

```
In [75]: import pandas as pd  
import numpy as np
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```
In [76]: data=pd.read_csv("/home/placement/Downloads/movies.csv")
```

```
In [77]: data.describe()
```

Out[77]:

	year	srno	movie	rating	time
count	101.000000	101.000000	101.000000	101.000000	101.000000
mean	1963.960396	490.990099	490.990099	107.069307	453.821782
std	29.366961	1068.727397	1068.727397	237.255864	977.783682
min	1913.000000	1.000000	1.000000	1.000000	1.000000
25%	1939.000000	7.000000	7.000000	5.000000	7.000000
50%	1964.000000	107.000000	107.000000	21.000000	101.000000
75%	1989.000000	334.000000	334.000000	79.000000	317.000000
max	2014.000000	5511.000000	5511.000000	1346.000000	4992.000000

```
In [78]: data.head(5)
```

Out[78]:

	year	srno	movie	rating	time
0	1913	3	3	3	3
1	1914	20	20	5	18
2	1915	1	1	1	1
3	1916	1	1	1	1
4	1918	1	1	1	1

```
In [79]: data1=data.loc[(data.time>5000)]
```

```
In [80]: data1
```

```
Out[80]:
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	year	srno	movie	rating	time
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```
In [81]: data2=data.loc[(data.time>5000)&(data.year==2000)]
```

```
In [82]: data2
```

```
Out[82]:
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	year	srno	movie	rating	time
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```
In [83]: data.head(100)
```

```
Out[83]:
```

	year	srno	movie	rating	time
0	1913	3	3	3	3
1	1914	20	20	5	18
2	1915	1	1	1	1
3	1916	1	1	1	1
4	1918	1	1	1	1
...	...	...	...	...	...
95	2009	4451	4451	844	4092
96	2010	5107	5107	1102	4671
97	2011	5511	5511	1346	4992
98	2012	4339	4339	1130	3978
99	2013	981	981	345	901

100 rows × 5 columns

```
In [84]: data.head(50)
```

```
Out[84]:
```

	year	srno	movie	rating	time
0	1913	3	3	3	3
1	1914	20	20	5	18
2	1915	1	1	1	1
3	1916	1	1	1	1
4	1918	1	1	1	1
5	1919	3	3	3	3
6	1920	6	6	6	6
7	1921	2	2	2	2
8	1922	2	2	2	2
9	1923	4	4	4	4
10	1924	5	5	5	5
11	1925	5	5	5	5
12	1926	2	2	2	2
13	1927	4	4	4	4
14	1928	2	2	2	2
15	1929	5	5	5	5
16	1930	5	5	5	5
17	1931	3	3	3	3
18	1932	4	4	3	4
19	1933	7	7	3	7
20	1934	8	8	2	8
21	1935	11	11	8	11
22	1936	7	7	2	7
23	1937	4	4	4	4

	year	srno	movie	rating	time
24	1938	5	5	4	5
25	1939	6	6	5	6
26	1940	9	9	8	9
27	1941	7	7	7	7
28	1942	3	3	3	3
29	1943	7	7	6	7
30	1944	10	10	10	10
31	1945	9	9	9	9
32	1946	6	6	5	6
33	1947	9	9	8	9
34	1948	13	13	13	13
35	1949	9	9	8	9
36	1950	10	10	10	10
37	1951	33	33	9	31
38	1952	15	15	14	15
39	1953	17	17	17	17
40	1954	17	17	17	17
41	1955	14	14	14	13
42	1956	60	60	21	59
43	1957	98	98	24	95
44	1958	73	73	22	70
45	1959	87	87	12	84
46	1960	123	123	23	119
47	1961	119	119	17	115
48	1962	124	124	20	121
49	1963	88	88	24	85



```
In [85]: data.tail(50)
```

```
Out[85]:
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	year	srno	movie	rating	time
51	1965	104	104	12	101
52	1966	103	103	15	97
53	1967	279	279	21	270
54	1968	173	173	32	161
55	1969	124	124	21	120
56	1970	141	141	32	134
57	1971	131	131	35	122
58	1972	166	166	31	156
59	1973	168	168	40	157
60	1974	178	178	38	168
61	1975	134	134	29	124
62	1976	118	118	34	110
63	1977	136	136	36	128
64	1978	231	231	51	213
65	1979	140	140	40	133
66	1980	107	107	37	98
67	1981	112	112	36	105
68	1982	153	153	37	144
69	1983	270	270	50	253
70	1984	303	303	52	286
71	1985	334	334	55	317
72	1986	287	287	62	276
73	1987	280	280	68	265
74	1988	334	334	79	312

	year	srno	movie	rating	time
75	1989	421	421	90	386
76	1990	470	470	84	435
77	1991	364	364	81	343
78	1992	479	479	84	448
79	1993	564	564	93	529
80	1994	517	517	101	491
81	1995	592	592	114	557
82	1996	688	688	143	649
83	1997	788	788	176	743
84	1998	843	843	178	794
85	1999	1181	1181	187	1097
86	2000	902	902	203	854
87	2001	1173	1173	237	1093
88	2002	1117	1117	250	1044
89	2003	1399	1399	279	1294
90	2004	1381	1381	311	1269
91	2005	1937	1937	392	1765
92	2006	2416	2416	492	2229
93	2007	2892	2892	569	2665
94	2008	3358	3358	609	3088
95	2009	4451	4451	844	4092
96	2010	5107	5107	1102	4671
97	2011	5511	5511	1346	4992
98	2012	4339	4339	1130	3978
99	2013	981	981	345	901
100	2014	1	1	1	1

```
In [86]: data1=data.loc[(data.rating==4)&(data.year<=2010)&(data.year>2000)]
```

```
In [87]: data1
```

```
Out[87]:
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	year	srno	movie	rating	time
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```
In [88]: datat=data.sort_values('time')
```

```
In [89]: datat
```

```
Out[89]:
```

	year	srno	movie	rating	time
<b>100</b>	2014	1	1	1	1
<b>2</b>	1915	1	1	1	1
<b>3</b>	1916	1	1	1	1
<b>4</b>	1918	1	1	1	1
<b>14</b>	1928	2	2	2	2
...	...	...	...	...	...
<b>94</b>	2008	3358	3358	609	3088
<b>98</b>	2012	4339	4339	1130	3978
<b>95</b>	2009	4451	4451	844	4092
<b>96</b>	2010	5107	5107	1102	4671
<b>97</b>	2011	5511	5511	1346	4992

101 rows × 5 columns



```
In [90]: datar=data.sort_values('rating')
datar
```

Out[90]:

	year	srno	movie	rating	time
<b>100</b>	2014	1	1	1	1
<b>2</b>	1915	1	1	1	1
<b>3</b>	1916	1	1	1	1
<b>4</b>	1918	1	1	1	1
<b>22</b>	1936	7	7	2	7
...	...	...	...	...	...
<b>94</b>	2008	3358	3358	609	3088
<b>95</b>	2009	4451	4451	844	4092
<b>96</b>	2010	5107	5107	1102	4671
<b>98</b>	2012	4339	4339	1130	3978
<b>97</b>	2011	5511	5511	1346	4992

101 rows × 5 columns