Movielens

November 11, 2022

[28]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
%matplotlib inline
```

[29]:
```
#Import the three datasets
read_movies=pd.read_csv('movies.dat',sep='\s+\|\s+')
read_movies.to_csv('movies.csv', index=None)
read_movies
```

```
/usr/local/lib/python3.7/site-packages/ipykernel_launcher.py:2: ParserWarning:
Falling back to the 'python' engine because the 'c' engine does not support
regex separators (separators > 1 char and different from '\s+' are interpreted
as regex); you can avoid this warning by specifying engine='python'.
```

[29]:

	1::Toy Story (1995)::Animation|Children's|Comedy
0	2::Jumanji (1995)::Adventure|Children's|Fantasy
1	3::Grumpier Old Men (1995)::Comedy|Romance
2	4::Waiting to Exhale (1995)::Comedy|Drama
3	5::Father of the Bride Part II (1995)::Comedy
4	6::Heat (1995)::Action|Crime|Thriller
…	…
3877	3948::Meet the Parents (2000)::Comedy
3878	3949::Requiem for a Dream (2000)::Drama
3879	3950::Tigerland (2000)::Drama
3880	3951::Two Family House (2000)::Drama
3881	3952::Contender, The (2000)::Drama|Thriller

[3882 rows x 1 columns]

[30]:
```
read_ratings = pd.read_csv('ratings.dat')
read_ratings.to_csv ('ratings.csv', index=None)

read_ratings
```

[30]:
```
             1::1193::5::978300760
0             1::661::3::978302109
1             1::914::3::978301968
2            1::3408::4::978300275
3            1::2355::5::978824291
4            1::1197::3::978302268
…                              …
1000203   6040::1091::1::956716541
1000204   6040::1094::5::956704887
1000205    6040::562::5::956704746
1000206   6040::1096::4::956715648
1000207   6040::1097::4::956715569

[1000208 rows x 1 columns]
```

[31]:
```
read_users = pd.read_csv('users.dat')
read_users.to_csv ('users.csv', index=None)

read_users
```

[31]:
```
           1::F::1::10::48067
0         2::M::56::16::70072
1         3::M::25::15::55117
2          4::M::45::7::02460
3         5::M::25::20::55455
4          6::F::50::9::55117
…                         …
6034   6036::F::25::15::32603
6035    6037::F::45::1::76006
6036    6038::F::56::1::14706
6037    6039::F::45::0::01060
6038    6040::M::25::6::11106

[6039 rows x 1 columns]
```

[32]:
```
read_ratings.head()
```

[32]:
```
    1::1193::5::978300760
0    1::661::3::978302109
1    1::914::3::978301968
2   1::3408::4::978300275
3   1::2355::5::978824291
4   1::1197::3::978302268
```

[33]:
```
read_ratings.columns
```

[33]:
```
Index(['1::1193::5::978300760'], dtype='object')
```

[ ]:

[34]:
```
read_movies.columns
```

[34]:
```
Index(['1::Toy Story (1995)::Animation|Children's|Comedy'], dtype='object')
```

[35]:
```
read_users.columns
```

[35]:
```
Index(['1::F::1::10::48067'], dtype='object')
```

[36]:
```
#Convert single column dataset into multiple column dataset
read_ratings.dropna(inplace = True)
new = read_ratings['1::1193::5::978300760'].str.split("::", n = 3, expand =␣
 ↪True)
read_ratings["UserID"]= new[0]
read_ratings["MovieID"]= new[1]
read_ratings["Rating"]= new[2]
read_ratings["Timestamp"]= new[3]
read_ratings.drop(columns =['1::1193::5::978300760'], inplace = True)
# df display
read_ratings
```

[36]:

	UserID	MovieID	Rating	Timestamp
0	1	661	3	978302109
1	1	914	3	978301968
2	1	3408	4	978300275
3	1	2355	5	978824291
4	1	1197	3	978302268
…	…	…	…	…
1000203	6040	1091	1	956716541
1000204	6040	1094	5	956704887
1000205	6040	562	5	956704746
1000206	6040	1096	4	956715648
1000207	6040	1097	4	956715569

[1000208 rows x 4 columns]

[37]:
```
#Convert single column dataset into multiple column dataset
read_movies.dropna(inplace = True)
new = read_movies["1::Toy Story (1995)::Animation|Children's|Comedy"].str.
 ↪split("::", n =2, expand = True)
read_movies["MovieID"]= new[0]
read_movies["Title"]= new[1]
read_movies["Genres"]= new[2]
read_movies.drop(columns =["1::Toy Story (1995)::Animation|Children's|Comedy"],␣
 ↪inplace = True)
# df display
```

```
read_movies
```

[37]:

	MovieID	Title	Genres
0	2	Jumanji (1995)	Adventure|Children's|Fantasy
1	3	Grumpier Old Men (1995)	Comedy|Romance
2	4	Waiting to Exhale (1995)	Comedy|Drama
3	5	Father of the Bride Part II (1995)	Comedy
4	6	Heat (1995)	Action|Crime|Thriller
…	…	…	…
3877	3948	Meet the Parents (2000)	Comedy
3878	3949	Requiem for a Dream (2000)	Drama
3879	3950	Tigerland (2000)	Drama
3880	3951	Two Family House (2000)	Drama
3881	3952	Contender, The (2000)	Drama|Thriller

[3882 rows x 3 columns]

[38]:
```
#Convert single column dataset into multiple column dataset
read_users.dropna(inplace = True)
new = read_users["1::F::1::10::48067"].str.split("::", n =4, expand = True)
read_users["UserID"]= new[0]
read_users["Gender"]= new[1]
read_users["Age"]= new[2]
read_users["Occupation"]= new[3]
read_users["Zip-code"]= new[4]
read_users.drop(columns =["1::F::1::10::48067"], inplace = True)
# df display
read_users
```

[38]:

	UserID	Gender	Age	Occupation	Zip-code
0	2	M	56	16	70072
1	3	M	25	15	55117
2	4	M	45	7	02460
3	5	M	25	20	55455
4	6	F	50	9	55117
…	…	…	..	…	…
6034	6036	F	25	15	32603
6035	6037	F	45	1	76006
6036	6038	F	56	1	14706
6037	6039	F	45	0	01060
6038	6040	M	25	6	11106

[6039 rows x 5 columns]

[56]:
```
# using merge function to combine ratings and movie dataset by setting␣
↪how='inner'
```

```
rating_movie_join= pd.merge(read_ratings[['MovieID','UserID','Rating']],␣
 ↪read_movies[['Title','MovieID','Genres']],
                   on='MovieID',
                   how='inner')

# displaying result
print(rating_movie_join)
```

```
       MovieID UserID Rating                                      Title  \
0          661      1      3             James and the Giant Peach (1996)
1          661     23      2             James and the Giant Peach (1996)
2          661     49      3             James and the Giant Peach (1996)
3          661     53      5             James and the Giant Peach (1996)
4          661     57      4             James and the Giant Peach (1996)
…          …    …    …                                          …
998126    2198   5949      5                        Modulations (1998)
998127    2703   5675      3                     Broken Vessels (1998)
998128    2845   5780      1                         White Boys (1999)
998129    3607   5851      5                  One Little Indian (1973)
998130    2909   5938      4  Five Wives, Three Secretaries and Me (1998)

                             Genres
0       Animation|Children's|Musical
1       Animation|Children's|Musical
2       Animation|Children's|Musical
3       Animation|Children's|Musical
4       Animation|Children's|Musical
…                               …
998126                  Documentary
998127                        Drama
998128                        Drama
998129          Comedy|Drama|Western
998130                  Documentary

[998131 rows x 5 columns]
```

[74]:
```
# using merge function to combine rating_movie_join and user dataset by setting␣
 ↪how='inner'
Master_Data= pd.
 ↪merge(rating_movie_join[['MovieID','Title','UserID','Rating','Genres']],␣
 ↪read_users[['UserID','Gender','Age','Occupation']],
                   on='UserID',
                   how='inner')

# displaying result
print(Master_Data)
```

```
       MovieID                                               Title UserID  \
0          661                    James and the Giant Peach (1996)     23
1         2355                         Bug's Life, A (1998)     23
2          595                    Beauty and the Beast (1991)     23
3         2797                                  Big (1988)     23
4          720  Wallace & Gromit: The Best of Aardman Animatio…     23
…          …                                                …    …
998075    3791                                Footloose (1984)   4211
998076    3806                            MacKenna's Gold (1969)   4211
998077    3840                                Pumpkinhead (1988)   4211
998078    3766                           Missing in Action (1984)   4211
998079    3834                                Bronco Billy (1980)   4211

       Rating                         Genres Gender Age Occupation
0           2  Animation|Children's|Musical      M  35          0
1           3   Animation|Children's|Comedy      M  35          0
2           3  Animation|Children's|Musical      M  35          0
3           4                Comedy|Fantasy      M  35          0
4           4                     Animation      M  35          0
…       …                              …    …  ..        …
998075      2                         Drama      M  45          5
998076      3                       Western      M  45          5
998077      4                        Horror      M  45          5
998078      2                   Action|War      M  45          5
998079      2       Adventure|Drama|Romance      M  45          5

[998080 rows x 8 columns]
```

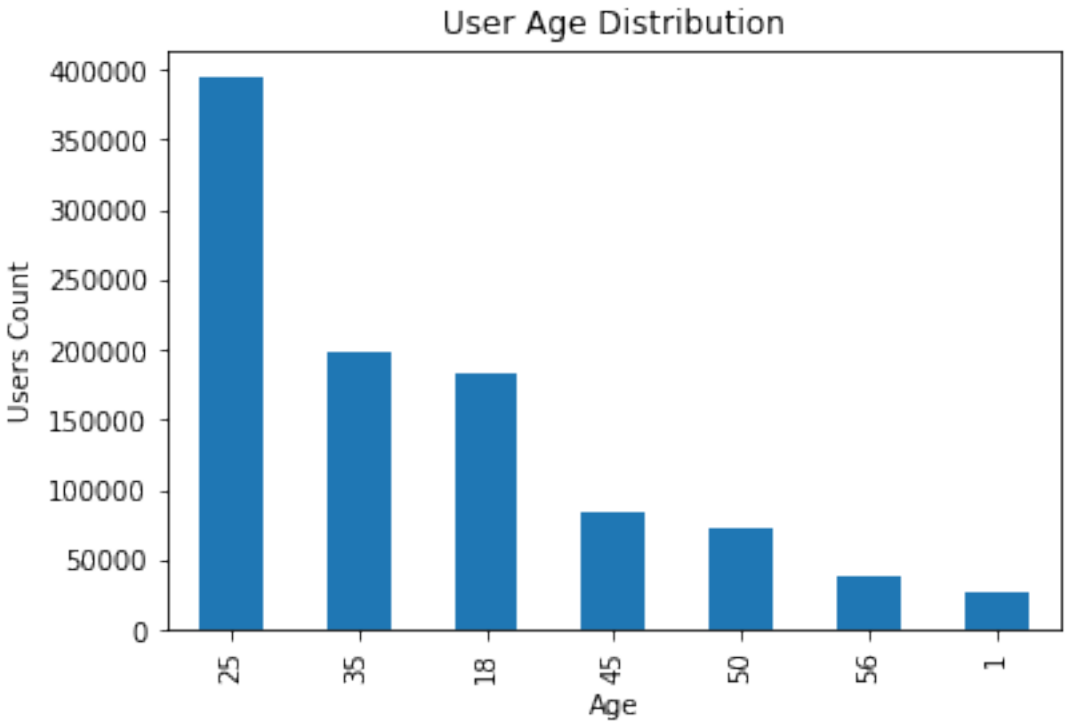
[75]:
```
#Explore the datasets using visual representations (graphs or tables), also␣
↪include your comments on the following:
```

[76]:
```
#User Age Distribution
Master_Data['Age'].value_counts()
```

[76]:
```
25    394766
35    198580
18    183088
45     83490
50     72382
56     38727
1      27047
Name: Age, dtype: int64
```

[77]:
```
Master_Data['Age'].value_counts().plot(kind='bar')
plt.xlabel("Age")
plt.title("User Age Distribution")
plt.ylabel('Users Count')
```

```
plt.show()
```



[78]:
```
#User rating of the movie "Toy Story"

toystoryRating=Master_Data[Master_Data['Title'].str.contains('Toy Story')==True]
toystoryRating
```

[78]:

	MovieID	Title	UserID	Rating	Genres	Gender	Age	Occupation
315	3114	Toy Story 2 (1999)	49	4	Animation|Children's|Comedy	M	18	12
438	3114	Toy Story 2 (1999)	53	5	Animation|Children's|Comedy	M	25	0
1179	3114	Toy Story 2 (1999)	58	5	Animation|Children's|Comedy			
1855	3114	Toy Story 2 (1999)	75	5	Animation|Children's|Comedy			
2022	3114	Toy Story 2 (1999)	78	4	Animation|Children's|Comedy			
…	…	…	…	…	…			
990324	3114	Toy Story 2 (1999)	1898	5	Animation|Children's|Comedy			
990350	3114	Toy Story 2 (1999)	1970	4	Animation|Children's|Comedy			
990402	3114	Toy Story 2 (1999)	4741	4	Animation|Children's|Comedy			
990424	3114	Toy Story 2 (1999)	5168	4	Animation|Children's|Comedy			
990443	3114	Toy Story 2 (1999)	5713	4	Animation|Children's|Comedy			

```
1179        M  25          2
1855        F   1         10
2022        F  45          1
…       …   ..        …
990324      M  25         12
990350      M  50         13
990402      M  35          7
990424      M  35          7
990443      F  50          7

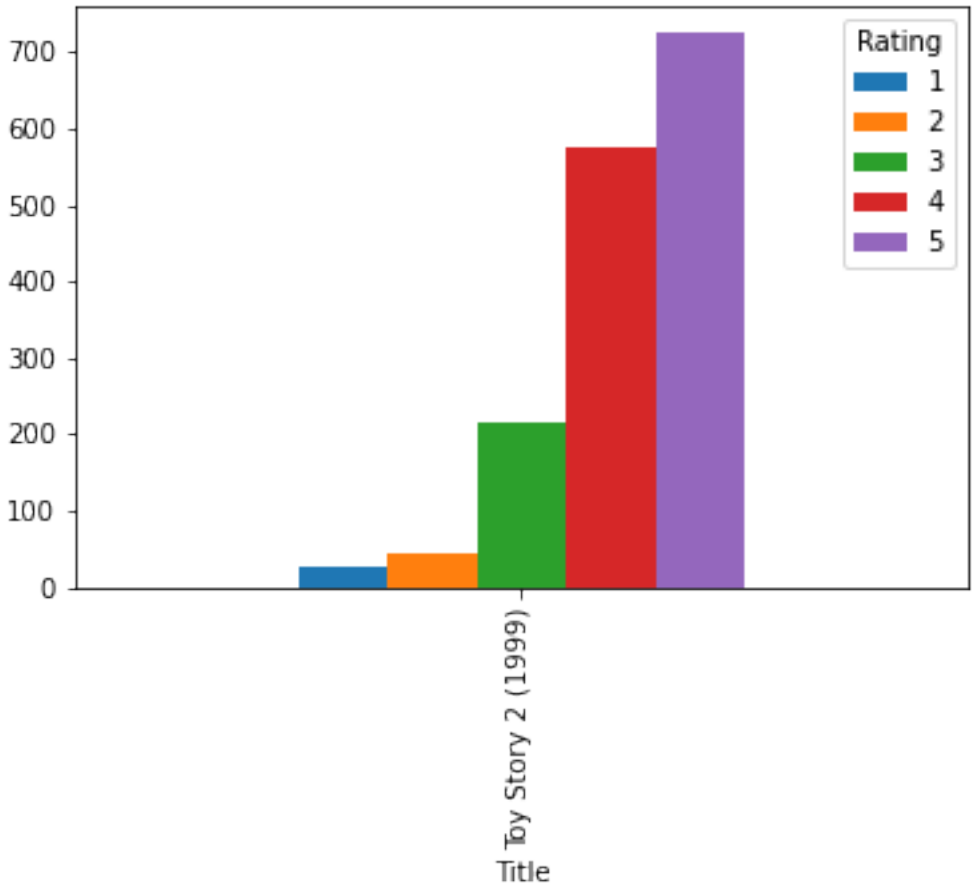
[1584 rows x 8 columns]
```

[79]:
```
toystoryRating.groupby(['Title','Rating']).size()
```

[79]:
```
Title                Rating
Toy Story 2 (1999)   1          25
                     2          44
                     3         214
                     4         577
                     5         724
dtype: int64
```

[80]:
```
toystoryRating.groupby(['Title','Rating']).size().unstack().plot(kind='bar')
```

[80]:
```
<AxesSubplot:xlabel='Title'>
```

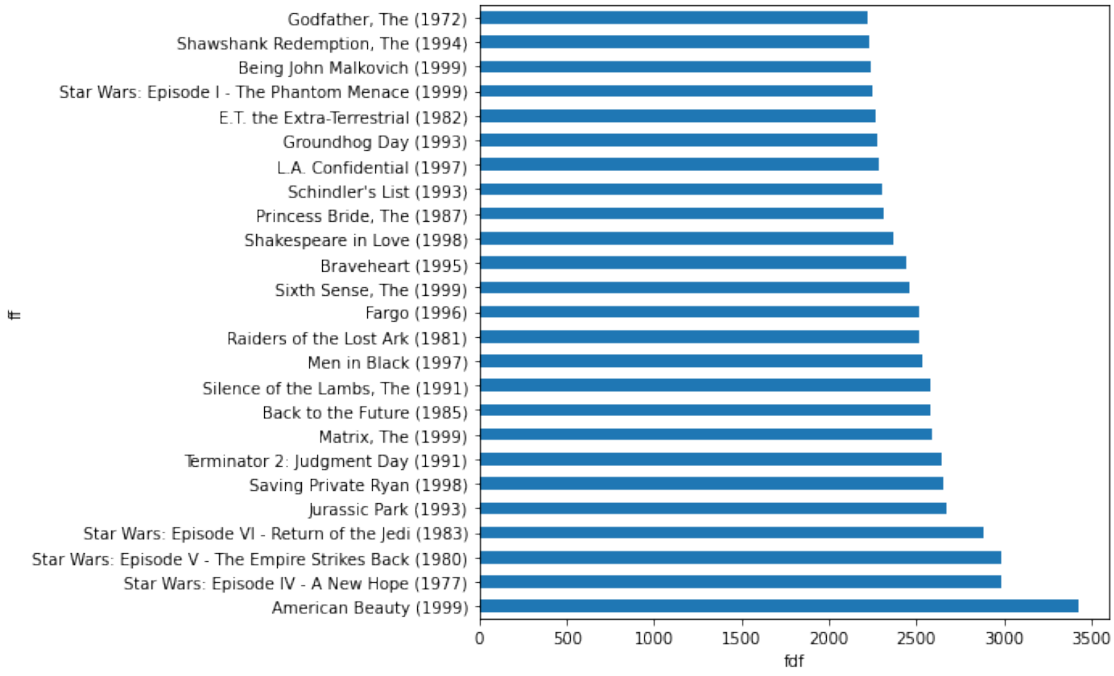


[81]:
```
#Top 25 movies by viewership rating
topmovie=Master_Data.groupby(['Title']).size().sort_values(ascending=False)[:25]
topmovie
```

[81]:
```
Title
American Beauty (1999)                                3428
Star Wars: Episode IV - A New Hope (1977)             2990
Star Wars: Episode V - The Empire Strikes Back (1980) 2990
Star Wars: Episode VI - Return of the Jedi (1983)     2883
Jurassic Park (1993)                                  2672
Saving Private Ryan (1998)                            2652
Terminator 2: Judgment Day (1991)                     2649
Matrix, The (1999)                                    2590
Back to the Future (1985)                             2582
Silence of the Lambs, The (1991)                      2578
Men in Black (1997)                                   2538
Raiders of the Lost Ark (1981)                        2514
Fargo (1996)                                          2512
Sixth Sense, The (1999)                               2458
```

```
Braveheart (1995)                                          2443
Shakespeare in Love (1998)                                 2369
Princess Bride, The (1987)                                 2317
Schindler's List (1993)                                    2303
L.A. Confidential (1997)                                   2288
Groundhog Day (1993)                                       2278
E.T. the Extra-Terrestrial (1982)                          2268
Star Wars: Episode I - The Phantom Menace (1999)           2250
Being John Malkovich (1999)                                2241
Shawshank Redemption, The (1994)                           2227
Godfather, The (1972)                                      2223
dtype: int64
```

[82]:
```
topmovie.plot(kind='barh',figsize=(7,7))
plt.xlabel('fdf')
plt.ylabel('ff')
plt.show()
```



[83]:
```
#Find the ratings for all the movies reviewed by for a particular user of user␣
↪id = 2696
```

[84]:
```
user_2696 = Master_Data[Master_Data['UserID'] == 2696]
user_2696
```

[84]:
```
Empty DataFrame
Columns: [MovieID, Title, UserID, Rating, Genres, Gender, Age, Occupation]
Index: []
```

[85]:
```
Master_Data[Master_Data['UserID']=='2696']
```

[85]:

	MovieID	Title	UserID	Rating	Genres	Gender	Age	Occupation
940348	1270	Back to the Future (1985)	2696	2	Comedy|Sci-Fi	M	25	7
940349	1097	E.T. the Extra-Terrestrial (1982)	2696	3	Children's|Drama|Fantasy|Sci-Fi	M	25	7
940350	1617	L.A. Confidential (1997)	2696	4	Crime|Film-Noir|Mystery|Thriller	M	25	7
940351	800	Lone Star (1996)	2696	5	Drama|Mystery	M	25	7
940352	3386	JFK (1991)	2696	1	Drama|Mystery	M	25	7
940353	3176	Talented Mr. Ripley, The (1999)	2696	4	Drama|Mystery|Thriller	M	25	7
940354	1711	Midnight in the Garden of Good and Evil (1997)	2696	4	Comedy|Crime|Drama|Mystery	M	25	7
940355	1589	Cop Land (1997)	2696	3	Crime|Drama|Mystery	M	25	7
940356	1783	Palmetto (1998)	2696	4	Film-Noir|Mystery|Thriller	M	25	7
940357	1892	Perfect Murder, A (1998)	2696	4	Mystery|Thriller	M	25	7
940358	1625	Game, The (1997)	2696	4	Mystery|Thriller	M	25	7
940359	1644	I Know What You Did Last Summer (1997)	2696	2	Horror|Mystery|Thriller	M	25	7
940360	1645	Devil's Advocate, The (1997)	2696	4	Crime|Horror|Mystery|Thriller	M	25	7
940361	2389	Psycho (1998)	2696	4	Crime|Horror|Thriller	M	25	7
940362	1805	Wild Things (1998)	2696	4	Crime|Drama|Mystery|Thriller	M	25	7
940363	1092	Basic Instinct (1992)	2696	4	Mystery|Thriller	M	25	7
940364	2713	Lake Placid (1999)	2696	1	Horror|Thriller	M	25	7
940365	1258	Shining, The (1980)	2696	4	Horror	M	25	7
940366	2338	I Still Know What You Did Last Summer (1998)	2696	2				
940367	350	Client, The (1994)	2696	3				

```
940366          Horror|Mystery|Thriller      M  25          7
940367           Drama|Mystery|Thriller      M  25          7
```

[86]:
```
#Feature Engineering
```

[87]:
```
#Find out all the unique genres
#(Hint: split the data in column genre making a list and
#then process the data to find out only the unique categories of genres)
```

[88]:
```
Master_Data['Genres'].unique()
```

[88]:
```
array(["Animation|Children's|Musical", "Animation|Children's|Comedy",
       'Comedy|Fantasy', 'Animation', "Children's|Drama|Fantasy|Sci-Fi",
       'Animation|Comedy|Thriller', 'Thriller', 'Action|Crime|Romance',
       'Action|Adventure|Fantasy|Sci-Fi', 'Crime|Drama|Thriller',
       'Action|Adventure|Mystery', 'Crime|Drama',
       'Action|Adventure|Sci-Fi|Thriller', 'Action|Drama',
       'Comedy|Drama|Romance', 'Action|Thriller', 'Drama|Thriller',
       'Comedy|Romance', 'Action|Crime|Thriller', 'Drama|Sci-Fi',
       'Action|Sci-Fi|Thriller', 'Action|Horror|Sci-Fi', 'Comedy|Drama',
       'Action|Sci-Fi', 'Adventure|Drama|Romance|Sci-Fi',
       'Action|Adventure|Sci-Fi', 'Action|Adventure|Drama|Sci-Fi|War',
       'Action|Crime|Drama|Thriller', 'Comedy', 'Action|Comedy|Drama',
       'Drama|War', 'Action|Sci-Fi|War', 'Action|Adventure|Comedy|Sci-Fi',
       'Action|Adventure|Horror|Thriller', 'Adventure|Thriller',
       'Action|Horror|Sci-Fi|Thriller', 'Crime|Drama|Romance|Thriller',
       'Crime|Thriller', 'Crime|Film-Noir|Mystery|Thriller',
       'Mystery|Sci-Fi|Thriller', 'Action|Romance|Thriller',
       'Documentary', 'Horror|Sci-Fi', 'Comedy|Crime',
       'Drama|Sci-Fi|Thriller', "Children's|Comedy",
       "Children's|Comedy|Musical", 'Action|Comedy|Crime|Drama', 'Action',
       'Adventure|Sci-Fi', "Children's|Comedy|Drama",
       'Comedy|Fantasy|Romance', 'Drama|Romance|Thriller', 'Horror',
       'Action|Crime|Drama', 'Drama', 'Drama|Thriller|War',
       'Adventure|Animation|Sci-Fi|Thriller', 'Action|Crime',
       'Action|Comedy|Sci-Fi|Thriller', 'Comedy|Crime|Fantasy',
       'Animation|Comedy', "Adventure|Children's|Comedy|Fantasy|Sci-Fi",
       'Film-Noir|Mystery|Thriller', "Adventure|Children's|Fantasy",
       'Comedy|Mystery|Thriller', 'Action|Adventure|Crime|Drama',
       "Children's|Fantasy|Sci-Fi", 'Comedy|Sci-Fi',
       'Comedy|Horror|Musical|Sci-Fi', "Children's|Comedy|Fantasy",
       'Sci-Fi|War', "Children's|Sci-Fi", 'Mystery|Thriller',
       "Adventure|Children's|Fantasy|Sci-Fi", 'Adventure|Fantasy',
       'Drama|Mystery|Sci-Fi|Thriller', 'Crime|Drama|Sci-Fi',
       'Action|Adventure|Fantasy', 'Action|Sci-Fi|Thriller|War',
       'Adventure|War', 'Action|Drama|Fantasy|Romance', 'Sci-Fi|Thriller',
       'Adventure|Comedy|Sci-Fi', 'Comedy|Sci-Fi|Western',
```

```
'Action|Adventure|Comedy|Horror|Sci-Fi',
"Adventure|Children's|Comedy|Fantasy", 'Film-Noir|Sci-Fi',
'Fantasy|Sci-Fi', 'Adventure|Fantasy|Sci-Fi',
'Action|Adventure|Sci-Fi|War', 'Comedy|Fantasy|Romance|Sci-Fi',
'Adventure|Fantasy|Romance', 'Action|Comedy|Crime|Horror|Thriller',
'Crime|Horror|Mystery|Thriller', 'Crime|Drama|Mystery|Thriller',
"Animation|Children's", 'Crime|Drama|Film-Noir',
'Horror|Sci-Fi|Thriller', 'Sci-Fi', 'Mystery|Sci-Fi',
'Action|Crime|Sci-Fi', 'Action|Romance|Sci-Fi',
'Action|Adventure|Animation|Horror|Sci-Fi',
'Action|Sci-Fi|Thriller|Western', 'Comedy|Crime|Thriller',
'Film-Noir|Sci-Fi|Thriller', 'Action|Comedy|Musical|Sci-Fi',
'Action|Drama|Sci-Fi|Thriller', 'Action|Comedy|Fantasy',
'Horror|Thriller', 'Comedy|Documentary',
'Action|Adventure|Animation', 'Action|Drama|War',
'Crime|Film-Noir|Thriller', 'Crime|Film-Noir',
'Film-Noir|Thriller', 'Comedy|Thriller', 'Comedy|Horror',
'Comedy|Crime|Drama', 'Action|Adventure|Comedy|Crime',
'Mystery|Romance|Thriller', 'Comedy|Mystery|Romance|Thriller',
'Action|Adventure|Sci-Fi|Thriller|War', 'Action|Horror',
'Action|Comedy', 'Crime', 'Adventure|Crime|Sci-Fi|Thriller',
'Drama|Fantasy', "Adventure|Animation|Children's|Comedy|Musical",
'Action|Adventure|Romance|Sci-Fi|War', 'Action|Romance|War',
'Action|Adventure|Comedy|Romance', 'Action|Adventure|Thriller',
'Action|Adventure|Romance',
"Animation|Children's|Comedy|Musical|Romance", 'Drama|Romance',
'Action|Romance', 'Animation|Sci-Fi', "Action|Children's|Fantasy",
'Animation|Musical', 'Action|Adventure|Crime',
'Action|Adventure|Drama|Thriller', 'Musical|Romance',
"Adventure|Children's|Drama|Musical", 'Musical',
"Animation|Children's|Musical|Romance",
"Animation|Children's|Comedy|Musical", 'Comedy|Drama|Western',
'Action|Comedy|Western', 'Adventure|Comedy|Drama',
'Action|Drama|Romance|Thriller', 'Action|Drama|Romance',
'Adventure|Drama|Western', 'Action|Adventure|Romance|Thriller',
'Action|Mystery|Romance|Thriller', 'Drama|Romance|War',
'Comedy|Romance|War', 'Action|Adventure|Horror',
'Action|Adventure|Comedy|Horror', 'Western', 'Comedy|Western',
'Action|Western', 'Adventure|Animation|Film-Noir',
'Action|Adventure|Comedy', 'Horror|Mystery|Thriller',
'Film-Noir|Mystery', 'Comedy|Crime|Mystery|Thriller',
'Drama|Musical', "Adventure|Animation|Children's|Musical",
'Comedy|Musical', "Children's|Fantasy|Musical",
'Comedy|Musical|Romance', 'Comedy|Crime|Drama|Mystery',
'Drama|Horror', 'Crime|Drama|Mystery', 'Comedy|Romance|Thriller',
"Animation|Children's|Drama|Fantasy", 'Horror|Romance',
"Animation|Children's|Fantasy|Musical", 'Comedy|War',
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'Comedy|Horror|Musical', "Adventure|Children's|Musical",
'Action|Adventure|Romance|War',
"Action|Adventure|Children's|Comedy",
"Adventure|Children's|Sci-Fi", 'Comedy|Drama|War',
'Adventure|Animation|Sci-Fi', 'Action|Adventure|Mystery|Sci-Fi',
'Crime|Horror|Thriller', 'Adventure|Sci-Fi|Thriller',
'Drama|Fantasy|Romance|Thriller', 'Comedy|Drama|Sci-Fi',
"Adventure|Animation|Children's|Sci-Fi", "Children's|Drama",
'Action|War', 'Action|Comedy|Sci-Fi|War', 'Action|Adventure|Drama',
'Comedy|Crime|Horror', 'Action|Comedy|Musical',
'Action|Mystery|Thriller', 'Comedy|Mystery',
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'Crime|Drama|Romance', "Animation|Children's|Fantasy|War",
'Drama|Mystery|Romance', 'Adventure|Drama|Romance', 'Film-Noir',
'Mystery', 'Adventure|Comedy|Musical', 'Action|Drama|Thriller',
'Romance|Thriller', 'Action|Mystery|Sci-Fi|Thriller',
'Action|Comedy|Romance|Thriller', 'Comedy|Mystery|Romance',
'Action|Crime|Mystery', 'Comedy|Drama|Thriller', 'Adventure|Drama',
'Drama|Mystery', "Children's|Comedy|Sci-Fi", 'Action|Adventure',
'Adventure|Musical', 'Adventure|Comedy|Romance', "Children's",
'Drama|Mystery|Thriller', 'Action|Horror|Thriller',
'Comedy|Drama|Musical', 'Action|Drama|Mystery',
'Adventure|Romance|Sci-Fi', 'Action|Sci-Fi|Western',
'Drama|Musical|War', 'Action|Drama|Mystery|Romance|Thriller',
"Adventure|Children's", 'Crime|Drama|Film-Noir|Thriller',
'Crime|Horror', 'Adventure', 'Film-Noir|Romance|Thriller',
'Romance', 'Musical|Romance|War', 'Drama|Western', 'Romance|War',
'Musical|War', 'War', "Adventure|Children's|Comedy",
"Adventure|Children's|Drama", "Children's|Drama|Fantasy",
"Children's|Musical", "Action|Adventure|Children's|Sci-Fi",
"Adventure|Animation|Children's|Comedy|Fantasy",
"Adventure|Children's|Comedy|Fantasy|Romance",
"Adventure|Children's|Comedy|Musical", "Children's|Comedy|Mystery",
"Animation|Children's|Comedy|Romance",
"Action|Adventure|Children's", "Action|Children's",
"Adventure|Children's|Romance", "Adventure|Animation|Children's",
"Action|Adventure|Animation|Children's|Fantasy",
'Action|Crime|Mystery|Thriller', 'Adventure|Comedy',
'Adventure|Romance', 'Adventure|Drama|Thriller',
'Comedy|Horror|Thriller', 'Action|Adventure|Drama|Romance',
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'Crime|Mystery', 'Drama|Romance|Sci-Fi', 'Drama|Horror|Thriller',
"Children's|Comedy|Western", 'Drama|Romance|War|Western',
'Action|Comedy|War', 'Action|Drama|Western', 'Documentary|Drama',
'Action|Thriller|War', "Action|Adventure|Children's|Fantasy",

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 'Adventure|Western', 'Sci-Fi|Thriller|War', 'Comedy|Horror|Sci-Fi',
 'Horror|Mystery', 'Action|Drama|Thriller|War',
 'Action|Adventure|Crime|Thriller', 'Drama|Film-Noir|Thriller',
 'Documentary|War', 'Comedy|Romance|Sci-Fi', "Children's|Fantasy",
 "Adventure|Children's|Drama|Romance", 'Action|Adventure|War',
 'Action|Comedy|Crime', 'Adventure|Musical|Romance',
 'Animation|Mystery', 'Drama|Romance|Western', 'Romance|Western',
 'Comedy|Film-Noir|Thriller', 'Fantasy', 'Film-Noir|Horror'],
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