

Multiple filters movies

November 17, 2016

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In [1]: import pandas as pd
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```
In [2]: movies = pd.read_csv('http://bit.ly/imdbratings')
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In [3]: movies.head()
```

```
Out[3]:
```

	star_rating	title	content_rating	genre	duration
0	9.3	The Shawshank Redemption	R	Crime	142
1	9.2	The Godfather	R	Crime	175
2	9.1	The Godfather: Part II	R	Crime	200
3	9.0	The Dark Knight	PG-13	Action	152
4	8.9	Pulp Fiction	R	Crime	154

	actors_list
0	[u'Tim Robbins', u'Morgan Freeman', u'Bob Gunt...]
1	[u'Marlon Brando', u'Al Pacino', u'James Caan']
2	[u'Al Pacino', u'Robert De Niro', u'Robert Duv...]
3	[u'Christian Bale', u'Heath Ledger', u'Aaron E...]
4	[u'John Travolta', u'Uma Thurman', u'Samuel L...]

```
In [4]: movies[movies.duration >= 200]
```

```
Out[4]:
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	star_rating	title \
2	9.1	The Godfather: Part II
7	8.9	The Lord of the Rings: The Return of the King
17	8.7	Seven Samurai
78	8.4	Once Upon a Time in America
85	8.4	Lawrence of Arabia
142	8.3	Lagaan: Once Upon a Time in India
157	8.2	Gone with the Wind
204	8.1	Ben-Hur
445	7.9	The Ten Commandments
476	7.8	Hamlet
630	7.7	Malcolm X
767	7.6	It's a Mad, Mad, Mad, Mad World

	content_rating	genre	duration \
2	R	Crime	200

7	PG-13	Adventure	201
17	UNRATED	Drama	207
78	R	Crime	229
85	PG	Adventure	216
142	PG	Adventure	224
157	G	Drama	238
204	G	Adventure	212
445	APPROVED	Adventure	220
476	PG-13	Drama	242
630	PG-13	Biography	202
767	APPROVED	Action	205

	actors_list
2	[u'Al Pacino', u'Robert De Niro', u'Robert Duv...]
7	[u'Elijah Wood', u'Viggo Mortensen', u'Ian McK...]
17	[u'Toshir\xef4 Mifune', u'Takashi Shimura', u'K...]
78	[u'Robert De Niro', u'James Woods', u'Elizabet...]
85	[u"Peter O'Toole", u'Alec Guinness', u'Anthony...]
142	[u'Aamir Khan', u'Gracy Singh', u'Rachel Shell...]
157	[u'Clark Gable', u'Vivien Leigh', u'Thomas Mit...]
204	[u'Charlton Heston', u'Jack Hawkins', u'Stephe...]
445	[u'Charlton Heston', u'Yul Brynner', u'Anne Ba...]
476	[u'Kenneth Branagh', u'Julie Christie', u'Dere...]
630	[u'Denzel Washington', u'Angela Bassett', u'De...]
767	[u'Spencer Tracy', u'Milton Berle', u'Ethel Me...]

In [5]: **False or True**

Out[5]: True

In [6]: **True and False**

Out[6]: False

In [12]: movies[(movies.duration >= 200) & (movies.genre == 'Drama')] # filters out

Out[12]:	star_rating	title	content_rating	genre	duration	\
	17	8.7	Seven Samurai	UNRATED	Drama	207
	157	8.2	Gone with the Wind	G	Drama	238
	476	7.8	Hamlet	PG-13	Drama	242

	actors_list
17	[u'Toshir\xef4 Mifune', u'Takashi Shimura', u'K...]
157	[u'Clark Gable', u'Vivien Leigh', u'Thomas Mit...]
476	[u'Kenneth Branagh', u'Julie Christie', u'Dere...]

In [16]: movies[(movies.star_rating >= 9.0) & (movies.content_rating == 'R')] # fi

Out[16]:	star_rating	title	content_rating	genre	duration	
	0	9.3	The Shawshank Redemption	R	Crime	142

1	9.2	The Godfather	R	Crime	175
2	9.1	The Godfather: Part II	R	Crime	200

```

actors_list
0 [u'Tim Robbins', u'Morgan Freeman', u'Bob Gunt...
1 [u'Marlon Brando', u'Al Pacino', u'James Caan']
2 [u'Al Pacino', u'Robert De Niro', u'Robert Duv...

```

```
In [17]: movies[(movies.title == 'Gone with the Wind') & (movies.genre == 'Drama')]
```

```
Out[17]:
```

	star_rating	title	content_rating	genre	duration \
157	8.2	Gone with the Wind	G	Drama	238

```

actors_list
157 [u'Clark Gable', u'Vivien Leigh', u'Thomas Mit...

```

```
In [19]: movies[movies.genre.isin(['Crime', 'Drama', 'Action'])] # multiple filters
```

```
Out[19]:
```

	star_rating	title \
0	9.3	The Shawshank Redemption
1	9.2	The Godfather
2	9.1	The Godfather: Part II
3	9.0	The Dark Knight
4	8.9	Pulp Fiction
5	8.9	12 Angry Men
9	8.9	Fight Club
11	8.8	Inception
12	8.8	Star Wars: Episode V - The Empire Strikes Back
13	8.8	Forrest Gump
16	8.7	One Flew Over the Cuckoo's Nest
17	8.7	Seven Samurai
19	8.7	Star Wars
20	8.7	The Matrix
21	8.7	City of God
22	8.7	It's a Wonderful Life
23	8.7	The Usual Suspects
24	8.7	Se7en
27	8.6	The Silence of the Lambs
28	8.6	Leon: The Professional
32	8.6	Casablanca
33	8.6	Whiplash
34	8.6	American History X
36	8.6	Saving Private Ryan
37	8.6	Raiders of the Lost Ark
40	8.5	The Green Mile
41	8.5	Sunset Blvd.
43	8.5	The Dark Knight Rises
44	8.5	Gladiator
45	8.5	Terminator 2: Judgment Day

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916	7.5	Up in the Air
917	7.5	Begin Again
918	7.5	Running Scared
920	7.5	Witness
922	7.5	Mud
923	7.5	Across the Universe
924	7.5	Les Miserables
925	7.5	Notes on a Scandal
926	7.5	Inside Llewyn Davis
927	7.5	Brick
931	7.4	Mean Streets
939	7.4	Predestination
941	7.4	A Bridge Too Far
945	7.4	Take Shelter
946	7.4	Far from Heaven
947	7.4	Eraserhead
950	7.4	Bound
951	7.4	Sleepy Hollow
954	7.4	X-Men
955	7.4	Zero Dark Thirty
958	7.4	My Sister's Keeper
963	7.4	La Femme Nikita
967	7.4	The Rock
968	7.4	The English Patient
969	7.4	Law Abiding Citizen
970	7.4	Wonder Boys
972	7.4	Blue Valentine
973	7.4	The Cider House Rules
976	7.4	Master and Commander: The Far Side of the World
978	7.4	Wall Street

	content_rating	genre	duration \
0	R	Crime	142
1	R	Crime	175
2	R	Crime	200
3	PG-13	Action	152
4	R	Crime	154
5	NOT RATED	Drama	96
9	R	Drama	139
11	PG-13	Action	148
12	PG	Action	124
13	PG-13	Drama	142
16	R	Drama	133
17	UNRATED	Drama	207
19	PG	Action	121
20	R	Action	136
21	R	Crime	130

22	APPROVED	Drama	130
23	R	Crime	106
24	R	Drama	127
27	R	Drama	118
28	R	Crime	110
32	PG	Drama	102
33	R	Drama	107
34	R	Crime	119
36	R	Action	169
37	PG	Action	115
40	R	Crime	189
41	NOT RATED	Drama	110
43	PG-13	Action	165
44	R	Action	155
45	R	Action	137
..
916	R	Drama	109
917	R	Drama	104
918	R	Action	122
920	R	Crime	112
922	PG-13	Drama	130
923	PG-13	Drama	133
924	PG-13	Crime	134
925	R	Drama	92
926	R	Drama	104
927	R	Crime	110
931	R	Crime	112
939	R	Drama	97
941	PG	Drama	175
945	R	Drama	120
946	PG-13	Drama	107
947	UNRATED	Drama	89
950	R	Crime	108
951	R	Drama	105
954	PG-13	Action	104
955	R	Drama	157
958	PG-13	Drama	109
963	R	Action	118
967	R	Action	136
968	R	Drama	162
969	R	Crime	109
970	R	Drama	107
972	NC-17	Drama	112
973	PG-13	Drama	126
976	PG-13	Action	138
978	R	Crime	126

actors_list

0 [u'Tim Robbins', u'Morgan Freeman', u'Bob Gunt...
 1 [u'Marlon Brando', u'Al Pacino', u'James Caan']
 2 [u'Al Pacino', u'Robert De Niro', u'Robert Duv...
 3 [u'Christian Bale', u'Heath Ledger', u'Aaron E...
 4 [u'John Travolta', u'Uma Thurman', u'Samuel L...
 5 [u'Henry Fonda', u'Lee J. Cobb', u'Martin Bals...
 9 [u'Brad Pitt', u'Edward Norton', u'Helena Bonh...
 11 [u'Leonardo DiCaprio', u'Joseph Gordon-Levitt'...
 12 [u'Mark Hamill', u'Harrison Ford', u'Carrie Fi...
 13 [u'Tom Hanks', u'Robin Wright', u'Gary Sinise']
 16 [u'Jack Nicholson', u'Louise Fletcher', u'Mich...
 17 [u'Toshir\x4 Mifune', u'Takashi Shimura', u'K...
 19 [u'Mark Hamill', u'Harrison Ford', u'Carrie Fi...
 20 [u'Keanu Reeves', u'Laurence Fishburne', u'Car...
 21 [u'Alexandre Rodrigues', u'Matheus Nachtergaele...
 22 [u'James Stewart', u'Donna Reed', u'Lionel Bar...
 23 [u'Kevin Spacey', u'Gabriel Byrne', u'Chazz Pa...
 24 [u'Morgan Freeman', u'Brad Pitt', u'Kevin Spac...
 27 [u'Jodie Foster', u'Anthony Hopkins', u'Lawren...
 28 [u'Jean Reno', u'Gary Oldman', u'Natalie Portm...
 32 [u'Humphrey Bogart', u'Ingrid Bergman', u'Paul...
 33 [u'Miles Teller', u'J.K. Simmons', u'Melissa B...
 34 [u'Edward Norton', u'Edward Furlong', u"Beverl...
 36 [u'Tom Hanks', u'Matt Damon', u'Tom Sizemore']
 37 [u'Harrison Ford', u'Karen Allen', u'Paul Free...
 40 [u'Tom Hanks', u'Michael Clarke Duncan', u'Dav...
 41 [u'William Holden', u'Gloria Swanson', u'Erich...
 43 [u'Christian Bale', u'Tom Hardy', u'Anne Hatha...
 44 [u'Russell Crowe', u'Joaquin Phoenix', u'Conni...
 45 [u'Arnold Schwarzenegger', u'Linda Hamilton', ...

 916 [u'George Clooney', u'Vera Farmiga', u'Anna Ke...
 917 [u'Keira Knightley', u'Mark Ruffalo', u'Adam L...
 918 [u'Paul Walker', u'Cameron Bright', u'Chazz Pa...
 920 [u'Harrison Ford', u'Kelly McGillis', u'Lukas ...
 922 [u'Matthew McConaughey', u'Tye Sheridan', u'Ja...
 923 [u'Evan Rachel Wood', u'Jim Sturgess', u'Joe A...
 924 [u'Liam Neeson', u'Geoffrey Rush', u'Uma Thurm...
 925 [u'Cate Blanchett', u'Judi Dench', u'Andrew Si...
 926 [u'Oscar Isaac', u'Carey Mulligan', u'John Goo...
 927 [u'Joseph Gordon-Levitt', u'Lukas Haas', u'Emi...
 931 [u'Robert De Niro', u'Harvey Keitel', u'David ...
 939 [u'Ethan Hawke', u'Sarah Snook', u'Noah Taylor']
 941 [u'Sean Connery', u"Ryan O'Neal", u'Michael Ca...
 945 [u'Michael Shannon', u'Jessica Chastain', u'Sh...
 946 [u'Julianne Moore', u'Dennis Quaid', u'Dennis ...
 947 [u'Jack Nance', u'Charlotte Stewart', u'Allen ...
 950 [u'Jennifer Tilly', u'Gina Gershon', u'Joe Pan...

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951 [u'Johnny Depp', u'Christina Ricci', u'Miranda...
954 [u'Patrick Stewart', u'Hugh Jackman', u'Ian Mc...
955 [u'Jessica Chastain', u'Joel Edgerton', u'Chri...
958 [u'Cameron Diaz', u'Abigail Breslin', u'Alec B...
963 [u'Anne Parillaud', u'Marc Duret', u'Patrick F...
967 [u'Sean Connery', u'Nicolas Cage', u'Ed Harris']
968 [u'Ralph Fiennes', u'Juliette Binoche', u'Will...
969 [u'Gerard Butler', u'Jamie Foxx', u'Leslie Bibb']
970 [u'Michael Douglas', u'Tobey Maguire', u'Franc...
972 [u'Ryan Gosling', u'Michelle Williams', u'John...
973 [u'Tobey Maguire', u'Charlize Theron', u'Micha...
976 [u'Russell Crowe', u'Paul Bettany', u'Billy Bo...
978 [u'Charlie Sheen', u'Michael Douglas', u'Tamar...

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[538 rows x 6 columns]
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In [ ]:
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