

No, *YOU*  
pick the  
movie.



The Solution to the Movie Choice Crisis... A Recommendation System

# MOVIE CHOICE CRISIS: Indecision kills

1. Disengagement kills profit
2. Indecision fuels disengagement

- **20% of the adult population is indecisive<sup>1</sup>**
- **67% of disputes in relationships are never resolved<sup>2</sup>**



1. Ferrari, J.R. (2010). *Still procrastinating? The no regrets for getting it done*. John Wiley & Sons.

2. [Relationship Break up Statistics Based on Studies, Facts for 2023 - DoULike Blog](https://www.doulike.com/blog/statistics/break-up-statistics/#:~:text=10%20Key%20Breakup%20Statistics%20for%202023%201%2088%25,an%20ex%20after%20a%20breakup%E2%80%8B%20%E2%80%8B.%20More%20items)

(<https://www.doulike.com/blog/statistics/break-up-statistics/#:~:text=10%20Key%20Breakup%20Statistics%20for%202023%201%2088%25,an%20ex%20after%20a%20breakup%E2%80%8B%20%E2%80%8B.%20More%20items>)

# Solution: Movie Recommendation System

- Makes movie selection for you
- Analyzes preferences from **610 viewers** of over **9,700 movies** to customize recommendations
- Powerful machine learning algorithm predicts preferences for any movie lover



# How it works: User-Based, Collaborative Filtering System

- Determine our user
- Input user data - movie's seen
- Add to database of users and the movies they've watched
- Identifies similar users based on movies watched
- Recommend the favorites of similar users.

Jim



# Sample Input:

HILARIOUS

8655 John Mulaney: New In Town (2012)  
Name: title, dtype: object 8655 Comedy  
Name: genres, dtype: object

How do you rate this movie on a scale of 1-5, press n if you have not seen:

5

6895 Saw V (2008)  
Name: title, dtype: object 6895 Crime|Horror|Thriller  
Name: genres, dtype: object

How do you rate this movie on a scale of 1-5, press n if you have not seen:  
4

9491 CHiPS (2017)  
Name: title, dtype: object 9491 Action|Comedy|Drama  
Name: genres, dtype: object

How do you rate this movie on a scale of 1-5, press n if you have not seen:

1

1984 Mummy, The (1959)  
Name: title, dtype: object 1984 Horror  
Name: genres, dtype: object

How do you rate this movie on a scale of 1-5, press n if you have not seen:  
1

1261 Starship Troopers (1997)  
Name: title, dtype: object 1261 Action|Sci-Fi  
Name: genres, dtype: object

How do you rate this movie on a scale of 1-5, press n if you have not seen:  
2

PAINFUL

## And the Output - Movies I really like...

Recommendation # 1 : 659  
Name: title, dtype: object

Godfather, The (1972)

Recommendation # 2 : 224  
Name: title, dtype: object

Star Wars: Episode IV - A New Hope (1977)

Recommendation # 3 : 898  
Name: title, dtype: object

Star Wars: Episode V - The Empire Strikes Back...

Recommendation # 4 : 5621  
Name: title, dtype: object

Neon Genesis Evangelion: The End of Evangelion...

Recommendation # 5 : 900  
Name: title, dtype: object

Raiders of the Lost Ark (Indiana Jones and the...)

And one I haven't seen...

# Summary

- User-based, collaborative filtering model to pick movies.
- Analyzes existing database from over 610 users and 9700 movies.
- Predicts movie preferences for new user (with just a handful a data input)
- Provides recommendations to *reduce indecision and boost engagement*





# Going Forward



- Deploy cloud-based to test on a wider group
- Iterate model to improve performance



# Questions:

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