

▼ quarentena_dados

```
print("Hello, world!")
```

```
↳ Hello, world!
```

```
import pandas as pd
```

▼ Importando tabelas

```
filmes = pd.read_csv("https://raw.githubusercontent.com/efochesatto/quarentena_dados/master/filmes.csv")
filmes.head()
```

```
↳
```

	movieId	title	genres
0	1	Toy Story (1995)	Adventure Animation Children Comedy Fantasy
1	2	Jumanji (1995)	Adventure Children Fantasy
2	3	Grumpier Old Men (1995)	Comedy Romance
3	4	Waiting to Exhale (1995)	Comedy Drama Romance
4	5	Father of the Bride Part II (1995)	Comedy

```
avaliacoes = pd.read_csv("https://raw.githubusercontent.com/efochesatto/quarentena_dados/master/avaliacoes.csv")
avaliacoes.head()
```

```
↳
```

	userId	movieId	rating	timestamp
0	1	1	4.0	964982703
1	1	3	4.0	964981247
2	1	6	4.0	964982224
3	1	47	5.0	964983815
4	1	50	5.0	964982931

```
avaliacoes.shape
```

```
↳ (100836, 4)
```

```
len(avaliacoes)
```

```
↳ 100836
```

▼ Lendo as tabelas

```
avaliacoes.query("movieId==1")
```

↗

	userId	movieId	rating	timestamp
0	1	1	4.0	964982703
516	5	1	4.0	847434962
874	7	1	4.5	1106635946
1434	15	1	2.5	1510577970
1667	17	1	4.5	1305696483
...
97364	606	1	2.5	1349082950
98479	607	1	4.0	964744033
98666	608	1	2.5	1117408267
99497	609	1	3.0	847221025
99534	610	1	5.0	1479542900

215 rows × 4 columns

```
avaliacoes.query("movieId==1").mean()
```

↗

```

userId      3.065302e+02
movieId      1.000000e+00
rating       3.920930e+00
timestamp    1.129835e+09
dtype: float64

```

```
avaliacoes.query("movieId==2").mean()
```

↗

```

userId      3.295545e+02
movieId      2.000000e+00
rating       3.431818e+00
timestamp    1.135805e+09
dtype: float64

```

▼ Agrupando os filmes

```
avaliacoes.groupby("movieId").mean()
#média das avaliações dos filmes
```

↗

	userId	rating	timestamp
movieId			
1	306.530233	3.920930	1.129835e+09
2	329.554545	3.431818	1.135805e+09
3	283.596154	3.259615	1.005110e+09
4	219.857143	2.357143	8.985789e+08
5	299.571429	3.071429	9.926643e+08
...
193581	184.000000	4.000000	1.537109e+09
193583	184.000000	3.500000	1.537110e+09
193585	184.000000	3.500000	1.537110e+09
193587	184.000000	3.500000	1.537110e+09
193609	331.000000	4.000000	1.537158e+09

9724 rows × 3 columns

```
notas_medias_por_filme = avaliacoes.groupby("movieId")["rating"].mean()
```

#média das avaliações dos filmes, apenas a coluna da nota

filmes

	movieId	title	genres
0	1	Toy Story (1995)	Adventure Animation Children Comedy Fantasy
1	2	Jumanji (1995)	Adventure Children Fantasy
2	3	Grumpier Old Men (1995)	Comedy Romance
3	4	Waiting to Exhale (1995)	Comedy Drama Romance
4	5	Father of the Bride Part II (1995)	Comedy
...
9737	193581	Black Butler: Book of the Atlantic (2017)	Action Animation Comedy Fantasy
9738	193583	No Game No Life: Zero (2017)	Animation Comedy Fantasy
9739	193585	Flint (2017)	Drama
9740	193587	Bungo Stray Dogs: Dead Apple (2018)	Action Animation
...	...	Andrew Dice Clay: Dice Rules	...

notas_medias_por_filme

```

↳ movieId
1      3.920930
2      3.431818
3      3.259615
4      2.357143
5      3.071429
...
193581  4.000000
193583  3.500000
193585  3.500000
193587  3.500000
193609  4.000000
Name: rating, Length: 9724, dtype: float64

```

```

filmes_com_notas = filmes.join(notas_medias_por_filme, on="movieId")
#adicionando a coluna de notas (rating) à tabela filmes

```

```
filmes_com_notas
```

```

↳

```

	movieId	title	genres	rating
0	1	Toy Story (1995)	Adventure Animation Children Comedy Fantasy	3.920930
1	2	Jumanji (1995)	Adventure Children Fantasy	3.431818
2	3	Grumpier Old Men (1995)	Comedy Romance	3.259615
3	4	Waiting to Exhale (1995)	Comedy Drama Romance	2.357143
4	5	Father of the Bride Part II (1995)	Comedy	3.071429
...
9737	193581	Black Butler: Book of the Atlantic (2017)	Action Animation Comedy Fantasy	4.000000
9738	193583	No Game No Life: Zero (2017)	Animation Comedy Fantasy	3.500000
9739	193585	Flint (2017)	Drama	3.500000

```

ordenando_melhores = filmes_com_notas.sort_values("rating")
#ordenando os filmes pela coluna de nota, que na ordenação padrão trará do menor para o ma

```

```
ordenando_melhores
```

```
↳
```

	movieId	title	genres	rating
5554	26696	Lionheart (1990)	Action	0.5
2689	3604	Gypsy (1962)	Musical	0.5
4881	7312	Follow Me, Boys! (1966)	Comedy Drama	0.5
9117	145724	Idaho Transfer (1973)	Sci-Fi	0.5
7297	76030	Case 39 (2009)	Horror Thriller	0.5
...
5749	30892	In the Realms of the Unreal (2004)	Animation Documentary	NaN
5824	32160	Twentieth Century (1934)	Comedy	NaN
5837	32371	Call Northside 777 (1948)	Crime Drama Film-Noir	NaN
5957	34482	Browning Version, The (1951)	Drama	NaN
7565	85565	Chalet Girl (2011)	Comedy Romance	NaN

9742 rows × 4 columns

```
ordenando_melhores_maior_menor = filmes_com_notas.sort_values("rating", ascending=False)
#ordenando os filmes pela coluna de nota com "ascending=False" que trará ordenação do maio
```

ordenando_melhores_maior_menor

↗

	movieId	title	genres	rating
7656	88448	Paper Birds (Pájaros de papel) (2010)	Comedy Drama	5.0
8107	100556	Act of Killing, The (2012)	Documentary	5.0
9083	143031	Jump In! (2007)	Comedy Drama Romance	5.0
9094	143511	Human (2015)	Documentary	5.0
9096	143559	L.A. Slasher (2015)	Comedy Crime Fantasy	5.0
...
5749	30892	In the Realms of the Unreal (2004)	Animation Documentary	NaN
5824	32160	Twentieth Century (1934)	Comedy	NaN
5837	32371	Call Northside 777 (1948)	Crime Drama Film-Noir	NaN
5957	34482	Browning Version, The (1951)	Drama	NaN
7565	85565	Chalet Girl (2011)	Comedy Romance	NaN

9742 rows × 4 columns

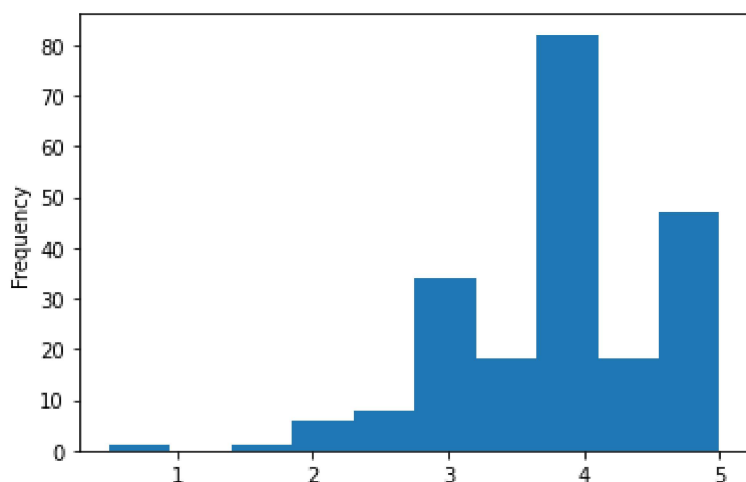
```
melhores15 = filmes_com_notas.sort_values("rating", ascending=False).head(15)
#mostrando os 15 melhores filmes
```

melhores15

	movieId	title	genres	rating
7656	88448	Paper Birds (Pájaros de papel) (2010)	Comedy Drama	5.0
8107	100556	Act of Killing, The (2012)	Documentary	5.0
9083	143031	Jump In! (2007)	Comedy Drama Romance	5.0
9094	143511	Human (2015)	Documentary	5.0
9096	143559	L.A. Slasher (2015)	Comedy Crime Fantasy	5.0
4251	6201	Lady Jane (1986)	Drama Romance	5.0
8154	102217	Bill Hicks: Revelations (1993)	Comedy	5.0
8148	102084	Justice League: Doom (2012)	Action Animation Fantasy	5.0
4246	6192	Open Hearts (Elsker dig for evigt) (2002)	Romance	5.0
9122	145994	Formula of Love (1984)	Comedy	5.0
8115	100906	Maniac Cop 2 (1990)	Action Horror Thriller	5.0
9129	146662	Dragons: Gift of the Night Fury (2011)	Adventure Animation Comedy	5.0
8074	99636	English Vinglish (2012)	Comedy Drama	5.0
5785	31522	Marriage of Maria Braun, The (Ehe der Maria Br...	Drama	5.0

avaliacoes.query("movieId == 1")["rating"].plot(kind="hist")
 #selecionando, na tabela avaliações, as notas do filme 1 e apresentando em histograma

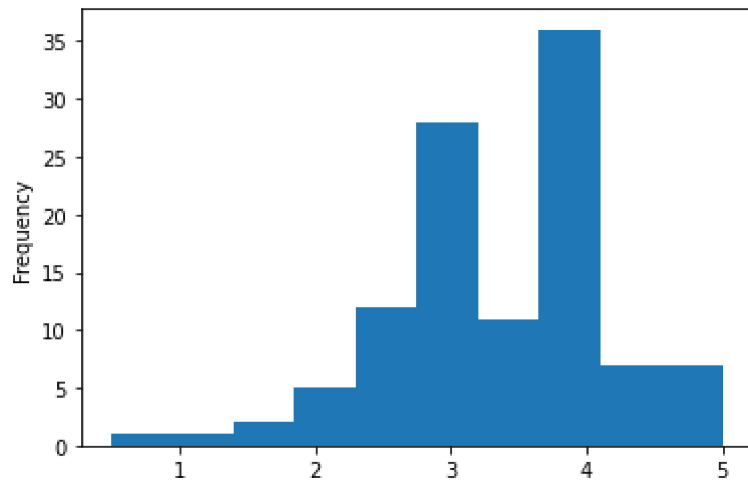
<matplotlib.axes._subplots.AxesSubplot at 0x7f1bfce450b8>



avaliacoes.query("movieId == 2")["rating"].plot(kind="hist")
 #plotando as notas do segundo filme da lista geral

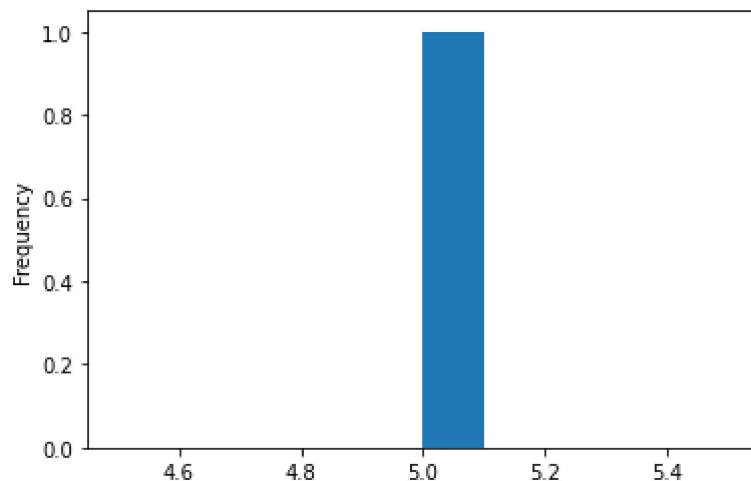
<matplotlib.axes._subplots.AxesSubplot at 0x7f1bfce450b8>

<matplotlib.axes._subplots.AxesSubplot at 0x7f1bfcd0ada0>



```
avaliacoes.query("movieId == 88448")["rating"].plot(kind="hist")
#plotando as notas do primeiro filme dos melhores
#o gráfico mostra que este filme tem média 5, mas teve apenas um voto e este voto foi 5;
```

↳ <matplotlib.axes._subplots.AxesSubplot at 0x7f1bfce29f98>



```
avaliacoes.query("movieId == 100556")["rating"].plot(kind="hist")
#plotando as notas do segundo filme dos melhores
#o gráfico mostra que este filme tem média 5, mas teve apenas um voto e este voto foi 5;
```

↳ <matplotlib.axes._subplots.AxesSubplot at 0x7f1bfcbf1390>

