

```
print('hai')
```

```
hai
```

```
import pandas as pd
```

```
df = pd.read_csv(r"C:\Users\tt wrd\Downloads\data.csv")  
df
```

| | CountryName | CountryCode | BirthRate | InternetUsers | \ |
|-----|----------------------|-------------|-----------|---------------|---|
| 0 | Aruba | ABW | 10.244 | 78.9 | |
| 1 | Afghanistan | AFG | 35.253 | 5.9 | |
| 2 | Angola | AGO | 45.985 | 19.1 | |
| 3 | Albania | ALB | 12.877 | 57.2 | |
| 4 | United Arab Emirates | ARE | 11.044 | 88.0 | |
| ... | ... | ... | ... | ... | |
| 190 | Yemen, Rep. | YEM | 32.947 | 20.0 | |
| 191 | South Africa | ZAF | 20.850 | 46.5 | |
| 192 | Congo, Dem. Rep. | COD | 42.394 | 2.2 | |
| 193 | Zambia | ZMB | 40.471 | 15.4 | |
| 194 | Zimbabwe | ZWE | 35.715 | 18.5 | |

| | IncomeGroup |
|-----|---------------------|
| 0 | High income |
| 1 | Low income |
| 2 | Upper middle income |
| 3 | Upper middle income |
| 4 | High income |
| ... | ... |
| 190 | Lower middle income |
| 191 | Upper middle income |
| 192 | Low income |
| 193 | Lower middle income |
| 194 | Low income |

```
[195 rows x 5 columns]
```

```
rating = pd.read_csv(r"C:\Users\tt wrd\Downloads\rating.csv")  
rating
```

| | userId | movieId | rating | timestamp |
|----------|--------|---------|--------|---------------------|
| 0 | 1 | 2 | 3.5 | 2005-04-02 23:53:47 |
| 1 | 1 | 29 | 3.5 | 2005-04-02 23:31:16 |
| 2 | 1 | 32 | 3.5 | 2005-04-02 23:33:39 |
| 3 | 1 | 47 | 3.5 | 2005-04-02 23:32:07 |
| 4 | 1 | 50 | 3.5 | 2005-04-02 23:29:40 |
| ... | ... | ... | ... | ... |
| 20000258 | 138493 | 68954 | 4.5 | 2009-11-13 15:42:00 |
| 20000259 | 138493 | 69526 | 4.5 | 2009-12-03 18:31:48 |
| 20000260 | 138493 | 69644 | 3.0 | 2009-12-07 18:10:57 |

```
20000261 138493 70286 5.0 2009-11-13 15:42:24
20000262 138493 71619 2.5 2009-10-17 20:25:36
```

```
[20000263 rows x 4 columns]
```

```
tag = pd.read_csv(r"C:\Users\tt wrd\Downloads\tag.csv")
```

```
movie= pd.read_csv(r"C:\Users\tt wrd\Downloads\movie.csv")
```

```
movie.columns
```

```
Index(['movieId', 'title', 'genres'], dtype='object')
```

```
movie.shape
```

```
(27278, 3)
```

```
rating.columns
```

```
Index(['userId', 'movieId', 'rating', 'timestamp'], dtype='object')
```

```
rating.shape
```

```
(20000263, 4)
```

```
tag.columns
```

```
Index(['userId', 'movieId', 'tag', 'timestamp'], dtype='object')
```

```
tag.head(5)
```

| | userId | movieId | tag | timestamp |
|---|--------|---------|---------------|---------------------|
| 0 | 18 | 4141 | Mark Waters | 2009-04-24 18:19:40 |
| 1 | 65 | 208 | dark hero | 2013-05-10 01:41:18 |
| 2 | 65 | 353 | dark hero | 2013-05-10 01:41:19 |
| 3 | 65 | 521 | noir thriller | 2013-05-10 01:39:43 |
| 4 | 65 | 592 | dark hero | 2013-05-10 01:41:18 |

```
tag.shape
```

```
(465564, 4)
```

```
del tag['timestamp']
```

```
tag.columns
```

```
Index(['userId', 'movieId', 'tag'], dtype='object')
```

```
tag.iloc[0]
```

```
userId      18
movieId     4141
tag      Mark Waters
Name: 0, dtype: object
```

```
len(tag)
```

```
465564
```

```
row_0=tag.iloc[0]
```

```
row_0
```

```
userId      18
```

```
movieId     4141
```

```
tag      Mark Waters
```

```
Name: 0, dtype: object
```

```
type(row_0)
```

```
pandas.core.series.Series
```

```
print(row_0)
```

```
userId      18
```

```
movieId     4141
```

```
tag      Mark Waters
```

```
Name: 0, dtype: object
```

```
rows=tag.iloc[0:44]
```

```
rows
```

| | userId | movieId | tag |
|----|--------|---------|-------------------|
| 0 | 18 | 4141 | Mark Waters |
| 1 | 65 | 208 | dark hero |
| 2 | 65 | 353 | dark hero |
| 3 | 65 | 521 | noir thriller |
| 4 | 65 | 592 | dark hero |
| 5 | 65 | 668 | bollywood |
| 6 | 65 | 898 | screwball comedy |
| 7 | 65 | 1248 | noir thriller |
| 8 | 65 | 1391 | mars |
| 9 | 65 | 1617 | neo-noir |
| 10 | 65 | 1694 | jesus |
| 11 | 65 | 1783 | noir thriller |
| 12 | 65 | 2022 | jesus |
| 13 | 65 | 2193 | dragon |
| 14 | 65 | 2353 | conspiracy theory |
| 15 | 65 | 2662 | mars |
| 16 | 65 | 2726 | noir thriller |
| 17 | 65 | 2840 | jesus |
| 18 | 65 | 3052 | jesus |
| 19 | 65 | 5135 | bollywood |
| 20 | 65 | 6539 | treasure |
| 21 | 65 | 6874 | dark hero |
| 22 | 65 | 7013 | noir thriller |
| 23 | 65 | 7318 | jesus |

| | | | | |
|----|----|--------|------------------------------------|-------------------|
| 24 | 65 | 8529 | | stranded |
| 25 | 65 | 8622 | | conspiracy theory |
| 26 | 65 | 27803 | Oscar (Best Foreign Language Film) | |
| 27 | 65 | 27866 | | New Zealand |
| 28 | 65 | 48082 | | surreal |
| 29 | 65 | 48082 | | unusual |
| 30 | 65 | 51884 | | bollywood |
| 31 | 65 | 58652 | | cute |
| 32 | 65 | 58652 | | emotional |
| 33 | 65 | 58652 | girls who play boys | |
| 34 | 65 | 58652 | | Stephen Chow |
| 35 | 96 | 106696 | | animation |
| 36 | 96 | 106696 | | beautiful |
| 37 | 96 | 106696 | | characters |
| 38 | 96 | 106696 | | Disney |
| 39 | 96 | 106696 | | feminist |
| 40 | 96 | 106696 | | Ice |
| 41 | 96 | 106696 | | music |
| 42 | 96 | 106696 | | musical |
| 43 | 96 | 106696 | | pacing |