

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

```
In [2]: df=pd.read_csv('Downloads/u.data',sep='\t')
df
```

```
Out[2]:
```

	0	50	5	881250949
0	0	172	5	881250949
1	0	133	1	881250949
2	196	242	3	881250949
3	186	302	3	891717742
4	22	377	1	878887116
...
99997	880	476	3	880175444
99998	716	204	5	879795543
99999	276	1090	1	874795795
100000	13	225	2	882399156
100001	12	203	3	879959583

100002 rows × 4 columns

```
In [3]: names=['user_id','item_id','rating','timestamp']
df=pd.read_csv('Downloads/u.data',sep='\t',names=names)
```

```
In [4]: df
```

```
Out[4]:
```

	user_id	item_id	rating	timestamp
0	0	50	5	881250949
1	0	172	5	881250949
2	0	133	1	881250949
3	196	242	3	881250949
4	186	302	3	891717742
...
99998	880	476	3	880175444
99999	716	204	5	879795543
100000	276	1090	1	874795795
100001	13	225	2	882399156
100002	12	203	3	879959583

100003 rows × 4 columns

```
In [6]: df.groupby('timestamp').mean('rating')
```

Out[6]:

	user_id	item_id	rating
timestamp			
874724710	259.0	255.000000	4.000000
874724727	259.0	286.000000	4.000000
874724754	259.0	298.000000	4.000000
874724781	259.0	185.000000	4.000000
874724843	259.0	173.000000	4.000000
...
893286550	683.0	373.333333	3.333333
893286584	683.0	588.000000	4.000000
893286603	683.0	248.000000	4.000000
893286637	729.0	346.000000	4.333333
893286638	729.0	426.142857	3.714286

49282 rows × 3 columns

```
In [ ]:
```