

The background features a series of overlapping, wavy, liquid-like shapes in shades of purple, magenta, and blue, set against a solid grey background. The waves flow from left to right, creating a sense of movement and depth. The colors transition from a bright magenta on the left to a deep, dark blue on the right.

Movie Recommendation Service

Introduction

Pumpkinmeter, a collaborative suggestion measurement for millions of fans, is something that Ripe Pumpkins, a movie review aggregation website, hopes to accomplish.

The recommendation system will be analyzed and evaluated for this using the data GroupLens gathered from the MovieLens website.

We are applying two new users and performing the steps to generate the movie recommendations by running 10 movies for each users

By running the recommendation separately and generating the top 15 recommendation for each users

The recommendation is generated on two scenarios:

- Scenario 1: We are filtering out the movies which has fewer 25 ratings or the top 15 recommended movies (with more than 25 reviews).
- Scenario 2: In this scenario, we are filtering out movies fewer than 100 ratings or the top recommended movies (with more than 100 reviews).



USER -1

TOP 15 recommended movies (with more than 25 reviews):

TOP recommended movies (with more than 25 reviews):

('Iliza Shlesinger: Confirmed Kills (2016)', 4.705094605694718, 31)
('India's Daughter (2015)', 4.518649534256617, 25)
('Triumph of the Nerds', 4.5103360613799195, 32)
('The Red Pill (2016)', 4.378837404134584, 46)
('Promises (2001)', 4.32860981641452, 149)
('Un peu', 4.323486932191832, 32)
('Racing Extinction (2015)', 4.307326650884308, 31)
('Enemies of Reason', 4.262545318525922, 32)
('Prayers for Bobby (2009)', 4.2006948392451875, 102)
('How I Killed My Father (a.k.a. My Father and I) (Comment j'ai tué mon Père) (2001)', 4.189144639491575, 28)
('Paint It Yellow (Rang De Basanti) (2006)', 4.186096130697868, 231)
('Out in the Dark (2012)', 4.158130439201149, 27)
('Gangs of Wasseypur (2012)', 4.15268285691607, 167)
('Border (1997)', 4.152482626177031, 28)
('Death Note Rewrite: Genshisuru Kami (2007)', 4.078355945549235, 65)

TOP recommended movies (with more than 100 reviews):

TOP recommended movies (with more than 100 reviews):

('Promises (2001)', 4.32860981641452, 149)
('Prayers for Bobby (2009)', 4.2006948392451875, 102)
('Paint It Yellow (Rang De Basanti) (2006)', 4.186096130697868, 231)
('Gangs of Wasseypur (2012)', 4.15268285691607, 167)
('Zeitgeist: Moving Forward (2011)', 4.048666955022471, 309)
('Zeitgeist: Addendum (2008)', 3.9726505987884866, 360)
('Gloomy Sunday (Ein Lied von Liebe und Tod) (1999)', 3.892719043014845, 140)
('Home (2009)', 3.861713076715664, 445)
('Adore (2013)', 3.861602086788237, 105)
('Zero Days (2016)', 3.84710715160515, 209)
('Collapse (2009)', 3.842114382706219, 131)
('A Dog of Flanders (1999)', 3.8308242719506462, 100)
('Grandfather', 3.829235599357127, 109)
('Solas (1999)', 3.8244576850445915, 165)
('Legend of 1900', 3.806021245220426, 875)

USER - 2

TOP 15 recommended movies (with more than 25 reviews):

TOP recommended movies (with more than 25 reviews):

('Cranford (2007)', 4.945201502892643, 35)
('North & South (2004)', 4.899849247446136, 389)
('Pride and Prejudice (1995)', 4.892828206911154, 2919)
('Billy Elliot: The Musical (2014)', 4.816944406535126, 51)
('Drishyam (2013)', 4.801976625351594, 37)
('Sense & Sensibility (2008)', 4.793115166667381, 69)
('Anne of Green Gables: The Sequel (a.k.a. Anne of Avonlea) (1987)', 4.771413404322986, 342)
('The Hunting Ground (2015)', 4.740768173453355, 51)
('Connections (1978)', 4.739330398348225, 49)
('Anne of Green Gables (1985)', 4.729019928499652, 706)
('India's Daughter (2015)', 4.728563852200333, 25)
('Lizard', 4.725765541868768, 32)
('On the Trail of the Bremen Town Musicians (1973)', 4.71429843886208, 45)
('Sense and Sensibility (1995)', 4.711124576338225, 24552)
('Cosmos: A Spacetime Odyssey', 4.70524196998872, 37)

TOP recommended movies (with more than 100 reviews):

TOP recommended movies (with more than 100 reviews):

('North & South (2004)', 4.899849247446136, 389)
('Pride and Prejudice (1995)', 4.892828206911154, 2919)
('Anne of Green Gables: The Sequel (a.k.a. Anne of Avonlea) (1987)', 4.771413404322986, 342)
('Anne of Green Gables (1985)', 4.729019928499652, 706)
('Sense and Sensibility (1995)', 4.711124576338225, 24552)
('Wild China (2008)', 4.686129008992526, 105)
('Blue Planet II (2017)', 4.6522254953879045, 349)
('Office Romance (1977)', 4.607210193810495, 209)
('Emma (2009)', 4.587510608720077, 385)
('Persuasion (1995)', 4.58517198563306, 3424)
('Pride & Prejudice (2005)', 4.581950660919366, 6432)
('That Munchhausen (1979)', 4.581791430542205, 104)
('Winnie Pooh (1969)', 4.577688098084682, 130)
('Chorus', 4.571549306842129, 1716)
('Adventures Of Sherlock Holmes And Dr. Watson: The Twentieth Century Approaches (1986)', 4.569052511714292, 105)

Conclusion

Pumpkinmeter is a collaborative recommendation system that Ripe Pumpkins, a startup that aggregates movie reviews, hopes to deploy. Inspired by the success of recommendation models in streaming services, the board of directors wants to evaluate the possibility of Pumpkinmeter scores. The analysis makes use of the rating datasets from the MovieLens website collected by GroupLens Research. The data must be prepared, and the recommender model must be constructed using Spark's MLlib module.

The objective is to offer perceptions into unique consumer preferences that might affect their propensity to stick with Ripe Pumpkins' services against those of rivals. The performance of the recommendation engine and its potential impact on client satisfaction and retention is demonstrated with two scenarios and presenting the outcomes and insights from recommending movies to two new users/customers.