

```
In [3]: import pandas as pd

df = pd.read_csv('I:/Study Materials GLIM/BAAI/3 - ratings_sub.csv')
```

```
In [6]: from google.colab import drive
drive.mount('/content/drive')
```

Drive already mounted at /content/drive; to attempt to forcibly remount, call drive.mount("/content/drive", force_remount=True).

```
In [4]: df.head()
```

```
Out[4]:
```

	userId	movieId	rating	timestamp	title	genres	year
0	3218	3889	1.0	1172532894	Highlander: Endgame (Highlander IV) (2000)	Action Adventure Fantasy	2000.0
1	3663	3889	1.0	1044474348	Highlander: Endgame (Highlander IV) (2000)	Action Adventure Fantasy	2000.0
2	3704	3889	3.0	971391538	Highlander: Endgame (Highlander IV) (2000)	Action Adventure Fantasy	2000.0
3	8877	3889	1.0	1050744366	Highlander: Endgame (Highlander IV) (2000)	Action Adventure Fantasy	2000.0
4	9599	3889	0.5	1378056755	Highlander: Endgame (Highlander IV) (2000)	Action Adventure Fantasy	2000.0

```
In [5]: ratings = df
```

```
In [6]: ratings.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 487469 entries, 0 to 487468
Data columns (total 7 columns):
#   Column      Non-Null Count  Dtype
---  -
0   userId      487469 non-null  int64
1   movieId     487469 non-null  int64
2   rating      487469 non-null  float64
3   timestamp   487469 non-null  int64
4   title       487469 non-null  object
5   genres      487469 non-null  object
6   year        487469 non-null  float64
dtypes: float64(2), int64(3), object(2)
memory usage: 26.0+ MB
```

```
In [7]: ratings.userId = ratings.userId.astype(str)

ratings.movieId = ratings.movieId.astype(str)
```

```
In [8]: ratings['userId'].nunique()
```

Out[8]: 2827

In [9]: `ratings['movieId'].nunique()`

Out[9]: 6656

In [10]: `ratings['title'].nunique()`

Out[10]: 6652

In [11]: `ratings['userId'].value_counts().tail()`

Out[11]:

129512	150
40076	150
45848	150
109900	150
18280	150

Name: userId, dtype: int64

In [14]: `pip install surprise`

```
Collecting surprise
  Using cached surprise-0.1-py2.py3-none-any.whl (1.8 kB)
Collecting scikit-surprise
  Using cached scikit-surprise-1.1.1.tar.gz (11.8 MB)
Requirement already satisfied: joblib>=0.11 in c:\users\user\anaconda\lib\site-packages
(from scikit-surprise->surprise) (1.0.1)
Note: you may need to restart the kernel to use updated packages. Requirement already sat
isfied: numpy>=1.11.2 in c:\users\user\anaconda\lib\site-packages (from scikit-surprise
->surprise) (1.19.5)

Requirement already satisfied: scipy>=1.0.0 in c:\users\user\anaconda\lib\site-packages
(from scikit-surprise->surprise) (1.6.2)
Requirement already satisfied: six>=1.10.0 in c:\users\user\anaconda\lib\site-packages
(from scikit-surprise->surprise) (1.15.0)
Building wheels for collected packages: scikit-surprise
  Building wheel for scikit-surprise (setup.py): started
  Building wheel for scikit-surprise (setup.py): finished with status 'error'
  Running setup.py clean for scikit-surprise
Failed to build scikit-surprise
ERROR: Command errored out with exit status 1:
  command: 'C:\Users\user\Anaconda\python.exe' -u -c 'import sys, setuptools, tokeniz
e; sys.argv[0] = ''C:\\Users\\user\\AppData\\Local\\Temp\\pip-install-05u_k14w\\sciki
t-surprise_4270e71651734c3c97fd72c064c591dc\\setup.py''; __file__ = ''C:\\Users\\use
r\\AppData\\Local\\Temp\\pip-install-05u_k14w\\scikit-surprise_4270e71651734c3c97fd72c06
4c591dc\\setup.py'';f=getattr(tokenize, ''open'', open)(__file__);code=f.read
().replace(''\r\n'', '\n');f.close();exec(compile(code, __file__, ''exe
c'''))' bdist_wheel -d 'C:\Users\user\AppData\Local\Temp\pip-wheel-02zacoqc'
  cwd: C:\Users\user\AppData\Local\Temp\pip-install-05u_k14w\scikit-surprise_4270e7
1651734c3c97fd72c064c591dc\
  Complete output (49 lines):
  running bdist_wheel
  running build
  running build_py
  creating build
  creating build\lib.win-amd64-3.8
  creating build\lib.win-amd64-3.8\surprise
```

```

copying surprise\accuracy.py -> build\lib.win-amd64-3.8\surprise
copying surprise\builtin_datasets.py -> build\lib.win-amd64-3.8\surprise
copying surprise\dataset.py -> build\lib.win-amd64-3.8\surprise
copying surprise\dump.py -> build\lib.win-amd64-3.8\surprise
copying surprise\reader.py -> build\lib.win-amd64-3.8\surprise
copying surprise\trainset.py -> build\lib.win-amd64-3.8\surprise
copying surprise\utils.py -> build\lib.win-amd64-3.8\surprise
copying surprise\__init__.py -> build\lib.win-amd64-3.8\surprise
copying surprise\__main__.py -> build\lib.win-amd64-3.8\surprise
creating build\lib.win-amd64-3.8\surprise\model_selection
copying surprise\model_selection\search.py -> build\lib.win-amd64-3.8\surprise\model_s
election
copying surprise\model_selection\split.py -> build\lib.win-amd64-3.8\surprise\model_se
lection
copying surprise\model_selection\validation.py -> build\lib.win-amd64-3.8\surprise\mod
el_selection
copying surprise\model_selection\__init__.py -> build\lib.win-amd64-3.8\surprise\model
_selection
creating build\lib.win-amd64-3.8\surprise\prediction_algorithms
copying surprise\prediction_algorithms\algo_base.py -> build\lib.win-amd64-3.8\surpris
e\prediction_algorithms
copying surprise\prediction_algorithms\baseline_only.py -> build\lib.win-amd64-3.8\surp
rise\prediction_algorithms
copying surprise\prediction_algorithms\knns.py -> build\lib.win-amd64-3.8\surprise\pre
diction_algorithms
copying surprise\prediction_algorithms\predictions.py -> build\lib.win-amd64-3.8\surpr
ise\prediction_algorithms
copying surprise\prediction_algorithms\random_pred.py -> build\lib.win-amd64-3.8\surpr
ise\prediction_algorithms
copying surprise\prediction_algorithms\__init__.py -> build\lib.win-amd64-3.8\surprise
\prediction_algorithms
running egg_info
writing scikit_surprise.egg-info\PKG-INFO
writing dependency_links to scikit_surprise.egg-info\dependency_links.txt
writing entry points to scikit_surprise.egg-info\entry_points.txt
Installing collected packages: scikit-surprise, surprise
Running setup.py install for scikit-surprise: started
Running setup.py install for scikit-surprise: finished with status 'error'
writing requirements to scikit_surprise.egg-info\requires.txt
writing top-level names to scikit_surprise.egg-info\top_level.txt
reading manifest file 'scikit_surprise.egg-info\SOURCES.txt'
reading manifest template 'MANIFEST.in'
writing manifest file 'scikit_surprise.egg-info\SOURCES.txt'
copying surprise\similarities.c -> build\lib.win-amd64-3.8\surprise
copying surprise\similarities.pyx -> build\lib.win-amd64-3.8\surprise
copying surprise\prediction_algorithms\co_clustering.c -> build\lib.win-amd64-3.8\surp
rise\prediction_algorithms
copying surprise\prediction_algorithms\matrix_factorization.c -> build\lib.win-amd64-
3.8\surprise\prediction_algorithms
copying surprise\prediction_algorithms\optimize_baselines.c -> build\lib.win-amd64-3.8
\surprise\prediction_algorithms
copying surprise\prediction_algorithms\slope_one.c -> build\lib.win-amd64-3.8\surprise
\prediction_algorithms
copying surprise\prediction_algorithms\co_clustering.pyx -> build\lib.win-amd64-3.8\su
rprise\prediction_algorithms
copying surprise\prediction_algorithms\matrix_factorization.pyx -> build\lib.win-amd64
-3.8\surprise\prediction_algorithms
copying surprise\prediction_algorithms\optimize_baselines.pyx -> build\lib.win-amd64-
3.8\surprise\prediction_algorithms
copying surprise\prediction_algorithms\slope_one.pyx -> build\lib.win-amd64-3.8\surpri
se\prediction_algorithms
running build_ext
building 'surprise.similarities' extension
error: Microsoft Visual C++ 14.0 or greater is required. Get it with "Microsoft C++ Bu
ild Tools": https://visualstudio.microsoft.com/visual-cpp-build-tools/

```

```

-----
ERROR: Failed building wheel for scikit-surprise
ERROR: Command errored out with exit status 1:
  command: 'C:\Users\user\Anaconda\python.exe' -u -c 'import sys, setuptools, tokeni
ze; sys.argv[0] = '"'"'C:\\Users\\user\\AppData\\Local\\Temp\\pip-install-05u_k14w\\scik
it-surprise_4270e71651734c3c97fd72c064c591dc\\setup.py'"'"'; __file__='"'"'C:\\Users\\us
er\\AppData\\Local\\Temp\\pip-install-05u_k14w\\scikit-surprise_4270e71651734c3c97fd72c0
64c591dc\\setup.py'"'"';f=getattr(tokenize, '"'"'open'"'"', open)(__file__);code=f.read
().replace('"'"'\r\n'"'"', '"'"'\n'"'"');f.close();exec(compile(code, __file__, '"'"'exe
c'"'"'))' install --record 'C:\Users\user\AppData\Local\Temp\pip-record-nm_a88_t\install
-record.txt' --single-version-externally-managed --compile --install-headers 'C:\Users\user\Anaconda\Include\scikit-surprise'
  cwd: C:\Users\user\AppData\Local\Temp\pip-install-05u_k14w\scikit-surprise_4270
e71651734c3c97fd72c064c591dc\
Complete output (49 lines):
running install
running build
running build_py
creating build
creating build\lib.win-amd64-3.8
creating build\lib.win-amd64-3.8\surprise
copying surprise\accuracy.py -> build\lib.win-amd64-3.8\surprise
copying surprise\builtin_datasets.py -> build\lib.win-amd64-3.8\surprise
copying surprise\dataset.py -> build\lib.win-amd64-3.8\surprise
copying surprise\dump.py -> build\lib.win-amd64-3.8\surprise
copying surprise\reader.py -> build\lib.win-amd64-3.8\surprise
copying surprise\trainset.py -> build\lib.win-amd64-3.8\surprise
copying surprise\utils.py -> build\lib.win-amd64-3.8\surprise
copying surprise\__init__.py -> build\lib.win-amd64-3.8\surprise
copying surprise\__main__.py -> build\lib.win-amd64-3.8\surprise
creating build\lib.win-amd64-3.8\surprise\model_selection
copying surprise\model_selection\search.py -> build\lib.win-amd64-3.8\surprise\model
_selection
copying surprise\model_selection\split.py -> build\lib.win-amd64-3.8\surprise\model_
selection
copying surprise\model_selection\validation.py -> build\lib.win-amd64-3.8\surprise\m
odel_selection
copying surprise\model_selection\__init__.py -> build\lib.win-amd64-3.8\surprise\mod
el_selection
creating build\lib.win-amd64-3.8\surprise\prediction_algorithms
copying surprise\prediction_algorithms\algo_base.py -> build\lib.win-amd64-3.8\surpr
ise\prediction_algorithms
copying surprise\prediction_algorithms\baseline_only.py -> build\lib.win-amd64-3.8\s
urprise\prediction_algorithms
copying surprise\prediction_algorithms\knns.py -> build\lib.win-amd64-3.8\surprise\p
rediction_algorithms
copying surprise\prediction_algorithms\predictions.py -> build\lib.win-amd64-3.8\s
urprise\prediction_algorithms
copying surprise\prediction_algorithms\random_pred.py -> build\lib.win-amd64-3.8\s
urprise\prediction_algorithms
copying surprise\prediction_algorithms\__init__.py -> build\lib.win-amd64-3.8\surpri
se\prediction_algorithms
running egg_info
writing scikit_surprise.egg-info\PKG-INFO
writing dependency_links to scikit_surprise.egg-info\dependency_links.txt
writing entry points to scikit_surprise.egg-info\entry_points.txt
writing requirements to scikit_surprise.egg-info\requires.txt
writing top-level names to scikit_surprise.egg-info\top_level.txt
reading manifest file 'scikit_surprise.egg-info\SOURCES.txt'
reading manifest template 'MANIFEST.in'
writing manifest file 'scikit_surprise.egg-info\SOURCES.txt'
copying surprise\similarities.c -> build\lib.win-amd64-3.8\surprise
copying surprise\similarities.pyx -> build\lib.win-amd64-3.8\surprise
copying surprise\prediction_algorithms\co_clustering.c -> build\lib.win-amd64-3.8\s
urprise\prediction_algorithms

```

```

copying surprise\prediction_algorithms\matrix_factorization.c -> build\lib.win-amd64-3.8\surprise\prediction_algorithms
copying surprise\prediction_algorithms\optimize_baselines.c -> build\lib.win-amd64-3.8\surprise\prediction_algorithms
copying surprise\prediction_algorithms\slope_one.c -> build\lib.win-amd64-3.8\surprise\prediction_algorithms
copying surprise\prediction_algorithms\co_clustering.pyx -> build\lib.win-amd64-3.8\surprise\prediction_algorithms
copying surprise\prediction_algorithms\matrix_factorization.pyx -> build\lib.win-amd64-3.8\surprise\prediction_algorithms
copying surprise\prediction_algorithms\optimize_baselines.pyx -> build\lib.win-amd64-3.8\surprise\prediction_algorithms
copying surprise\prediction_algorithms\slope_one.pyx -> build\lib.win-amd64-3.8\surprise\prediction_algorithms
running build_ext
building 'surprise.similarities' extension
error: Microsoft Visual C++ 14.0 or greater is required. Get it with "Microsoft C++ Build Tools": https://visualstudio.microsoft.com/visual-cpp-build-tools/
-----
ERROR: Command errored out with exit status 1: 'C:\Users\user\Anaconda\python.exe' -u -c 'import sys, setuptools, tokenize; sys.argv[0] = '"'"'C:\\Users\\user\\AppData\\Local\\Temp\\pip-install-05u_k14w\\scikit-surprise_4270e71651734c3c97fd72c064c591dc\\setup.py'"'"'; __file__='"'"'C:\\Users\\user\\AppData\\Local\\Temp\\pip-install-05u_k14w\\scikit-surprise_4270e71651734c3c97fd72c064c591dc\\setup.py'"'"';f=getattr(tokenize, '"'"'open'"'"', open)(__file__);code=f.read().replace('"'"'\r\n'"'"', '"'"'\n'"'"');f.close();exec(compile(code, __file__, '"'"'exec'"'"'))' install --record 'C:\Users\user\AppData\Local\Temp\pip-record-nm_a88_t\install-record.txt' --single-version-externally-managed --compile --install-headers 'C:\Users\user\Anaconda\Include\scikit-surprise' Check the logs for full command output.

```

```
In [15]: from surprise import Dataset, Reader
```

```

-----
ModuleNotFoundError                                Traceback (most recent call last)
<ipython-input-15-0d7f36d4348d> in <module>
----> 1 from surprise import Dataset, Reader

ModuleNotFoundError: No module named 'surprise'

```

```
In [23]: reader = Reader(rating_scale=(1,5))
```

```
In [24]: data = Dataset.load_from_df(ratings[['userId', 'title', 'rating']], reader)
```

```
In [25]: data
```

```
Out[25]: <surprise.dataset.DatasetAutoFolds at 0x7ffba7daba50>
```

```
In [26]: from surprise.model_selection import train_test_split

trainset, testset = train_test_split(data, test_size=0.25, random_state = 123)
```

```
In [ ]: # To build on full data

#trainset = data.build_full_trainset()
```

```
In [28]: # raw id and inner id

user_records = trainset.ur
```

```
In [29]: for keys in user_records.keys():
          print(keys)
```

```
0
1
2
```

```
In [30]: user_records[0]
```

```
Out[30]: [(0, 0.5), (3, 1.5)]
```

```
In [ ]: user_records[1]
```

```
Out[ ]: [(1, 3.5),
          (846, 2.5),
          (380, 3.5),
          (1575, 2.5),
          (1376, 3.5),
          (578, 4.0),
          (786, 3.5),
          (392, 4.0),
          (2503, 3.0),
          (174, 4.0),
          (504, 4.5),
          (2015, 3.5),
          (2325, 4.5),
          (99, 3.5),
          (1887, 3.5),
          (287, 4.0),
          (332, 4.0),
          (449, 3.5),
          (146, 3.5),
          (82, 4.5),
          (70, 3.5),
          (93, 3.0),
          (2580, 3.0),
          (2270, 3.5),
          (866, 3.5),
          (53, 4.0),
          (3767, 2.5),
          (221, 2.5),
          (815, 3.5),
          (16, 3.0),
          (1021, 3.5),
          (3589, 3.0),
          (1466, 3.5),
          (878, 4.0),
          (469, 4.0),
          (348, 3.5),
          (517, 3.5),
          (57, 3.5),
          (864, 3.5),
          (2553, 3.5),
          (266, 4.0),
          (335, 3.5),
```

(1355, 3.5),
(420, 4.0),
(139, 4.0),
(61, 3.5),
(344, 4.0),
(213, 4.0),
(1336, 3.5),
(4, 4.0),
(1669, 2.5),
(907, 3.5),
(367, 3.5),
(80, 3.0),
(319, 3.5),
(97, 4.0),
(400, 3.5),
(1185, 3.0),
(1324, 3.0),
(95, 3.5),
(661, 4.0),
(337, 3.5),
(352, 3.5),
(2463, 3.0),
(5128, 4.0),
(167, 4.0),
(2694, 3.0),
(799, 3.0),
(282, 3.5),
(851, 3.0),
(11, 3.5),
(1041, 4.0),
(647, 4.0),
(159, 4.0),
(8, 3.0),
(66, 4.0),
(327, 4.0),
(3260, 3.0),
(1094, 4.0),
(118, 3.5),
(1181, 4.0),
(395, 4.0),
(90, 4.5),
(457, 4.0),
(304, 3.5),
(2273, 4.5),
(264, 3.5),
(30, 3.0),
(45, 4.0),
(83, 4.0),
(944, 3.5),
(1050, 4.0),
(653, 4.0),
(383, 3.5),
(539, 4.0),
(439, 4.0),
(485, 4.0),
(560, 3.0),
(280, 3.5),
(1903, 3.5),
(1735, 3.5),
(650, 4.0),
(200, 2.5),
(758, 3.5),
(1469, 4.0),
(205, 3.5),
(486, 4.0),

```
(1055, 3.5),  
(1087, 4.0),  
(1042, 4.0),  
(994, 3.5),  
(3645, 2.5),  
(1716, 3.5),  
(13, 4.5),  
(37, 4.0),  
(157, 3.5),  
(86, 3.5),  
(147, 3.5),  
(285, 3.5),  
(595, 4.5),  
(596, 2.5),  
(879, 3.5),  
(1200, 4.0),  
(15, 4.0),  
(4285, 3.5),  
(441, 3.5)]
```

```
In [ ]: trainset.to_raw_uid(1) #to find raw user ids
```

```
Out[ ]: '45844'
```

```
In [ ]: trainset.to_raw_iid(0) #to find raw item ids
```

```
Out[ ]: 'Life of Pi (2012)'
```

```
In [ ]: from surprise import KNNWithMeans, accuracy, Prediction
```

```
In [ ]: algo = KNNWithMeans(k=51, sim_options={'name' : 'pearson' , 'user_based' : False}) #for
```

```
In [ ]: algo.fit(trainset)
```

```
Computing the pearson similarity matrix...  
Done computing similarity matrix.
```

```
Out[ ]: <surprise.prediction_algorithms.knns.KNNWithMeans at 0x7f66f323a510>
```

```
In [ ]: len(testset)
```

```
Out[ ]: 121868
```

```
In [ ]: test_pred = algo.test(testset)
```

```
In [ ]: accuracy.rmse(test_pred)
```

```
RMSE: 0.8113
```

```
Out[ ]: 0.8113433713272009
```

```
In [ ]: test_pred[0:10]
```



```
Out [ ]: [Prediction(uid='107317', iid='Signs (2002)', r_ui=2.5, est=2.4914040802676256, details=
{'actual_k': 51, 'was_impossible': False}),
Prediction(uid='103061', iid='Inconvenient Truth, An (2006)', r_ui=4.5, est=3.843168108
8652874, details={'actual_k': 51, 'was_impossible': False}),
Prediction(uid='84115', iid='Battlefield Earth (2000)', r_ui=2.5, est=1.34935524412243
8, details={'actual_k': 51, 'was_impossible': False}),
Prediction(uid='130756', iid='Fast and the Furious: Tokyo Drift, The (Fast and the Furi
ous 3, The) (2006)', r_ui=2.0, est=2.6011673998368963, details={'actual_k': 51, 'was_imp
ossible': False}),
Prediction(uid='24878', iid='Drive (2011)', r_ui=4.5, est=4.438749635000185, details=
{'actual_k': 51, 'was_impossible': False}),
Prediction(uid='137648', iid='Matrix Reloaded, The (2003)', r_ui=4.5, est=3.84790083491
58783, details={'actual_k': 51, 'was_impossible': False}),
Prediction(uid='52242', iid='Spy Game (2001)', r_ui=2.5, est=3.462597865564213, details
=({'actual_k': 51, 'was_impossible': False}),
Prediction(uid='128057', iid='Tailor of Panama, The (2001)', r_ui=4.0, est=3.4472305406
80747, details={'actual_k': 51, 'was_impossible': False}),
Prediction(uid='72679', iid='Under the Tuscan Sun (2003)', r_ui=4.0, est=3.912028598940
5144, details={'actual_k': 51, 'was_impossible': False}),
Prediction(uid='108004', iid='V for Vendetta (2006)', r_ui=4.0, est=3.482455263087104,
details={'actual_k': 51, 'was_impossible': False})]
```

```
In [ ]: test_pred_df = pd.DataFrame(test_pred)
```

```
In [ ]: test_pred_df.head()
```

```
Out [ ]:
```

	uid	iid	r_ui	est	details
0	107317	Signs (2002)	2.5	2.491404	{'actual_k': 51, 'was_impossible': False}
1	103061	Inconvenient Truth, An (2006)	4.5	3.843168	{'actual_k': 51, 'was_impossible': False}
2	84115	Battlefield Earth (2000)	2.5	1.349355	{'actual_k': 51, 'was_impossible': False}
3	130756	Fast and the Furious: Tokyo Drift, The (Fast a...	2.0	2.601167	{'actual_k': 51, 'was_impossible': False}
4	24878	Drive (2011)	4.5	4.438750	{'actual_k': 51, 'was_impossible': False}

```
In [ ]: test_pred_df['was_impossible'] = [ x['was_impossible'] for x in test_pred_df['details']]
```

```
In [ ]: test_pred_df.head()
```

```
Out [ ]:
```

	uid	iid	r_ui	est	details	was_impossible
0	107317	Signs (2002)	2.5	2.491404	{'actual_k': 51, 'was_impossible': False}	False
1	103061	Inconvenient Truth, An (2006)	4.5	3.843168	{'actual_k': 51, 'was_impossible': False}	False

	uid		iid	r_ui	est	details	was_impossible
2	84115	Battlefield Earth (2000)	2.5	1.349355	{'actual_k': 51, 'was_impossible': False}	False	
3	130756	Fast and the Furious: Tokyo Drift, The (Fast a...	2.0	2.601167	{'actual_k': 51, 'was_impossible': False}	False	
4	24878	Drive (2011)	4.5	4.438750	{'actual_k': 51, 'was_impossible': False}	False	

```
In [ ]: test_pred_df['was_impossible'].value_counts()
```

```
Out[ ]: False    121417
        True      451
        Name: was_impossible, dtype: int64
```

```
In [ ]: algo.predict(uid = '41891', iid = "Wrong Trousers, The (1993)")
```

```
Out[ ]: Prediction(uid='41891', iid='Wrong Trousers, The (1993)', r_ui=None, est=3.5113963036206
14, details={'was_impossible': True, 'reason': 'User and/or item is unknown.'})
```

```
In [ ]: trainset.build_anti_testset()
```

```
In [34]: # SVD

# Simple example to showcase SVD
from numpy import array
from numpy import diag
from numpy import dot
import numpy as np
from scipy.linalg import svd
```

```
In [35]: A = array([[1, 2, 3, 4], [5, 6, 7, 8], [9, 10, 11, 12]])
        print(A)
```

```
[[ 1  2  3  4]
 [ 5  6  7  8]
 [ 9 10 11 12]]
```

```
In [46]: U, s, Vt = svd(A, full_matrices= False)
```

```
In [47]: U
```

```
Out[47]: array([[ -0.20673589, -0.88915331,  0.40824829],
                [-0.51828874, -0.25438183, -0.81649658],
                [-0.82984158,  0.38038964,  0.40824829]])
```

```
In [48]: s
```

```
Out[48]: array([2.54368356e+01, 1.72261225e+00, 5.14037515e-16])
```

```
In [49]: Sigma = diag(s)
```

```
In [50]: Sigma
```

```
Out[50]: array([[2.54368356e+01, 0.00000000e+00, 0.00000000e+00],
               [0.00000000e+00, 1.72261225e+00, 0.00000000e+00],
               [0.00000000e+00, 0.00000000e+00, 5.14037515e-16]])
```

```
In [51]: Vt
```

```
Out[51]: array([[ -0.40361757, -0.46474413, -0.52587069, -0.58699725],
               [ 0.73286619,  0.28984978, -0.15316664, -0.59618305],
               [ 0.44527162, -0.83143156,  0.32704826,  0.05911168]])
```

```
In [52]: B = U.dot(Sigma.dot(Vt))
```

```
In [53]: B
```

```
Out[53]: array([[ 1.,  2.,  3.,  4.],
               [ 5.,  6.,  7.,  8.],
               [ 9., 10., 11., 12.]])
```

```
In [54]: movie_count = ratings['title'].value_counts(ascending=False)

pop_movie = movie_count.loc[movie_count.values > 200].index

len(pop_movie)
```

```
Out[54]: 0
```

```
In [ ]: ratings = ratings.loc[ratings.title.isin(pop_movie)]
```

```
In [ ]: from surprise import Dataset, Reader
reader = Reader(rating_scale=(1, 5))
data = Dataset.load_from_df(ratings[['userId', 'title', 'rating']], reader)
```

```
In [ ]: from surprise.model_selection import train_test_split
trainset, testset = train_test_split(data, test_size=.25, random_state=123)
```

```
In [ ]: from surprise import SVD
```

```
In [ ]: svd_model = SVD(n_factors=50)
```

```
In [ ]: svd_model.fit(trainset)
```

```
Out[ ]: <surprise.prediction_algorithms.matrix_factorization.SVD at 0x7f1ad427d490>
```

```
In [ ]: test_pred = svd_model.test(testset)
```

```
In [ ]: test_pred
```

```
Out[ ]: [Prediction(uid='7531', iid='You Can Count on Me (2000)', r_ui=5.0, est=4.72914156607198
16, details={'was_impossible': False}),
 Prediction(uid='45291', iid='Eternal Sunshine of the Spotless Mind (2004)', r_ui=4.0, e
st=3.527939266284613, details={'was_impossible': False}),
 Prediction(uid='92026', iid='High Fidelity (2000)', r_ui=2.5, est=3.7348041973583763, d
etails={'was_impossible': False}),
 Prediction(uid='122811', iid='Curious Case of Benjamin Button, The (2008)', r_ui=3.0, e
st=3.52340593869647, details={'was_impossible': False}),
 Prediction(uid='83105', iid='Bruce Almighty (2003)', r_ui=3.0, est=3.1221005331279823,
details={'was_impossible': False}),
 Prediction(uid='38696', iid='Serenity (2005)', r_ui=5.0, est=4.026336865200368, details
={'was_impossible': False}),
 Prediction(uid='43905', iid='Enemy at the Gates (2001)', r_ui=4.0, est=3.71182865282474
7, details={'was_impossible': False}),
 Prediction(uid='118254', iid='Anchorman: The Legend of Ron Burgundy (2004)', r_ui=3.0,
est=3.3892502367769914, details={'was_impossible': False}),
 Prediction(uid='83622', iid='Aeon Flux (2005)', r_ui=1.0, est=2.8856509051592187, detai
ls={'was_impossible': False}),
 Prediction(uid='130819', iid='Panic Room (2002)', r_ui=3.0, est=3.128573169714744, deta
ils={'was_impossible': False}),
 Prediction(uid='119639', iid='Lucky Number Slevin (2006)', r_ui=4.5, est=4.589210559170
559, details={'was_impossible': False}),
 Prediction(uid='6720', iid='In Bruges (2008)', r_ui=4.5, est=3.9154416650882684, detail
s={'was_impossible': False}),
 Prediction(uid='68099', iid='Departed, The (2006)', r_ui=4.0, est=4.37045579917303, det
ails={'was_impossible': False}),
 Prediction(uid='78669', iid='Fantastic Mr. Fox (2009)', r_ui=2.5, est=2.98653088296885
9, details={'was_impossible': False}),
 Prediction(uid='132052', iid='Bourne Supremacy, The (2004)', r_ui=4.0, est=3.1305360810
117517, details={'was_impossible': False}),
 Prediction(uid='60533', iid='28 Days Later (2002)', r_ui=3.5, est=4.220870422627834, de
tails={'was_impossible': False}),
 Prediction(uid='63658', iid='Vanilla Sky (2001)', r_ui=4.0, est=3.129319782442367, deta
ils={'was_impossible': False}),
 Prediction(uid='69820', iid='Matchstick Men (2003)', r_ui=4.5, est=4.026352608873945, d
etails={'was_impossible': False}),
 Prediction(uid='132331', iid='Adaptation (2002)', r_ui=4.0, est=3.6580430342722656, det
ails={'was_impossible': False}),
 Prediction(uid='47273', iid='X-Men: The Last Stand (2006)', r_ui=3.5, est=3.40918547008
00224, details={'was_impossible': False}),
 Prediction(uid='87066', iid='Simpsons Movie, The (2007)', r_ui=4.0, est=3.5176763364706
06, details={'was_impossible': False}),
 Prediction(uid='109082', iid='Perfect Storm, The (2000)', r_ui=2.5, est=2.8022533683120
06, details={'was_impossible': False}),
 Prediction(uid='127946', iid='King Kong (2005)', r_ui=4.5, est=3.0950877047719043, deta
ils={'was_impossible': False}),
 Prediction(uid='40339', iid='School of Rock (2003)', r_ui=3.5, est=3.975223422175829, d
etails={'was_impossible': False}),
 Prediction(uid='3704', iid='From Hell (2001)', r_ui=4.0, est=4.125117842382446, details
={'was_impossible': False}),
 Prediction(uid='112294', iid='Closer (2004)', r_ui=3.0, est=3.4814023235033065, details
={'was_impossible': False}),
 Prediction(uid='47181', iid='Thank You for Smoking (2006)', r_ui=3.5, est=3.83311761689
9624, details={'was_impossible': False}),
 Prediction(uid='20639', iid='Harry Potter and the Deathly Hallows: Part 1 (2010)', r_ui
```

```

=3.5, est=4.127705087026097, details={'was_impossible': False}),
Prediction(uid='48002', iid='Meet the Parents (2000)', r_ui=3.0, est=3.142099679818313
6, details={'was_impossible': False}),
Prediction(uid='85722', iid='Shaun of the Dead (2004)', r_ui=5.0, est=3.48032092145304,
details={'was_impossible': False}),
Prediction(uid='31782', iid='Constantine (2005)', r_ui=3.0, est=3.5294272289034483, det
ails={'was_impossible': False}),
Prediction(uid='95375', iid='What Women Want (2000)', r_ui=3.5, est=3.196032981849302,
details={'was_impossible': False}),
Prediction(uid='17809', iid='Chicken Run (2000)', r_ui=4.0, est=4.237413773971127, deta
ils={'was_impossible': False}),
Prediction(uid='53018', iid='Adaptation (2002)', r_ui=4.5, est=4.565174410976495, detai
ls={'was_impossible': False}),
Prediction(uid='57350', iid='No Country for Old Men (2007)', r_ui=4.0, est=4.2053223476
80271, details={'was_impossible': False}),
Prediction(uid='74473', iid='K-PAX (2001)', r_ui=4.5, est=2.7987772152983372, details=
{'was_impossible': False}),
Prediction(uid='117858', iid='Harry Potter and the Prisoner of Azkaban (2004)', r_ui=3.
0, est=3.361341365481024, details={'was_impossible': False}),
Prediction(uid='123053', iid='Memento (2000)', r_ui=3.5, est=4.530813474310424, details
={'was_impossible': False}),
Prediction(uid='113652', iid='Juno (2007)', r_ui=1.0, est=3.7179283039311612, details=
{'was_impossible': False}),
Prediction(uid='92026', iid='Elf (2003)', r_ui=4.0, est=3.209301054941983, details={'wa
s_impossible': False}),
Prediction(uid='16835', iid='Blade: Trinity (2004)', r_ui=1.5, est=2.6399743614788536,
details={'was_impossible': False}),
Prediction(uid='123053', iid='Mexican, The (2001)', r_ui=4.0, est=3.281140375069022, de
tails={'was_impossible': False}),
Prediction(uid='120086', iid='National Treasure (2004)', r_ui=3.0, est=2.84942317216576
2, details={'was_impossible': False}),
Prediction(uid='89138', iid='Boondock Saints, The (2000)', r_ui=4.0, est=3.643649366768
5497, details={'was_impossible': False}),
Prediction(uid='118468', iid='In Bruges (2008)', r_ui=4.5, est=4.255391659424374, detai
ls={'was_impossible': False}),
Prediction(uid='13434', iid='Last Samurai, The (2003)', r_ui=3.5, est=3.54308057654414
9, details={'was_impossible': False}),
Prediction(uid='75898', iid='Final Destination (2000)', r_ui=3.0, est=3.67450940380864
4, details={'was_impossible': False}),
Prediction(uid='113917', iid='Fog of War: Eleven Lessons from the Life of Robert S. McN
amara, The (2003)', r_ui=5.0, est=4.463597420083798, details={'was_impossible': False}),
Prediction(uid='93002', iid='Kill Bill: Vol. 1 (2003)', r_ui=3.0, est=3.527579984635967
7, details={'was_impossible': False}),
Prediction(uid='13690', iid='Identity (2003)', r_ui=2.5, est=2.9504131209036557, detail
s={'was_impossible': False}),
Prediction(uid='63596', iid='March of the Penguins (Marche de l'empereur, La) (2005)",
r_ui=4.0, est=3.8060617191452764, details={'was_impossible': False}),
Prediction(uid='113003', iid='Transporter, The (2002)', r_ui=2.5, est=3.62006105799221
6, details={'was_impossible': False}),
Prediction(uid='66011', iid='I, Robot (2004)', r_ui=2.5, est=3.225638442144511, details
={'was_impossible': False}),
Prediction(uid='106659', iid='Pirates of the Caribbean: At World's End (2007)", r_ui=4.
0, est=3.9605962202374903, details={'was_impossible': False}),
Prediction(uid='11406', iid='Avatar (2009)', r_ui=3.5, est=3.9986915551793496, details=
{'was_impossible': False}),
Prediction(uid='85691', iid='Shanghai Noon (2000)', r_ui=3.0, est=3.1759563640559207, d
etails={'was_impossible': False}),
Prediction(uid='10098', iid='Ray (2004)', r_ui=3.5, est=3.933504093976656, details={'wa
s_impossible': False}),
Prediction(uid='71552', iid='Iron Man (2008)', r_ui=4.5, est=3.8552402502265, details=
{'was_impossible': False}),
Prediction(uid='36931', iid='Blade II (2002)', r_ui=1.5, est=2.4732160808230734, detail
s={'was_impossible': False}),
Prediction(uid='126954', iid='Bedazzled (2000)', r_ui=3.5, est=3.113372448450783, detai
ls={'was_impossible': False}),

```

```

Prediction(uid='40196', iid='Harry Potter and the Order of the Phoenix (2007)', r_ui=3.5, est=4.197125836854944, details={'was_impossible': False}),
Prediction(uid='77359', iid='Shrek (2001)', r_ui=4.5, est=3.868502025285993, details={'was_impossible': False}),
Prediction(uid='33838', iid='Beautiful Mind, A (2001)', r_ui=5.0, est=3.1225619971087877, details={'was_impossible': False}),
Prediction(uid='39173', iid='Jarhead (2005)', r_ui=4.0, est=2.756573753415635, details={'was_impossible': False}),
Prediction(uid='137866', iid='Million Dollar Baby (2004)', r_ui=3.5, est=4.084763928999583, details={'was_impossible': False}),
Prediction(uid='135974', iid='American Psycho (2000)', r_ui=4.0, est=3.5590469671254987, details={'was_impossible': False}),
Prediction(uid='134649', iid='Bourne Identity, The (2002)', r_ui=3.5, est=3.971502206931301, details={'was_impossible': False}),
Prediction(uid='87553', iid='V for Vendetta (2006)', r_ui=5.0, est=4.5074388523653015, details={'was_impossible': False}),
Prediction(uid='124861', iid='6th Day, The (2000)', r_ui=2.5, est=2.8200230837044344, details={'was_impossible': False}),
Prediction(uid='22999', iid='Meet the Parents (2000)', r_ui=3.0, est=3.051985824883142, details={'was_impossible': False}),
Prediction(uid='21070', iid='Monsters, Inc. (2001)', r_ui=5.0, est=4.900022085967704, details={'was_impossible': False}),
Prediction(uid='76086', iid='Mummy Returns, The (2001)', r_ui=2.5, est=2.2702887015949202, details={'was_impossible': False}),
Prediction(uid='12992', iid='Forgetting Sarah Marshall (2008)', r_ui=2.0, est=3.597934282929499, details={'was_impossible': False}),
Prediction(uid='21650', iid='Kill Bill: Vol. 1 (2003)', r_ui=2.0, est=4.11997798685798, details={'was_impossible': False}),
Prediction(uid='24087', iid='Erin Brockovich (2000)', r_ui=3.5, est=3.1778067005271273, details={'was_impossible': False}),
Prediction(uid='11513', iid='Triplets of Belleville, The (Les triplettes de Belleville) (2003)', r_ui=4.0, est=4.087131660007951, details={'was_impossible': False}),
Prediction(uid='27073', iid='Cast Away (2000)', r_ui=4.0, est=3.557121709987445, details={'was_impossible': False}),
Prediction(uid='59249', iid='Catch Me If You Can (2002)', r_ui=2.5, est=3.249118415590971, details={'was_impossible': False}),
Prediction(uid='80789', iid='Freaky Friday (2003)', r_ui=2.5, est=2.9167955959132192, details={'was_impossible': False}),
Prediction(uid='93002', iid='Knocked Up (2007)', r_ui=4.0, est=3.677728353033872, details={'was_impossible': False}),
Prediction(uid='97341', iid='Scary Movie (2000)', r_ui=4.0, est=3.2651410877336646, details={'was_impossible': False}),
Prediction(uid='130456', iid='Legally Blonde (2001)', r_ui=3.5, est=3.2655817440933927, details={'was_impossible': False}),
Prediction(uid='109550', iid='Prestige, The (2006)', r_ui=3.0, est=3.7517562356933105, details={'was_impossible': False}),
Prediction(uid='85095', iid='3:10 to Yuma (2007)', r_ui=3.5, est=3.4751750503434815, details={'was_impossible': False}),
Prediction(uid='60533', iid='Red Planet (2000)', r_ui=2.5, est=3.0558124128459125, details={'was_impossible': False}),
Prediction(uid='128724', iid='Matrix Revolutions, The (2003)', r_ui=3.0, est=3.2506606790876194, details={'was_impossible': False}),
Prediction(uid='42598', iid='Mr. & Mrs. Smith (2005)', r_ui=2.0, est=3.2560153509716883, details={'was_impossible': False}),
Prediction(uid='12555', iid='Harry Potter and the Sorcerer's Stone (a.k.a. Harry Potter and the Philosopher's Stone) (2001)', r_ui=4.5, est=3.7829434530886568, details={'was_impossible': False}),
Prediction(uid='9077', iid='Garden State (2004)', r_ui=4.5, est=3.9363269527551896, details={'was_impossible': False}),
Prediction(uid='41065', iid='Station Agent, The (2003)', r_ui=4.5, est=3.824042696545364, details={'was_impossible': False}),
Prediction(uid='101063', iid='What Lies Beneath (2000)', r_ui=3.5, est=3.389538835953812, details={'was_impossible': False}),
Prediction(uid='95034', iid='Equilibrium (2002)', r_ui=4.0, est=2.5221401121633997, details={'was_impossible': False}),

```

```

Prediction(uid='12753', iid='Aviator, The (2004)', r_ui=3.5, est=3.6324808790783183, de
tails={'was_impossible': False}),
Prediction(uid='1518', iid='Cars (2006)', r_ui=3.0, est=4.082289991205766, details={'wa
s_impossible': False}),
Prediction(uid='12319', iid='Me, Myself & Irene (2000)', r_ui=3.5, est=3.12069879388221
55, details={'was_impossible': False}),
Prediction(uid='52502', iid='Secretary (2002)', r_ui=3.5, est=3.7515532445778206, detai
ls={'was_impossible': False}),
Prediction(uid='15571', iid='Inception (2010)', r_ui=4.0, est=4.755683381551466, detail
s={'was_impossible': False}),
Prediction(uid='86780', iid='Eternal Sunshine of the Spotless Mind (2004)', r_ui=4.0, e
st=3.884542168197649, details={'was_impossible': False}),
Prediction(uid='88213', iid='Fantastic Mr. Fox (2009)', r_ui=5.0, est=4.03613331741155
4, details={'was_impossible': False}),
Prediction(uid='24846', iid='Master and Commander: The Far Side of the World (2003)', r
_ui=4.0, est=3.420414633894657, details={'was_impossible': False}),
Prediction(uid='64503', iid='Spirited Away (Sen to Chihiro no kamikakushi) (2001)', r_u
i=5.0, est=4.441048675197455, details={'was_impossible': False}),
Prediction(uid='76086', iid='Munich (2005)', r_ui=4.0, est=3.3735801401214274, details=
{'was_impossible': False}),
Prediction(uid='81630', iid='Meet the Parents (2000)', r_ui=4.0, est=3.620287980843629,
details={'was_impossible': False}),
Prediction(uid='129183', iid='Monsoon Wedding (2001)', r_ui=3.5, est=3.622308583930753
4, details={'was_impossible': False}),
Prediction(uid='46465', iid='28 Days Later (2002)', r_ui=4.0, est=3.6615257292633885, d
etails={'was_impossible': False}),
Prediction(uid='94920', iid='Bridget Jones's Diary (2001)', r_ui=3.5, est=3.32326621010
3553, details={'was_impossible': False}),
Prediction(uid='64503', iid='Thank You for Smoking (2006)', r_ui=4.5, est=4.11409899707
4118, details={'was_impossible': False}),
Prediction(uid='115585', iid='Illusionist, The (2006)', r_ui=4.5, est=3.927635998320354
4, details={'was_impossible': False}),
Prediction(uid='62403', iid='Matrix Revolutions, The (2003)', r_ui=5.0, est=4.191890421
027489, details={'was_impossible': False}),
Prediction(uid='96994', iid='Casino Royale (2006)', r_ui=3.5, est=4.169656779077352, de
tails={'was_impossible': False}),
Prediction(uid='117356', iid='Gravity (2013)', r_ui=4.0, est=3.688845846389629, details
={'was_impossible': False}),
Prediction(uid='39891', iid='Insomnia (2002)', r_ui=2.5, est=3.3565577931987978, detail
s={'was_impossible': False}),
Prediction(uid='73258', iid='Hot Fuzz (2007)', r_ui=4.0, est=3.5896324167061695, detail
s={'was_impossible': False}),
Prediction(uid='101516', iid='Ice Age 2: The Meltdown (2006)', r_ui=2.0, est=3.40575368
6136515, details={'was_impossible': False}),
Prediction(uid='37525', iid='Dark Knight, The (2008)', r_ui=3.5, est=4.20639021555888,
details={'was_impossible': False}),
Prediction(uid='44154', iid='Transformers (2007)', r_ui=5.0, est=4.0129845832420745, de
tails={'was_impossible': False}),
Prediction(uid='114671', iid='Pay It Forward (2000)', r_ui=4.0, est=3.274635471241187,
details={'was_impossible': False}),
Prediction(uid='58177', iid='American Psycho (2000)', r_ui=3.0, est=3.5176269028365, de
tails={'was_impossible': False}),
Prediction(uid='70683', iid='Snatch (2000)', r_ui=5.0, est=4.141814254489906, details=
{'was_impossible': False}),
Prediction(uid='44205', iid='Harry Potter and the Prisoner of Azkaban (2004)', r_ui=3.
5, est=3.5424413343181387, details={'was_impossible': False}),
Prediction(uid='26535', iid='Lord of the Rings: The Two Towers, The (2002)', r_ui=4.0,
est=3.997217723818109, details={'was_impossible': False}),
Prediction(uid='82608', iid='Mission: Impossible II (2000)', r_ui=3.5, est=3.0900705880
71143, details={'was_impossible': False}),
Prediction(uid='78137', iid='V for Vendetta (2006)', r_ui=4.5, est=4.086699428238588, d
etails={'was_impossible': False}),
Prediction(uid='64787', iid='Kiss Kiss Bang Bang (2005)', r_ui=3.5, est=4.0869948495471
05, details={'was_impossible': False}),
Prediction(uid='10976', iid='Requiem for a Dream (2000)', r_ui=3.5, est=4.2370339048220

```

```

16, details={'was_impossible': False}),
  Prediction(uid='47852', iid='Lord of the Rings: The Fellowship of the Ring, The (200
1)', r_ui=4.5, est=4.504001847276028, details={'was_impossible': False}),
  Prediction(uid='65189', iid='Harry Potter and the Half-Blood Prince (2009)', r_ui=3.5,
est=3.241948657642048, details={'was_impossible': False}),
  Prediction(uid='109543', iid='Knight's Tale, A (2001)', r_ui=3.5, est=2.274453317511943
2, details={'was_impossible': False}),
  Prediction(uid='120908', iid='Inglourious Basterds (2009)', r_ui=3.5, est=4.16396175247
2296, details={'was_impossible': False}),
  Prediction(uid='40455', iid='Chicken Run (2000)', r_ui=4.0, est=3.654482379679509, deta
ils={'was_impossible': False}),
  Prediction(uid='20202', iid='March of the Penguins (Marche de l'empereur, La) (2005)',
r_ui=3.5, est=3.2460868589657896, details={'was_impossible': False}),
  Prediction(uid='96551', iid='Lord of the Rings: The Fellowship of the Ring, The (200
1)', r_ui=5.0, est=5, details={'was_impossible': False}),
  Prediction(uid='49099', iid='The Butterfly Effect (2004)', r_ui=3.5, est=2.496457916046
4764, details={'was_impossible': False}),
  Prediction(uid='93580', iid='Joe Dirt (2001)', r_ui=4.0, est=3.235369976525286, details
={'was_impossible': False}),
  Prediction(uid='122882', iid='Pitch Black (2000)', r_ui=3.5, est=3.906962025262976, det
ails={'was_impossible': False}),
  Prediction(uid='7286', iid='Others, The (2001)', r_ui=4.0, est=3.385189896274509, detai
ls={'was_impossible': False}),
  Prediction(uid='106476', iid='Blood Diamond (2006)', r_ui=3.5, est=3.706349278173139, d
etails={'was_impossible': False}),
  Prediction(uid='85666', iid='Underworld (2003)', r_ui=4.0, est=3.140103250875321, detai
ls={'was_impossible': False}),
  Prediction(uid='136174', iid='Sum of All Fears, The (2002)', r_ui=4.0, est=3.4558666905
81833, details={'was_impossible': False}),
  Prediction(uid='53931', iid='Ice Age (2002)', r_ui=3.5, est=3.513618106785149, details=
{'was_impossible': False}),
  Prediction(uid='99015', iid='Sherlock Holmes (2009)', r_ui=4.0, est=3.2167717544460546,
details={'was_impossible': False}),
  Prediction(uid='102326', iid='Hotel Rwanda (2004)', r_ui=4.5, est=4.3651716226034685, d
etails={'was_impossible': False}),
  Prediction(uid='49417', iid='District 9 (2009)', r_ui=4.0, est=3.9486140474273186, deta
ils={'was_impossible': False}),
  Prediction(uid='60762', iid='Lord of the Rings: The Fellowship of the Ring, The (200
1)', r_ui=2.0, est=3.225619584682107, details={'was_impossible': False}),
  Prediction(uid='7038', iid='Crash (2004)', r_ui=3.0, est=3.7276733181861035, details=
{'was_impossible': False}),
  Prediction(uid='51143', iid='Sherlock Holmes (2009)', r_ui=5.0, est=3.9481607789796906,
details={'was_impossible': False}),
  Prediction(uid='21746', iid='Rise of the Planet of the Apes (2011)', r_ui=4.0, est=3.99
57886254500727, details={'was_impossible': False}),
  Prediction(uid='60140', iid='Harry Potter and the Half-Blood Prince (2009)', r_ui=4.5,
est=4.097757007150104, details={'was_impossible': False}),
  Prediction(uid='132062', iid='How to Train Your Dragon (2010)', r_ui=4.0, est=3.8315888
07379276, details={'was_impossible': False}),
  Prediction(uid='48162', iid='Beautiful Mind, A (2001)', r_ui=4.0, est=4.22567341421555
4, details={'was_impossible': False}),
  Prediction(uid='55981', iid='Lives of Others, The (Das leben der Anderen) (2006)', r_ui
=5.0, est=4.222878824294926, details={'was_impossible': False}),
  Prediction(uid='46313', iid='Panic Room (2002)', r_ui=2.5, est=2.936495701707293, detai
ls={'was_impossible': False}),
  Prediction(uid='44065', iid='Mr. & Mrs. Smith (2005)', r_ui=3.0, est=3.481440893674869
3, details={'was_impossible': False}),
  Prediction(uid='62217', iid='Spider-Man 2 (2004)', r_ui=3.0, est=3.6866911188695632, de
tails={'was_impossible': False}),
  Prediction(uid='123976', iid='Ocean's Twelve (2004)', r_ui=2.0, est=3.2686803090057763,
details={'was_impossible': False}),
  Prediction(uid='121980', iid='Spy Kids (2001)', r_ui=1.0, est=2.8953601884826425, detai
ls={'was_impossible': False}),
  Prediction(uid='112294', iid='Million Dollar Baby (2004)', r_ui=3.5, est=3.649198724996
861, details={'was_impossible': False}),

```



```

Prediction(uid='137791', iid='Cold Mountain (2003)', r_ui=4.0, est=3.5976415395633983,
details={'was_impossible': False}),
Prediction(uid='106673', iid='Moulin Rouge (2001)', r_ui=3.5, est=1.5870313824969298, d
etails={'was_impossible': False}),
Prediction(uid='16398', iid='Mona Lisa Smile (2003)', r_ui=3.5, est=3.3119807701823474,
details={'was_impossible': False}),
Prediction(uid='103076', iid='How to Train Your Dragon (2010)', r_ui=3.5, est=4.0195304
68300335, details={'was_impossible': False}),
Prediction(uid='16447', iid='Something's Gotta Give (2003)', r_ui=3.0, est=3.9353063132
972017, details={'was_impossible': False}),
Prediction(uid='112294', iid='Troy (2004)', r_ui=3.0, est=3.4385231720765663, details=
{'was_impossible': False}),
Prediction(uid='52264', iid='Notebook, The (2004)', r_ui=2.0, est=3.4587887247975617, d
etails={'was_impossible': False}),
Prediction(uid='38492', iid='Troy (2004)', r_ui=2.5, est=3.4423800152481823, details=
{'was_impossible': False}),
Prediction(uid='104599', iid='Blood Diamond (2006)', r_ui=4.0, est=3.426697491632371, d
etails={'was_impossible': False}),
Prediction(uid='93672', iid='Kill Bill: Vol. 1 (2003)', r_ui=2.5, est=3.52555297044458
4, details={'was_impossible': False}),
Prediction(uid='102581', iid='Garden State (2004)', r_ui=3.5, est=2.8423085849115326, d
etails={'was_impossible': False}),
Prediction(uid='60533', iid='My Big Fat Greek Wedding (2002)', r_ui=5.0, est=4.20504616
03836045, details={'was_impossible': False}),
Prediction(uid='457', iid='Patriot, The (2000)', r_ui=3.0, est=2.203451127205308, detai
ls={'was_impossible': False}),
Prediction(uid='65592', iid='Lost in Translation (2003)', r_ui=4.0, est=4.2822259558853
43, details={'was_impossible': False}),
Prediction(uid='113917', iid='Knight's Tale, A (2001)', r_ui=3.0, est=3.128419051556069
7, details={'was_impossible': False}),
Prediction(uid='43213', iid='There Will Be Blood (2007)', r_ui=4.0, est=4.4772310081999
48, details={'was_impossible': False}),
Prediction(uid='26876', iid='O Brother, Where Art Thou? (2000)', r_ui=5.0, est=4.747680
965351703, details={'was_impossible': False}),
Prediction(uid='135784', iid='Phone Booth (2002)', r_ui=1.5, est=2.9029696449524023, de
tails={'was_impossible': False}),
Prediction(uid='42439', iid='Shrek 2 (2004)', r_ui=5.0, est=4.570142278629411, details=
{'was_impossible': False}),
Prediction(uid='48162', iid='My Big Fat Greek Wedding (2002)', r_ui=4.0, est=3.73296013
03244297, details={'was_impossible': False}),
Prediction(uid='43940', iid='Anger Management (2003)', r_ui=2.0, est=2.913707214599068
3, details={'was_impossible': False}),
Prediction(uid='127399', iid='Garden State (2004)', r_ui=3.0, est=3.204112029601286, de
tails={'was_impossible': False}),
Prediction(uid='34570', iid='X-Men (2000)', r_ui=3.5, est=3.544773906897817, details=
{'was_impossible': False}),
Prediction(uid='105524', iid='Catch Me If You Can (2002)', r_ui=4.0, est=4.160318085307
862, details={'was_impossible': False}),
Prediction(uid='76387', iid='What Women Want (2000)', r_ui=2.5, est=3.278880913324775,
details={'was_impossible': False}),
Prediction(uid='101536', iid='Sin City (2005)', r_ui=5.0, est=4.675621500209971, detail
s={'was_impossible': False}),
Prediction(uid='128315', iid='School of Rock (2003)', r_ui=4.0, est=3.34410450949251, d
etails={'was_impossible': False}),
Prediction(uid='86159', iid='Bourne Identity, The (2002)', r_ui=3.5, est=3.361686232978
2546, details={'was_impossible': False}),
Prediction(uid='32618', iid='Hangover, The (2009)', r_ui=4.5, est=4.006984518215981, de
tails={'was_impossible': False}),
Prediction(uid='66574', iid='Kiss Kiss Bang Bang (2005)', r_ui=1.5, est=3.3355633633669
806, details={'was_impossible': False}),
Prediction(uid='15110', iid='Bowling for Columbine (2002)', r_ui=4.0, est=4.34845103920
2612, details={'was_impossible': False}),
Prediction(uid='125439', iid='Bowling for Columbine (2002)', r_ui=4.0, est=3.9119329044
121605, details={'was_impossible': False}),
Prediction(uid='92848', iid='Ring, The (2002)', r_ui=2.0, est=2.9289598315362455, detai

```

```

ls={'was_impossible': False}),
    Prediction(uid='21792', iid='Fountain, The (2006)', r_ui=4.0, est=3.9690694247315976, d
etails={'was_impossible': False}),
    Prediction(uid='54893', iid='Bowling for Columbine (2002)', r_ui=4.5, est=4.43250602659
3465, details={'was_impossible': False}),
    Prediction(uid='63932', iid='Bruce Almighty (2003)', r_ui=3.5, est=2.666101826263618, d
etails={'was_impossible': False}),
    Prediction(uid='23888', iid='S.W.A.T. (2003)', r_ui=4.5, est=3.4567045343155804, detail
s={'was_impossible': False}),
    Prediction(uid='12111', iid='Lord of the Rings: The Return of the King, The (2003)', r_
ui=4.5, est=4.030752283800156, details={'was_impossible': False}),
    Prediction(uid='98598', iid='Moulin Rouge (2001)', r_ui=1.0, est=3.1380038516641076, de
tails={'was_impossible': False}),
    Prediction(uid='107322', iid='Mission: Impossible III (2006)', r_ui=3.5, est=3.18209863
23974947, details={'was_impossible': False}),
    Prediction(uid='29391', iid='Shrek (2001)', r_ui=4.0, est=3.556884352242683, details=
{'was_impossible': False}),
    Prediction(uid='102279', iid='50 First Dates (2004)', r_ui=4.0, est=3.579613693761197,
details={'was_impossible': False}),
    Prediction(uid='16253', iid='Man Who Wasn't There, The (2001)', r_ui=5.0, est=3.6767820
04619185, details={'was_impossible': False}),
    Prediction(uid='21892', iid='Kill Bill: Vol. 1 (2003)', r_ui=4.5, est=3.85929979231761
2, details={'was_impossible': False}),
    Prediction(uid='73258', iid='Ratatouille (2007)', r_ui=4.5, est=3.6224011248919417, det
ails={'was_impossible': False}),
    Prediction(uid='107820', iid='Hotel Rwanda (2004)', r_ui=4.5, est=4.591108314648056, de
tails={'was_impossible': False}),
    Prediction(uid='118845', iid='Men in Black II (a.k.a. MIIB) (a.k.a. MIB 2) (2002)', r_u
i=1.5, est=2.72280859633276, details={'was_impossible': False}),
    Prediction(uid='61264', iid='Pearl Harbor (2001)', r_ui=2.5, est=3.7231132420212725, de
tails={'was_impossible': False}),
    Prediction(uid='108153', iid='Identity (2003)', r_ui=3.5, est=3.1674702446567937, detai
ls={'was_impossible': False}),
    Prediction(uid='19612', iid='Equilibrium (2002)', r_ui=4.0, est=5, details={'was_imposs
ible': False}),
    Prediction(uid='22178', iid='Scooby-Doo (2002)', r_ui=3.0, est=1.71424136099401, detail
s={'was_impossible': False}),
    Prediction(uid='120908', iid='Crouching Tiger, Hidden Dragon (Wo hu cang long) (2000)',
r_ui=4.0, est=4.101419955639345, details={'was_impossible': False}),
    Prediction(uid='20203', iid='Charlie and the Chocolate Factory (2005)', r_ui=3.0, est=
3.699472664084187, details={'was_impossible': False}),
    Prediction(uid='10271', iid='Mighty Wind, A (2003)', r_ui=2.5, est=3.247807903322887, d
etails={'was_impossible': False}),
    Prediction(uid='2606', iid='Brokeback Mountain (2005)', r_ui=4.5, est=3.885632508223318
7, details={'was_impossible': False}),
    Prediction(uid='108847', iid='Planet of the Apes (2001)', r_ui=3.5, est=2.9140683504429
186, details={'was_impossible': False}),
    Prediction(uid='18854', iid='Wallace & Gromit in The Curse of the Were-Rabbit (2005)',
r_ui=4.5, est=3.4535969220763905, details={'was_impossible': False}),
    Prediction(uid='73470', iid='Chocolat (2000)', r_ui=3.5, est=3.063844008730621, details
=({'was_impossible': False}),
    Prediction(uid='126897', iid='Constantine (2005)', r_ui=2.5, est=2.9019167371038703, de
tails={'was_impossible': False}),
    Prediction(uid='61328', iid='Star Wars: Episode II - Attack of the Clones (2002)', r_ui
=2.5, est=2.3974605284580495, details={'was_impossible': False}),
    Prediction(uid='113377', iid='Traffic (2000)', r_ui=2.0, est=3.360103288295389, details
=({'was_impossible': False}),
    Prediction(uid='72888', iid='True Grit (2010)', r_ui=2.0, est=3.1282705867044385, detai
ls={'was_impossible': False}),
    Prediction(uid='5546', iid='Quantum of Solace (2008)', r_ui=0.5, est=4.508932869403593,
details={'was_impossible': False}),
    Prediction(uid='125335', iid='Shanghai Noon (2000)', r_ui=2.0, est=3.347297183165638, d
etails={'was_impossible': False}),
    Prediction(uid='5076', iid='Knocked Up (2007)', r_ui=3.0, est=3.058772182830466, detail
s={'was_impossible': False}),

```

```

Prediction(uid='43958', iid='28 Days Later (2002)', r_ui=3.0, est=3.3324677795252624, d
etails={'was_impossible': False}),
Prediction(uid='17809', iid='U-571 (2000)', r_ui=4.0, est=3.716063596015031, details=
{'was_impossible': False}),
Prediction(uid='57064', iid='8 Mile (2002)', r_ui=3.0, est=3.4247214264242256, details=
{'was_impossible': False}),
Prediction(uid='8996', iid='Garden State (2004)', r_ui=4.5, est=3.8781751985009443, det
ails={'was_impossible': False}),
Prediction(uid='93827', iid='Bourne Ultimatum, The (2007)', r_ui=2.5, est=3.54942270981
62994, details={'was_impossible': False}),
Prediction(uid='77011', iid='Simpsons Movie, The (2007)', r_ui=5.0, est=3.2791951677911
713, details={'was_impossible': False}),
Prediction(uid='101031', iid='Cinderella Man (2005)', r_ui=4.0, est=4.050152443765597,
details={'was_impossible': False}),
Prediction(uid='53122', iid='Unbreakable (2000)', r_ui=3.5, est=3.7780053862199576, det
ails={'was_impossible': False}),
Prediction(uid='36255', iid='Big Fish (2003)', r_ui=4.0, est=3.5177498580459, details=
{'was_impossible': False}),
Prediction(uid='109186', iid='Monsters, Inc. (2001)', r_ui=3.0, est=2.9004412946960367,
details={'was_impossible': False}),
Prediction(uid='106895', iid='Transporter, The (2002)', r_ui=4.5, est=3.335892446036924
6, details={'was_impossible': False}),
Prediction(uid='83110', iid='Erin Brockovich (2000)', r_ui=3.5, est=3.6232850323663253,
details={'was_impossible': False}),
Prediction(uid='122731', iid='American Splendor (2003)', r_ui=4.5, est=3.78088000109187
75, details={'was_impossible': False}),
Prediction(uid='44781', iid='Love Actually (2003)', r_ui=4.0, est=3.62658948958906, det
ails={'was_impossible': False}),
Prediction(uid='48463', iid='Incredibles, The (2004)', r_ui=4.5, est=4.000165527391577
5, details={'was_impossible': False}),
Prediction(uid='82880', iid='Pitch Black (2000)', r_ui=3.0, est=3.3293062385500685, det
ails={'was_impossible': False}),
Prediction(uid='110578', iid='Juno (2007)', r_ui=4.0, est=3.655970228966901, details=
{'was_impossible': False}),
Prediction(uid='62403', iid='Eternal Sunshine of the Spotless Mind (2004)', r_ui=5.0, e
st=4.81941272339306, details={'was_impossible': False}),
Prediction(uid='59148', iid='Adaptation (2002)', r_ui=2.0, est=4.208492787382241, detai
ls={'was_impossible': False}),
Prediction(uid='113584', iid='Pineapple Express (2008)', r_ui=5.0, est=3.59564258384403
16, details={'was_impossible': False}),
Prediction(uid='65592', iid='Chocolat (2000)', r_ui=2.0, est=3.363897976350369, details
={'was_impossible': False}),
Prediction(uid='81120', iid='Dawn of the Dead (2004)', r_ui=4.0, est=3.353425770964311
6, details={'was_impossible': False}),
Prediction(uid='21496', iid='Bedazzled (2000)', r_ui=1.0, est=2.4288950829032276, detai
ls={'was_impossible': False}),
Prediction(uid='104753', iid='Billy Elliot (2000)', r_ui=4.0, est=3.506487358575094, de
tails={'was_impossible': False}),
Prediction(uid='112811', iid='Harry Potter and the Chamber of Secrets (2002)', r_ui=3.
5, est=3.824146800586684, details={'was_impossible': False}),
Prediction(uid='118831', iid='X-Men: The Last Stand (2006)', r_ui=4.0, est=2.6475271582
9651, details={'was_impossible': False}),
Prediction(uid='29507', iid='Billy Elliot (2000)', r_ui=3.5, est=3.5020176398058864, de
tails={'was_impossible': False}),
Prediction(uid='34584', iid='Prestige, The (2006)', r_ui=4.0, est=4.26158811509695, det
ails={'was_impossible': False}),
Prediction(uid='100927', iid='Kill Bill: Vol. 2 (2004)', r_ui=5.0, est=3.68712744742454
7, details={'was_impossible': False}),
Prediction(uid='46290', iid='Sherlock Holmes (2009)', r_ui=4.0, est=3.956722901872119,
details={'was_impossible': False}),
Prediction(uid='122179', iid='Planet of the Apes (2001)', r_ui=2.5, est=3.0348158433279
693, details={'was_impossible': False}),
Prediction(uid='36505', iid='Apocalypto (2006)', r_ui=2.0, est=3.5999602394723844, deta
ils={'was_impossible': False}),
Prediction(uid='5452', iid='Shutter Island (2010)', r_ui=4.0, est=3.8939762177264927, d

```

```

etails={'was_impossible': False}),
Prediction(uid='113663', iid='Pirates of the Caribbean: The Curse of the Black Pearl (2
003)', r_ui=4.0, est=3.9568000900910563, details={'was_impossible': False}),
Prediction(uid='8067', iid='Men in Black II (a.k.a. MIIB) (a.k.a. MIB 2) (2002)', r_ui=
2.5, est=3.197941732840964, details={'was_impossible': False}),
Prediction(uid='88016', iid='Brokeback Mountain (2005)', r_ui=4.5, est=3.973938486845,
details={'was_impossible': False}),
Prediction(uid='118508', iid='Lord of the Rings: The Return of the King, The (2003)', r
_ui=5.0, est=4.471625616124843, details={'was_impossible': False}),
Prediction(uid='5384', iid='Gladiator (2000)', r_ui=3.0, est=3.9809170714782804, detail
s={'was_impossible': False}),
Prediction(uid='75661', iid='From Hell (2001)', r_ui=2.5, est=2.811225666164876, detail
s={'was_impossible': False}),
Prediction(uid='76561', iid='A.I. Artificial Intelligence (2001)', r_ui=2.5, est=2.7998
968495254806, details={'was_impossible': False}),
Prediction(uid='48325', iid='Station Agent, The (2003)', r_ui=4.0, est=3.58731839752973
34, details={'was_impossible': False}),
Prediction(uid='36334', iid='Thank You for Smoking (2006)', r_ui=4.0, est=3.65086180671
12084, details={'was_impossible': False}),
Prediction(uid='119986', iid='Matrix Reloaded, The (2003)', r_ui=3.5, est=2.94331860697
6323, details={'was_impossible': False}),
Prediction(uid='29808', iid='Burn After Reading (2008)', r_ui=3.0, est=3.77109879270270
95, details={'was_impossible': False}),
Prediction(uid='117680', iid='Knight's Tale, A (2001)', r_ui=3.0, est=3.272650190541936
5, details={'was_impossible': False}),
Prediction(uid='117861', iid='Da Vinci Code, The (2006)', r_ui=4.0, est=2.8763682625333
6, details={'was_impossible': False}),
Prediction(uid='93146', iid='Billy Elliot (2000)', r_ui=3.0, est=3.7389845531936947, de
tails={'was_impossible': False}),
Prediction(uid='50341', iid='Traffic (2000)', r_ui=4.0, est=3.9257572960827836, details
={'was_impossible': False}),
Prediction(uid='52895', iid='Shrek 2 (2004)', r_ui=2.5, est=3.1517722109054325, details
={'was_impossible': False}),
Prediction(uid='37136', iid='Road Trip (2000)', r_ui=2.5, est=3.0231477332631576, detai
ls={'was_impossible': False}),
Prediction(uid='16447', iid='Princess Diaries, The (2001)', r_ui=3.5, est=3.53724303972
3315, details={'was_impossible': False}),
Prediction(uid='3508', iid='House of Sand and Fog (2003)', r_ui=4.0, est=3.069875020248
8565, details={'was_impossible': False}),
Prediction(uid='103575', iid='American Pie 2 (2001)', r_ui=3.5, est=3.4547358838045987,
details={'was_impossible': False}),
Prediction(uid='61121', iid='Ratatouille (2007)', r_ui=4.5, est=3.776800331167763, deta
ils={'was_impossible': False}),
Prediction(uid='97828', iid='Slumdog Millionaire (2008)', r_ui=4.5, est=4.3373826515536
6, details={'was_impossible': False}),
Prediction(uid='115575', iid='Illusionist, The (2006)', r_ui=3.0, est=3.301325431136352
2, details={'was_impossible': False}),
Prediction(uid='64503', iid='28 Days Later (2002)', r_ui=3.0, est=3.7727530957747146, d
etails={'was_impossible': False}),
Prediction(uid='31627', iid='Vertical Limit (2000)', r_ui=2.0, est=2.4519055661053186,
details={'was_impossible': False}),
Prediction(uid='58885', iid='13 Going on 30 (2004)', r_ui=4.5, est=3.451864718848372, d
etails={'was_impossible': False}),
Prediction(uid='84115', iid='Mr. Deeds (2002)', r_ui=3.0, est=2.501700006887363, detail
s={'was_impossible': False}),
Prediction(uid='59370', iid='Scott Pilgrim vs. the World (2010)', r_ui=3.5, est=4.21061
9169324084, details={'was_impossible': False}),
Prediction(uid='27054', iid='Blade II (2002)', r_ui=3.0, est=2.630552820946702, details
={'was_impossible': False}),
Prediction(uid='135522', iid='X-Men (2000)', r_ui=4.0, est=3.0653890486793056, details=
{'was_impossible': False}),
Prediction(uid='134320', iid='Cold Mountain (2003)', r_ui=4.5, est=4.069112264185535, d
etails={'was_impossible': False}),
Prediction(uid='23498', iid='Matchstick Men (2003)', r_ui=4.0, est=3.5572854992902956,
details={'was_impossible': False}),

```

```

Prediction(uid='137191', iid='Moulin Rouge (2001)', r_ui=3.5, est=3.274065627550888, de
tails={'was_impossible': False}),
Prediction(uid='62999', iid='Catch Me If You Can (2002)', r_ui=4.5, est=4.1681699801704
98, details={'was_impossible': False}),
Prediction(uid='91185', iid='Harry Potter and the Half-Blood Prince (2009)', r_ui=2.0,
est=1.9317544917112448, details={'was_impossible': False}),
Prediction(uid='117280', iid='Miss Congeniality (2000)', r_ui=3.5, est=3.12714926474144
8, details={'was_impossible': False}),
Prediction(uid='58650', iid='Lord of the Rings: The Fellowship of the Ring, The (200
1)', r_ui=3.0, est=3.4374062391514677, details={'was_impossible': False}),
Prediction(uid='6148', iid='Beautiful Mind, A (2001)', r_ui=5.0, est=3.772202985739140
6, details={'was_impossible': False}),
Prediction(uid='55196', iid='King's Speech, The (2010)', r_ui=4.0, est=4.37776707919995
4, details={'was_impossible': False}),
Prediction(uid='134460', iid='Harry Potter and the Prisoner of Azkaban (2004)', r_ui=4.
0, est=3.6170172301886256, details={'was_impossible': False}),
Prediction(uid='56907', iid='Pay It Forward (2000)', r_ui=3.0, est=3.1017780757530793,
details={'was_impossible': False}),
Prediction(uid='31300', iid='Titan A.E. (2000)', r_ui=3.0, est=2.894475530800531, detai
ls={'was_impossible': False}),
Prediction(uid='109699', iid='I Am Legend (2007)', r_ui=2.0, est=2.8072070037784496, de
tails={'was_impossible': False}),
Prediction(uid='39430', iid='Others, The (2001)', r_ui=4.0, est=3.4892585126842612, det
ails={'was_impossible': False}),
Prediction(uid='7469', iid='Ice Age (2002)', r_ui=4.0, est=3.273242017123865, details=
{'was_impossible': False}),
Prediction(uid='69582', iid='Hulk (2003)', r_ui=1.0, est=2.258983480945327, details={'w
as_impossible': False}),
Prediction(uid='106919', iid='War of the Worlds (2005)', r_ui=3.5, est=3.95978854763633
4, details={'was_impossible': False}),
Prediction(uid='124861', iid='X-Men (2000)', r_ui=5.0, est=3.752985451979308, details=
{'was_impossible': False}),
Prediction(uid='30104', iid='Cast Away (2000)', r_ui=4.0, est=3.952654376024013, detail
s={'was_impossible': False}),
Prediction(uid='15314', iid='Old School (2003)', r_ui=3.5, est=3.977840487119212, detai
ls={'was_impossible': False}),
Prediction(uid='63266', iid='Fantastic Four (2005)', r_ui=4.0, est=3.0749567928054424,
details={'was_impossible': False}),
Prediction(uid='96994', iid='Pay It Forward (2000)', r_ui=3.5, est=3.415285895026348, d
etails={'was_impossible': False}),
Prediction(uid='60584', iid='Family Man, The (2000)', r_ui=4.0, est=3.1132707179318815,
details={'was_impossible': False}),
Prediction(uid='29507', iid='Sexy Beast (2000)', r_ui=3.0, est=3.306750484844891, detai
ls={'was_impossible': False}),
Prediction(uid='40922', iid='Memento (2000)', r_ui=3.5, est=4.056786779500838, details=
{'was_impossible': False}),
Prediction(uid='43539', iid='Incredibles, The (2004)', r_ui=3.5, est=4.04202084787709,
details={'was_impossible': False}),
Prediction(uid='7601', iid='Harry Potter and the Half-Blood Prince (2009)', r_ui=5.0, e
st=4.726574868494468, details={'was_impossible': False}),
Prediction(uid='70604', iid='I Heart Huckabees (2004)', r_ui=4.5, est=3.56113096009487
3, details={'was_impossible': False}),
Prediction(uid='38539', iid='Ring, The (2002)', r_ui=2.5, est=3.3940017420707727, detai
ls={'was_impossible': False}),
Prediction(uid='81598', iid='Borat: Cultural Learnings of America for Make Benefit Glor
ious Nation of Kazakhstan (2006)', r_ui=1.0, est=3.4068152323654033, details={'was_impos
sible': False}),
Prediction(uid='61991', iid='Starsky & Hutch (2004)', r_ui=3.5, est=2.8377257412028207,
details={'was_impossible': False}),
Prediction(uid='30997', iid='Chicken Run (2000)', r_ui=3.5, est=3.3245859445384762, det
ails={'was_impossible': False}),
Prediction(uid='45681', iid='Spider-Man 3 (2007)', r_ui=2.5, est=2.767611050112525, det
ails={'was_impossible': False}),
Prediction(uid='8319', iid='V for Vendetta (2006)', r_ui=4.5, est=4.383308819693488, de
tails={'was_impossible': False}),

```

```

Prediction(uid='59615', iid='Day After Tomorrow, The (2004)', r_ui=0.5, est=2.211538114
9216775, details={'was_impossible': False}),
Prediction(uid='42598', iid='Pineapple Express (2008)', r_ui=4.5, est=3.33923448858877
7, details={'was_impossible': False}),
Prediction(uid='137552', iid='Island, The (2005)', r_ui=3.5, est=3.0446036260935854, de
tails={'was_impossible': False}),
Prediction(uid='124321', iid='Die Another Day (2002)', r_ui=2.0, est=2.78561394081005,
details={'was_impossible': False}),
Prediction(uid='65387', iid='My Big Fat Greek Wedding (2002)', r_ui=3.5, est=3.65007522
07584934, details={'was_impossible': False}),
Prediction(uid='24087', iid='Enemy at the Gates (2001)', r_ui=3.5, est=3.26725210181053
6, details={'was_impossible': False}),
Prediction(uid='49365', iid='There Will Be Blood (2007)', r_ui=3.0, est=4.2004024586790
925, details={'was_impossible': False}),
Prediction(uid='127303', iid='Crash (2004)', r_ui=4.5, est=4.3784544624671495, details=
{'was_impossible': False}),
Prediction(uid='108501', iid='Ocean's Twelve (2004)', r_ui=4.0, est=3.7433780771866956,
details={'was_impossible': False}),
Prediction(uid='60316', iid='Illusionist, The (2006)', r_ui=4.0, est=3.771716802441826
4, details={'was_impossible': False}),
Prediction(uid='95949', iid='Fog of War: Eleven Lessons from the Life of Robert S. McNa
mara, The (2003)', r_ui=4.0, est=3.674859285849731, details={'was_impossible': False}),
Prediction(uid='84421', iid='House of Sand and Fog (2003)', r_ui=4.0, est=4.15394406950
3158, details={'was_impossible': False}),
Prediction(uid='54720', iid='Station Agent, The (2003)', r_ui=3.5, est=2.66785600178562
4, details={'was_impossible': False}),
Prediction(uid='72774', iid='Pianist, The (2002)', r_ui=4.5, est=4.29769710438888, deta
ils={'was_impossible': False}),
Prediction(uid='13721', iid='Slumdog Millionaire (2008)', r_ui=3.5, est=4.2459654746141
87, details={'was_impossible': False}),
Prediction(uid='40052', iid='Hot Fuzz (2007)', r_ui=4.5, est=4.209279209021961, details
={'was_impossible': False}),
Prediction(uid='7390', iid='Legend of Bagge Vance, The (2000)', r_ui=3.5, est=2.726139
0413432545, details={'was_impossible': False}),
Prediction(uid='33502', iid='Inconvenient Truth, An (2006)', r_ui=4.0, est=3.8241308724
86572, details={'was_impossible': False}),
Prediction(uid='89364', iid='Ocean's Eleven (2001)', r_ui=5.0, est=3.803812270894368, d
etails={'was_impossible': False}),
Prediction(uid='105999', iid='Men in Black II (a.k.a. MIIB) (a.k.a. MIB 2) (2002)', r_u
i=3.5, est=3.121775637547679, details={'was_impossible': False}),
Prediction(uid='11889', iid='Donnie Darko (2001)', r_ui=5.0, est=4.221333730619465, det
ails={'was_impossible': False}),
Prediction(uid='16501', iid='Gran Torino (2008)', r_ui=4.0, est=3.768374800950695, deta
ils={'was_impossible': False}),
Prediction(uid='90234', iid='True Grit (2010)', r_ui=5.0, est=4.163349886732307, detail
s={'was_impossible': False}),
Prediction(uid='2864', iid='Remember the Titans (2000)', r_ui=4.0, est=3.66733223281113
9, details={'was_impossible': False}),
Prediction(uid='129337', iid='2 Fast 2 Furious (Fast and the Furious 2, The) (2003)', r
_ui=3.5, est=2.572545142113794, details={'was_impossible': False}),
Prediction(uid='28118', iid='Atlantis: The Lost Empire (2001)', r_ui=2.0, est=3.3979655
922633034, details={'was_impossible': False}),
Prediction(uid='53124', iid='Road Trip (2000)', r_ui=3.0, est=3.1491560473307, details=
{'was_impossible': False}),
Prediction(uid='80528', iid='Pearl Harbor (2001)', r_ui=1.0, est=1.3817994123477544, de
tails={'was_impossible': False}),
Prediction(uid='78728', iid='Syriana (2005)', r_ui=4.0, est=4.003879956744052, details=
{'was_impossible': False}),
Prediction(uid='95872', iid='Pan's Labyrinth (Laberinto del fauno, El) (2006)', r_ui=4.
0, est=4.406792808371026, details={'was_impossible': False}),
Prediction(uid='80459', iid='Ladykillers, The (2004)', r_ui=2.0, est=3.025606338097219,
details={'was_impossible': False}),
Prediction(uid='69494', iid='Bourne Supremacy, The (2004)', r_ui=4.0, est=4.28516019300
635, details={'was_impossible': False}),
Prediction(uid='134674', iid='Finding Forrester (2000)', r_ui=5.0, est=3.74318405263658

```

```

65, details={'was_impossible': False}),
  Prediction(uid='47490', iid='Amores Perros (Love's a Bitch) (2000)', r_ui=4.0, est=4.30
7559777825251, details={'was_impossible': False}),
  Prediction(uid='60911', iid='Scorpion King, The (2002)', r_ui=3.0, est=2.54997266177764
06, details={'was_impossible': False}),
  Prediction(uid='55737', iid='Big Fish (2003)', r_ui=3.5, est=3.675463300137044, details
={'was_impossible': False}),
  Prediction(uid='108004', iid='Hannibal (2001)', r_ui=3.0, est=2.5376454041288636, detai
ls={'was_impossible': False}),
  Prediction(uid='123358', iid='Machinist, The (Maquinista, El) (2004)', r_ui=4.0, est=3.
953687634700933, details={'was_impossible': False}),
  Prediction(uid='66282', iid='Thank You for Smoking (2006)', r_ui=4.5, est=3.91069762485
1136, details={'was_impossible': False}),
  Prediction(uid='48596', iid='American Psycho (2000)', r_ui=3.5, est=3.3240703271764285,
details={'was_impossible': False}),
  Prediction(uid='3711', iid='Terminal, The (2004)', r_ui=2.0, est=3.487010370202867, det
ails={'was_impossible': False}),
  Prediction(uid='92861', iid='Signs (2002)', r_ui=3.5, est=3.481160380654552, details=
{'was_impossible': False}),
  Prediction(uid='59755', iid='Life as a House (2001)', r_ui=4.0, est=3.7980005176790304,
details={'was_impossible': False}),
  Prediction(uid='14808', iid='Scream 3 (2000)', r_ui=2.5, est=2.289456004878333, details
={'was_impossible': False}),
  Prediction(uid='88164', iid='How to Lose a Guy in 10 Days (2003)', r_ui=2.5, est=2.8369
421042681395, details={'was_impossible': False}),
  Prediction(uid='2903', iid='300 (2007)', r_ui=2.5, est=3.906272194594124, details={'was
_impossible': False}),
  Prediction(uid='126307', iid='Life of David Gale, The (2003)', r_ui=4.0, est=4.15037504
9212198, details={'was_impossible': False}),
  Prediction(uid='5443', iid='Up in the Air (2009)', r_ui=4.5, est=3.8740086609527657, de
tails={'was_impossible': False}),
  Prediction(uid='74351', iid='Cast Away (2000)', r_ui=3.0, est=2.947201595894522, detail
s={'was_impossible': False}),
  Prediction(uid='106659', iid='City of God (Cidade de Deus) (2002)', r_ui=4.5, est=4.944
768203580136, details={'was_impossible': False}),
  Prediction(uid='10169', iid='My Big Fat Greek Wedding (2002)', r_ui=3.0, est=2.86889353
26824843, details={'was_impossible': False}),
  Prediction(uid='1789', iid='Downfall (Untergang, Der) (2004)', r_ui=4.0, est=4.07439453
1841704, details={'was_impossible': False}),
  Prediction(uid='70728', iid='Hitchhiker's Guide to the Galaxy, The (2005)', r_ui=4.0, e
st=3.4772193237051017, details={'was_impossible': False}),
  Prediction(uid='82839', iid='Crouching Tiger, Hidden Dragon (Wo hu cang long) (2000)',
r_ui=4.0, est=3.923090853454813, details={'was_impossible': False}),
  Prediction(uid='74832', iid='My Big Fat Greek Wedding (2002)', r_ui=4.0, est=3.60177318
09242988, details={'was_impossible': False}),
  Prediction(uid='35580', iid='Iron Man (2008)', r_ui=4.0, est=4.218016497461792, details
={'was_impossible': False}),
  Prediction(uid='41630', iid='Bourne Identity, The (2002)', r_ui=4.5, est=3.835227064627
9076, details={'was_impossible': False}),
  Prediction(uid='19754', iid='Up (2009)', r_ui=4.0, est=4.2137683581619205, details={'wa
s_impossible': False}),
  Prediction(uid='12593', iid='Royal Tenenbaums, The (2001)', r_ui=2.5, est=3.50228900976
4608, details={'was_impossible': False}),
  Prediction(uid='92260', iid='Brokeback Mountain (2005)', r_ui=4.0, est=3.96952903091289
6, details={'was_impossible': False}),
  Prediction(uid='14745', iid='Hulk (2003)', r_ui=3.5, est=3.260097151493575, details={'w
as_impossible': False}),
  Prediction(uid='117861', iid='Scooby-Doo (2002)', r_ui=2.5, est=2.1157874651772057, det
ails={'was_impossible': False}),
  Prediction(uid='93691', iid='Kung Fu Hustle (Gong fu) (2004)', r_ui=3.5, est=3.35865015
04365294, details={'was_impossible': False}),
  Prediction(uid='62794', iid='Harry Potter and the Chamber of Secrets (2002)', r_ui=3.5,
est=3.6271157981005517, details={'was_impossible': False}),
  Prediction(uid='104705', iid='Erin Brockovich (2000)', r_ui=3.5, est=3.171180722466096
4, details={'was_impossible': False}),

```

```

Prediction(uid='19390', iid='Tropic Thunder (2008)', r_ui=3.0, est=3.4913175664057468,
details={'was_impossible': False}),
Prediction(uid='105565', iid='Cast Away (2000)', r_ui=3.5, est=3.6981566662452097, deta
ils={'was_impossible': False}),
Prediction(uid='97474', iid='Love Actually (2003)', r_ui=4.0, est=3.4148281019081597, d
etails={'was_impossible': False}),
Prediction(uid='66353', iid='Hitch (2005)', r_ui=4.0, est=3.6615548343978257, details=
{'was_impossible': False}),
Prediction(uid='107322', iid='Live Free or Die Hard (2007)', r_ui=4.0, est=3.4528454077
5518, details={'was_impossible': False}),
Prediction(uid='66211', iid='O Brother, Where Art Thou? (2000)', r_ui=4.0, est=4.012025
227655994, details={'was_impossible': False}),
Prediction(uid='71720', iid='Inception (2010)', r_ui=5.0, est=4.603008205179961, detail
s={'was_impossible': False}),
Prediction(uid='71026', iid='Bridget Jones's Diary (2001)', r_ui=3.0, est=2.99371696059
5365, details={'was_impossible': False}),
Prediction(uid='131366', iid='King Kong (2005)', r_ui=2.0, est=3.654423150199908, detai
ls={'was_impossible': False}),
Prediction(uid='33483', iid='Primer (2004)', r_ui=4.0, est=3.91474622528966, details=
{'was_impossible': False}),
Prediction(uid='3895', iid='Gangs of New York (2002)', r_ui=3.5, est=3.585592682726616
7, details={'was_impossible': False}),
Prediction(uid='59858', iid='Casino Royale (2006)', r_ui=4.5, est=4.408045505862794, de
tails={'was_impossible': False}),
Prediction(uid='21024', iid='Ratatouille (2007)', r_ui=3.5, est=4.131935511258825, deta
ils={'was_impossible': False}),
Prediction(uid='30447', iid='Spirited Away (Sen to Chihiro no kamikakushi) (2001)', r_u
i=4.5, est=4.523037689094306, details={'was_impossible': False}),
Prediction(uid='104075', iid='Last King of Scotland, The (2006)', r_ui=4.5, est=4.66859
2450093903, details={'was_impossible': False}),
Prediction(uid='131040', iid='Skyfall (2012)', r_ui=4.0, est=4.031650360593075, details
={'was_impossible': False}),
Prediction(uid='127431', iid='Snatch (2000)', r_ui=4.0, est=3.63534333531501, details=
{'was_impossible': False}),
Prediction(uid='80778', iid='Crash (2004)', r_ui=0.5, est=3.0723772462447423, details=
{'was_impossible': False}),
Prediction(uid='69494', iid='Lars and the Real Girl (2007)', r_ui=4.5, est=4.3071842517
2605, details={'was_impossible': False}),
Prediction(uid='117590', iid='Dogville (2003)', r_ui=5.0, est=4.590192798636204, detail
s={'was_impossible': False}),
Prediction(uid='117271', iid='Blood Diamond (2006)', r_ui=4.0, est=3.982158836659068, d
etails={'was_impossible': False}),
Prediction(uid='62218', iid='I Am Sam (2001)', r_ui=4.0, est=3.7277893405173996, detail
s={'was_impossible': False}),
Prediction(uid='36432', iid='Walk the Line (2005)', r_ui=4.0, est=3.730127690355188, de
tails={'was_impossible': False}),
Prediction(uid='55034', iid='Enchanted (2007)', r_ui=4.5, est=3.9289984955808297, detai
ls={'was_impossible': False}),
Prediction(uid='105654', iid='Darjeeling Limited, The (2007)', r_ui=2.5, est=3.76409481
87358916, details={'was_impossible': False}),
Prediction(uid='6236', iid='Blade II (2002)', r_ui=2.5, est=2.7850578609121923, details
={'was_impossible': False}),
Prediction(uid='60048', iid='Space Cowboys (2000)', r_ui=2.5, est=3.1161754183141, deta
ils={'was_impossible': False}),
Prediction(uid='48333', iid='Syriana (2005)', r_ui=4.0, est=3.561695370201825, details=
{'was_impossible': False}),
Prediction(uid='107921', iid='Scary Movie 3 (2003)', r_ui=2.0, est=1.9825746492220735,
details={'was_impossible': False}),
Prediction(uid='34613', iid='Departed, The (2006)', r_ui=4.5, est=3.931800016942902, de
tails={'was_impossible': False}),
Prediction(uid='17630', iid='Lost in Translation (2003)', r_ui=4.0, est=4.1150479737124
43, details={'was_impossible': False}),
Prediction(uid='49280', iid='I, Robot (2004)', r_ui=3.5, est=3.597991767297806, details
={'was_impossible': False}),
Prediction(uid='47219', iid='Importance of Being Earnest, The (2002)', r_ui=4.5, est=4.

```



```

003062021837116, details={'was_impossible': False}),
  Prediction(uid='2903', iid='Lost in Translation (2003)', r_ui=4.5, est=3.89926645852894
5, details={'was_impossible': False}),
  Prediction(uid='59341', iid='Harry Potter and the Order of the Phoenix (2007)', r_ui=3.
0, est=3.47104196091488, details={'was_impossible': False}),
  Prediction(uid='53719', iid='History of Violence, A (2005)', r_ui=3.5, est=4.0468572054
26482, details={'was_impossible': False}),
  Prediction(uid='9495', iid='Kill Bill: Vol. 2 (2004)', r_ui=4.5, est=3.977067113580973,
details={'was_impossible': False}),
  Prediction(uid='136278', iid='Million Dollar Baby (2004)', r_ui=3.0, est=3.349239144839
8484, details={'was_impossible': False}),
  Prediction(uid='70113', iid='Spider-Man 3 (2007)', r_ui=2.5, est=2.7337676817282794, de
tails={'was_impossible': False}),
  Prediction(uid='73888', iid='Mission: Impossible III (2006)', r_ui=3.5, est=3.847074534
7885598, details={'was_impossible': False}),
  Prediction(uid='5392', iid='Finding Nemo (2003)', r_ui=3.5, est=4.134761807250717, deta
ils={'was_impossible': False}),
  Prediction(uid='25327', iid='Whale Rider (2002)', r_ui=3.5, est=4.363806333334663, deta
ils={'was_impossible': False}),
  Prediction(uid='61328', iid='Simpsons Movie, The (2007)', r_ui=3.5, est=3.2101448573674
08, details={'was_impossible': False}),
  Prediction(uid='18982', iid='Mission: Impossible II (2000)', r_ui=5.0, est=2.3430757137
86013, details={'was_impossible': False}),
  Prediction(uid='34449', iid='Super Size Me (2004)', r_ui=3.5, est=3.533363445824901, de
tails={'was_impossible': False}),
  Prediction(uid='123869', iid='District 9 (2009)', r_ui=3.0, est=3.5332857024378637, det
ails={'was_impossible': False}),
  Prediction(uid='35035', iid='Good bye, Lenin! (2003)', r_ui=4.0, est=3.715454142765892
7, details={'was_impossible': False}),
  Prediction(uid='53972', iid='Beautiful Mind, A (2001)', r_ui=4.0, est=3.753078094777716
3, details={'was_impossible': False}),
  Prediction(uid='16573', iid='Spider-Man (2002)', r_ui=3.5, est=3.096654919944326, detai
ls={'was_impossible': False}),
  Prediction(uid='9482', iid='In America (2002)', r_ui=4.0, est=4.360626699918025, detail
s={'was_impossible': False}),
  Prediction(uid='82770', iid='Monsoon Wedding (2001)', r_ui=3.0, est=3.521234767787166,
details={'was_impossible': False}),
  Prediction(uid='113294', iid='Little Miss Sunshine (2006)', r_ui=4.0, est=4.09741884636
50965, details={'was_impossible': False}),
  Prediction(uid='17988', iid='Big Fish (2003)', r_ui=3.0, est=3.9005628052800225, detail
s={'was_impossible': False}),
  Prediction(uid='51783', iid='Bourne Supremacy, The (2004)', r_ui=3.5, est=3.60978345784
42525, details={'was_impossible': False}),
  Prediction(uid='104632', iid='Avatar (2009)', r_ui=4.5, est=3.7930053033169138, details
={'was_impossible': False}),
  Prediction(uid='132846', iid='Master and Commander: The Far Side of the World (2003)',
r_ui=3.0, est=3.5208902567357927, details={'was_impossible': False}),
  Prediction(uid='46290', iid='40-Year-Old Virgin, The (2005)', r_ui=4.5, est=4.053832702
738918, details={'was_impossible': False}),
  Prediction(uid='28805', iid='Enemy at the Gates (2001)', r_ui=4.0, est=3.59321625870028
7, details={'was_impossible': False}),
  Prediction(uid='71093', iid='Spanglish (2004)', r_ui=1.0, est=3.484173133515842, detail
s={'was_impossible': False}),
  Prediction(uid='24217', iid='Secret Window (2004)', r_ui=3.5, est=2.965524329866361, de
tails={'was_impossible': False}),
  Prediction(uid='58988', iid='Little Miss Sunshine (2006)', r_ui=4.0, est=3.648526939839
022, details={'was_impossible': False}),
  Prediction(uid='126688', iid='Super Size Me (2004)', r_ui=3.5, est=3.8189188902128253,
details={'was_impossible': False}),
  Prediction(uid='26181', iid='Prestige, The (2006)', r_ui=3.5, est=4.215946167458186, de
tails={'was_impossible': False}),
  Prediction(uid='46464', iid='Death to Smoochy (2002)', r_ui=3.5, est=3.714523665934426,
details={'was_impossible': False}),
  Prediction(uid='67244', iid='8 Mile (2002)', r_ui=3.0, est=3.6414356659478098, details=
{'was_impossible': False}),

```

```

Prediction(uid='59341', iid='K-PAX (2001)', r_ui=3.5, est=3.2843724881102077, details=
{'was_impossible': False}),
Prediction(uid='78563', iid='Last Samurai, The (2003)', r_ui=3.5, est=2.562262895693297
3, details={'was_impossible': False}),
Prediction(uid='131943', iid='Bowling for Columbine (2002)', r_ui=3.0, est=4.0672664772
2732, details={'was_impossible': False}),
Prediction(uid='95815', iid='Star Trek (2009)', r_ui=5.0, est=4.395874988424954, detail
s={'was_impossible': False}),
Prediction(uid='25642', iid='Corpse Bride (2005)', r_ui=3.0, est=3.9649148638500353, de
tails={'was_impossible': False}),
Prediction(uid='18877', iid='Legally Blonde (2001)', r_ui=4.0, est=3.5461204638034287,
details={'was_impossible': False}),
Prediction(uid='113389', iid='Anger Management (2003)', r_ui=4.5, est=2.838101692552405
6, details={'was_impossible': False}),
Prediction(uid='112084', iid='Mexican, The (2001)', r_ui=3.5, est=2.9248370527376655, d
etails={'was_impossible': False}),
Prediction(uid='91793', iid='Cast Away (2000)', r_ui=3.0, est=3.036869806281876, detail
s={'was_impossible': False}),
Prediction(uid='127728', iid='Anchorman: The Legend of Ron Burgundy (2004)', r_ui=3.0,
est=4.065498060885904, details={'was_impossible': False}),
Prediction(uid='67676', iid='Italian Job, The (2003)', r_ui=4.0, est=3.945760458526077,
details={'was_impossible': False}),
Prediction(uid='17801', iid='Monsters, Inc. (2001)', r_ui=2.5, est=3.934383978800872, d
etails={'was_impossible': False}),
Prediction(uid='68084', iid='Bowling for Columbine (2002)', r_ui=3.5, est=3.38612833781
7419, details={'was_impossible': False}),
Prediction(uid='29737', iid='Batman Begins (2005)', r_ui=1.5, est=4.052887638788857, de
tails={'was_impossible': False}),
Prediction(uid='14462', iid='Harry Potter and the Goblet of Fire (2005)', r_ui=3.0, est
=3.213533779433589, details={'was_impossible': False}),
Prediction(uid='133184', iid='Mean Girls (2004)', r_ui=4.5, est=3.008995853338666, deta
ils={'was_impossible': False}),
Prediction(uid='20160', iid='Life as a House (2001)', r_ui=2.0, est=2.2002998140381367,
details={'was_impossible': False}),
Prediction(uid='71720', iid='Beautiful Mind, A (2001)', r_ui=4.5, est=4.206145535377892
5, details={'was_impossible': False}),
Prediction(uid='53122', iid='Million Dollar Baby (2004)', r_ui=4.0, est=3.4199581945370
85, details={'was_impossible': False}),
Prediction(uid='89536', iid='Beautiful Mind, A (2001)', r_ui=5.0, est=4.29493654441794
3, details={'was_impossible': False}),
Prediction(uid='56532', iid='Sin City (2005)', r_ui=4.0, est=3.432945043211352, details
={'was_impossible': False}),
Prediction(uid='57709', iid='28 Days Later (2002)', r_ui=5.0, est=3.268033506118849, de
tails={'was_impossible': False}),
Prediction(uid='137866', iid='Intolerable Cruelty (2003)', r_ui=2.5, est=3.422270966383
0564, details={'was_impossible': False}),
Prediction(uid='28957', iid='Lost in Translation (2003)', r_ui=5.0, est=3.8839026997924
8, details={'was_impossible': False}),
Prediction(uid='578', iid='Red Dragon (2002)', r_ui=4.0, est=3.514138278341341, details
={'was_impossible': False}),
Prediction(uid='28820', iid='Zoolander (2001)', r_ui=4.5, est=3.8449196505540373, detai
ls={'was_impossible': False}),
Prediction(uid='45098', iid='Sin City (2005)', r_ui=3.5, est=4.166063163074541, details
={'was_impossible': False}),
Prediction(uid='46427', iid='Mystic River (2003)', r_ui=5.0, est=3.9308751466759904, de
tails={'was_impossible': False}),
Prediction(uid='112572', iid='What Women Want (2000)', r_ui=1.5, est=2.801697439612433,
details={'was_impossible': False}),
Prediction(uid='25429', iid='Bowling for Columbine (2002)', r_ui=4.0, est=4.25183933813
3261, details={'was_impossible': False}),
Prediction(uid='88164', iid='Charlie's Angels (2000)', r_ui=4.0, est=2.741344337656773
4, details={'was_impossible': False}),
Prediction(uid='79304', iid='Fahrenheit 9/11 (2004)', r_ui=2.5, est=3.880223182906188,
details={'was_impossible': False}),
Prediction(uid='43657', iid='Matrix Revolutions, The (2003)', r_ui=2.5, est=2.470475059

```

```

2660734, details={'was_impossible': False}),
Prediction(uid='126183', iid='Iron Man (2008)', r_ui=4.5, est=4.039756186683412, detail
s={'was_impossible': False}),
Prediction(uid='8162', iid='Bourne Supremacy, The (2004)', r_ui=3.5, est=3.302186836375
821, details={'was_impossible': False}),
Prediction(uid='117271', iid='Downfall (Untergang, Der) (2004)', r_ui=4.5, est=3.805626
867540202, details={'was_impossible': False}),
Prediction(uid='93469', iid='Batman Begins (2005)', r_ui=3.5, est=3.8924809229165707, d
etails={'was_impossible': False}),
Prediction(uid='121682', iid='Chocolat (2000)', r_ui=4.0, est=3.920016400002208, detail
s={'was_impossible': False}),
Prediction(uid='62217', iid='Secretary (2002)', r_ui=5.0, est=4.203008804449445, detail
s={'was_impossible': False}),
Prediction(uid='71189', iid='Shanghai Noon (2000)', r_ui=4.0, est=3.9138485165725467, d
etails={'was_impossible': False}),
Prediction(uid='58177', iid='Shallow Hal (2001)', r_ui=3.0, est=2.807741783184355, deta
ils={'was_impossible': False}),
Prediction(uid='5378', iid='Social Network, The (2010)', r_ui=3.5, est=2.95621446875866
2, details={'was_impossible': False}),
Prediction(uid='1789', iid='Planet Terror (2007)', r_ui=1.0, est=3.492635390531044, det
ails={'was_impossible': False}),
Prediction(uid='129997', iid='We Were Soldiers (2002)', r_ui=4.0, est=3.90906646690132
6, details={'was_impossible': False}),
Prediction(uid='19915', iid='Wedding Planner, The (2001)', r_ui=3.5, est=3.483889325008
2537, details={'was_impossible': False}),
Prediction(uid='103741', iid='Lost in Translation (2003)', r_ui=3.5, est=3.529200766990
7823, details={'was_impossible': False}),
Prediction(uid='59858', iid='American Psycho (2000)', r_ui=4.0, est=3.8757470037441526,
details={'was_impossible': False}),
Prediction(uid='26337', iid='Confessions of a Dangerous Mind (2002)', r_ui=3.0, est=3.3
885312450097653, details={'was_impossible': False}),
Prediction(uid='91977', iid='Gran Torino (2008)', r_ui=3.5, est=3.3847181154900237, det
ails={'was_impossible': False}),
Prediction(uid='105257', iid='Road to Perdition (2002)', r_ui=3.5, est=3.98925981353124
65, details={'was_impossible': False}),
Prediction(uid='14131', iid='District 9 (2009)', r_ui=3.5, est=3.9880740896914477, deta
ils={'was_impossible': False}),
Prediction(uid='95840', iid='Training Day (2001)', r_ui=4.0, est=3.149158827220471, det
ails={'was_impossible': False}),
Prediction(uid='96211', iid='xXx (2002)', r_ui=3.0, est=2.951646438794303, details={'wa
s_impossible': False}),
Prediction(uid='126612', iid='Lord of the Rings: The Fellowship of the Ring, The (200
1)', r_ui=5.0, est=4.88150541045178, details={'was_impossible': False}),
Prediction(uid='46319', iid='Solaris (2002)', r_ui=3.5, est=2.9957147072672816, details
={'was_impossible': False}),
Prediction(uid='37525', iid='Charlie and the Chocolate Factory (2005)', r_ui=3.5, est=
3.9346061920452735, details={'was_impossible': False}),
Prediction(uid='39495', iid='X2: X-Men United (2003)', r_ui=3.0, est=3.628563123497553
7, details={'was_impossible': False}),
Prediction(uid='46290', iid='Toy Story 3 (2010)', r_ui=4.0, est=4.209628411634127, deta
ils={'was_impossible': False}),
Prediction(uid='97935', iid='Incredibles, The (2004)', r_ui=3.5, est=4.142030540139011,
details={'was_impossible': False}),
Prediction(uid='115834', iid='Million Dollar Baby (2004)', r_ui=3.5, est=3.286717579415
139, details={'was_impossible': False}),
Prediction(uid='86267', iid='Finding Neverland (2004)', r_ui=5.0, est=4.25414363190054,
details={'was_impossible': False}),
Prediction(uid='125067', iid='Old School (2003)', r_ui=2.0, est=3.1438290856055806, det
ails={'was_impossible': False}),
Prediction(uid='62999', iid='I, Robot (2004)', r_ui=2.5, est=3.6830240658611, details=
{'was_impossible': False}),
Prediction(uid='95560', iid='Harry Potter and the Half-Blood Prince (2009)', r_ui=4.0,
est=3.9656398380273274, details={'was_impossible': False}),
Prediction(uid='46231', iid='Dogville (2003)', r_ui=4.0, est=3.822979302227037, details
={'was_impossible': False}),

```

```

Prediction(uid='3461', iid='Score, The (2001)', r_ui=4.0, est=3.519711590933406, details=
s={'was_impossible': False}),
Prediction(uid='12111', iid='Amelie (Fabuleux destin d'Amélie Poulain, Le) (2001)', r_
ui=5.0, est=4.512353779528105, details={'was_impossible': False}),
Prediction(uid='12781', iid='Knocked Up (2007)', r_ui=4.0, est=3.796534286863251, detai
ls={'was_impossible': False}),
Prediction(uid='68617', iid='Primer (2004)', r_ui=4.5, est=4.326195001259705, details=
{'was_impossible': False}),
Prediction(uid='121581', iid='Dark Knight, The (2008)', r_ui=4.0, est=4.19148076100844
1, details={'was_impossible': False}),
Prediction(uid='41065', iid='Village, The (2004)', r_ui=3.5, est=2.9840912885162503, de
tails={'was_impossible': False}),
Prediction(uid='98262', iid='Hero (Ying xiong) (2002)', r_ui=3.0, est=3.34953309572887
9, details={'was_impossible': False}),
Prediction(uid='67673', iid='Bring It On (2000)', r_ui=3.5, est=3.224433442780981, deta
ils={'was_impossible': False}),
Prediction(uid='76343', iid='Gran Torino (2008)', r_ui=4.5, est=3.453462484553277, deta
ils={'was_impossible': False}),
Prediction(uid='65117', iid='Science of Sleep, The (La science des rêves) (2006)', r_u
i=5.0, est=3.9520365224910416, details={'was_impossible': False}),
Prediction(uid='127431', iid='Gangs of New York (2002)', r_ui=3.0, est=3.15939408757574
87, details={'was_impossible': False}),
Prediction(uid='13025', iid='Meet the Parents (2000)', r_ui=4.0, est=3.223575095362760
7, details={'was_impossible': False}),
Prediction(uid='72629', iid='Matrix Revolutions, The (2003)', r_ui=4.5, est=3.609355467
588585, details={'was_impossible': False}),
Prediction(uid='63580', iid='Austin Powers in Goldmember (2002)', r_ui=3.0, est=2.12538
5481820166, details={'was_impossible': False}),
Prediction(uid='55032', iid='Last Samurai, The (2003)', r_ui=4.0, est=3.94614348590471,
details={'was_impossible': False}),
Prediction(uid='104155', iid='Constant Gardener, The (2005)', r_ui=4.5, est=3.633980230
9610874, details={'was_impossible': False}),
Prediction(uid='87445', iid='Meet the Fockers (2004)', r_ui=3.5, est=3.825452841974827
5, details={'was_impossible': False}),
Prediction(uid='131585', iid='Tropic Thunder (2008)', r_ui=4.5, est=3.9278555001850246,
details={'was_impossible': False}),
Prediction(uid='53905', iid='Machinist, The (Maquinista, El) (2004)', r_ui=4.5, est=4.1
506835907023625, details={'was_impossible': False}),
Prediction(uid='18311', iid='Spider-Man (2002)', r_ui=3.5, est=4.076418976909162, detai
ls={'was_impossible': False}),
Prediction(uid='25171', iid='2 Fast 2 Furious (Fast and the Furious 2, The) (2003)', r_
ui=2.0, est=2.1625847117136243, details={'was_impossible': False}),
Prediction(uid='220', iid='Scorpion King, The (2002)', r_ui=3.5, est=2.990629572268985
7, details={'was_impossible': False}),
Prediction(uid='17818', iid='Hulk (2003)', r_ui=2.5, est=3.0256822296607617, details=
{'was_impossible': False}),
Prediction(uid='106673', iid='Cast Away (2000)', r_ui=2.0, est=2.042679461967675, detai
ls={'was_impossible': False}),
Prediction(uid='36255', iid='Kiss Kiss Bang Bang (2005)', r_ui=4.0, est=3.5480632154068
32, details={'was_impossible': False}),
Prediction(uid='109156', iid='Unbreakable (2000)', r_ui=2.0, est=3.0129202801769837, de
tails={'was_impossible': False}),
Prediction(uid='126526', iid='Solaris (2002)', r_ui=5.0, est=3.8683283243272903, detail
s={'was_impossible': False}),
Prediction(uid='130130', iid='Me, Myself & Irene (2000)', r_ui=2.5, est=2.7518287251958
69, details={'was_impossible': False}),
Prediction(uid='96211', iid='What Lies Beneath (2000)', r_ui=3.5, est=3.09337902707896,
details={'was_impossible': False}),
Prediction(uid='45098', iid='Hitchhiker's Guide to the Galaxy, The (2005)', r_ui=5.0, e
st=3.606967926870725, details={'was_impossible': False}),
Prediction(uid='48016', iid='Hotel Rwanda (2004)', r_ui=4.0, est=3.552229911945272, det
ails={'was_impossible': False}),
Prediction(uid='63546', iid='Hannibal (2001)', r_ui=3.0, est=3.219387570046878, details
={'was_impossible': False}),
Prediction(uid='62446', iid='AVP: Alien vs. Predator (2004)', r_ui=3.0, est=1.951273264

```

```

0756185, details={'was_impossible': False}),
Prediction(uid='457', iid='Harry Potter and the Prisoner of Azkaban (2004)', r_ui=3.5,
est=2.753709944794806, details={'was_impossible': False}),
Prediction(uid='129650', iid='Harry Potter and the Sorcerer's Stone (a.k.a. Harry Potte
r and the Philosopher's Stone) (2001)', r_ui=4.5, est=4.348906092538092, details={'was_i
mpossible': False}),
Prediction(uid='60367', iid='Remember the Titans (2000)', r_ui=4.0, est=3.3319580684547
354, details={'was_impossible': False}),
Prediction(uid='16935', iid='Meet the Parents (2000)', r_ui=3.5, est=3.331166598920326,
details={'was_impossible': False}),
Prediction(uid='77717', iid='Good Night, and Good Luck. (2005)', r_ui=4.5, est=4.016279
672399883, details={'was_impossible': False}),
Prediction(uid='60911', iid='Beach, The (2000)', r_ui=3.0, est=3.256204287578627, detai
ls={'was_impossible': False}),
Prediction(uid='38605', iid='Knocked Up (2007)', r_ui=4.0, est=3.171135729854779, detai
ls={'was_impossible': False}),
Prediction(uid='43210', iid='Indiana Jones and the Kingdom of the Crystal Skull (200
8)', r_ui=3.5, est=3.0865640642221432, details={'was_impossible': False}),
Prediction(uid='125621', iid='Spirited Away (Sen to Chihiro no kamikakushi) (2001)', r_
ui=5.0, est=3.4358218213466936, details={'was_impossible': False}),
Prediction(uid='130836', iid='Last Samurai, The (2003)', r_ui=2.5, est=3.86708205847106
17, details={'was_impossible': False}),
Prediction(uid='85770', iid='Star Wars: Episode III - Revenge of the Sith (2005)', r_ui
=3.5, est=3.593989518109432, details={'was_impossible': False}),
Prediction(uid='76023', iid='Pay It Forward (2000)', r_ui=4.0, est=3.7558916266541544,
details={'was_impossible': False}),
Prediction(uid='77465', iid='Panic Room (2002)', r_ui=3.0, est=3.1659726361384553, deta
ils={'was_impossible': False}),
Prediction(uid='58353', iid='How the Grinch Stole Christmas (a.k.a. The Grinch) (200
0)', r_ui=4.0, est=3.025863651630058, details={'was_impossible': False}),
Prediction(uid='68099', iid='Shrek 2 (2004)', r_ui=4.0, est=3.580640441619119, details=
{'was_impossible': False}),
Prediction(uid='61947', iid='Adaptation (2002)', r_ui=4.0, est=3.7918226273678206, deta
ils={'was_impossible': False}),
Prediction(uid='52749', iid='Match Point (2005)', r_ui=5.0, est=4.799082092514088, deta
ils={'was_impossible': False}),
Prediction(uid='124040', iid='Adaptation (2002)', r_ui=4.0, est=3.4733141636665956, deta
ils={'was_impossible': False}),
Prediction(uid='13110', iid='District 9 (2009)', r_ui=3.0, est=3.5430644906674926, deta
ils={'was_impossible': False}),
Prediction(uid='109543', iid='Lilo & Stitch (2002)', r_ui=2.5, est=2.3291249082805647,
details={'was_impossible': False}),
Prediction(uid='83251', iid='Black Hawk Down (2001)', r_ui=3.0, est=3.6572953656285283,
details={'was_impossible': False}),
Prediction(uid='88247', iid='K-PAX (2001)', r_ui=3.0, est=2.9207219983754102, details=
{'was_impossible': False}),
Prediction(uid='48381', iid='Monsters, Inc. (2001)', r_ui=4.0, est=3.468481108061512, d
etails={'was_impossible': False}),
Prediction(uid='7038', iid='Walk the Line (2005)', r_ui=4.0, est=3.8300094395231468, de
tails={'was_impossible': False}),
Prediction(uid='77776', iid='Shanghai Noon (2000)', r_ui=4.5, est=4.085234787305489, de
tails={'was_impossible': False}),
Prediction(uid='133568', iid='Beautiful Mind, A (2001)', r_ui=5.0, est=4.38235235742478
3, details={'was_impossible': False}),
Prediction(uid='25781', iid='Hancock (2008)', r_ui=3.0, est=2.845984269992262, details=
{'was_impossible': False}),
Prediction(uid='66458', iid='Maid in Manhattan (2002)', r_ui=3.0, est=2.540107097682443
4, details={'was_impossible': False}),
Prediction(uid='51783', iid='Departed, The (2006)', r_ui=4.5, est=4.024280735914428, de
tails={'was_impossible': False}),
Prediction(uid='125502', iid='K-PAX (2001)', r_ui=4.5, est=3.4424364285963174, details=
{'was_impossible': False}),
Prediction(uid='24260', iid='Igby Goes Down (2002)', r_ui=4.0, est=3.8330280807087935,
details={'was_impossible': False}),
Prediction(uid='113542', iid='Gladiator (2000)', r_ui=3.5, est=3.366291872026431, detai

```

```

ls={'was_impossible': False}),
    Prediction(uid='80494', iid='Austin Powers in Goldmember (2002)', r_ui=2.0, est=2.95072
68382926948, details={'was_impossible': False}),
    Prediction(uid='87185', iid='Gosford Park (2001)', r_ui=2.0, est=3.091317644076736, de
tails={'was_impossible': False}),
    Prediction(uid='75502', iid='Prestige, The (2006)', r_ui=3.5, est=3.660006960365052, de
tails={'was_impossible': False}),
    Prediction(uid='13025', iid='American Pie 2 (2001)', r_ui=2.5, est=2.6552215008617104,
details={'was_impossible': False}),
    Prediction(uid='90790', iid='Emperor's New Groove, The (2000)', r_ui=1.0, est=2.9833554
30914287, details={'was_impossible': False}),
    Prediction(uid='84682', iid='Illusionist, The (2006)', r_ui=4.0, est=4.585375423297395,
details={'was_impossible': False}),
    Prediction(uid='117984', iid='Shaun of the Dead (2004)', r_ui=4.5, est=4.27458181032742
4, details={'was_impossible': False}),
    Prediction(uid='19564', iid='Terminal, The (2004)', r_ui=4.5, est=3.737630200121351, de
tails={'was_impossible': False}),
    Prediction(uid='93252', iid='Whole Nine Yards, The (2000)', r_ui=2.0, est=3.04509548472
0668, details={'was_impossible': False}),
    Prediction(uid='54150', iid='Love Actually (2003)', r_ui=5.0, est=3.7470474083776413, d
etails={'was_impossible': False}),
    Prediction(uid='65189', iid='Star Wars: Episode III - Revenge of the Sith (2005)', r_ui
=2.5, est=2.810440450160625, details={'was_impossible': False}),
    Prediction(uid='5272', iid='Hangover, The (2009)', r_ui=0.5, est=3.6355113308438263, de
tails={'was_impossible': False}),
    Prediction(uid='119285', iid='Gangs of New York (2002)', r_ui=4.0, est=3.60156938768920
3, details={'was_impossible': False}),
    Prediction(uid='74980', iid='Underworld (2003)', r_ui=2.0, est=1.9900323642456912, deta
ils={'was_impossible': False}),
    Prediction(uid='50934', iid='Saw II (2005)', r_ui=3.5, est=3.4398936777120177, details=
{'was_impossible': False}),
    Prediction(uid='35258', iid='Crouching Tiger, Hidden Dragon (Wo hu cang long) (2000)',
r_ui=4.0, est=4.250684802857641, details={'was_impossible': False}),
    Prediction(uid='34971', iid='Requiem for a Dream (2000)', r_ui=4.5, est=4.1385545302835
44, details={'was_impossible': False}),
    Prediction(uid='70391', iid='Pearl Harbor (2001)', r_ui=4.0, est=3.524288251537616, deta
ils={'was_impossible': False}),
    Prediction(uid='125270', iid='Fast and the Furious, The (2001)', r_ui=1.5, est=2.214335
278560195, details={'was_impossible': False}),
    Prediction(uid='26672', iid='Harry Potter and the Chamber of Secrets (2002)', r_ui=3.0,
est=3.0696396888494526, details={'was_impossible': False}),
    Prediction(uid='56790', iid='Harry Potter and the Chamber of Secrets (2002)', r_ui=2.0,
est=2.759569166571173, details={'was_impossible': False}),
    Prediction(uid='5453', iid='Brokeback Mountain (2005)', r_ui=5.0, est=3.94055200059607
2, details={'was_impossible': False}),
    Prediction(uid='91224', iid='I Love You, Man (2009)', r_ui=4.0, est=3.6965705851461284,
details={'was_impossible': False}),
    Prediction(uid='128277', iid='Sherlock Holmes (2009)', r_ui=4.5, est=4.414306714243174,
details={'was_impossible': False}),
    Prediction(uid='123909', iid='Mummy Returns, The (2001)', r_ui=3.0, est=3.2633360539954
21, details={'was_impossible': False}),
    Prediction(uid='78574', iid='Gladiator (2000)', r_ui=4.0, est=3.5024062122987103, detai
ls={'was_impossible': False}),
    Prediction(uid='92017', iid='The Butterfly Effect (2004)', r_ui=4.0, est=3.630535486360
421, details={'was_impossible': False}),
    Prediction(uid='111188', iid='Chronicles of Riddick, The (2004)', r_ui=2.5, est=3.02913
72205487974, details={'was_impossible': False}),
    Prediction(uid='100927', iid='Star Wars: Episode II - Attack of the Clones (2002)', r_u
i=3.5, est=2.688604768702657, details={'was_impossible': False}),
    Prediction(uid='135363', iid='Charlie's Angels (2000)', r_ui=1.0, est=2.680730602470066
3, details={'was_impossible': False}),
    Prediction(uid='21977', iid='Pay It Forward (2000)', r_ui=4.5, est=3.6894912659791324,
details={'was_impossible': False}),
    Prediction(uid='99863', iid='Panic Room (2002)', r_ui=3.5, est=2.629628047497823, detai
ls={'was_impossible': False}),

```

```

Prediction(uid='73680', iid='Shrek 2 (2004)', r_ui=3.0, est=3.7610683727853926, details
={ 'was_impossible': False}),
Prediction(uid='53719', iid='Source Code (2011)', r_ui=3.5, est=3.964690147536345, deta
ils={ 'was_impossible': False}),
Prediction(uid='13255', iid='Gangs of New York (2002)', r_ui=2.0, est=3.21425435869218
3, details={ 'was_impossible': False}),
Prediction(uid='64253', iid='Kate & Leopold (2001)', r_ui=3.5, est=3.053954526909681, d
etails={ 'was_impossible': False}),
Prediction(uid='81174', iid='Two Weeks Notice (2002)', r_ui=2.0, est=3.316182684035958
5, details={ 'was_impossible': False}),
Prediction(uid='10974', iid='Jurassic Park III (2001)', r_ui=2.5, est=2.667553727007885
7, details={ 'was_impossible': False}),
Prediction(uid='93536', iid='One Hour Photo (2002)', r_ui=3.5, est=3.086852166818795, d
etails={ 'was_impossible': False}),
Prediction(uid='86079', iid='Lord of the Rings: The Fellowship of the Ring, The (200
1)', r_ui=4.0, est=4.063063287953048, details={ 'was_impossible': False}),
Prediction(uid='109066', iid='Gangs of New York (2002)', r_ui=4.0, est=3.54645825596274
87, details={ 'was_impossible': False}),
Prediction(uid='92339', iid='Knight's Tale, A (2001)', r_ui=0.5, est=2.53364008190943,
details={ 'was_impossible': False}),
Prediction(uid='99499', iid='Titan A.E. (2000)', r_ui=4.0, est=3.6431668830427584, deta
ils={ 'was_impossible': False}),
Prediction(uid='84817', iid='Village, The (2004)', r_ui=4.0, est=3.421924122016196, det
ails={ 'was_impossible': False}),
Prediction(uid='80516', iid='Up (2009)', r_ui=4.0, est=3.9029543978088017, details={ 'wa
s_impossible': False}),
Prediction(uid='11889', iid='Shaun of the Dead (2004)', r_ui=3.0, est=4.05716513434476
3, details={ 'was_impossible': False}),
Prediction(uid='84541', iid='Collateral (2004)', r_ui=3.5, est=3.307834503507293, detai
ls={ 'was_impossible': False}),
Prediction(uid='16739', iid='Into the Wild (2007)', r_ui=1.5, est=2.6783923574196815, d
etails={ 'was_impossible': False}),
Prediction(uid='78144', iid='Girl with the Dragon Tattoo, The (2011)', r_ui=4.5, est=3.
922024917321003, details={ 'was_impossible': False}),
Prediction(uid='108971', iid='Shrek (2001)', r_ui=3.0, est=3.252730315067916, details=
{ 'was_impossible': False}),
Prediction(uid='88883', iid='Perfect Storm, The (2000)', r_ui=3.0, est=3.46673450645109
64, details={ 'was_impossible': False}),
Prediction(uid='15110', iid='Ghost World (2001)', r_ui=4.5, est=4.3307279532896565, det
ails={ 'was_impossible': False}),
Prediction(uid='113917', iid='Bridget Jones's Diary (2001)', r_ui=3.5, est=3.6139405432
573044, details={ 'was_impossible': False}),
Prediction(uid='89808', iid='Master and Commander: The Far Side of the World (2003)', r
_ui=0.5, est=3.5839675674386418, details={ 'was_impossible': False}),
Prediction(uid='37179', iid='300 (2007)', r_ui=3.5, est=3.1978285824483805, details={ 'w
as_impossible': False}),
Prediction(uid='23888', iid='Coyote Ugly (2000)', r_ui=3.0, est=3.1190376429611644, det
ails={ 'was_impossible': False}),
Prediction(uid='22084', iid='Constantine (2005)', r_ui=3.0, est=3.1767984519768544, det
ails={ 'was_impossible': False}),
Prediction(uid='27658', iid='Road Trip (2000)', r_ui=3.0, est=2.8801985973228628, detai
ls={ 'was_impossible': False}),
Prediction(uid='134233', iid='Hollow Man (2000)', r_ui=4.0, est=2.9499893539876605, det
ails={ 'was_impossible': False}),
Prediction(uid='96006', iid='Bourne Identity, The (2002)', r_ui=1.0, est=2.513589972586
3653, details={ 'was_impossible': False}),
Prediction(uid='36379', iid='House of Flying Daggers (Shi mian mai fu) (2004)', r_ui=4.
0, est=3.8311306723499694, details={ 'was_impossible': False}),
Prediction(uid='82660', iid='Signs (2002)', r_ui=3.0, est=3.075660650758707, details=
{ 'was_impossible': False}),
Prediction(uid='4658', iid='Atonement (2007)', r_ui=4.0, est=3.553345377648945, details
={ 'was_impossible': False}),
Prediction(uid='16573', iid='Identity (2003)', r_ui=3.5, est=2.865922959359234, details
={ 'was_impossible': False}),
Prediction(uid='73258', iid='Harry Potter and the Order of the Phoenix (2007)', r_ui=2.

```

```

0, est=3.4667584349962057, details={'was_impossible': False}),
  Prediction(uid='12555', iid='40 Days and 40 Nights (2002)', r_ui=4.5, est=2.80554917428
63268, details={'was_impossible': False}),
  Prediction(uid='136278', iid='Fantastic Mr. Fox (2009)', r_ui=2.0, est=3.1918633956719
5, details={'was_impossible': False}),
  Prediction(uid='99774', iid='Lord of the Rings: The Return of the King, The (2003)', r_
ui=4.5, est=4.664127209134409, details={'was_impossible': False}),
  Prediction(uid='59968', iid='Gosford Park (2001)', r_ui=4.0, est=3.972477356764452, det
ails={'was_impossible': False}),
  Prediction(uid='52930', iid='Monsters, Inc. (2001)', r_ui=4.5, est=4.257917776390804, d
etails={'was_impossible': False}),
  Prediction(uid='132047', iid='40-Year-Old Virgin, The (2005)', r_ui=4.0, est=3.66495776
95164495, details={'was_impossible': False}),
  Prediction(uid='78472', iid='Chronicles of Riddick, The (2004)', r_ui=4.0, est=3.633731
5637778276, details={'was_impossible': False}),
  Prediction(uid='19650', iid='Road to Perdition (2002)', r_ui=3.0, est=3.84944013735504
6, details={'was_impossible': False}),
  Prediction(uid='6314', iid='My Big Fat Greek Wedding (2002)', r_ui=3.5, est=3.916660700
3034826, details={'was_impossible': False}),
  Prediction(uid='56867', iid='X-Men (2000)', r_ui=2.0, est=3.318991368908882, details=
{'was_impossible': False}),
  Prediction(uid='80919', iid='Hotel Rwanda (2004)', r_ui=3.5, est=4.206108270983857, det
ails={'was_impossible': False}),
  Prediction(uid='85557', iid='Donnie Darko (2001)', r_ui=3.5, est=3.550351710957557, det
ails={'was_impossible': False}),
  Prediction(uid='28328', iid='O Brother, Where Art Thou? (2000)', r_ui=5.0, est=4.178017
050206938, details={'was_impossible': False}),
  Prediction(uid='131', iid='Borat: Cultural Learnings of America for Make Benefit Glorio
us Nation of Kazakhstan (2006)', r_ui=2.0, est=1.984633403018315, details={'was_impossib
le': False}),
  Prediction(uid='66929', iid='Meet the Fockers (2004)', r_ui=4.0, est=3.533786173284571
7, details={'was_impossible': False}),
  Prediction(uid='100937', iid='K-PAX (2001)', r_ui=4.0, est=3.9328345322859466, details=
{'was_impossible': False}),
  Prediction(uid='86206', iid='District 9 (2009)', r_ui=3.0, est=4.551356993785093, detai
ls={'was_impossible': False}),
  Prediction(uid='16447', iid='Eternal Sunshine of the Spotless Mind (2004)', r_ui=5.0, e
st=4.363105613656926, details={'was_impossible': False}),
  Prediction(uid='37819', iid='O Brother, Where Art Thou? (2000)', r_ui=3.5, est=3.486404
578571185, details={'was_impossible': False}),
  Prediction(uid='25389', iid='In Bruges (2008)', r_ui=4.5, est=4.277020233486473, detail
s={'was_impossible': False}),
  Prediction(uid='98138', iid='Ocean's Eleven (2001)', r_ui=4.0, est=3.9397415771225948,
details={'was_impossible': False}),
  Prediction(uid='92026', iid='Chicago (2002)', r_ui=4.5, est=3.199205089108332, details=
{'was_impossible': False}),
  Prediction(uid='73228', iid='Phone Booth (2002)', r_ui=0.5, est=2.6864596686416737, det
ails={'was_impossible': False}),
  Prediction(uid='101063', iid='Chicago (2002)', r_ui=3.5, est=3.6287921505175196, detail
s={'was_impossible': False}),
  Prediction(uid='10460', iid='Vanilla Sky (2001)', r_ui=3.0, est=3.828979022442248, deta
ils={'was_impossible': False}),
  Prediction(uid='45102', iid='Bourne Ultimatum, The (2007)', r_ui=3.5, est=3.87525871606
1343, details={'was_impossible': False}),
  Prediction(uid='38539', iid='Requiem for a Dream (2000)', r_ui=3.0, est=4.105391797098
1, details={'was_impossible': False}),
  Prediction(uid='81811', iid='Spirited Away (Sen to Chihiro no kamikakushi) (2001)', r_u
i=5.0, est=4.413515271350865, details={'was_impossible': False}),
  Prediction(uid='89520', iid='What Women Want (2000)', r_ui=3.5, est=3.2312860626066335,
details={'was_impossible': False}),
  Prediction(uid='89536', iid='Sum of All Fears, The (2002)', r_ui=4.0, est=3.80473917639
8973, details={'was_impossible': False}),
  Prediction(uid='48016', iid='Lemony Snicket's A Series of Unfortunate Events (2004)', r
_ui=3.5, est=3.3825757872790994, details={'was_impossible': False}),
  Prediction(uid='41303', iid='Resident Evil (2002)', r_ui=3.5, est=4.013287131850075, de

```



```

tails={'was_impossible': False}),
  Prediction(uid='65644', iid='Road Trip (2000)', r_ui=2.0, est=2.7324951480236512, details={'was_impossible': False}),
  Prediction(uid='50658', iid='Napoleon Dynamite (2004)', r_ui=4.0, est=3.8188515282893913, details={'was_impossible': False}),
  Prediction(uid='71571', iid='Gone Baby Gone (2007)', r_ui=3.5, est=3.8232943120177802, details={'was_impossible': False}),
  Prediction(uid='26071', iid='Bourne Ultimatum, The (2007)', r_ui=5.0, est=4.041117936552044, details={'was_impossible': False}),
  Prediction(uid='125503', iid='History of Violence, A (2005)', r_ui=2.0, est=4.127028381378553, details={'was_impossible': False}),
  Prediction(uid='43639', iid='Coraline (2009)', r_ui=4.0, est=3.7514134358944973, details={'was_impossible': False}),
  Prediction(uid='46465', iid='American Psycho (2000)', r_ui=3.5, est=3.3760263402964843, details={'was_impossible': False}),
  Prediction(uid='136393', iid='High Fidelity (2000)', r_ui=2.0, est=3.1999282322643015, details={'was_impossible': False}),
  Prediction(uid='54729', iid='Black Hawk Down (2001)', r_ui=4.0, est=3.5450745010228033, details={'was_impossible': False}),
  Prediction(uid='137425', iid='Harold and Kumar Go to White Castle (2004)', r_ui=3.5, est=3.543541154230747, details={'was_impossible': False}),
  Prediction(uid='107553', iid='Beautiful Mind, A (2001)', r_ui=4.0, est=3.5134380100419467, details={'was_impossible': False}),
  Prediction(uid='134517', iid='Mighty Wind, A (2003)', r_ui=4.0, est=3.9168428329109135, details={'was_impossible': False}),
  Prediction(uid='75581', iid='Billy Elliot (2000)', r_ui=4.0, est=3.692030823777997, details={'was_impossible': False}),
  Prediction(uid='128615', iid='Bridget Jones's Diary (2001)', r_ui=3.5, est=3.9119842394180617, details={'was_impossible': False}),
  Prediction(uid='29557', iid='City of God (Cidade de Deus) (2002)', r_ui=4.0, est=4.353054898347544, details={'was_impossible': False}),
  Prediction(uid='122178', iid='Kill Bill: Vol. 2 (2004)', r_ui=4.5, est=4.250708775379666, details={'was_impossible': False}),
  Prediction(uid='133630', iid='District 9 (2009)', r_ui=3.5, est=3.6685742546982953, details={'was_impossible': False}),
  Prediction(uid='65842', iid='Sky Captain and the World of Tomorrow (2004)', r_ui=3.5, est=3.5275729259069286, details={'was_impossible': False}),
  Prediction(uid='89460', iid='Hedwig and the Angry Inch (2000)', r_ui=5.0, est=3.851073880355358, details={'was_impossible': False}),
  Prediction(uid='78574', iid='Catch Me If You Can (2002)', r_ui=4.5, est=3.8319713945663443, details={'was_impossible': False}),
  Prediction(uid='55981', iid='Nurse Betty (2000)', r_ui=4.0, est=3.22977414629464, details={'was_impossible': False}),
  Prediction(uid='55303', iid='Sin City (2005)', r_ui=4.5, est=4.0633019253336276, details={'was_impossible': False}),
  Prediction(uid='108089', iid='Orange County (2002)', r_ui=3.5, est=3.06922563863293, details={'was_impossible': False}),
  Prediction(uid='80783', iid='Iron Man (2008)', r_ui=3.5, est=3.94789784543059, details={'was_impossible': False}),
  Prediction(uid='42466', iid='Italian Job, The (2003)', r_ui=2.5, est=3.120963722629448, details={'was_impossible': False}),
  Prediction(uid='63999', iid='I, Robot (2004)', r_ui=4.0, est=4.299945736406178, details={'was_impossible': False}),
  Prediction(uid='66929', iid='Lost in Translation (2003)', r_ui=3.5, est=3.8124457950886437, details={'was_impossible': False}),
  Prediction(uid='137407', iid='Billy Elliot (2000)', r_ui=3.0, est=3.9389375192446985, details={'was_impossible': False}),
  Prediction(uid='106601', iid='Dark Knight, The (2008)', r_ui=2.5, est=4.43009260693532, details={'was_impossible': False}),
  Prediction(uid='55032', iid='Master and Commander: The Far Side of the World (2003)', r_ui=4.0, est=4.420510306615651, details={'was_impossible': False}),
  Prediction(uid='13873', iid='Minority Report (2002)', r_ui=4.0, est=3.4038972947642723, details={'was_impossible': False}),
  Prediction(uid='73787', iid='Legend of Bagger Vance, The (2000)', r_ui=3.0, est=2.793608014946667, details={'was_impossible': False}),

```

```

Prediction(uid='72347', iid='Along Came a Spider (2001)', r_ui=4.0, est=3.9682271327675
402, details={'was_impossible': False}),
Prediction(uid='110947', iid='Bridget Jones's Diary (2001)', r_ui=4.0, est=3.8296657814
953767, details={'was_impossible': False}),
Prediction(uid='26172', iid='Star Trek (2009)', r_ui=4.5, est=3.527705416997928, detail
s={'was_impossible': False}),
Prediction(uid='7208', iid='Atonement (2007)', r_ui=3.5, est=3.6310380875528896, detail
s={'was_impossible': False}),
Prediction(uid='35084', iid='Spirited Away (Sen to Chihiro no kamikakushi) (2001)', r_u
i=5.0, est=4.646619980657468, details={'was_impossible': False}),
Prediction(uid='78981', iid='Legally Blonde (2001)', r_ui=0.5, est=1.972820047432036, d
etails={'was_impossible': False}),
Prediction(uid='117664', iid='Men in Black II (a.k.a. MIIB) (a.k.a. MIB 2) (2002)', r_u
i=3.0, est=2.9987684116683764, details={'was_impossible': False}),
Prediction(uid='125701', iid='Seabiscuit (2003)', r_ui=2.0, est=3.124362484433597, deta
ils={'was_impossible': False}),
Prediction(uid='59362', iid='I Am Legend (2007)', r_ui=2.5, est=2.594423636131903, deta
ils={'was_impossible': False}),
Prediction(uid='87024', iid='Maid in Manhattan (2002)', r_ui=1.0, est=1.125762064862683
2, details={'was_impossible': False}),
Prediction(uid='47490', iid='Mission: Impossible II (2000)', r_ui=3.5, est=3.1753361213
336477, details={'was_impossible': False}),
Prediction(uid='14166', iid='Transformers (2007)', r_ui=3.0, est=4.5165681753643065, de
tails={'was_impossible': False}),
Prediction(uid='43639', iid='March of the Penguins (Marche de l'empereur, La) (2005)',
r_ui=3.5, est=3.855228329232083, details={'was_impossible': False}),
Prediction(uid='22535', iid='Spider-Man 2 (2004)', r_ui=2.5, est=3.8894483042510353, de
tails={'was_impossible': False}),
Prediction(uid='120955', iid='Erin Brockovich (2000)', r_ui=3.5, est=3.388723204120670
3, details={'was_impossible': False}),
Prediction(uid='61437', iid='Life as a House (2001)', r_ui=5.0, est=4.243766316755196,
details={'was_impossible': False}),
Prediction(uid='90754', iid='Lord of the Rings: The Fellowship of the Ring, The (200
1)', r_ui=4.5, est=3.744791391032098, details={'was_impossible': False}),
Prediction(uid='1011', iid='Perfect Storm, The (2000)', r_ui=2.0, est=3.032861811201196
5, details={'was_impossible': False}),
Prediction(uid='116185', iid='Runaway Jury (2003)', r_ui=4.0, est=3.8119328894309916, d
etails={'was_impossible': False}),
Prediction(uid='18709', iid='Donnie Darko (2001)', r_ui=4.0, est=3.8131463036358757, de
tails={'was_impossible': False}),
Prediction(uid='112916', iid='Life as a House (2001)', r_ui=2.0, est=3.140926644798007
8, details={'was_impossible': False}),
Prediction(uid='137549', iid='Shallow Hal (2001)', r_ui=3.0, est=2.929665006153547, det
ails={'was_impossible': False}),
Prediction(uid='22687', iid='Terminal, The (2004)', r_ui=5.0, est=4.047941862629586, de
tails={'was_impossible': False}),
Prediction(uid='120415', iid='Little Nicky (2000)', r_ui=3.0, est=1.9320659494686294, d
etails={'was_impossible': False}),
Prediction(uid='127890', iid='Science of Sleep, The (La science des rêves) (2006)', r_
ui=4.0, est=3.013280246193786, details={'was_impossible': False}),
Prediction(uid='6369', iid='Resident Evil (2002)', r_ui=3.5, est=3.0480853052405075, de
tails={'was_impossible': False}),
Prediction(uid='76387', iid='Not Another Teen Movie (2001)', r_ui=3.5, est=2.8137361827
599063, details={'was_impossible': False}),
Prediction(uid='53129', iid='Collateral (2004)', r_ui=4.5, est=3.4917805238176762, deta
ils={'was_impossible': False}),
Prediction(uid='110778', iid='Black Hawk Down (2001)', r_ui=4.0, est=3.428922139656197,
details={'was_impossible': False}),
Prediction(uid='52264', iid='Me, Myself & Irene (2000)', r_ui=4.0, est=2.87623497393989
9, details={'was_impossible': False}),
Prediction(uid='93110', iid='Terminator 3: Rise of the Machines (2003)', r_ui=2.5, est=
2.9071111437963895, details={'was_impossible': False}),
Prediction(uid='81878', iid='What Lies Beneath (2000)', r_ui=4.0, est=3.43278433330438,
details={'was_impossible': False}),
Prediction(uid='48234', iid='History of Violence, A (2005)', r_ui=3.5, est=3.5615640135

```

```

592037, details={'was_impossible': False}),
Prediction(uid='57152', iid='District 9 (2009)', r_ui=3.0, est=3.1161365907693472, details={'was_impossible': False}),
Prediction(uid='13466', iid='Gladiator (2000)', r_ui=5.0, est=3.746015404375565, details={'was_impossible': False}),
Prediction(uid='34179', iid='Bridget Jones's Diary (2001)', r_ui=4.0, est=3.876281854423551, details={'was_impossible': False}),
Prediction(uid='108721', iid='How to Lose a Guy in 10 Days (2003)', r_ui=2.5, est=2.881387968925069, details={'was_impossible': False}),
Prediction(uid='55844', iid='Gladiator (2000)', r_ui=1.5, est=2.430348102400372, details={'was_impossible': False}),
Prediction(uid='3218', iid='Gladiator (2000)', r_ui=3.5, est=3.2950966967823487, details={'was_impossible': False}),
Prediction(uid='99774', iid='Wanted (2008)', r_ui=5.0, est=3.6575873789685756, details={'was_impossible': False}),
Prediction(uid='16174', iid='Jarhead (2005)', r_ui=4.0, est=4.158431181118361, details={'was_impossible': False}),
Prediction(uid='97779', iid='American Splendor (2003)', r_ui=3.5, est=3.5868378477129115, details={'was_impossible': False}),
Prediction(uid='25429', iid='Harry Potter and the Prisoner of Azkaban (2004)', r_ui=5.0, est=4.183858202379845, details={'was_impossible': False}),
Prediction(uid='71057', iid='Atlantis: The Lost Empire (2001)', r_ui=2.5, est=2.859683046231829, details={'was_impossible': False}),
Prediction(uid='109553', iid='Importance of Being Earnest, The (2002)', r_ui=3.0, est=4.400681587016405, details={'was_impossible': False}),
Prediction(uid='41194', iid='Far from Heaven (2002)', r_ui=3.0, est=4.231363777400755, details={'was_impossible': False}),
Prediction(uid='96590', iid='Downfall (Untergang, Der) (2004)', r_ui=4.0, est=3.798399642337149, details={'was_impossible': False}),
Prediction(uid='34807', iid='Sexy Beast (2000)', r_ui=3.0, est=3.0259688134587717, details={'was_impossible': False}),
Prediction(uid='52930', iid='Adaptation (2002)', r_ui=3.5, est=4.148272390660012, details={'was_impossible': False}),
Prediction(uid='19174', iid='Crash (2004)', r_ui=3.5, est=3.740669933613856, details={'was_impossible': False}),
Prediction(uid='128844', iid='Darjeeling Limited, The (2007)', r_ui=4.0, est=3.8867648011778755, details={'was_impossible': False}),
Prediction(uid='56305', iid='Almost Famous (2000)', r_ui=3.5, est=3.741601766886342, details={'was_impossible': False}),
Prediction(uid='18955', iid='Matrix Reloaded, The (2003)', r_ui=2.0, est=3.2416937005344186, details={'was_impossible': False}),
Prediction(uid='11706', iid='Spellbound (2002)', r_ui=3.5, est=4.089889825247273, details={'was_impossible': False}),
Prediction(uid='120571', iid='Shrek (2001)', r_ui=2.5, est=4.367068518131146, details={'was_impossible': False}),
Prediction(uid='67561', iid='War of the Worlds (2005)', r_ui=4.0, est=2.6737612065226695, details={'was_impossible': False}),
Prediction(uid='122882', iid='Eternal Sunshine of the Spotless Mind (2004)', r_ui=5.0, est=4.444546546645027, details={'was_impossible': False}),
Prediction(uid='28354', iid='Lord of the Rings: The Return of the King, The (2003)', r_ui=3.5, est=4.713019917766356, details={'was_impossible': False}),
Prediction(uid='122939', iid='About a Boy (2002)', r_ui=0.5, est=2.6347687058525895, details={'was_impossible': False}),
Prediction(uid='121612', iid='Men in Black II (a.k.a. MIIB) (a.k.a. MIB 2) (2002)', r_ui=3.0, est=2.870944915077545, details={'was_impossible': False}),
Prediction(uid='79812', iid='Shutter Island (2010)', r_ui=3.5, est=3.9173700289360944, details={'was_impossible': False}),
Prediction(uid='70113', iid='Juno (2007)', r_ui=2.0, est=3.3526702156672297, details={'was_impossible': False}),
Prediction(uid='39933', iid='One Hour Photo (2002)', r_ui=3.0, est=3.390623264477002, details={'was_impossible': False}),
Prediction(uid='40076', iid='Bourne Supremacy, The (2004)', r_ui=3.5, est=3.7706065515523384, details={'was_impossible': False}),
Prediction(uid='55737', iid='Austin Powers in Goldmember (2002)', r_ui=1.5, est=3.0389092317349684, details={'was_impossible': False}),

```

```

Prediction(uid='59517', iid='Harry Potter and the Prisoner of Azkaban (2004)', r_ui=3.5, est=3.863817655569353, details={'was_impossible': False}),
Prediction(uid='111664', iid='Space Cowboys (2000)', r_ui=3.0, est=2.8900508744116875, details={'was_impossible': False}),
Prediction(uid='40339', iid='Animatrix, The (2003)', r_ui=5.0, est=4.109429018229026, details={'was_impossible': False}),
Prediction(uid='13726', iid='Knocked Up (2007)', r_ui=3.0, est=3.12446026776719, details={'was_impossible': False}),
Prediction(uid='65157', iid='Grindhouse (2007)', r_ui=3.0, est=3.9844363810239742, details={'was_impossible': False}),
Prediction(uid='34727', iid='Gladiator (2000)', r_ui=5.0, est=3.936379855451048, details={'was_impossible': False}),
Prediction(uid='53358', iid='City of God (Cidade de Deus) (2002)', r_ui=5.0, est=4.400608195318466, details={'was_impossible': False}),
Prediction(uid='103076', iid='Crouching Tiger, Hidden Dragon (Wo hu cang long) (2000)', r_ui=4.0, est=3.5244164571879466, details={'was_impossible': False}),
Prediction(uid='63457', iid='Aviator, The (2004)', r_ui=1.0, est=3.5169490717707177, details={'was_impossible': False}),
Prediction(uid='78279', iid='Pay It Forward (2000)', r_ui=3.0, est=3.2386659526177564, details={'was_impossible': False}),
Prediction(uid='123931', iid='40-Year-Old Virgin, The (2005)', r_ui=2.0, est=3.3380555079426673, details={'was_impossible': False}),
Prediction(uid='9300', iid='Planet of the Apes (2001)', r_ui=2.0, est=2.236638070816448, details={'was_impossible': False}),
Prediction(uid='118877', iid='Blood Diamond (2006)', r_ui=4.0, est=2.775510655816877, details={'was_impossible': False}),
Prediction(uid='38939', iid='Star Trek: Nemesis (2002)', r_ui=1.5, est=2.8720946400110003, details={'was_impossible': False}),
Prediction(uid='95561', iid='Billy Elliot (2000)', r_ui=3.5, est=3.3277622105222764, details={'was_impossible': False}),
Prediction(uid='86687', iid='I Am Sam (2001)', r_ui=3.0, est=3.536812186529475, details={'was_impossible': False}),
Prediction(uid='70902', iid='Adaptation (2002)', r_ui=3.0, est=4.21912079372848, details={'was_impossible': False}),
Prediction(uid='27990', iid='City of God (Cidade de Deus) (2002)', r_ui=4.0, est=4.19817157484551, details={'was_impossible': False}),
Prediction(uid='9981', iid='Death to Smoochy (2002)', r_ui=4.0, est=3.5231791577056857, details={'was_impossible': False}),
Prediction(uid='47181', iid='Dude, Where's My Car? (2000)', r_ui=2.5, est=2.656984424275881, details={'was_impossible': False}),
Prediction(uid='74351', iid='Anchorman: The Legend of Ron Burgundy (2004)', r_ui=3.5, est=3.0053063848004267, details={'was_impossible': False}),
Prediction(uid='127013', iid='Me, Myself & Irene (2000)', r_ui=3.0, est=3.167777669652195, details={'was_impossible': False}),
Prediction(uid='21194', iid='Avatar (2009)', r_ui=3.0, est=2.4173723761139176, details={'was_impossible': False}),
Prediction(uid='91224', iid='Old School (2003)', r_ui=4.0, est=3.922755967453198, details={'was_impossible': False}),
Prediction(uid='121434', iid='Confessions of a Dangerous Mind (2002)', r_ui=3.5, est=3.1907529649520985, details={'was_impossible': False}),
Prediction(uid='50541', iid='Constantine (2005)', r_ui=2.0, est=2.6576897628984586, details={'was_impossible': False}),
Prediction(uid='128315', iid='Knocked Up (2007)', r_ui=4.0, est=3.4394029933751558, details={'was_impossible': False}),
Prediction(uid='96842', iid='Collateral (2004)', r_ui=4.0, est=4.013745607757749, details={'was_impossible': False}),
Prediction(uid='109469', iid='Die Another Day (2002)', r_ui=1.0, est=3.393056642139647, details={'was_impossible': False}),
Prediction(uid='42569', iid='Lara Croft: Tomb Raider (2001)', r_ui=3.0, est=2.529599021711755, details={'was_impossible': False}),
Prediction(uid='1311', iid='Harry Potter and the Prisoner of Azkaban (2004)', r_ui=2.0, est=3.763867956527157, details={'was_impossible': False}),
Prediction(uid='112027', iid='Snatch (2000)', r_ui=5.0, est=4.163390695856866, details={'was_impossible': False}),
Prediction(uid='86052', iid='Amelie (Fabuleux destin d'Amélie Poulain, Le) (2001)', r_

```

```

ui=4.5, est=3.0129177171369443, details={'was_impossible': False}),
  Prediction(uid='51740', iid='Pan's Labyrinth (Laberinto del fauno, El) (2006)', r_ui=5.0, est=4.314178491545598, details={'was_impossible': False}),
  Prediction(uid='87066', iid='Persepolis (2007)', r_ui=3.5, est=4.186329589991055, details={'was_impossible': False}),
  Prediction(uid='127071', iid='Amelie (Fabuleux destin d'Amélie Poulain, Le) (2001)', r_ui=3.5, est=4.600033264745272, details={'was_impossible': False}),
  Prediction(uid='3267', iid='X-Men: First Class (2011)', r_ui=3.5, est=3.3279503915317203, details={'was_impossible': False}),
  Prediction(uid='13866', iid='What Lies Beneath (2000)', r_ui=3.0, est=3.304833737085745, details={'was_impossible': False}),
  Prediction(uid='113677', iid='District 9 (2009)', r_ui=3.0, est=4.271966585583007, details={'was_impossible': False}),
  Prediction(uid='43639', iid='Slumdog Millionaire (2008)', r_ui=3.0, est=3.9859094897972827, details={'was_impossible': False}),
  Prediction(uid='123910', iid='WALL·E (2008)', r_ui=3.5, est=4.172041625698053, details={'was_impossible': False}),
  Prediction(uid='121907', iid='Spider-Man 2 (2004)', r_ui=3.5, est=3.227220542828976, details={'was_impossible': False}),
  Prediction(uid='12593', iid='Ring, The (2002)', r_ui=2.5, est=3.207802549020385, details={'was_impossible': False}),
  Prediction(uid='10460', iid='Frida (2002)', r_ui=4.0, est=4.101573994634744, details={'was_impossible': False}),
  Prediction(uid='42281', iid='Super Size Me (2004)', r_ui=4.5, est=4.068679741851089, details={'was_impossible': False}),
  Prediction(uid='70706', iid='Hot Fuzz (2007)', r_ui=4.0, est=3.9691999999159298, details={'was_impossible': False}),
  Prediction(uid='71605', iid='Star Trek: Nemesis (2002)', r_ui=3.0, est=2.8043414827005253, details={'was_impossible': False}),
  Prediction(uid='135616', iid='Terminator 3: Rise of the Machines (2003)', r_ui=3.0, est=3.1367802362368002, details={'was_impossible': False}),
  Prediction(uid='89200', iid='Battlestar Galactica (2003)', r_ui=1.5, est=3.9519672011300626, details={'was_impossible': False}),
  Prediction(uid='41185', iid='King's Speech, The (2010)', r_ui=4.0, est=3.7796816768518386, details={'was_impossible': False}),
  Prediction(uid='81644', iid='Madagascar (2005)', r_ui=3.5, est=3.468285390272823, details={'was_impossible': False}),
  Prediction(uid='127167', iid='Gone in 60 Seconds (2000)', r_ui=0.5, est=1.4411147084129414, details={'was_impossible': False}),
  Prediction(uid='33478', iid='Lord of the Rings: The Fellowship of the Ring, The (2001)', r_ui=4.0, est=4.006743485812021, details={'was_impossible': False}),
  Prediction(uid='109116', iid='Monsters, Inc. (2001)', r_ui=4.5, est=4.012725287637315, details={'was_impossible': False}),
  Prediction(uid='85226', iid='50 First Dates (2004)', r_ui=3.5, est=3.123875372298502, details={'was_impossible': False}),
  Prediction(uid='105565', iid='Gladiator (2000)', r_ui=4.0, est=3.9132030648165395, details={'was_impossible': False}),
  Prediction(uid='46698', iid='Two Weeks Notice (2002)', r_ui=4.0, est=3.78579099415982, details={'was_impossible': False}),
  Prediction(uid='63999', iid='Star Wars: Episode III - Revenge of the Sith (2005)', r_ui=4.0, est=4.174754966583434, details={'was_impossible': False}),
  Prediction(uid='81564', iid='Waking Life (2001)', r_ui=1.5, est=3.6834752403994817, details={'was_impossible': False}),
  Prediction(uid='106895', iid='Legally Blonde 2: Red, White & Blonde (2003)', r_ui=1.5, est=2.73321999849493, details={'was_impossible': False}),
  Prediction(uid='83918', iid='Kill Bill: Vol. 1 (2003)', r_ui=4.0, est=3.986564589382642, details={'was_impossible': False}),
  Prediction(uid='19370', iid='Knocked Up (2007)', r_ui=3.0, est=3.5542318612764503, details={'was_impossible': False}),
  Prediction(uid='15227', iid='American Pie 2 (2001)', r_ui=3.5, est=2.860995178686738, details={'was_impossible': False}),
  Prediction(uid='4634', iid='Spy Game (2001)', r_ui=5.0, est=4.1703793245356024, details={'was_impossible': False}),
  Prediction(uid='42259', iid='Quills (2000)', r_ui=2.0, est=2.7450914562230895, details={'was_impossible': False}),

```

```

Prediction(uid='90569', iid='Lost in Translation (2003)', r_ui=2.5, est=3.6955760495810
086, details={'was_impossible': False}),
Prediction(uid='65718', iid='What Women Want (2000)', r_ui=3.0, est=2.961797758990065,
details={'was_impossible': False}),
Prediction(uid='106735', iid='Prestige, The (2006)', r_ui=4.0, est=4.316296737092251, d
etails={'was_impossible': False}),
Prediction(uid='77460', iid='Minority Report (2002)', r_ui=5.0, est=3.965001886997505,
details={'was_impossible': False}),
Prediction(uid='54537', iid='Nurse Betty (2000)', r_ui=3.0, est=3.266237348848803, deta
ils={'was_impossible': False}),
Prediction(uid='75898', iid='Gladiator (2000)', r_ui=5.0, est=4.497437395289105, detail
s={'was_impossible': False}),
Prediction(uid='70113', iid='Iron Man (2008)', r_ui=3.5, est=3.6242446142667792, detail
s={'was_impossible': False}),
Prediction(uid='108114', iid='Lost in Translation (2003)', r_ui=4.0, est=3.970268136293
331, details={'was_impossible': False}),
Prediction(uid='7286', iid='25th Hour (2002)', r_ui=3.0, est=3.5930321072444853, detail
s={'was_impossible': False}),
Prediction(uid='95049', iid='Men in Black II (a.k.a. MIIB) (a.k.a. MIB 2) (2002)', r_ui
=2.5, est=3.975108743635826, details={'was_impossible': False}),
Prediction(uid='70683', iid='Spider-Man 3 (2007)', r_ui=4.0, est=3.2633866443980954, de
tails={'was_impossible': False}),
Prediction(uid='951', iid='X-Men (2000)', r_ui=4.0, est=3.7121493826305536, details={'w
as_impossible': False}),
Prediction(uid='108402', iid='Spy Game (2001)', r_ui=3.0, est=3.5312219382829766, detai
ls={'was_impossible': False}),
Prediction(uid='89757', iid='Lord of the Rings: The Return of the King, The (2003)', r_
ui=4.5, est=4.208321863698552, details={'was_impossible': False}),
Prediction(uid='36847', iid='Sunshine (2007)', r_ui=3.5, est=3.9733533059853214, detail
s={'was_impossible': False}),
Prediction(uid='61408', iid='Lord of the Rings: The Two Towers, The (2002)', r_ui=4.5,
est=3.927602595878094, details={'was_impossible': False}),
Prediction(uid='134297', iid='Harry Potter and the Deathly Hallows: Part 2 (2011)', r_u
i=2.5, est=3.7335129722257236, details={'was_impossible': False}),
Prediction(uid='112375', iid='Madagascar (2005)', r_ui=4.0, est=3.4310427517805757, det
ails={'was_impossible': False}),
Prediction(uid='2008', iid='Chicago (2002)', r_ui=2.5, est=2.9112656584648686, details=
{'was_impossible': False}),
Prediction(uid='97474', iid='Pay It Forward (2000)', r_ui=3.0, est=3.18308164458076, de
tails={'was_impossible': False}),
Prediction(uid='82360', iid='Remember the Titans (2000)', r_ui=3.5, est=3.1668030041700
78, details={'was_impossible': False}),
Prediction(uid='76404', iid='Old School (2003)', r_ui=3.0, est=3.661569789011592, detai
ls={'was_impossible': False}),
Prediction(uid='53018', iid='Ray (2004)', r_ui=4.0, est=4.38864881355555, details={'was
_impossible': False}),
Prediction(uid='36334', iid='Harry Potter and the Chamber of Secrets (2002)', r_ui=3.0,
est=3.364860107035587, details={'was_impossible': False}),
Prediction(uid='37819', iid='Seabiscuit (2003)', r_ui=3.5, est=3.621395824290332, detai
ls={'was_impossible': False}),
Prediction(uid='110609', iid='Bad Boys II (2003)', r_ui=1.5, est=2.7984476196536567, de
tails={'was_impossible': False}),
Prediction(uid='23260', iid='Harry Potter and the Prisoner of Azkaban (2004)', r_ui=2.
0, est=2.9127439437487537, details={'was_impossible': False}),
Prediction(uid='89138', iid='America's Sweethearts (2001)', r_ui=2.5, est=2.59713234055
00906, details={'was_impossible': False}),
Prediction(uid='30642', iid='History of Violence, A (2005)', r_ui=3.0, est=3.7271538581
78513, details={'was_impossible': False}),
Prediction(uid='52944', iid='Finding Nemo (2003)', r_ui=5.0, est=4.119301434405292, det
ails={'was_impossible': False}),
Prediction(uid='18295', iid='Kill Bill: Vol. 1 (2003)', r_ui=2.5, est=3.356650152721516
5, details={'was_impossible': False}),
Prediction(uid='65842', iid='Legally Blonde (2001)', r_ui=4.0, est=3.9502088614343736,
details={'was_impossible': False}),
Prediction(uid='84950', iid='Avatar (2009)', r_ui=3.5, est=3.552235215532028, details=

```

```

{'was_impossible': False}),
  Prediction(uid='85666', iid='I Heart Huckabees (2004)', r_ui=4.5, est=3.418669625289605
4, details={'was_impossible': False}),
  Prediction(uid='18958', iid='X-Men: The Last Stand (2006)', r_ui=2.0, est=3.37804997534
5228, details={'was_impossible': False}),
  Prediction(uid='133630', iid='Snatch (2000)', r_ui=5.0, est=4.087365963645502, details=
{'was_impossible': False}),
  Prediction(uid='90601', iid='Lost in Translation (2003)', r_ui=3.0, est=3.2106567835308
03, details={'was_impossible': False}),
  Prediction(uid='99320', iid='American Gangster (2007)', r_ui=4.5, est=4.037242185560292
5, details={'was_impossible': False}),
  Prediction(uid='21650', iid='Incredibles, The (2004)', r_ui=4.0, est=3.846284432180671,
details={'was_impossible': False}),
  Prediction(uid='44768', iid='High Fidelity (2000)', r_ui=4.0, est=3.274981095683945, de
tails={'was_impossible': False}),
  Prediction(uid='108089', iid='Hitch (2005)', r_ui=2.5, est=2.903355526069253, details=
{'was_impossible': False}),
  Prediction(uid='86206', iid='Shrek (2001)', r_ui=5.0, est=5, details={'was_impossible':
False}),
  Prediction(uid='63875', iid='40-Year-Old Virgin, The (2005)', r_ui=2.5, est=3.653949201
244818, details={'was_impossible': False}),
  Prediction(uid='65971', iid='About a Boy (2002)', r_ui=4.5, est=3.9099546758445705, det
ails={'was_impossible': False}),
  Prediction(uid='4083', iid='Lars and the Real Girl (2007)', r_ui=2.5, est=3.79959482276
5982, details={'was_impossible': False}),
  Prediction(uid='38741', iid='Gone in 60 Seconds (2000)', r_ui=3.0, est=2.87614219293946
64, details={'was_impossible': False}),
  Prediction(uid='67666', iid='One Hour Photo (2002)', r_ui=2.0, est=2.7533696207538183,
details={'was_impossible': False}),
  Prediction(uid='78451', iid='Charlie and the Chocolate Factory (2005)', r_ui=3.0, est=
3.09344902962576, details={'was_impossible': False}),
  Prediction(uid='57099', iid='Enchanted (2007)', r_ui=1.5, est=3.2223133837283924, detai
ls={'was_impossible': False}),
  Prediction(uid='91166', iid='Pan's Labyrinth (Laberinto del fauno, El) (2006)', r_ui=4.
0, est=4.192390588995949, details={'was_impossible': False}),
  Prediction(uid='61121', iid='Pitch Black (2000)', r_ui=3.0, est=3.3912042551500146, det
ails={'was_impossible': False}),
  Prediction(uid='4775', iid='Da Vinci Code, The (2006)', r_ui=3.0, est=3.40405296265361
9, details={'was_impossible': False}),
  Prediction(uid='41859', iid='Panic Room (2002)', r_ui=1.0, est=2.306925583709756, detai
ls={'was_impossible': False}),
  Prediction(uid='71788', iid='Rise of the Planet of the Apes (2011)', r_ui=4.0, est=4.62
1943261780368, details={'was_impossible': False}),
  Prediction(uid='69946', iid='Planet of the Apes (2001)', r_ui=2.0, est=2.40582977609949
47, details={'was_impossible': False}),
  Prediction(uid='50541', iid='Good bye, Lenin! (2003)', r_ui=2.5, est=3.298103637006772,
details={'was_impossible': False}),
  Prediction(uid='128724', iid='Charlie's Angels (2000)', r_ui=2.5, est=3.210255296327868
5, details={'was_impossible': False}),
  Prediction(uid='67161', iid='Harry Potter and the Sorcerer's Stone (a.k.a. Harry Potter
and the Philosopher's Stone) (2001)', r_ui=4.0, est=3.325385284048794, details={'was_imp
ossible': False}),
  Prediction(uid='6966', iid='40-Year-Old Virgin, The (2005)', r_ui=3.5, est=4.0070560131
80381, details={'was_impossible': False}),
  Prediction(uid='88247', iid='Star Wars: Episode II - Attack of the Clones (2002)', r_ui
=2.5, est=2.414277794582585, details={'was_impossible': False}),
  Prediction(uid='2529', iid='Charlie and the Chocolate Factory (2005)', r_ui=4.0, est=3.
7360116646698165, details={'was_impossible': False}),
  Prediction(uid='26784', iid='Up (2009)', r_ui=4.5, est=4.347838230410035, details={'was
_impossible': False}),
  Prediction(uid='95049', iid='Titan A.E. (2000)', r_ui=1.0, est=4.071973270790538, detai
ls={'was_impossible': False}),
  Prediction(uid='53798', iid='K-PAX (2001)', r_ui=3.5, est=3.3345661564603435, details=
{'was_impossible': False}),
  Prediction(uid='15521', iid='Die Another Day (2002)', r_ui=3.0, est=2.966404441428282,

```

```

    details={'was_impossible': False}),
    Prediction(uid='86159', iid='Station Agent, The (2003)', r_ui=3.5, est=3.41072699306944
13, details={'was_impossible': False}),
    Prediction(uid='32298', iid='O Brother, Where Art Thou? (2000)', r_ui=3.5, est=3.466253
0702135217, details={'was_impossible': False}),
    Prediction(uid='41859', iid='Incredibles, The (2004)', r_ui=5.0, est=2.279414561597929,
details={'was_impossible': False}),
    Prediction(uid='84799', iid='Requiem for a Dream (2000)', r_ui=4.5, est=4.3719942099349
34, details={'was_impossible': False}),
    Prediction(uid='70945', iid='Matrix Reloaded, The (2003)', r_ui=3.0, est=3.634364839529
2014, details={'was_impossible': False}),
    Prediction(uid='68835', iid='Children of Men (2006)', r_ui=4.0, est=4.094590782040961,
details={'was_impossible': False}),
    Prediction(uid='78981', iid='Training Day (2001)', r_ui=3.5, est=3.315515986317431, det
ails={'was_impossible': False}),
    Prediction(uid='122758', iid='Star Wars: Episode II - Attack of the Clones (2002)', r_u
i=4.5, est=3.43008136380222, details={'was_impossible': False}),
    Prediction(uid='120529', iid='Something's Gotta Give (2003)', r_ui=4.0, est=3.702360910
4644395, details={'was_impossible': False}),
    Prediction(uid='45805', iid='Black Hawk Down (2001)', r_ui=4.0, est=3.686820007991108,
details={'was_impossible': False}),
    Prediction(uid='113660', iid='Lord of the Rings: The Two Towers, The (2002)', r_ui=4.5,
est=4.814675616207422, details={'was_impossible': False}),
    Prediction(uid='41065', iid='Hero (Ying xiong) (2002)', r_ui=3.5, est=3.93316076622249
4, details={'was_impossible': False}),
    Prediction(uid='132639', iid='Shaft (2000)', r_ui=0.5, est=2.0575792181782613, details=
{'was_impossible': False}),
    Prediction(uid='37819', iid='How to Lose a Guy in 10 Days (2003)', r_ui=2.0, est=2.9536
92074907175, details={'was_impossible': False}),
    Prediction(uid='12778', iid='Far from Heaven (2002)', r_ui=3.5, est=3.504750184628044,
details={'was_impossible': False}),
    Prediction(uid='124576', iid='Star Wars: Episode II - Attack of the Clones (2002)', r_u
i=3.0, est=1.8616149371603135, details={'was_impossible': False}),
    Prediction(uid='134800', iid='Harry Potter and the Half-Blood Prince (2009)', r_ui=3.5,
est=3.664452096436612, details={'was_impossible': False}),
    Prediction(uid='72229', iid='Kill Bill: Vol. 2 (2004)', r_ui=4.0, est=3.778443700243544
7, details={'was_impossible': False}),
    Prediction(uid='122179', iid='Evolution (2001)', r_ui=3.5, est=3.289713711911695, detai
ls={'was_impossible': False}),
    Prediction(uid='30104', iid='Pianist, The (2002)', r_ui=4.0, est=4.441095073137142, det
ails={'was_impossible': False}),
    Prediction(uid='56496', iid='Garden State (2004)', r_ui=3.5, est=3.7850162358903043, de
tails={'was_impossible': False}),
    Prediction(uid='113652', iid='(500) Days of Summer (2009)', r_ui=4.0, est=3.54679978091
41028, details={'was_impossible': False}),
    Prediction(uid='37075', iid='Dude, Where's My Car? (2000)', r_ui=3.0, est=3.41384330744
6324, details={'was_impossible': False}),
    Prediction(uid='85987', iid='Dude, Where's My Car? (2000)', r_ui=1.5, est=2.54351705000
15114, details={'was_impossible': False}),
    Prediction(uid='33799', iid='X-Men (2000)', r_ui=4.0, est=3.8024666085818817, details=
{'was_impossible': False}),
    Prediction(uid='85969', iid='Pirates of the Caribbean: The Curse of the Black Pearl (20
03)', r_ui=2.5, est=3.908211861018854, details={'was_impossible': False}),
    Prediction(uid='21821', iid='Panic Room (2002)', r_ui=3.0, est=3.5985903490178726, deta
ils={'was_impossible': False}),
    Prediction(uid='94330', iid='Shallow Hal (2001)', r_ui=3.5, est=2.608490425127758, deta
ils={'was_impossible': False}),
    Prediction(uid='19526', iid='Avatar (2009)', r_ui=5.0, est=4.362620069274786, details=
{'was_impossible': False}),
    Prediction(uid='113612', iid='American Wedding (American Pie 3) (2003)', r_ui=1.0, est=
2.374740603703246, details={'was_impossible': False}),
    Prediction(uid='1568', iid='Charlie's Angels (2000)', r_ui=2.5, est=2.3618691673951466,
details={'was_impossible': False}),
    Prediction(uid='114022', iid='Monster's Ball (2001)', r_ui=2.5, est=3.5169545532755793,
details={'was_impossible': False}),

```



```

Prediction(uid='16717', iid='Traffic (2000)', r_ui=3.0, est=4.018017531905156, details=
{'was_impossible': False}),
Prediction(uid='137791', iid='Cinderella Man (2005)', r_ui=4.0, est=3.971560215262158,
details={'was_impossible': False}),
Prediction(uid='98262', iid='Thirteen (2003)', r_ui=3.0, est=2.5364975381520405, detail
s={'was_impossible': False}),
Prediction(uid='89945', iid='Reign of Fire (2002)', r_ui=3.5, est=3.4263744886170575, d
etails={'was_impossible': False}),
Prediction(uid='46186', iid='2 Fast 2 Furious (Fast and the Furious 2, The) (2003)', r_
ui=0.5, est=1, details={'was_impossible': False}),
Prediction(uid='115372', iid='Little Miss Sunshine (2006)', r_ui=5.0, est=3.47077383914
94822, details={'was_impossible': False}),
Prediction(uid='37814', iid='Napoleon Dynamite (2004)', r_ui=4.5, est=3.400592974198650
7, details={'was_impossible': False}),
Prediction(uid='119152', iid='Far from Heaven (2002)', r_ui=4.0, est=3.700500064085105,
details={'was_impossible': False}),
Prediction(uid='132846', iid='Charlie's Angels (2000)', r_ui=1.5, est=2.28621424280811
4, details={'was_impossible': False}),
Prediction(uid='132350', iid='Legally Blonde (2001)', r_ui=1.5, est=2.1796236650639234,
details={'was_impossible': False}),
Prediction(uid='27073', iid='Gosford Park (2001)', r_ui=4.0, est=3.5617449721448167, de
tails={'was_impossible': False}),
Prediction(uid='120642', iid='S.W.A.T. (2003)', r_ui=2.5, est=2.5019825182490867, detai
ls={'was_impossible': False}),
Prediction(uid='12555', iid='Shallow Hal (2001)', r_ui=1.5, est=2.821697002319171, deta
ils={'was_impossible': False}),
Prediction(uid='132266', iid='Constantine (2005)', r_ui=2.5, est=2.43676298338397, deta
ils={'was_impossible': False}),
Prediction(uid='135974', iid='Girl with a Pearl Earring (2003)', r_ui=4.0, est=3.769876
1259141556, details={'was_impossible': False}),
Prediction(uid='27784', iid='Meet the Parents (2000)', r_ui=2.5, est=2.523058721287563
3, details={'was_impossible': False}),
Prediction(uid='52656', iid='Perfect Storm, The (2000)', r_ui=3.0, est=2.96723810828832
6, details={'was_impossible': False}),
Prediction(uid='56532', iid='Wedding Crashers (2005)', r_ui=1.0, est=2.640805595659012,
details={'was_impossible': False}),
Prediction(uid='34979', iid='Mummy Returns, The (2001)', r_ui=3.0, est=2.98344172209399
35, details={'was_impossible': False}),
Prediction(uid='88016', iid='American Splendor (2003)', r_ui=4.0, est=4.05513218201844
9, details={'was_impossible': False}),
Prediction(uid='117271', iid='Lucky Number Slevin (2006)', r_ui=4.5, est=3.877068085670
567, details={'was_impossible': False}),
Prediction(uid='2099', iid='O Brother, Where Art Thou? (2000)', r_ui=4.0, est=4.4644207
49123736, details={'was_impossible': False}),
Prediction(uid='131393', iid='Men in Black II (a.k.a. MIIB) (a.k.a. MIB 2) (2002)', r_u
i=3.5, est=3.382500540591161, details={'was_impossible': False}),
Prediction(uid='103756', iid='V for Vendetta (2006)', r_ui=3.5, est=3.846600241576222,
details={'was_impossible': False}),
Prediction(uid='41100', iid='Chocolat (2000)', r_ui=4.0, est=3.4685406488980597, detail
s={'was_impossible': False}),
Prediction(uid='4581', iid='Mission: Impossible II (2000)', r_ui=2.5, est=2.62524562550
4771, details={'was_impossible': False}),
Prediction(uid='105400', iid='Remember the Titans (2000)', r_ui=3.0, est=3.114127758669
451, details={'was_impossible': False}),
Prediction(uid='40339', iid='Ray (2004)', r_ui=4.5, est=4.260786895812156, details={'wa
s_impossible': False}),
Prediction(uid='36419', iid='What Women Want (2000)', r_ui=3.0, est=4.127289649323343,
details={'was_impossible': False}),
Prediction(uid='21496', iid='Patriot, The (2000)', r_ui=1.5, est=2.2978481352512965, de
tails={'was_impossible': False}),
Prediction(uid='130972', iid='Transformers (2007)', r_ui=5.0, est=4.607289194001038, de
tails={'was_impossible': False}),
Prediction(uid='45844', iid='Ocean's Eleven (2001)', r_ui=4.0, est=3.9657858090510083,
details={'was_impossible': False}),
Prediction(uid='71097', iid='Monster's Ball (2001)', r_ui=2.5, est=3.4335566665666017,

```

```

    details={'was_impossible': False}),
    Prediction(uid='59148', iid='Frequency (2000)', r_ui=4.0, est=3.834729746581601, detail
s={'was_impossible': False}),
    Prediction(uid='15521', iid='Burn After Reading (2008)', r_ui=3.0, est=3.52571528020153
83, details={'was_impossible': False}),
    Prediction(uid='79812', iid='I, Robot (2004)', r_ui=4.0, est=3.923824849538869, details
={'was_impossible': False}),
    Prediction(uid='36334', iid='Spy Kids (2001)', r_ui=3.0, est=2.8328264230761557, detail
s={'was_impossible': False}),
    Prediction(uid='15384', iid='Scanner Darkly, A (2006)', r_ui=4.5, est=4.20882993461060
3, details={'was_impossible': False}),
    Prediction(uid='91748', iid="Harry Potter and the Sorcerer's Stone (a.k.a. Harry Potter
and the Philosopher's Stone) (2001)", r_ui=5.0, est=4.646288034836567, details={'was_imp
ossible': False}),
    Prediction(uid='47293', iid='28 Days (2000)', r_ui=3.0, est=3.3457341739680024, details
={'was_impossible': False}),
    Prediction(uid='37618', iid='Austin Powers in Goldmember (2002)', r_ui=1.0, est=2.87944
52555428123, details={'was_impossible': False}),
    Prediction(uid='60978', iid='Brotherhood of the Wolf (Pacte des loups, Le) (2001)', r_u
i=2.0, est=3.238554622626746, details={'was_impossible': False}),
    Prediction(uid='54510', iid='Chicago (2002)', r_ui=4.0, est=3.49702547096995, details=
{'was_impossible': False}),
    Prediction(uid='53002', iid='Red Planet (2000)', r_ui=2.0, est=3.2831449063783538, deta
ils={'was_impossible': False}),
    Prediction(uid='93851', iid='Daredevil (2003)', r_ui=0.5, est=1.9242796896831988, detai
ls={'was_impossible': False}),
    Prediction(uid='70592', iid='Illusionist, The (2006)', r_ui=3.0, est=3.294064061415395,
details={'was_impossible': False}),
    Prediction(uid='98832', iid='Donnie Darko (2001)', r_ui=2.0, est=3.6795179311937285, de
tails={'was_impossible': False}),
    Prediction(uid='133644', iid='High Fidelity (2000)', r_ui=4.0, est=3.189132302583475, d
etails={'was_impossible': False}),
    Prediction(uid='68869', iid='Sum of All Fears, The (2002)', r_ui=3.0, est=3.11842240851
83234, details={'was_impossible': False}),
    Prediction(uid='50658', iid='Others, The (2001)', r_ui=3.5, est=4.07389853816163, detai
ls={'was_impossible': False}),
    Prediction(uid='4189', iid='Kill Bill: Vol. 2 (2004)', r_ui=2.5, est=3.861838411332593
4, details={'was_impossible': False}),
    Prediction(uid='121381', iid='Identity (2003)', r_ui=3.0, est=3.299233500154149, detail
s={'was_impossible': False}),
    Prediction(uid='54348', iid='Hitch (2005)', r_ui=3.5, est=2.881617593604942, details=
{'was_impossible': False}),
    Prediction(uid='112375', iid='Red Dragon (2002)', r_ui=4.0, est=3.8107015304321967, det
ails={'was_impossible': False}),
    Prediction(uid='36190', iid='A.I. Artificial Intelligence (2001)', r_ui=4.5, est=3.4827
07988255718, details={'was_impossible': False}),
    Prediction(uid='99313', iid='Up (2009)', r_ui=3.5, est=4.232311168308975, details={'was
_impossible': False}),
    Prediction(uid='75466', iid='High Fidelity (2000)', r_ui=3.5, est=4.2457647523557185, d
etails={'was_impossible': False}),
    Prediction(uid='53122', iid='Enemy at the Gates (2001)', r_ui=4.5, est=4.06947694835743
4, details={'was_impossible': False}),
    Prediction(uid='24694', iid='Hot Fuzz (2007)', r_ui=3.5, est=3.6230961915476283, detail
s={'was_impossible': False}),
    Prediction(uid='33483', iid='Donnie Darko (2001)', r_ui=4.5, est=4.054997180819997, det
ails={'was_impossible': False}),
    Prediction(uid='43522', iid='(500) Days of Summer (2009)', r_ui=3.5, est=3.635972959328
8845, details={'was_impossible': False}),
    Prediction(uid='55981', iid='Spy Game (2001)', r_ui=4.0, est=3.7289205680330473, detail
s={'was_impossible': False}),
    Prediction(uid='20453', iid='Shaun of the Dead (2004)', r_ui=2.5, est=3.707345999992409
4, details={'was_impossible': False}),
    Prediction(uid='24928', iid="Harry Potter and the Sorcerer's Stone (a.k.a. Harry Potter
and the Philosopher's Stone) (2001)", r_ui=5.0, est=3.9607287347297837, details={'was_im
possible': False}),

```

```
Prediction(uid='32618', iid='Ray (2004)', r_ui=3.5, est=4.201173177500738, details={'was_impossible': False}),
...]
```

```
In [ ]: test_pred_df = pd.DataFrame([[x.uid,x.iid,x.est] for x in test_pred])
```

```
In [ ]: test_pred_df.head()
```

```
Out[ ]:
```

	0	1	2
0	7531	You Can Count on Me (2000)	4.729142
1	45291	Eternal Sunshine of the Spotless Mind (2004)	3.527939
2	92026	High Fidelity (2000)	3.734804
3	122811	Curious Case of Benjamin Button, The (2008)	3.523406
4	83105	Bruce Almighty (2003)	3.122101

```
In [ ]: test_pred_df.columns = ["userId", "movie_name", "est_rating"]
test_pred_df.sort_values(by = ["userId", "est_rating"], ascending=False, inplace=True)
```

```
In [ ]: test_pred_df.head()
```

```
Out[ ]:
```

	userId	movie_name	est_rating
26419	99863	Lord of the Rings: The Return of the King, The...	3.937301
23777	99863	Lord of the Rings: The Two Towers, The (2002)	3.724627
29185	99863	Amelie (Fabuleux destin d'Amélie Poulain, Le)...	3.718825
58233	99863	O Brother, Where Art Thou? (2000)	3.538725
40312	99863	Big Fish (2003)	3.523129

```
In [ ]: top_10_recos = test_pred_df.groupby("userId").head(10).reset_index(drop=True)
```

```
In [ ]: top_10_recos
```

```
Out[ ]:
```

	userId	movie_name	est_rating
0	99863	Lord of the Rings: The Return of the King, The...	3.937301
1	99863	Lord of the Rings: The Two Towers, The (2002)	3.724627
2	99863	Amelie (Fabuleux destin d'Amélie Poulain, Le)...	3.718825
3	99863	O Brother, Where Art Thou? (2000)	3.538725
4	99863	Big Fish (2003)	3.523129
...

	userId	movie_name	est_rating
28212	100081	Casino Royale (2006)	4.020431
28213	100081	Bourne Supremacy, The (2004)	3.997163
28214	100081	Gladiator (2000)	3.995645
28215	100081	Beautiful Mind, A (2001)	3.959006
28216	100081	Last Samurai, The (2003)	3.935777

28217 rows × 3 columns

```
In [ ]: from surprise import accuracy
        accuracy.rmse(test_pred)
```

RMSE: 0.7721

```
Out[ ]: 0.7720509047300353
```

```
In [ ]:
```