

```
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
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 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
18161	18212.0	The Bishop's Bedroom	Movie	1977.0
18162	18213.0	30 Chư ả 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	665,100,000	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
18161	Comedy	100,000	0.1M
18162	Comedy	100,000	0.1M
18163	Crime	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
1      TV Show
2      TV Show
3      TV Show
4      TV Show
...
18159  TV Show
18160   Movie
18161   Movie
18162   Movie
18163   Movie
Name: Type, Length: 18164, dtype: object
```

```
In [71]: studData['Total']=studData['Premiere']+studData['Rank']
studData.head(5)
```

Out[71]:

	Rank	Title	Type	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	\
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 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	
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	665,100,000	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
18161	Comedy	100,000	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('flixfpatrol.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 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	
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	665,100,000	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
18161	Comedy	100,000	0.1M
18162	Comedy	100,000	0.1M
18163	Crime	100,000	0.1M

[18164 rows x 7 columns]

```
In [74]: studData['Total']=studData['Premiere']+studData['Rank']
studData.head(5)
```

Out[74]:

	Rank	Title	Type	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	Type	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	Type	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	Title	Type
\				
0	0	1.0	The Night Agent	TV Show
1	1	2.0	Ginny & Georgia	TV Show
2	2	3.0	The Glory	TV Show
3	3	4.0	Wednesday	TV Show
4	4	5.0	Queen Charlotte: A Bridgerton Story	TV Show
...
18159	18159	18210.0	Spiritual House	TV Show
18160	18160	18211.0	Suite Francaise	Movie
18161	18161	18212.0	The Bishop's Bedroom	Movie
18162	18162	18213.0	30 Chưa Phải Tết	Movie
18163	18163	18214.0	The Promised Land	Movie

	Premiere	Genre	Watchtime	Watchtime in Million	Total	
Avg						
0	2023.0	Action	812,100,000	812.1M	2024.0	10
12.0						
1	2021.0	Drama	665,100,000	665.1M	2023.0	10
11.5						
2	2022.0	Thriller	622,800,000	622.8M	2025.0	10
12.5						
3	2022.0	Fantasy	507,700,000	507.7M	2026.0	10
13.0						
4	2023.0	Drama	503,000,000	503.0M	2028.0	10
14.0						
...	
...						
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						
18161	1977.0	Comedy	100,000	0.1M	20189.0	100
94.5						
18162	2020.0	Comedy	100,000	0.1M	20233.0	101
16.5						
18163	2019.0	Crime	100,000	0.1M	20233.0	101
16.5						

[18164 rows x 10 columns]

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

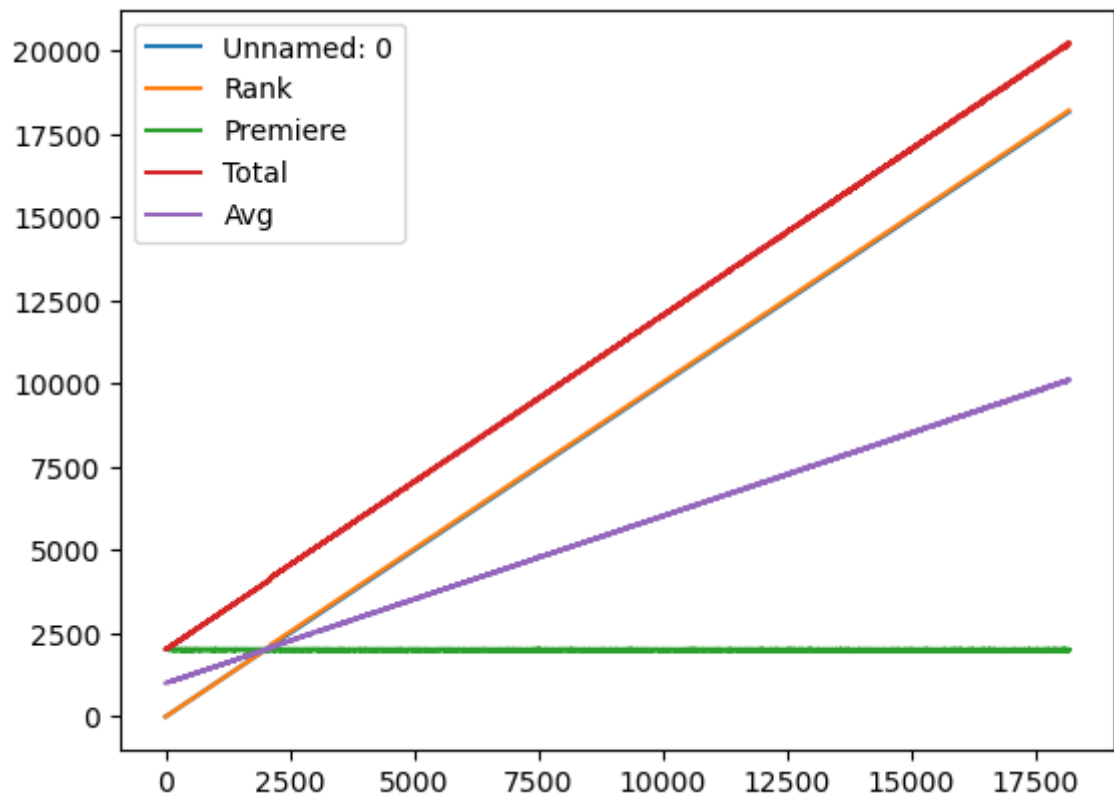
Out[89]:

	Unnamed: 0	Rank	Title	Type	Premiere	Genre	Watchtime	Watchtime in Million	To
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

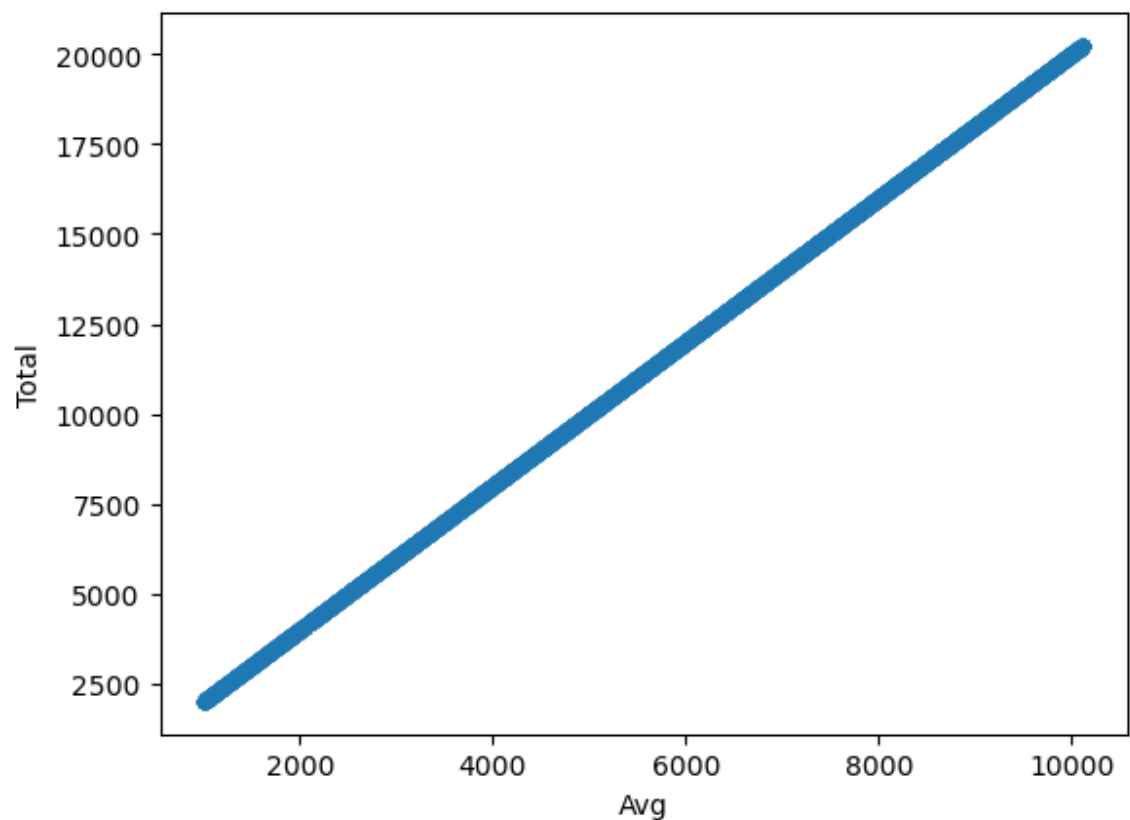
18164 rows × 10 columns



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

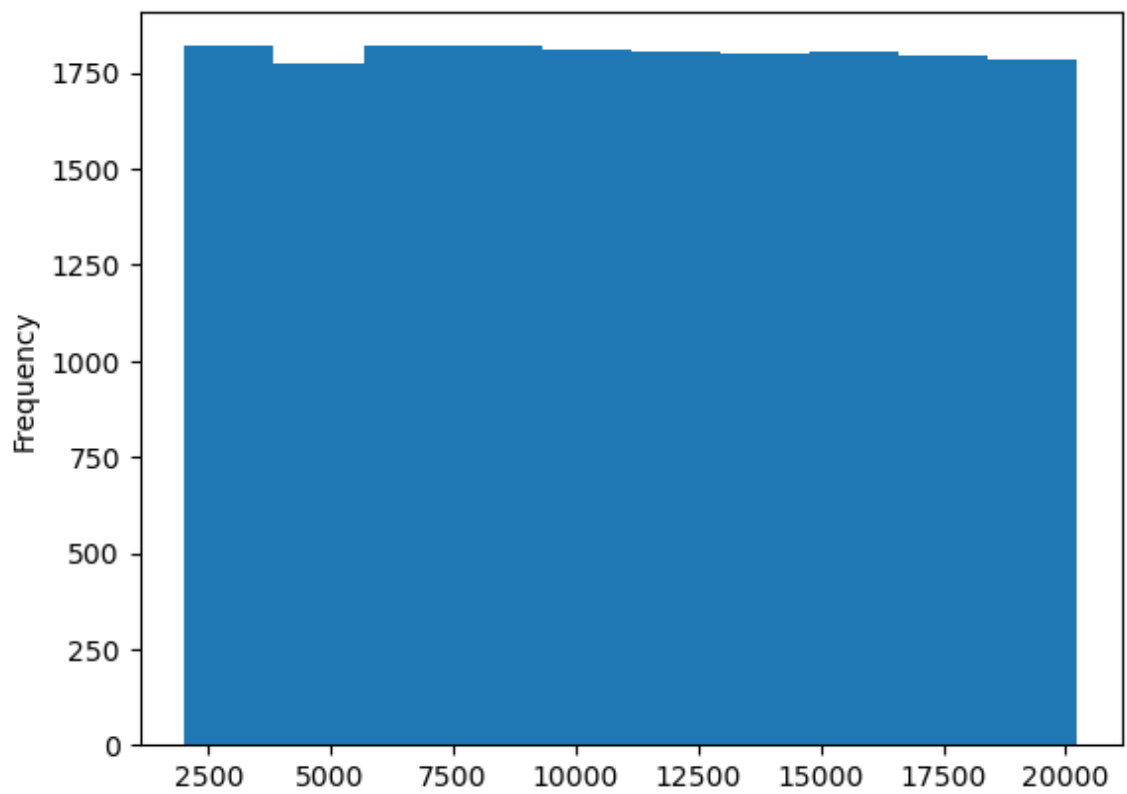


```
In [91]: studData.plot(kind='scatter',x='Avg',y='Total')  
plt.show()
```




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

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



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In [ ]:
```

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In [ ]:
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