

# MOVIE

# RECOMMENDATIONS

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# BUSINESS PROBLEM

**Stakeholder:** Popcorn (a new streaming service company)

**Task:** Develop a recommendation engine

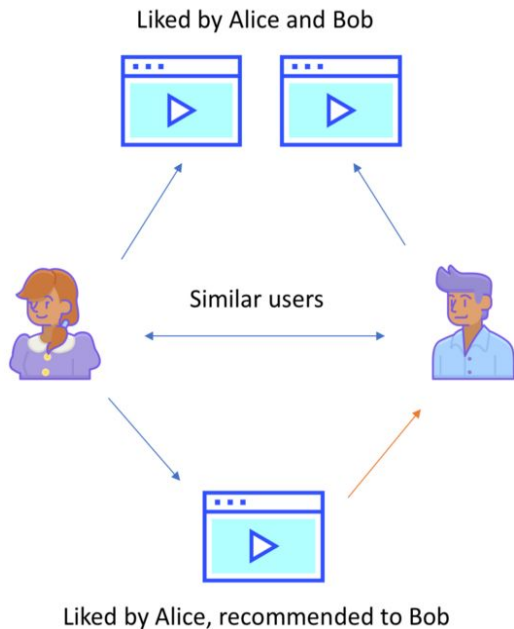
# DATA

- **MovieLens**
- 100,836 ratings (March 1996 - September 2018)
- 610 users
- 9742 movies
- Genre, Tags

# RECOMMENDATION SYSTEM

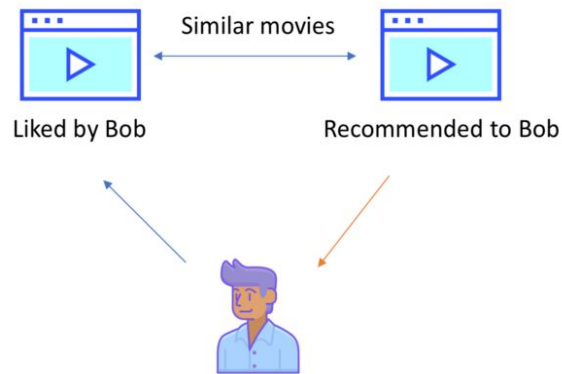
## FOR EXISTING USERS

### Collaborative filtering



## FOR NEW USERS

### Content-based filtering



# TOP 5 MOVIE RECOMMENDATIONS FOR EXISTING CUSTOMERS



# RECOMMENDATIONS FOR X

## RECOMMENDATIONS



## X'S PROFILE

2001: A Space Odyssey (1968)	sci-fi	4.5
Lawrence of Arabia (1962)	drama/classic	4.5
Apocalypse Now (1979)	psychological	4.5
8 1/2 (1963)	Italian comedy	4.5
Persona (1966)	Swedish psychological	4
Monty Python and the Holy Grail (1975)	British comedy	4
Brazil (1985)	sci-fi / comedy	4

# RECOMMENDATIONS FOR Y

## RECOMMENDATIONS



## Y'S PROFILE

Star Trek: First Contact (1996)	sci-fi	5
Twelve Monkeys (1995)	sci-fi	5
The Birdcage (1996)	comedy	5
Mission: Impossible (1996)	action/spy	4
Heat (1995)	crime	4
Leaving Las Vegas (1995)	drama	4
Dead Man Walking (1995)	crime/drama	4





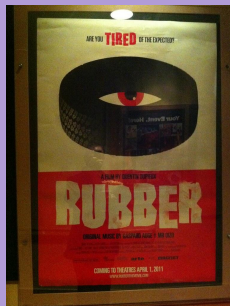
# 5 RECOMMENDATIONS FOR NEW CUSTOMERS



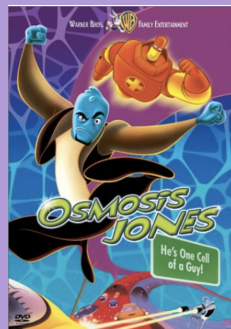
# DEJAS PROFILE

Predator	3.0
Final Destination	4.9
Mission Impossible	4.0
Exorcist	4.8
Waiting to Exhale	3.9
Higher Learning	4.5
The Omen	2.0

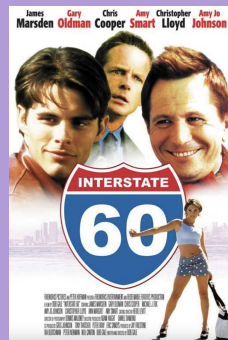
# RECOMMENDATIONS



RUBBER



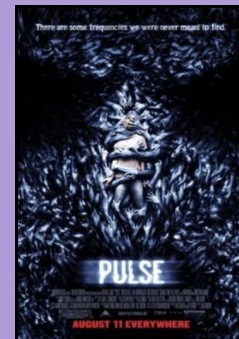
OSMOSIS JONES



INTERSTATE 60



THE MUMMY



PULSE

# NEXT STEP

- develop a hybrid model
- explore other movie features (e.g., tags)
- use a larger dataset from the movie lens
- conduct A/B testing
- Filter for movies with same title

# THANKS!

Do you have any questions?



Deja Prade

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