



Recommender System

Special Crafted by
Jihar Gifari

Today's Lesson

- Recommender System Types : Content-Based and Collaborative Filtering
- Count Vectorization
- Cosine Similarity
- Step by Step Content Based Filtering in Python Using Dummy Data
- Step by Step Collaborative Filtering in Python Using IMDB Movies Dataset
- Creating Recommender System For Anime Using Content Based and Filtering
- Creating Recommender System For Anime Using Collaborative Filtering

After this class, you will be able to

- Understand different types of Recommender System
- Create a recommender system using content based and collaborative filtering

What is Recommender system?

- Recommender System is a system that seeks to predict or filter preferences according to the user's choices. Recommender systems are utilized in a variety of areas including movies, music, news, books, research articles, search queries, social tags, and products in general.
- Like many machine learning techniques, a recommender system makes prediction based on users' historical behaviors. Specifically, it's to predict user preference for a set of items based on past experience. To build a recommender system, the most two popular approaches are Content-based and Collaborative Filtering.

Recommender System Around Us

tokopedia

Kategori

Cari lampu meja



Toko



Jihar

Payung Lipat Realme Narzo Masker Anak Meja Rias Iphone 11 128gb Iphone Xr

Official Store



Pasti Ready



Pasti Ori



Garansi 7 Hari

Rekomendasi untukmu




Uli Kids Official Shop

Ulikids Gamis Anak Perempuan Polkadot

58% ~~Rp139.000~~

Rp59.000



Original Store

Ringke Dual Easy Xiaomi Redmi Note 9

Rp143.000



Manome Official

Face Shield Kacamata Jokowi bonus Masker

Rp45.000



Official Store

unomax

Case Xiaomi Redmi Note 9 Nillkin

Rp135.000



arthacat.id

TONGKAT KUCING - MAINAN CAT TEASER

Rp 35.000



Rabbani Official

Rabbani - Gamis Dresslim Muslim Anak



TOYAGI

DIGITAL LOCK DOOR/ KUNCI PINTU DIGITAL



Gute Hardware

Kunci Pintu / Gagang Pintu / Handle



arthacat.id

Finger Teaser - Mainan Kucing Boneka Goni



Nobleza Hardware

NOBLEZA Phoenix Hitam 60 cm Pull

Top

Recommender System Around Us

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9+ Notifikasi

? Bantuan

j.gihfari



Unilever DISKON S/D 50%



Buku Tematik SD Helm Bogo Minuman Cokelat Sepatu Converse Buku Motivasi Roti & Kue Masker Sensi Sofabed & Kursi Tamu



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FREE ONGKIR Sandal Sandal Pria Keren Casual...

Rp2.200 3RB Terjual



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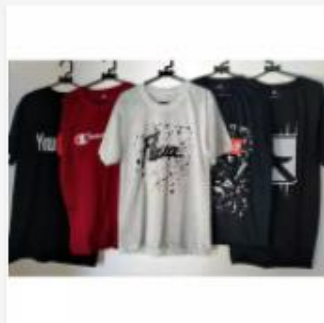
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KAOS DISTRO TERMURAH | PRIA | MURAH



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Headphone Gaming X5 / X14 / X22 PRO / Headset...



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VENTELLA SEPATU VANTELA PUBLIC...



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CLOWNY PANTS CELANA CARGO WANITA //...



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TERMURAH Sandal pria slip on rebook



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Recommender System Around Us

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Acoustic Music Collection

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Recommender System Around Us



Good afternoon



Write



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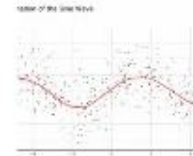
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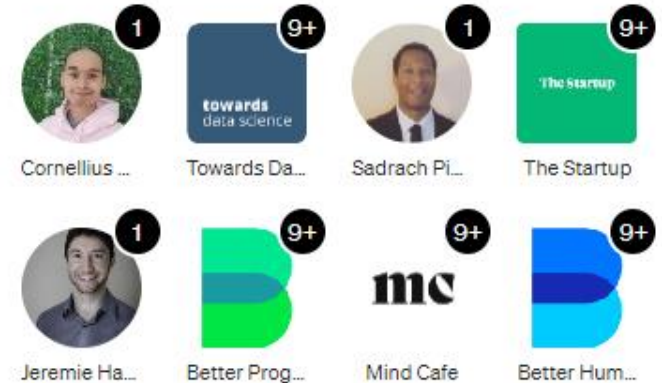


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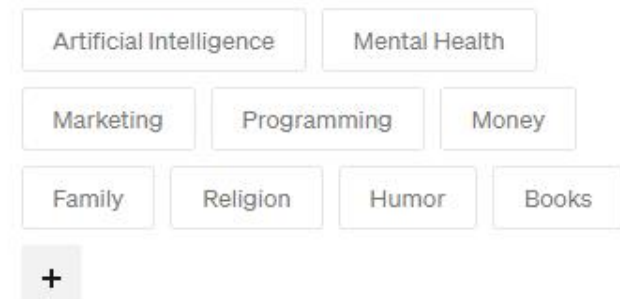
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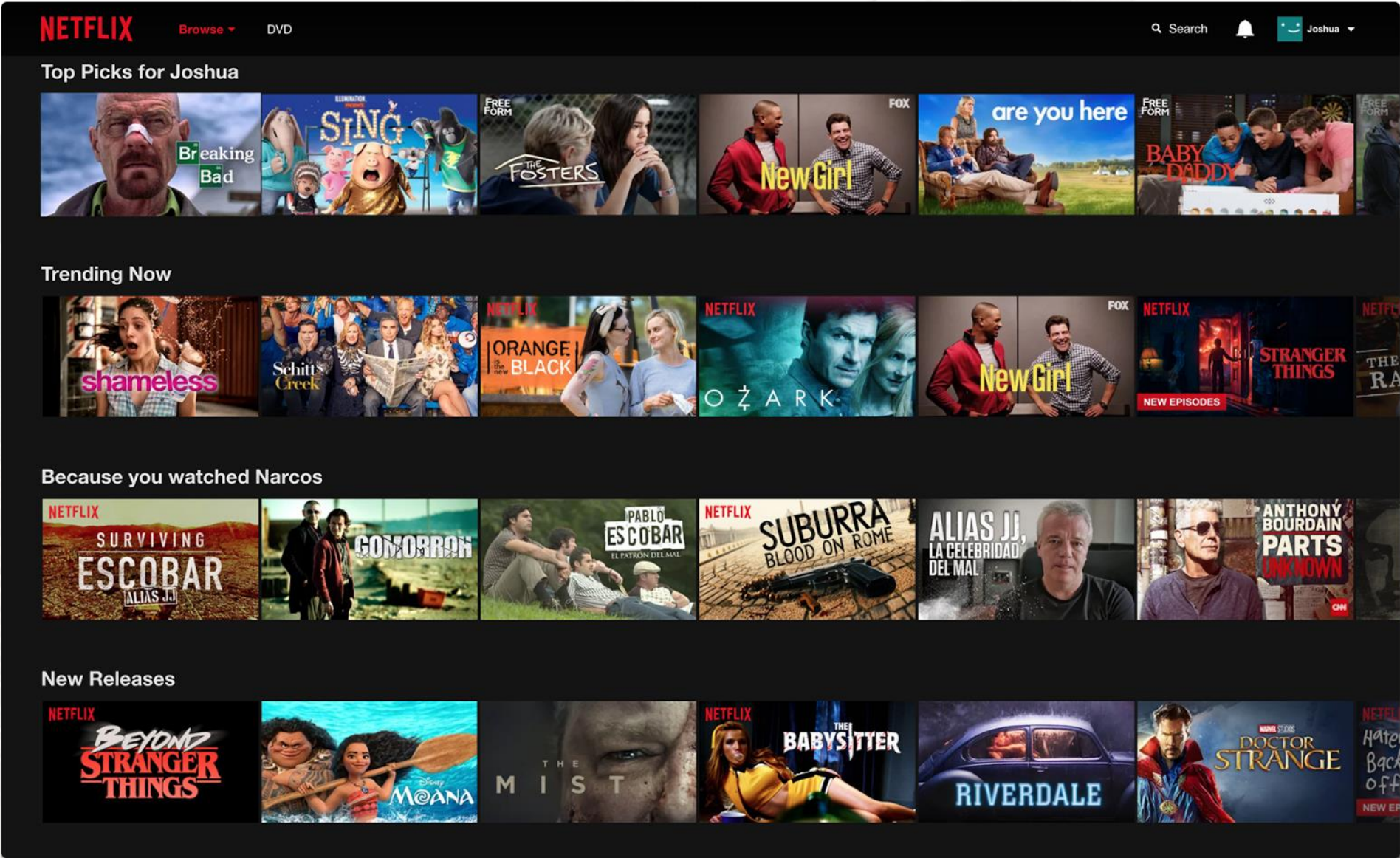
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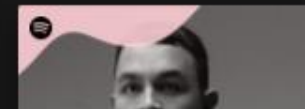
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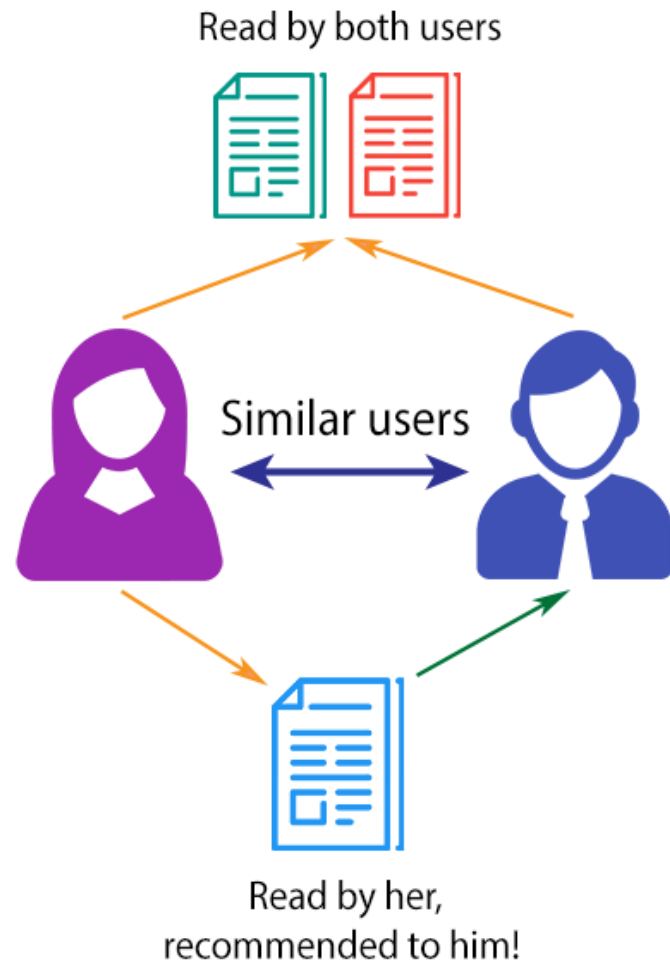
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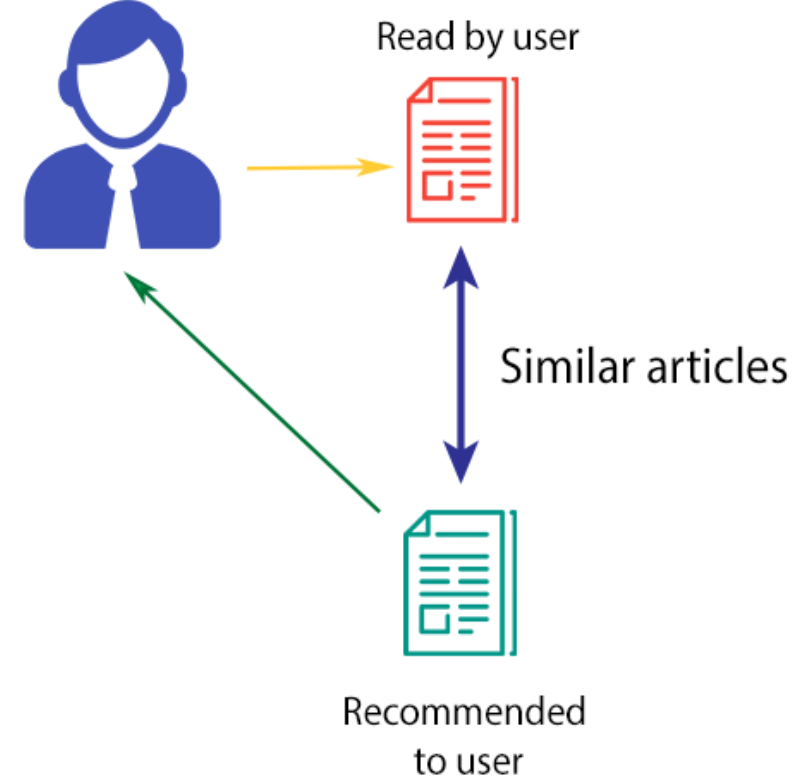


Different Types of Recommender System

COLLABORATIVE FILTERING



CONTENT-BASED FILTERING



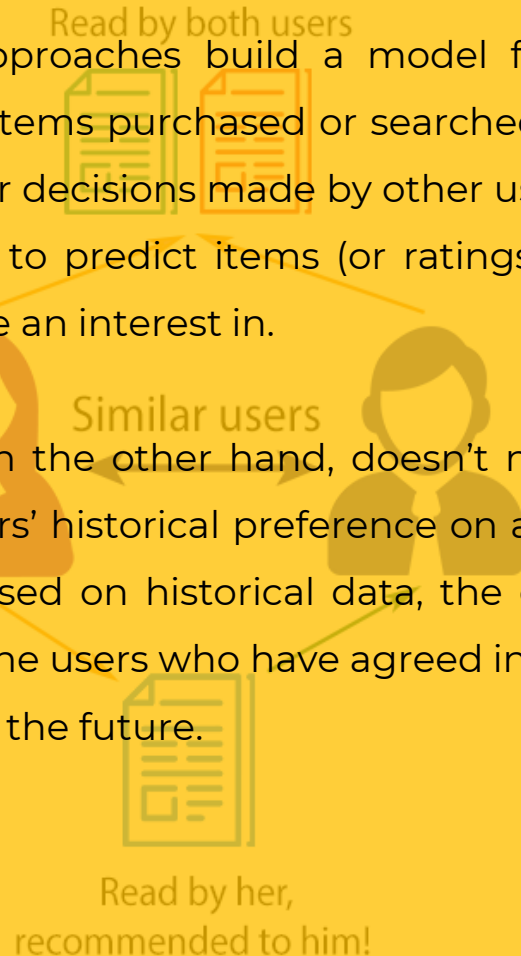
Different Types of Recommender System

COLLABORATIVE FILTERING

1. Collaborative filtering

Collaborative filtering approaches build a model from user's past behavior (i.e. items purchased or searched by the user) as well as similar decisions made by other users. This model is then used to predict items (or ratings for items) that user may have an interest in.

Collaborative Filtering, on the other hand, doesn't need anything else except users' historical preference on a set of items. Because it's based on historical data, the core assumption here is that the users who have agreed in the past tend to also agree in the future.

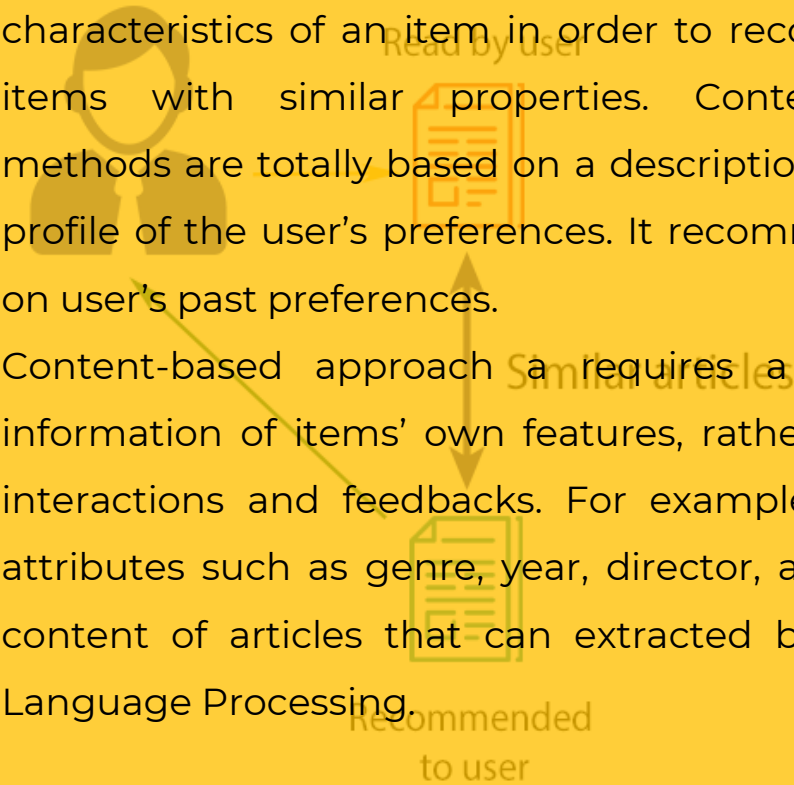


CONTENT-BASED FILTERING

2. Content-based filtering

Content-based filtering approaches use a series of discrete characteristics of an item in order to recommend additional items with similar properties. Content-based filtering methods are totally based on a description of the item and a profile of the user's preferences. It recommends items based on user's past preferences.

Content-based approach requires a good amount of information of items' own features, rather than using users' interactions and feedbacks. For example, it can be movie attributes such as genre, year, director, actor etc., or textual content of articles that can be extracted by applying Natural Language Processing.



Simple Illustration of recommender system

Andi : Pop, Jazz, Rock
Budi : Dandut, Pop, Kroncong
Caca : Jazz, Indie, Instrument
Eva : Dangdut, Rap
Faris : Indie, Pop, Rock
Ghina : Rap, Rock, Jazz

Content Based Filtering : Each user only get recommendation limited to their preferences and what they've heard

Collaborative Filtering : Each user also get recommendation from what similar users have heard



Let's Find out how to create recommender system in Python!



Thank You