

```
In [1]: import numpy as np
import pandas as pd
```

```
In [2]: data= pd.read_csv('netflix.csv')

data.head(10)
```

Out[2]:

	title	rating	ratingLevel	ratingDescription	release year	user rating score	user rating size
0	White Chicks	PG-13	crude and sexual humor, language and some drug...	80	2004	82.0	80
1	Lucky Number Slevin	R	strong violence, sexual content and adult lang...	100	2006	NaN	82
2	Grey's Anatomy	TV-14	Parents strongly cautioned. May be unsuitable ...	90	2016	98.0	80
3	Prison Break	TV-14	Parents strongly cautioned. May be unsuitable ...	90	2008	98.0	80
4	How I Met Your Mother	TV-PG	Parental guidance suggested. May not be suitab...	70	2014	94.0	80
5	Supernatural	TV-14	Parents strongly cautioned. May be unsuitable ...	90	2016	95.0	80
6	Breaking Bad	TV-MA	For mature audiences. May not be suitable for...	110	2013	97.0	80
7	The Vampire Diaries	TV-14	Parents strongly cautioned. May be unsuitable ...	90	2017	91.0	80
8	The Walking Dead	TV-MA	For mature audiences. May not be suitable for...	110	2015	98.0	80
9	Pretty Little Liars	TV-14	Parents strongly cautioned. May be unsuitable ...	90	2016	96.0	80

```
In [3]: data.tail(10)
```

```
Out[3]:
```

	title	rating	ratingLevel	ratingDescription	release year	user rating score	user rating size	
990	My Animal Friends	TV-Y		Suitable for all ages.	10	2013	NaN	82
991	Dawn of the Croods	TV-Y7		Suitable for children ages 7 and older	41	2017	72.0	80
992	Alpha and Omega: Dino Digs	TV-G		Suitable for all ages.	35	2016	NaN	82
993	Wiener Dog Internationals	G		General Audiences. Suitable for all ages.	35	2015	NaN	82
994	Pup Star	G		General Audiences. Suitable for all ages.	35	2016	NaN	82
995	The BFG	PG		for action/peril, some scary moments and brief...	60	2016	97.0	80
996	The Secret Life of Pets	PG		for action and some rude humor	60	2016	NaN	81
997	Precious Puppies	TV-G		Suitable for all ages.	35	2003	NaN	82
998	Beary Tales	TV-G		Suitable for all ages.	35	2013	NaN	82
999	Growing Up Wild	G		NaN	35	2016	80.0	80

```
In [4]: data.isnull()
```

```
Out[4]:
```

	title	rating	ratingLevel	ratingDescription	release year	user rating score	user rating size
0	False	False	False	False	False	False	False
1	False	False	False	False	False	True	False
2	False	False	False	False	False	False	False
3	False	False	False	False	False	False	False
4	False	False	False	False	False	False	False
...
995	False	False	False	False	False	False	False
996	False	False	False	False	False	True	False
997	False	False	False	False	False	True	False
998	False	False	False	False	False	True	False
999	False	False	True	False	False	False	False

1000 rows × 7 columns

```
In [5]: data.isnull().sum()
```

```
Out[5]: title                0
        rating               0
        ratingLevel         59
        ratingDescription    0
        release year         0
        user rating score    395
        user rating size     0
        dtype: int64
```

```
In [6]: data.notnull().sum()
```

```
Out[6]: title                1000
        rating               1000
        ratingLevel         941
        ratingDescription    1000
        release year         1000
        user rating score    605
        user rating size     1000
        dtype: int64
```

```
In [7]: data.shape
```

```
Out[7]: (1000, 7)
```

```
In [8]: data.columns
```

```
Out[8]: Index(['title', 'rating', 'ratingLevel', 'ratingDescription', 'release year',
              'user rating score', 'user rating size'],
              dtype='object')
```

```
In [9]: type(data)
```

```
Out[9]: pandas.core.frame.DataFrame
```

```
In [10]: # In checking Locations, Ratings columns has no space so written as data.rating .
         # In release year has space so written as data["release year"]

         data.loc[(data.rating == 'PG-13') & (data["release year"] == 2011)]
```

```
Out[10]:
```

	title	rating	ratingLevel	ratingDescription	release year	user rating score	user rating size	
273	Mean Girls 2	PG- 13		For some rude and suggestive material, and for...	80	2011	NaN	82
322	Mean Girls 2	PG- 13		For some rude and suggestive material, and for...	80	2011	NaN	82

```
In [11]: data.loc[ (data.rating == 'PG-13') & (data["user rating score"] >= 80) ]
```

Out[11]:

	title	rating	ratingLevel	ratingDescription	release year	user rating score	user rating size	
0	White Chicks	PG-13		crude and sexual humor, language and some drug...	80	2004	82.0	80
250	The Waterboy	PG-13		language and some crude sexual humor	80	1998	82.0	80
257	Twilight	PG-13		some violence and one sexual scene	80	2008	89.0	80
300	The Waterboy	PG-13		language and some crude sexual humor	80	1998	82.0	80
306	Twilight	PG-13		some violence and one sexual scene	80	2008	89.0	80

```
In [12]: data.loc[(data.rating == 'PG-13'), ('title', 'ratingLevel')]
```

Out[12]:

	title	ratingLevel
0	White Chicks	crude and sexual humor, language and some drug...
250	The Waterboy	language and some crude sexual humor
251	10 Things I Hate About You	adult content, adult language and mild violence
253	How to Lose a Guy in 10 Days	some sex-related material
254	The Benchwarmers	crude and suggestive humor, and for language
255	Step Up	thematic elements, brief violence and innuendo
257	Twilight	some violence and one sexual scene
273	Mean Girls 2	For some rude and suggestive material, and for...
286	Safe Haven	thematic material involving threatening behavi...
300	The Waterboy	language and some crude sexual humor
302	The Wedding Planner	language and some sexual humor
306	Twilight	some violence and one sexual scene
322	Mean Girls 2	For some rude and suggestive material, and for...
335	Trouble with the Curve	Parents strongly cautioned. May be inappropria...
372	Unconditional	some violent content and mature thematic elements

```
In [13]: # iloc [rows, columns]
```

```
data.iloc[2:7 , 0:2]
```

Out[13]:

	title	rating
2	Grey's Anatomy	TV-14
3	Prison Break	TV-14
4	How I Met Your Mother	TV-PG
5	Supernatural	TV-14
6	Breaking Bad	TV-MA

```
In [14]: data.iloc[7 ,2]
```

Out[14]: 'Parents strongly cautioned. May be unsuitable for children ages 14 and under.'

```
In [15]: data.iloc[0:4 ,:-1]
```

Out[15]:

	title	rating	ratingLevel	ratingDescription	release year	user rating score
0	White Chicks	PG-13	crude and sexual humor, language and some drug...	80	2004	82.0
1	Lucky Number Slevin	R	strong violence, sexual content and adult lang...	100	2006	NaN
2	Grey's Anatomy	TV-14	Parents strongly cautioned. May be unsuitable ...	90	2016	98.0
3	Prison Break	TV-14	Parents strongly cautioned. May be unsuitable ...	90	2008	98.0

```
In [16]: data.describe()
```

Out[16]:

	ratingDescription	release year	user rating score	user rating size
count	1000.00000	1000.000000	605.000000	1000.000000
mean	67.36600	2010.335000	84.094215	80.783000
std	30.78561	8.877927	12.344371	0.973066
min	10.00000	1940.000000	55.000000	80.000000
25%	35.00000	2007.000000	75.000000	80.000000
50%	60.00000	2015.000000	88.000000	80.000000
75%	90.00000	2016.000000	95.000000	82.000000
max	124.00000	2017.000000	99.000000	82.000000

Cleaning Data [Removing Null Values & Filling

New Values]

```
In [17]: data.isnull().sum()
```

```
Out[17]: title                0
         rating               0
         ratingLevel         59
         ratingDescription    0
         release year        0
         user rating score   395
         user rating size    0
         dtype: int64
```

```
In [18]: data['user rating score'].mean()
```

```
Out[18]: 84.09421487603306
```

```
In [19]: # Replace Values with Rounding off main value 84.
         # df['column name'].replace(['old value'], 'new value', inplace= True)
         # np.nan REPRESENTS NULL Value, 'NaN'

         data['user rating score'].replace(np.nan, 84, inplace= True)
```

```
In [20]: data.isnull().sum()
```

```
Out[20]: title                0
         rating               0
         ratingLevel         59
         ratingDescription    0
         release year        0
         user rating score    0
         user rating size    0
         dtype: int64
```

```
In [22]: data['ratingLevel']
```

```
Out[22]: 0      crude and sexual humor, language and some drug...
         1      strong violence, sexual content and adult lang...
         2      Parents strongly cautioned. May be unsuitable ...
         3      Parents strongly cautioned. May be unsuitable ...
         4      Parental guidance suggested. May not be suitab...
         ...
         995     for action/peril, some scary moments and brief...
         996                      for action and some rude humor
         997                      Suitable for all ages.
         998                      Suitable for all ages.
         999                      NaN
         Name: ratingLevel, Length: 1000, dtype: object
```

```
In [23]: data['ratingLevel'].replace(np.nan, 'Not Rated', inplace= True)
```

```
In [24]: data['ratingLevel']
```

```
Out[24]: 0      crude and sexual humor, language and some drug...
          1      strong violence, sexual content and adult lang...
          2      Parents strongly cautioned. May be unsuitable ...
          3      Parents strongly cautioned. May be unsuitable ...
          4      Parental guidance suggested. May not be suitab...
          ...
          995    for action/peril, some scary moments and brief...
          996                for action and some rude humor
          997                Suitable for all ages.
          998                Suitable for all ages.
          999                Not Rated
          Name: ratingLevel, Length: 1000, dtype: object
```

```
In [25]: data.isnull().sum()
```

```
Out[25]: title                0
          rating              0
          ratingLevel         0
          ratingDescription    0
          release year        0
          user rating score    0
          user rating size     0
          dtype: int64
```

```
In [ ]:
```