

```
In [4]: import numpy as np
import pandas as pd
import re
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
```

```
In [5]: df = pd.read_csv('/Users/a8/Desktop/Data Science/Amazon - Movies and TV Ratings.
```

```
In [6]: df.head()
```

```
Out[6]:
```

	user_id	Movie1	Movie2	Movie3	Movie4	Movie5	Movie6	Movie7	Movie8	Movie
0	A3R5OBKS7OM2IR	5.0	5.0	NaN	NaN	NaN	NaN	NaN	NaN	Na
1	AH3QC2PC1VTGP	NaN	NaN	2.0	NaN	NaN	NaN	NaN	NaN	Na
2	A3LKP6WPMP9UKX	NaN	NaN	NaN	5.0	NaN	NaN	NaN	NaN	Na
3	AVIY68KEPQ5ZD	NaN	NaN	NaN	5.0	NaN	NaN	NaN	NaN	Na
4	A1CV1WROP5KTTW	NaN	NaN	NaN	NaN	5.0	NaN	NaN	NaN	Na

5 rows × 207 columns

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

```
Out[7]: (4848, 207)
```

```
In [8]: df_org = df.copy()
```

```
In [9]: df.describe().T
```

```
Out[9]:
```

	count	mean	std	min	25%	50%	75%	max
Movie1	1.0	5.000000	NaN	5.0	5.00	5.0	5.0	5.0
Movie2	1.0	5.000000	NaN	5.0	5.00	5.0	5.0	5.0
Movie3	1.0	2.000000	NaN	2.0	2.00	2.0	2.0	2.0
Movie4	2.0	5.000000	0.000000	5.0	5.00	5.0	5.0	5.0
Movie5	29.0	4.103448	1.496301	1.0	4.00	5.0	5.0	5.0
...
Movie202	6.0	4.333333	1.632993	1.0	5.00	5.0	5.0	5.0
Movie203	1.0	3.000000	NaN	3.0	3.00	3.0	3.0	3.0
Movie204	8.0	4.375000	1.407886	1.0	4.75	5.0	5.0	5.0
Movie205	35.0	4.628571	0.910259	1.0	5.00	5.0	5.0	5.0
Movie206	13.0	4.923077	0.277350	4.0	5.00	5.0	5.0	5.0

206 rows × 8 columns

```
In [10]: df.describe().T['count'].sort_values(ascending=False)[:1].to_frame()
```

```
Out[10]:
```

	count
Movie127	2313.0

```
In [11]: df.drop('user_id',axis=1).mean().sort_values(ascending=False)[:5].to_frame()
```

```
Out[11]:
```

	0
Movie1	5.0
Movie55	5.0
Movie131	5.0
Movie132	5.0
Movie133	5.0

```
In [14]: df.describe().T['count'].sort_values(ascending=True)[:5].to_frame()
```

```
Out[14]:
```

	count
Movie1	1.0
Movie71	1.0
Movie145	1.0
Movie69	1.0
Movie68	1.0

```
In [15]: df_melt = df.melt(id_vars = df.columns[0],value_vars=df.columns[1:],var_name="Mo
```

```
In [31]: df_melt
```

```
Out[31]:
```

	user_id	Movies	Rating
0	A3R5OBKS7OM2IR	Movie1	5.0
1	AH3QC2PC1VTGP	Movie1	NaN
2	A3LKP6WPMP9UKX	Movie1	NaN
3	AVIY68KEPQ5ZD	Movie1	NaN
4	A1CV1WROP5KTTW	Movie1	NaN
...
998683	A1IMQ9WMFYKWH5	Movie206	5.0
998684	A1KLIKPUF5E88I	Movie206	5.0
998685	A5HG6WFZLO10D	Movie206	5.0
998686	A3UU690TWXCG1X	Movie206	5.0
998687	AI4J762YI6S06	Movie206	5.0

998688 rows × 3 columns

