

Anime Recommendation System

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Three Key Takeaways



History

Background knowledge
on Anime



Algorithm

The use cosine
distances for similarities



Application

Applied to user friendly
Streamlit app

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Anime Background

- First film in early 20th century
- Katsudo Shashin first Anime
- Popularized in the the 1940s
- Akihabara, Japan known as ‘Anime City’
- 27 Billion dollar market





Anime Dataset

- 76,000 users
- 12,292 animes
- Kaggle dataset
- 6 features
- Clean dataset



Tv

TV shows



Originals

Combination of OVA
and ONA



Movies

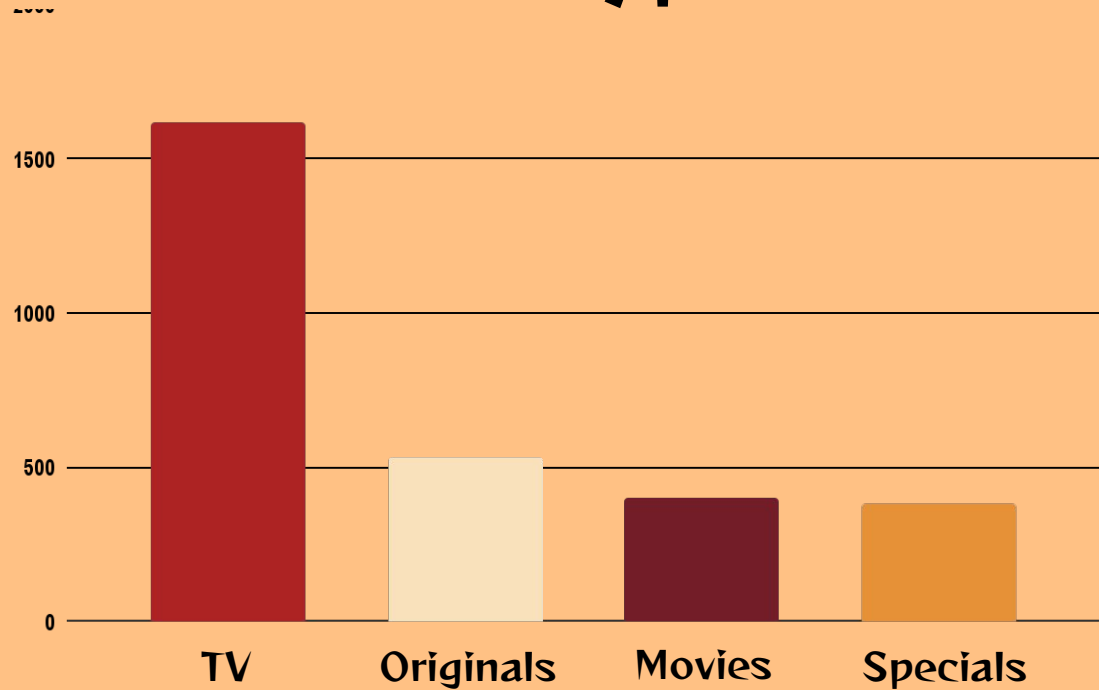
All Movies



Specials

Standalone
shows

Anime Types




 **Action**
Action packed films

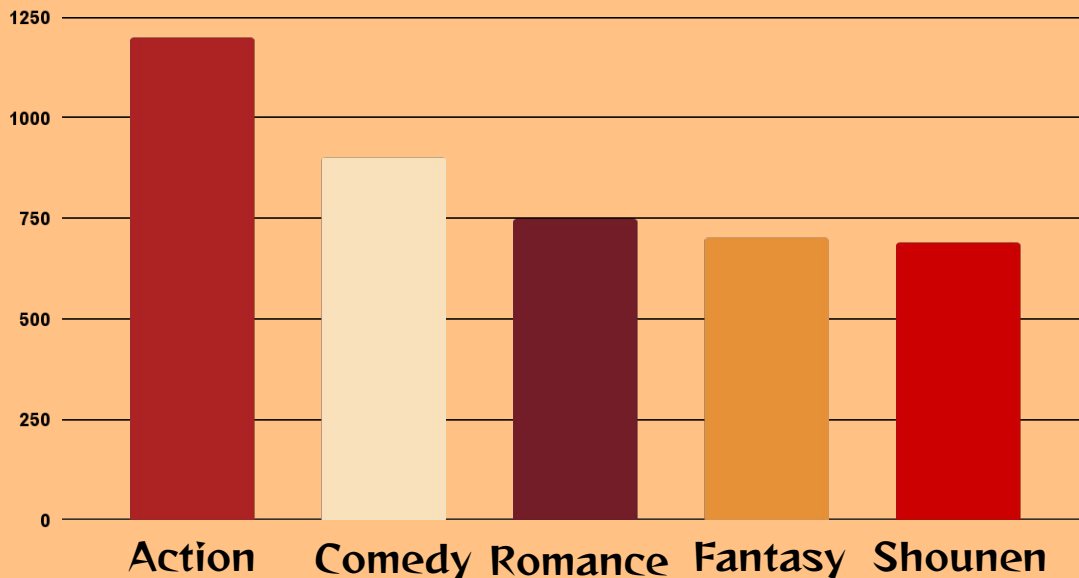
 **Comedy**
Feel good and sense of humor films

 **Romance**
Love films

 **Fantasy**
Magic and Unique worlds

 **Shounen**
Young children films

Anime Genres



Top Anime by Genre

	Action	Comedy	Romance	Fantasy	Shounen
1	Fullmetal Alchemist: Brotherhood	Haikyuu!!: Karasuno Koukou VS Shiratorizawa	Kimi no Na wa.	Mushishi Zoku Shou 2nd Season	Naruto
2	Gintama°	Haikyuu!! Second Season	Clannad: After Story	Ookami Kodomo no Ame to Yuki	Koe no Katachi
3	Hunter x Hunter (2011)	Cowboy Bebop	Shigatsu wa Kimi no Uso	Mononoke Hime	Shingeki no Kyojin
4	Code Geass: Hangyaku no Lelouch	One Punch Man	Suzumiya Haruhi no Shoushitsu	Natsume Yuujinchou Go	Gintama Movie: Kanketsu-hen - Yorozuya yo



Collaborative Filtering

- Item Based Filtering

Pivot Table

- Title as the index, Userid as columns

Cosine Distance

- Pairwise_distance function in sklearn



Recommendation Examples



Death Note

1

Code Geass:
Hangyaku no
Lelouch

2

Elfen Lied

3

Shingeki no Kyojin

4

Fullmetal Alchemist:
Brotherhood



Cowboy Bebop

1

Cowboy Bebop:
Tengoku no Tobira

2

Samurai Champloo

3

Trigun

4

FLCL

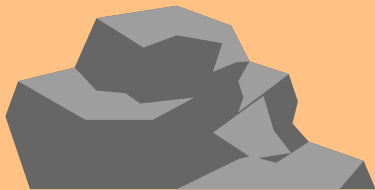
On To Streamlit!

Time to test the App



Conclusion & Recommendation

- Collaborative filtering great for similarities
- Adding filters
- Sparsity in data
- User feedback important



Thanks!

Do you have any questions?



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