

# Movie Recommender Systems



Astro Coders  
(Team CB2)

# Meet the Team



**Sinhle**



**Web App  
Developer**

**Samuel**



**Senior Data  
Analyst**

**Ozzy**



**Chief Executive  
Officer**

**Sinethemba**



**Data  
Scientist**

**Nhlanhla**



**Machine Learning  
Engineer**

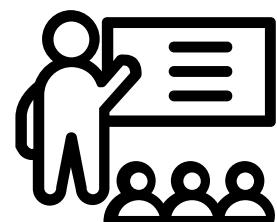
# Contents



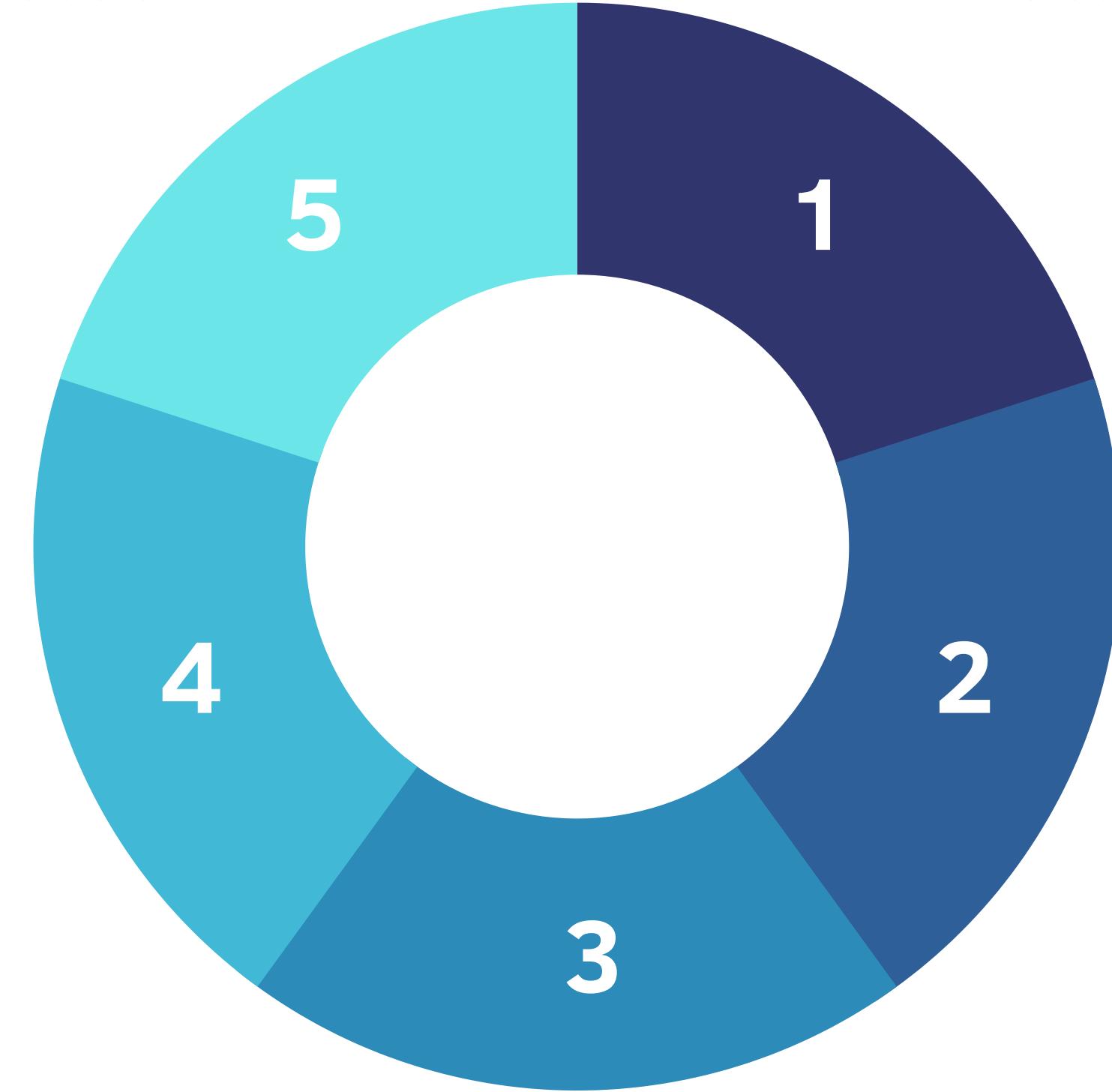
**Pitch & Conclusion**



**Introduction**



**Streamlit Demo**



**Methodology** A black icon of a magnifying glass focusing on a bar chart, with a plus sign at the bottom right corner, representing methodology.



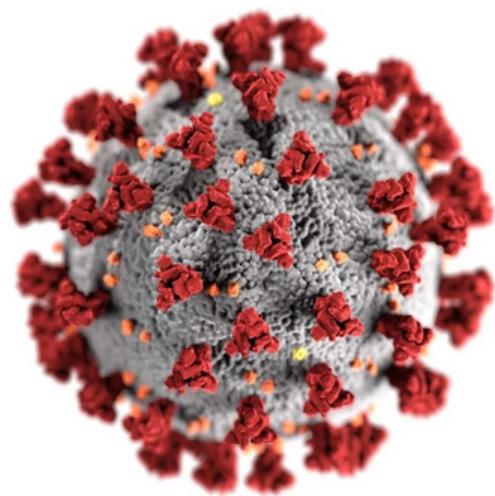
**Aim & Objectives**



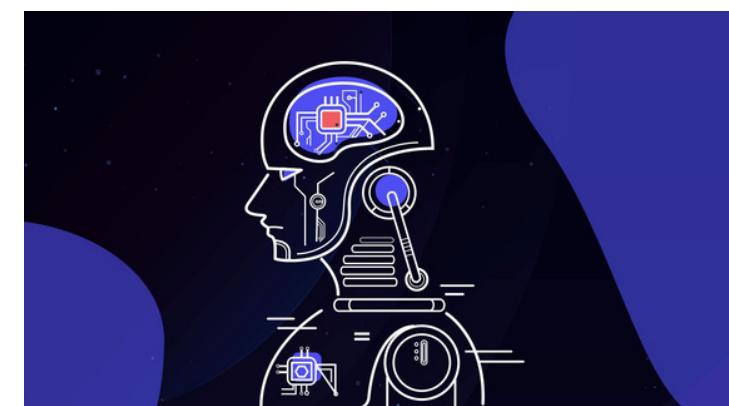
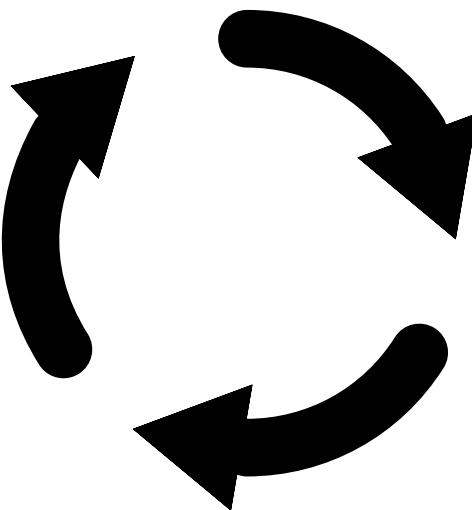
# Introduction



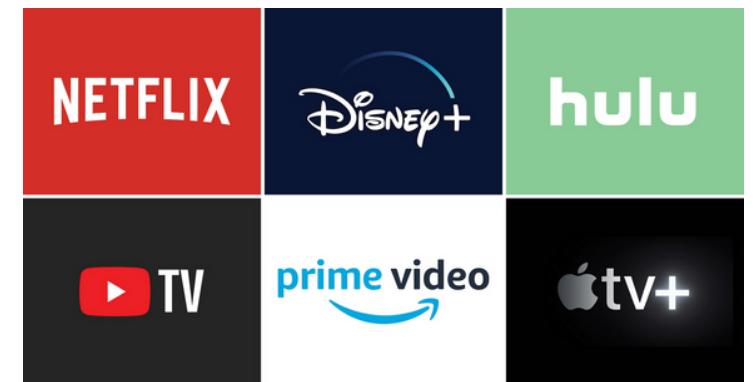
Shut down cinemas



Covid 19  
Outbreak



Recommender  
Systems



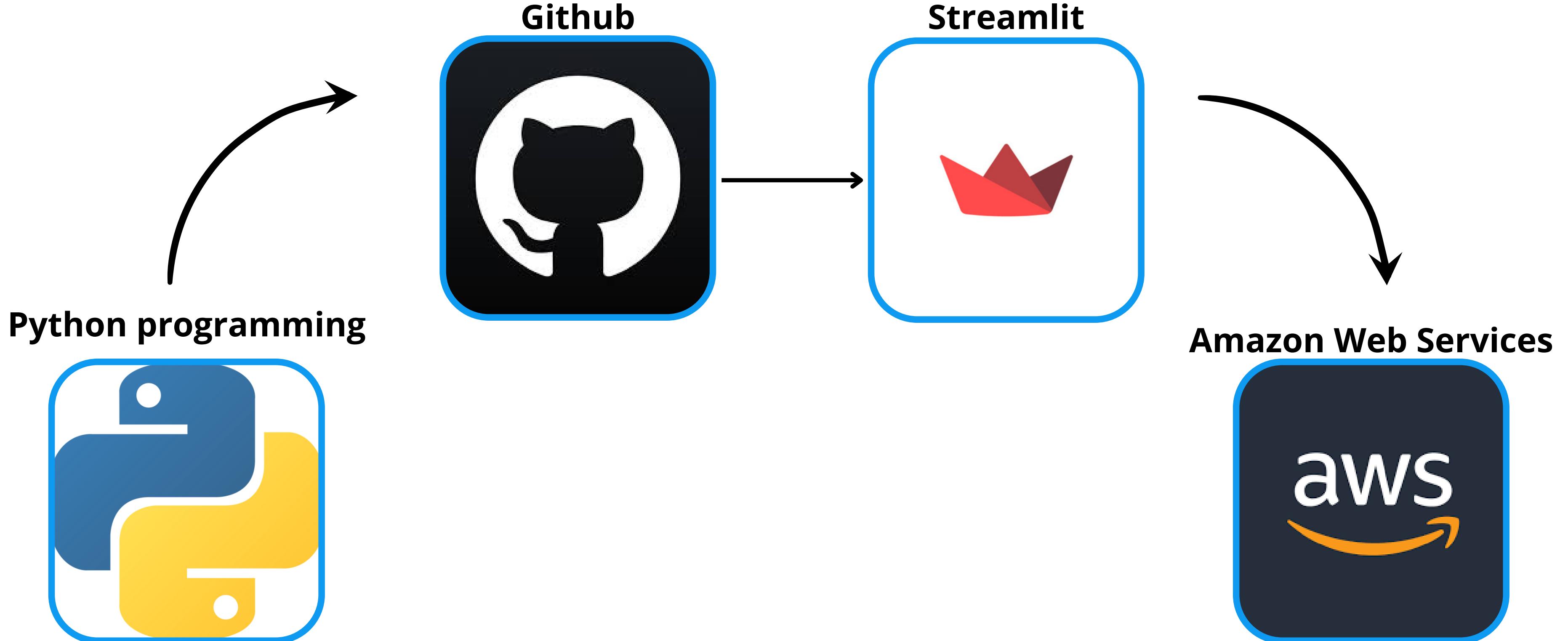
Streaming  
subscriptions



## Objectives

- Building a recommender system
- Content-based Filtering
- Collaborative-based Filtering
- High accuracy
- Enriched user interface

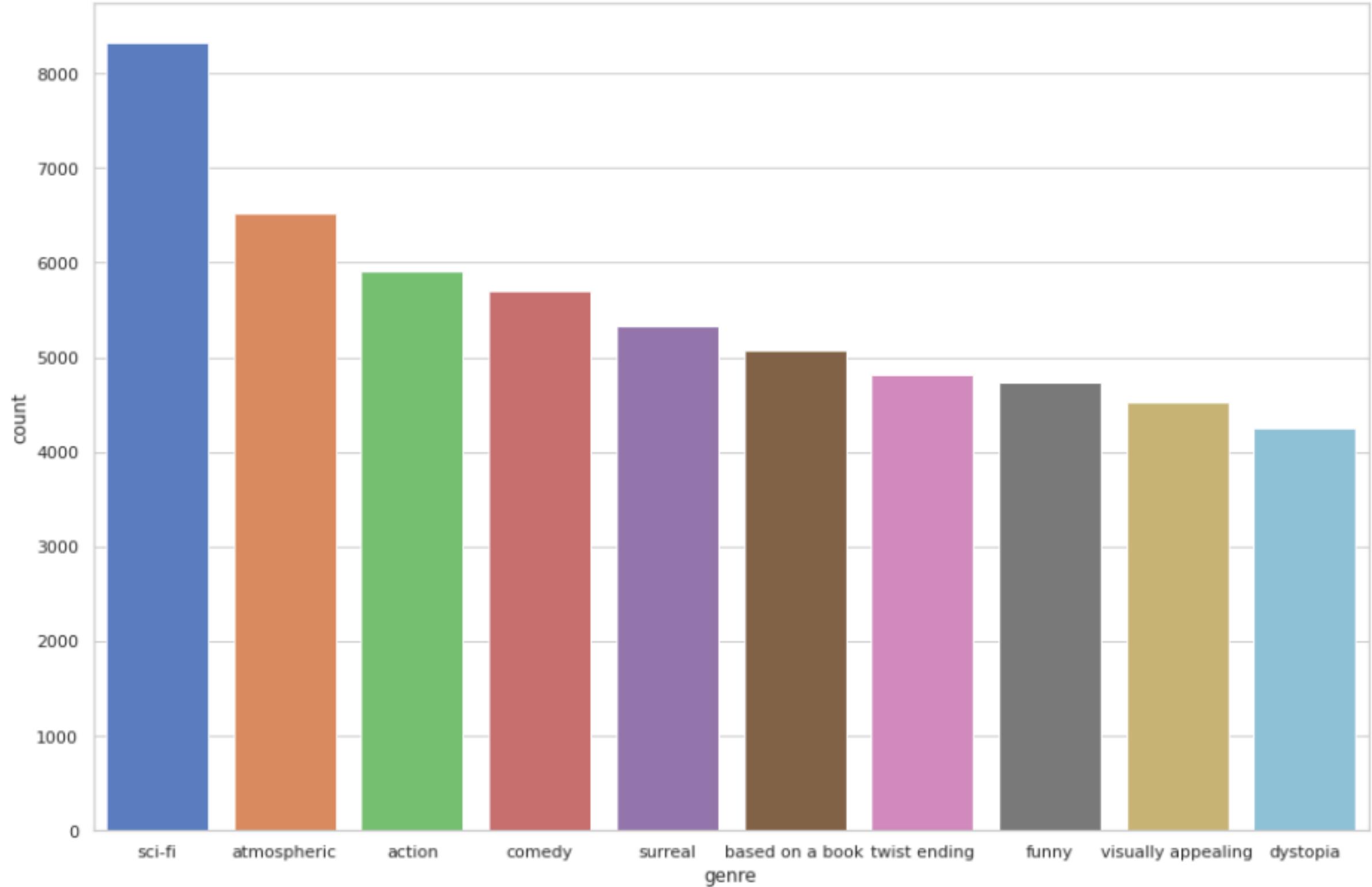
# Methodology



# Exploratory Data Analysis

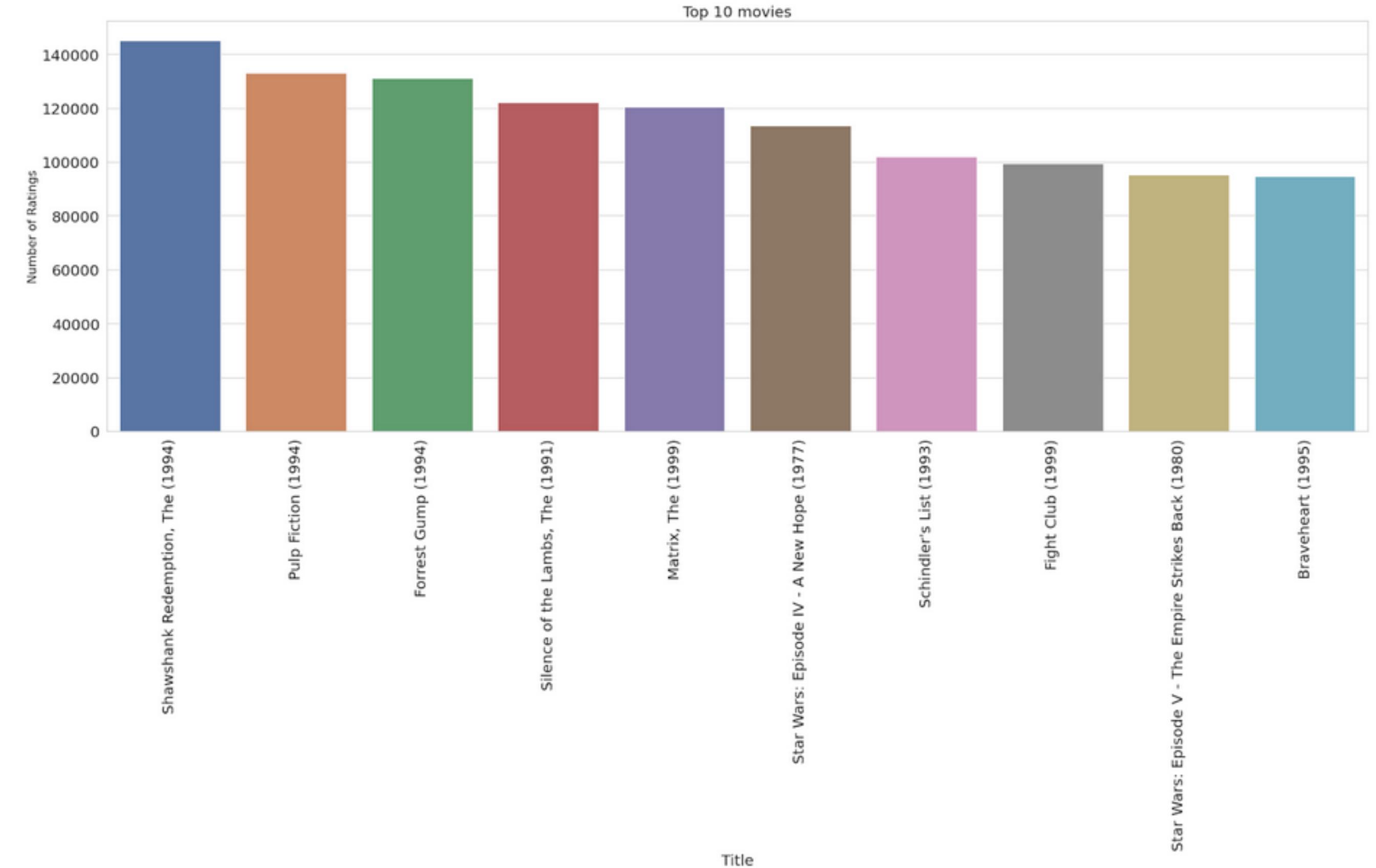


## Most Popular Tags



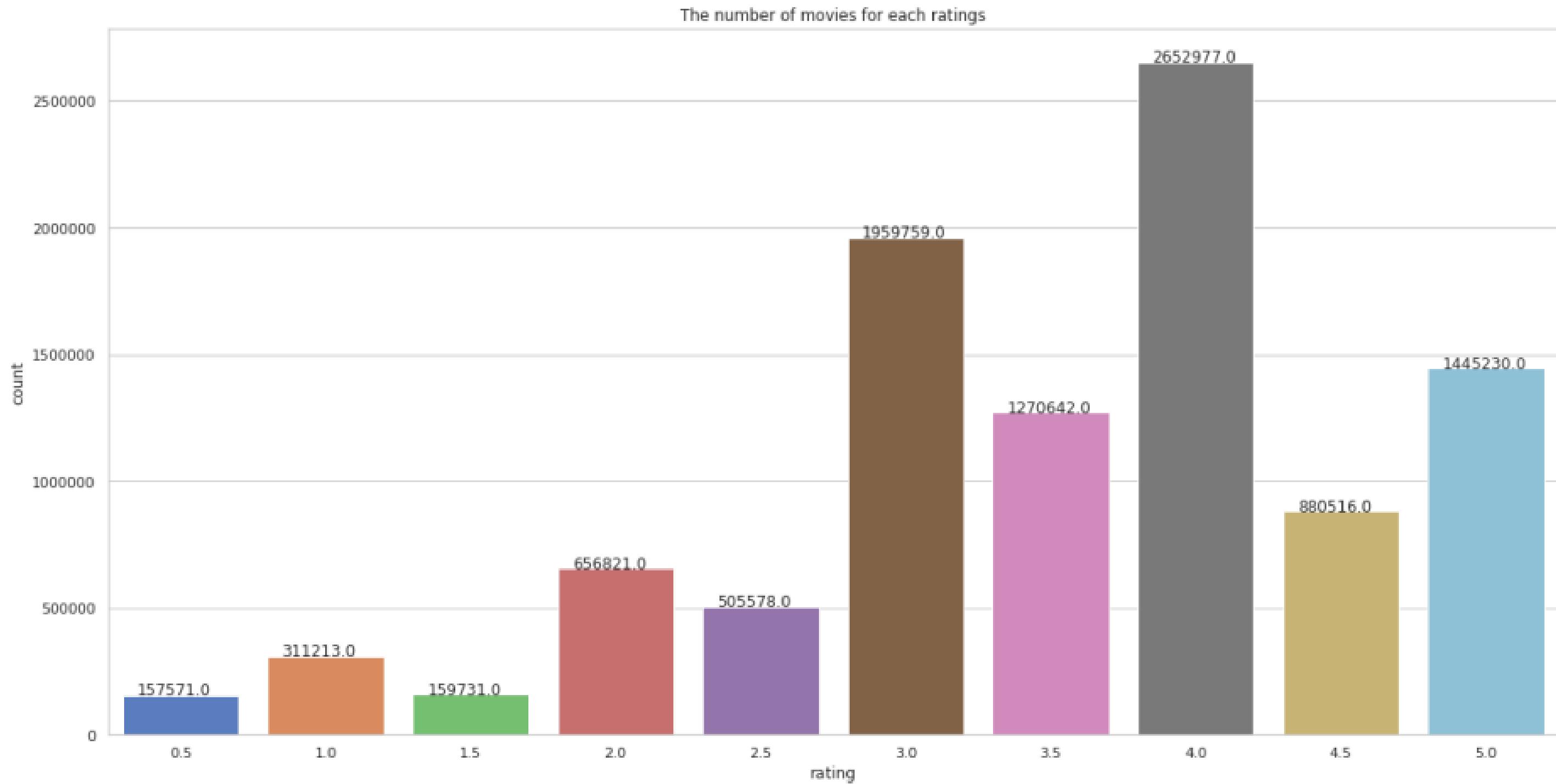
Most users add tags that are associated with movies aimed at adults

# Top Rated Movies



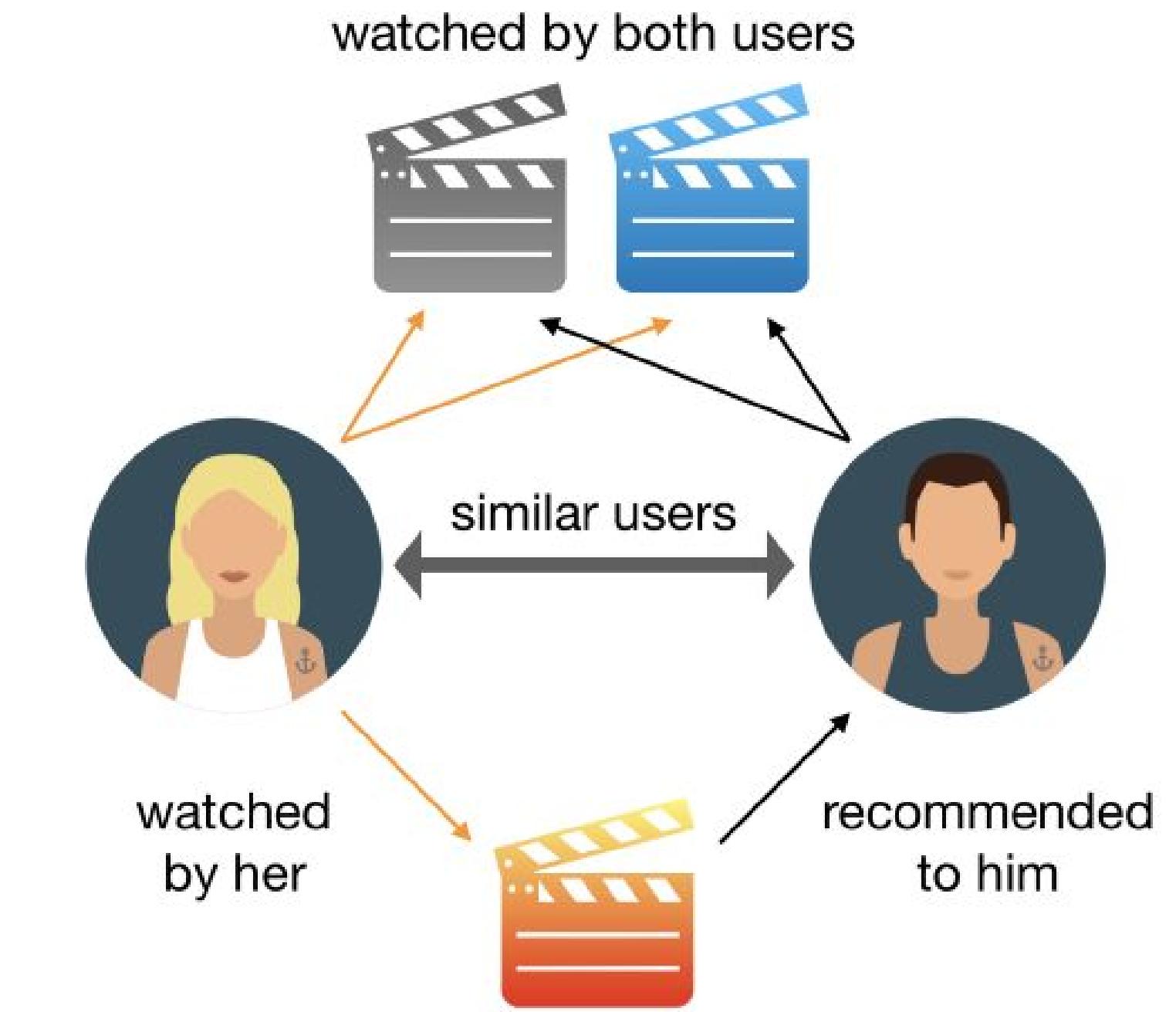
Highest rated movies are ones that are old. This could reflect the age demographic of users

# Number of Movies for each Rating



Most movies rated well. This means we have good movies in the system already

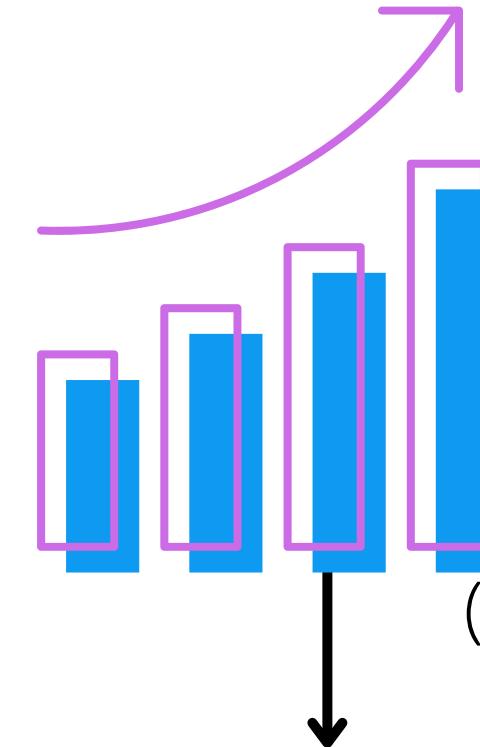
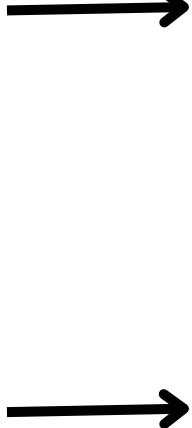
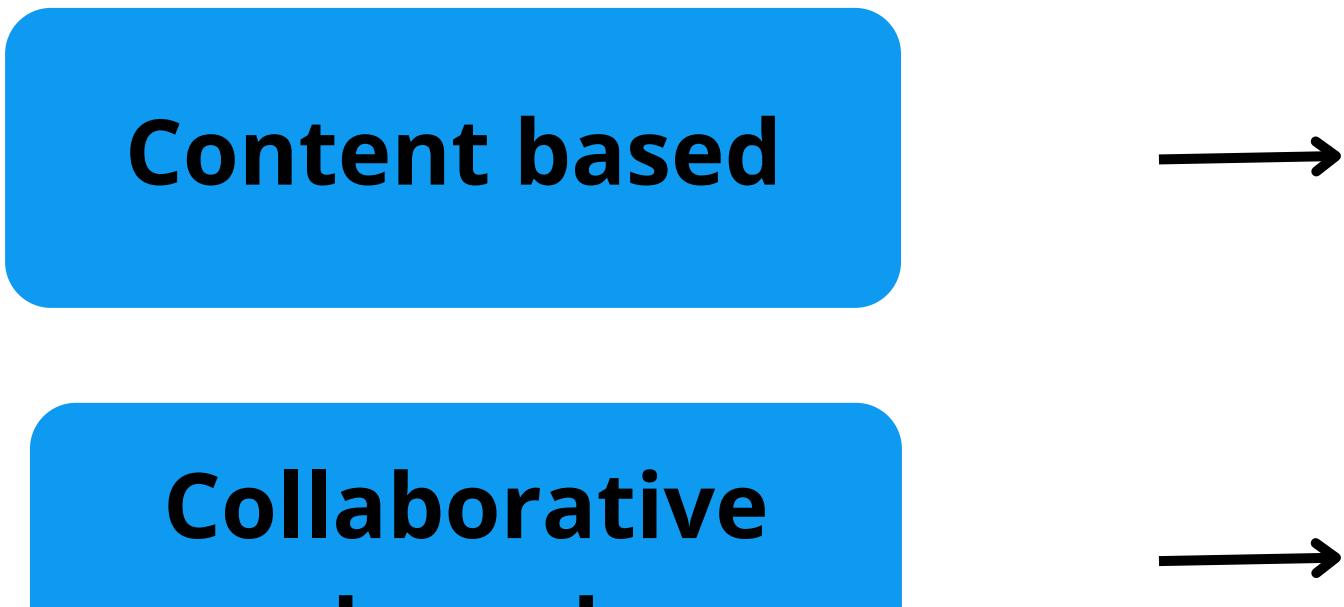
## Data collection



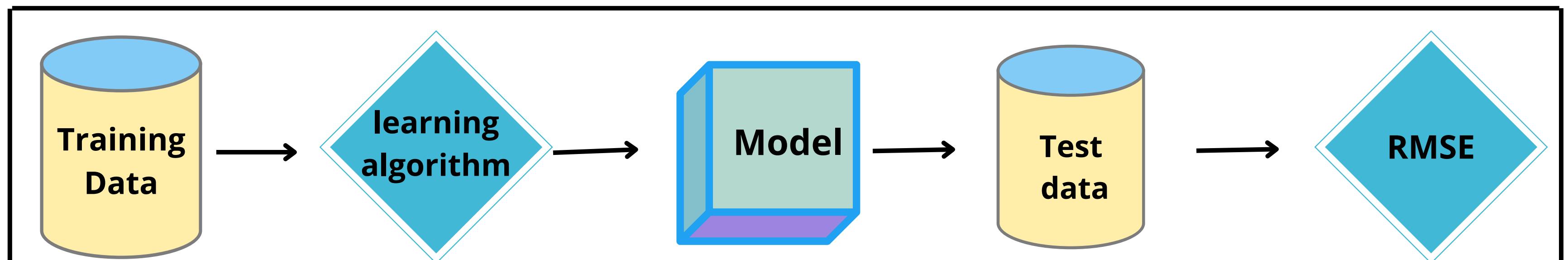
# Data Management



# Modelling

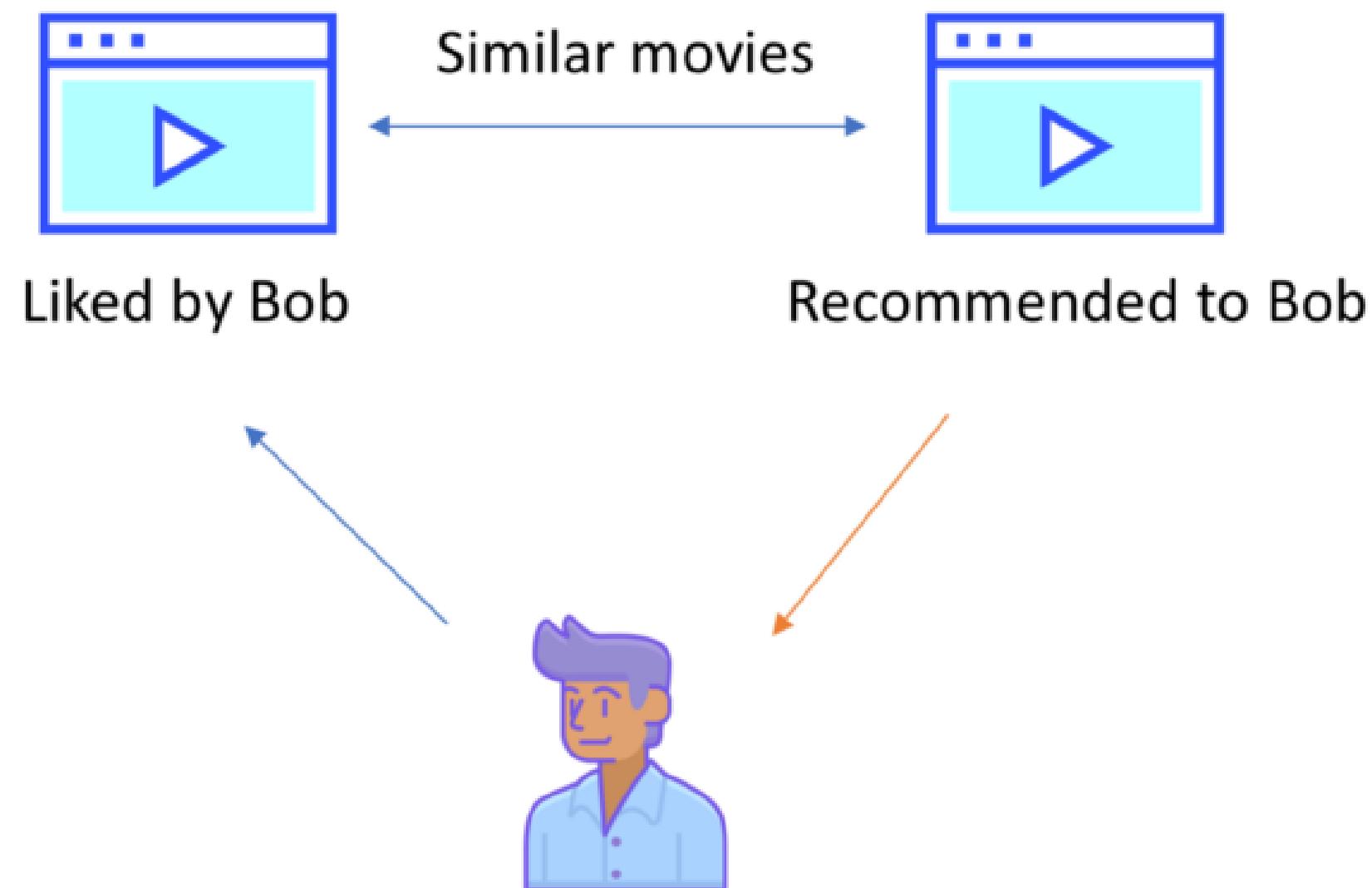


Data driven  
(predict next movie)



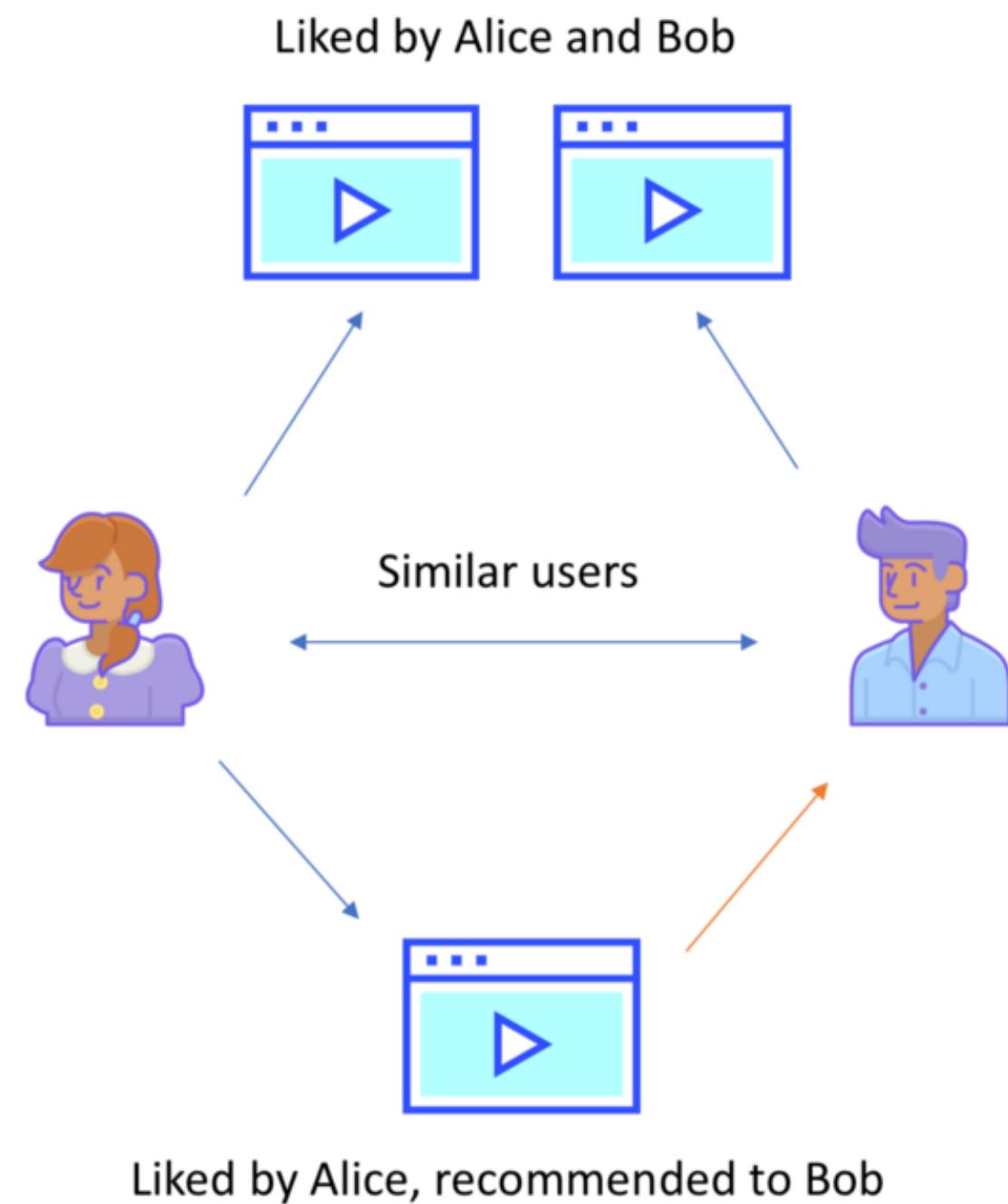
# Content based

## Content-based filtering



# Collaborative based

## Collaborative filtering



# Model Evaluation



```
1 movie_recommendations('Toy Story (1995)').head()
```

```
2203                               Antz (1998)
3021                               Toy Story 2 (1999)
3653 Adventures of Rocky and Bullwinkle, The (2000)
3912      Emperor's New Groove, The (2000)
4780                               Monsters, Inc. (2001)
```

Name: title, dtype: object

userId	movieId	rating	timestamp	prediction
31	6620	1.5	1256226366	2.6469395
76	1342	3.5	1191101927	3.1594903
101	8638	5.0	1450710256	3.732459
230	471	3.0	864124912	3.0094547
285	1645	3.0	909245770	3.8702767
291	1580	4.0	1029124960	3.8557045
322	463	3.0	1061688117	3.1195064
416	1580	3.0	1154370480	2.9479659
540	8510	4.5	1474488060	3.728144

# Streamlit Demo



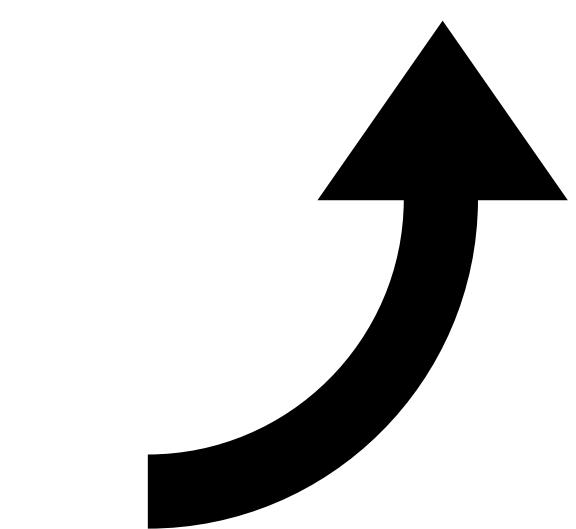
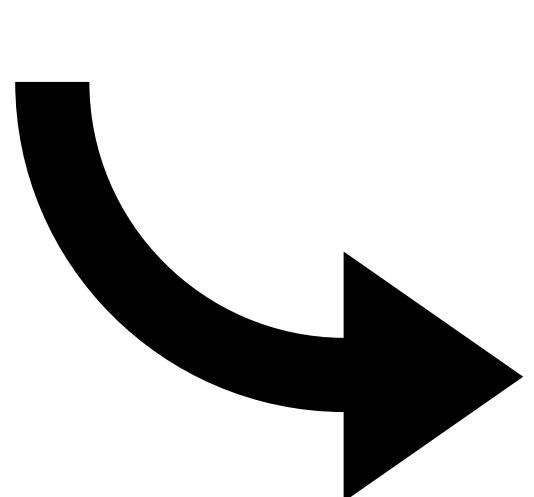
# **Streamlit Demo Video**

# Recommender System Pitch



# Astro Coders

## Recommender System



# Thank You!!!

