```
In [2]: import pandas as pd
 In [6]: movies = pd.read csv(r"C:\Users\Asus\Downloads\Movie-Rating.csv")
          movies
 Out[6]:
                                                  Rotten
                                                              Audience
                                                                            Budget
                                                                                        Year of
                         Film
                                  Genre
                                               Tomatoes
                                                                                        release
                                                             Ratings %
                                                                          (million $)
                                               Ratings %
                 (500) Days of
            0
                                Comedy
                                                      87
                                                                                  8
                                                                                          2009
                                                                    81
                     Summer
            1
                   10,000 B.C. Adventure
                                                       9
                                                                    44
                                                                                105
                                                                                          2008
            2
                    12 Rounds
                                  Action
                                                      30
                                                                                 20
                                                                                          2009
                                                                    52
            3
                    127 Hours Adventure
                                                      93
                                                                    84
                                                                                 18
                                                                                          2010
            4
                     17 Again
                                Comedy
                                                      55
                                                                    70
                                                                                 20
                                                                                          2009
            •••
          554
                Your Highness
                                Comedy
                                                      26
                                                                    36
                                                                                 50
                                                                                          2011
          555
                Youth in Revolt
                                Comedy
                                                      68
                                                                    52
                                                                                 18
                                                                                          2009
          556
                       Zodiac
                                  Thriller
                                                      89
                                                                    73
                                                                                 65
                                                                                          2007
          557
                  Zombieland
                                  Action
                                                      90
                                                                    87
                                                                                 24
                                                                                          2009
          558
                   Zookeeper
                                Comedy
                                                      14
                                                                    42
                                                                                 80
                                                                                          2011
         559 rows × 6 columns
 In [8]: import pandas
          print(pandas.__version__)
        2.2.2
In [10]: movies.info()
        <class 'pandas.core.frame.DataFrame'>
        RangeIndex: 559 entries, 0 to 558
        Data columns (total 6 columns):
             Column
                                          Non-Null Count
                                                           Dtype
             -----
         0
             Film
                                          559 non-null
                                                           object
         1
             Genre
                                          559 non-null
                                                           object
             Rotten Tomatoes Ratings % 559 non-null
                                                           int64
         3
             Audience Ratings %
                                          559 non-null
                                                           int64
         4
             Budget (million $)
                                          559 non-null
                                                           int64
             Year of release
                                          559 non-null
                                                           int64
        dtypes: int64(4), object(2)
        memory usage: 26.3+ KB
In [12]: movies.shape
```

Out[12]: (559, 6) In [14]: movies.head() Out[14]: **Rotten Tomatoes Audience Budget** Year of Film Genre (million \$) Ratings % Ratings % release (500) Days of 0 Comedy 87 8 2009 81 Summer 1 10,000 B.C. Adventure 9 44 105 2008 2 12 Rounds Action 30 52 20 2009 3 127 Hours Adventure 93 84 18 2010 4 17 Again Comedy 55 70 20 2009 In [20]: movies.columns Out[20]: Index(['Film', 'Genre', 'Rotten Tomatoes Ratings %', 'Audience Ratings %', 'Budget (million \$)', 'Year of release'], dtype='object') In [22]: movies.head(1) Out[22]: **Rotten Tomatoes Audience** Year of **Budget** Film Genre **Ratings** % **Ratings** % (million \$) release (500) Days of 0 Comedy 81 8 2009 87 Summer In [24]: movies.columns = ['Film','Genre','CriticRating','AudienceRating','BudgetMillions',

In []:

In [26]: movies

Out[26]:		Film	Genre	CriticRating	AudienceRating	BudgetMillions	Year
	0	(500) Days of Summer	Comedy	87	81	8	2009
	1	10,000 B.C.	Adventure	9	44	105	2008
	2	12 Rounds	Action	30	52	20	2009
	3	127 Hours	Adventure	93	84	18	2010
	4	17 Again	Comedy	55	70	20	2009
	•••				•••		•••
	554	Your Highness	Comedy	26	36	50	2011
	555	Youth in Revolt	Comedy	68	52	18	2009
	556	Zodiac	Thriller	89	73	65	2007
	557	(500) Days of Summer Comedy 87 81 10,000 B.C. Adventure 9 44 12 Rounds Action 30 52 127 Hours Adventure 93 84 17 Again Comedy 55 70 Your Highness Comedy 26 36 Youth in Revolt Comedy 68 52 Zodiac Thriller 89 73 Zombieland Action 90 87	24	2009			
	558	Zookeeper	Comedy	14	42	80	2011
		6 1					

559 rows × 6 columns

In	[34]	:	movies	head (7
min I I			IIIO V I C D	110000	

Out[34]:		Film	Genre	CriticRating	AudienceRating	BudgetMillions	Year
	0	(500) Days of Summer	Comedy	87	81	8	2009
	1	10,000 B.C.	Adventure	9	44	105	2008
	2	12 Rounds	Action	30	52	20	2009
	3	127 Hours	Adventure	93	84	18	2010
	4	17 Again	Comedy	55	70	20	2009
	5	2012	Action	39	63	200	2009
	6	27 Dresses	Comedy	40	71	30	2008

In [36]: movies.shape

Out[36]: (559, 6)

In [38]: movies.describe()

	CriticRating	AudienceRating	BudgetMillions	Year
count	559.000000	559.000000	559.000000	559.000000
mean	47.309481	58.744186	50.236136	2009.152057
std	26.413091	16.826887	48.731817	1.362632
min	0.000000	0.000000	0.000000	2007.000000
25%	25.000000	47.000000	20.000000	2008.000000
50%	46.000000	58.000000	35.000000	2009.000000
75 %	70.000000	72.000000	65.000000	2010.000000
max	97.000000	96.000000	300.000000	2011.000000

In [40]: movies.info()

Out[38]:

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 559 entries, 0 to 558
Data columns (total 6 columns):

#	Column	Non-Null Count	Dtype
0	Film	559 non-null	object
1	Genre	559 non-null	object
2	CriticRating	559 non-null	int64
3	AudienceRating	559 non-null	int64
4	BudgetMillions	559 non-null	int64
5	Year	559 non-null	int64

dtypes: int64(4), object(2)
memory usage: 26.3+ KB

```
In [48]: movies.Film = movies.Film.astype('category')
    movies
```

Out[48]:		Film	Genre	CriticRating	AudienceRating	BudgetMillions	Year
	0	(500) Days of Summer	Comedy	87	81	8	2009
	1	10,000 B.C.	Adventure	9	44	105	2008
	2	12 Rounds	Action	30	52	20	2009
	3	127 Hours	Adventure	93	84	18	2010
	4	17 Again	Comedy	55	70	20	2009
	•••	•••	•••		•••		•••
	554	Your Highness	Comedy	26	36	50	2011
	555	Youth in Revolt	Comedy	68	52	18	2009
	556	Zodiac	Thriller	89	73	65	2007
	557	Zombieland	Action	90	87	24	2009
	558	Zookeeper	Comedy	14	42	80	2011
	559 row	s × 6 columns					
In [50]:	movies	.Film					
Out[50]:	0 1	(500) Days of S 10,00	ummer 0 B.C.				

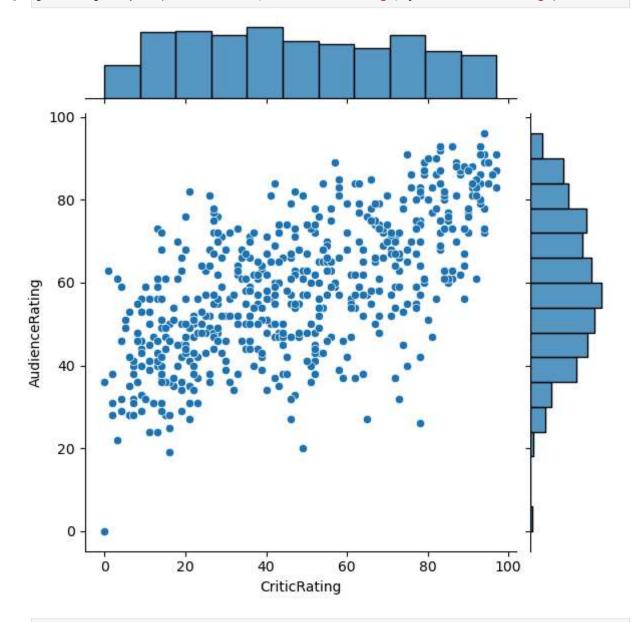
```
2
                            12 Rounds
          3
                             127 Hours
          4
                             17 Again
          554
                         Your Highness
                       Youth in Revolt
          555
          556
                                Zodiac
          557
                           Zombieland
          558
                             Zookeeper
          Name: Film, Length: 559, dtype: category
         Categories (559, object): ['(500) Days of Summer ', '10,000 B.C.', '12 Rounds ',
          '127 Hours', ..., 'Youth in Revolt', 'Zodiac', 'Zombieland', 'Zookeeper']
In [52]: movies.head()
```

Out[52]:		Film	Genre	CriticRating	AudienceRating	Budget Millions	Year
	0	(500) Days of Summer	Comedy	87	81	8	2009
	1	10,000 B.C.	Adventure	9	44	105	2008
	2	12 Rounds	Action	30	52	20	2009
	3	127 Hours	Adventure	93	84	18	2010
	4	17 Again	Comedy	55	70	20	2009

```
In [66]: from matplotlib import pyplot as plt
    import seaborn as sns

In [78]: import warnings
    warnings.filterwarnings('ignore')

In [72]: j = sns.jointplot(data = movies, x= 'CriticRating', y = 'AudienceRating')
```



In []: