Length: 18164, dtype: object

Out[71]:

	Rank	Title	Туре	Premiere	Genre	Watchtime	Watchtime in Million	Total
0	1.0	The Night Agent	TV Show	2023.0	Action	812,100,000	812.1M	2024.0
1	2.0	Ginny & Georgia	TV Show	2021.0	Drama	665,100,000	665.1M	2023.0
2	3.0	The Glory	TV Show	2022.0	Thriller	622,800,000	622.8M	2025.0
3	4.0	Wednesday	TV Show	2022.0	Fantasy	507,700,000	507.7M	2026.0
4	5.0	Queen Charlotte: A Bridgerton Story	TV Show	2023.0	Drama	503,000,000	503.0M	2028.0

```
In [72]: studData=pd.read_csv('flixpatrol.csv')
print(studData)

Rank

Title Type Premiere \
```

```
Rank
                                                Title
                                                          Type
                                                                Premiere \
                                     The Night Agent
0
           1.0
                                                       TV Show
                                                                  2023.0
                                     Ginny & Georgia
1
           2.0
                                                       TV Show
                                                                  2021.0
2
                                           The Glory
           3.0
                                                       TV Show
                                                                  2022.0
3
           4.0
                                           Wednesday
                                                       TV Show
                                                                  2022.0
4
           5.0
                Queen Charlotte: A Bridgerton Story
                                                       TV Show
                                                                  2023.0
                                                           . . .
           . . .
                                                                     ...
. . .
18159
       18210.0
                                     Spiritual House
                                                      TV Show
                                                                  2017.0
18160 18211.0
                                     Suite Francaise
                                                         Movie
                                                                  2014.0
       18212.0
                                The Bishop's Bedroom
                                                         Movie
                                                                  1977.0
18161
                                    30 Chưa Phải Tết
18162 18213.0
                                                         Movie
                                                                  2020.0
18163 18214.0
                                   The Promised Land
                                                         Movie
                                                                  2019.0
           Genre
                    Watchtime Watchtime in Million
0
          Action 812,100,000
                                              812.1M
1
           Drama 665,100,000
                                              665.1M
2
        Thriller
                  622,800,000
                                              622.8M
3
         Fantasy 507,700,000
                                              507.7M
4
           Drama 503,000,000
                                              503.0M
             . . .
                                                 . . .
                       100,000
18159
      Talk Show
                                                0.1M
18160
             War
                       100,000
                                                0.1M
          Comedy
                       100,000
18161
                                                0.1M
18162
          Comedy
                       100,000
                                                0.1M
18163
           Crime
                       100,000
                                                0.1M
```

[18164 rows x 7 columns]

```
In [ ]:
```

In [73]: studData=pd.read_csv('flixpatrol.csv')
print(studData)

	Rank		Title	Type	Premiere	\
0	1.0		The Night Agent	TV Show	2023.0	
1	2.0		Ginny & Georgia	TV Show	2021.0	
2	3.0		The Glory	TV Show	2022.0	
3	4.0		Wednesday	TV Show	2022.0	
4	5.0 (Queen Charlott	ce: A Bridgerton Story	TV Show	2023.0	
• • •	• • •		• • •	• • •	• • •	
18159	18210.0		Spiritual House	TV Show	2017.0	
18160	18211.0		Suite Francaise	Movie	2014.0	
18161	18212.0		The Bishop's Bedroom	Movie	1977.0	
18162	18213.0		30 Chưa Phải Tết	Movie	2020.0	
18163	18214.0		The Promised Land	Movie	2019.0	
	Genre	Watchtime	Watchtime in Million			
0	Action	812,100,000	812.1M			
1	Drama		665.1M			
2	Thriller		622.8M			
3	Fantasy		507.7M			
4	Drama		503.0M			
		• • •	•••			
18159	Talk Show	100,000	0.1M			
18160	War	100,000	0.1M			
18161	Comedy	100,000	0.1M			
18162	Comedy	100,000	0.1M			
18163	Crime	100,000	0.1M			

[18164 rows x 7 columns]

Out[74]:

	Rank	Title	Туре	Premiere	Genre	Watchtime	Watchtime in Million	Total
0	1.0	The Night Agent	TV Show	2023.0	Action	812,100,000	812.1M	2024.0
1	2.0	Ginny & Georgia	TV Show	2021.0	Drama	665,100,000	665.1M	2023.0
2	3.0	The Glory	TV Show	2022.0	Thriller	622,800,000	622.8M	2025.0
3	4.0	Wednesday	TV Show	2022.0	Fantasy	507,700,000	507.7M	2026.0
4	5.0	Queen Charlotte: A Bridgerton Story	TV Show	2023.0	Drama	503,000,000	503.0M	2028.0

In [75]:

#add the column of the total studData['Total']=studData['Premiere']+studData['Rank'] studData.head(5)

Out[75]:

	Rank	Title	Туре	Premiere	Genre	Watchtime	Watchtime in Million	Total
0	1.0	The Night Agent	TV Show	2023.0	Action	812,100,000	812.1M	2024.0
1	2.0	Ginny & Georgia	TV Show	2021.0	Drama	665,100,000	665.1M	2023.0
2	3.0	The Glory	TV Show	2022.0	Thriller	622,800,000	622.8M	2025.0
3	4.0	Wednesday	TV Show	2022.0	Fantasy	507,700,000	507.7M	2026.0
4	5.0	Queen Charlotte: A Bridgerton Story	TV Show	2023.0	Drama	503,000,000	503.0M	2028.0

In [76]: #add the column of the avg

studData['Avg']=studData['Total']/2

studData.head(5)

Out[76]:

		Rank	Title	Туре	Premiere	Genre	Watchtime	Watchtime in Million	Total	Avg
•	0	1.0	The Night Agent	TV Show	2023.0	Action	812,100,000	812.1M	2024.0	1012.0
	1	2.0	Ginny & Georgia	TV Show	2021.0	Drama	665,100,000	665.1M	2023.0	1011.5
	2	3.0	The Glory	TV Show	2022.0	Thriller	622,800,000	622.8M	2025.0	1012.5
	3	4.0	Wednesday	TV Show	2022.0	Fantasy	507,700,000	507.7M	2026.0	1013.0
	4	5.0	Queen Charlotte: A Bridgerton Story	TV Show	2023.0	Drama	503,000,000	503.0M	2028.0	1014.0

In [77]: studData.to_csv('studData.csv')

In [78]: #create a new file and add the column
studData=pd.read_csv('studData.csv')
print(studData)

	Unnamed: 0	Rank		Tit	tle	Туре
\	_			_, ., ., .		
0	0			The Night Age		Show
1	1			Ginny & Georg	-	Show
2	2			The Glo	-	Show
3	3			Wedneso	,	Show
4	4	5.0	Queen Charlo	otte: A Bridgerton Sto	ory TV	Show
• • •	• • •			, , , , , , , , , , , , , , , , , , , ,	• • •	• • •
18159	18159			Spiritual Ho		Show
18160	18160			Suite Franca:		lovie
18161	18161			The Bishop's Bedro		lovie
18162	18162	18213.0		30 Chưa Phải ⁻	rết M	lovie
18163	18163	18214.0		The Promised La	and M	lovie
	Premiere	Genre	liot chti mo	Notebtime in Million	Tota	1
Avg	bi.emitei.e	denire	watthtille	Watchtime in Million	TOCA	1
Avg 0	2023.0	Action	812,100,000	812.1M	2024.	0 10
12.0	2023.0	ACCION	812,100,000	812.11	2024.	0 10
12.0	2021.0	Drama	665,100,000	665.1M	2023.	0 10
11.5	2021.0	Difallia	003,100,000	003.11	2025.	0 10
2	2022.0	Thriller	622,800,000	622.8M	2025.	0 10
12.5	2022.0	1111 11161	022,000,000	022.811	2025.	0 10
3	2022.0	Fantasy	507,700,000	507.7M	2026.	0 10
13.0	2022.0	rancasy	307,700,000	307.711	2020.	0 10
4	2023.0	Drama	503,000,000	503.0M	2028.	0 10
14.0	2023.0	Di ama	303,000,000	303.011	2020.	0 10
			• • •			
	•••	•••	•••	•••	• •	•
18159	2017.0	Talk Show	100,000	0.1M	20227.	0 101
13.5				• • • • • • • • • • • • • • • • • • •		
18160	2014.0	War	100,000	0.1M	20225.	0 101
12.5	2020		200,000	0.2	20225	0 101
18161	1977.0	Comedy	100,000	0.1M	20189.	0 100
94.5		comeay	200,000	0.111	_0107.	2 200
18162	2020.0	Comedy	100,000	0.1M	20233.	0 101
16.5	2020.0	comedy	100,000	V.111	20255.	J 101
18163	2019.0	Crime	100,000	0.1M	20233.	0 101
16.5	2010.0	CI TIIIC	100,000	V.111	20255.	J 101
10.5						

[18164 rows x 10 columns]

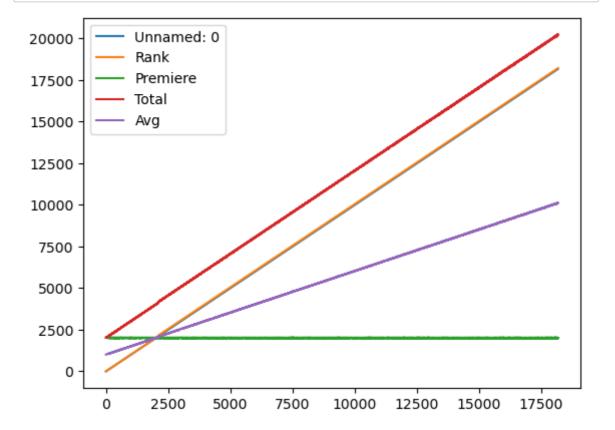
In [89]: #sorting in ascending order for asc=1 and desc=0
studData.sort_values(['Avg'],ascending=1)

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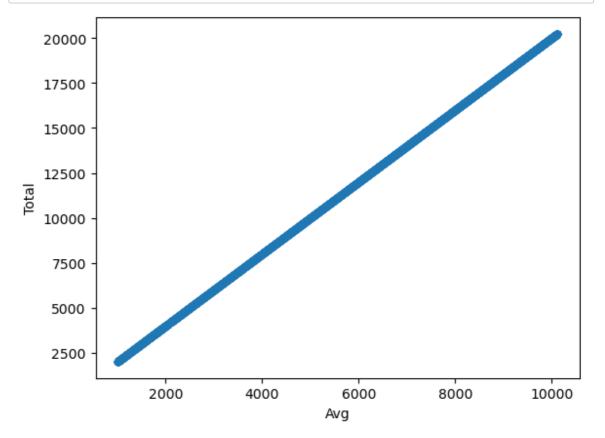
	Unnamed: 0	Rank	Title	Туре	Premiere	Genre	Watchtime	Watchtime in Million	То
6	6	7.0	La Reina del Sur	TV Show	2011.0	Drama	429,600,000	429.6M	201
1	1	2.0	Ginny & Georgia	TV Show	2021.0	Drama	665,100,000	665.1M	202
0	0	1.0	The Night Agent	TV Show	2023.0	Action	812,100,000	812.1M	202
5	5	6.0	You	TV Show	2018.0	Crime	440,600,000	440.6M	202
2	2	3.0	The Glory	TV Show	2022.0	Thriller	622,800,000	622.8M	202
18047	18047	18098.0	Aduh Bibikku	TV Show	NaN	Animation	100,000	0.1M	N
18074	18074	18125.0	Feather & Flowers The Original Returns Concert	Movie	NaN	Musical	100,000	0.1M	N
18078	18078	18129.0	Rudra: Secret of the Black Moon	Movie	NaN	Animation	100,000	0.1M	N
18094	18094	18145.0	Rudra: The Rise of King Pharaoh	Movie	NaN	Animation	100,000	0.1M	N
18151	18151	18202.0	Feel- Good Fitness	TV Show	NaN	Broadcast	100,000	0.1M	N

18164 rows × 10 columns

In [80]: studData.plot()
plt.show()



In [91]: studData.plot(kind='scatter',x='Avg',y='Total')
plt.show()



```
In [85]: studData['Total'].plot(kind='hist')
```

Out[85]: <Axes: ylabel='Frequency'>

