

Martin Dudi



MOVIE RECOMMENDATION SYSTEM

SMART MOVIE SUGGESTIONS

THE SMART WAY TO PICK A MOVIE

Email:

martindudi6@gmail.com

Presentation structure

Outline

- Introduction
- Data Analysis & Findings
- Deployment
- Movie Recommendations
- Conclusion
- Questions & Answers
- Thank You



Introduction



The Essence of a good Movie Recommendation System

My goal is to create a top-tier movie recommendation system. that will use users' past movie ratings to deliver personalized suggestions, elevating the entertainment platform experience and boosting its success.



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Recommendation systems turn data into
delight, providing users with the content
they love.

MARTIN DUDI



Data Analysis

I'll explore the distribution of movie ratings and share insightful findings.

Research questions

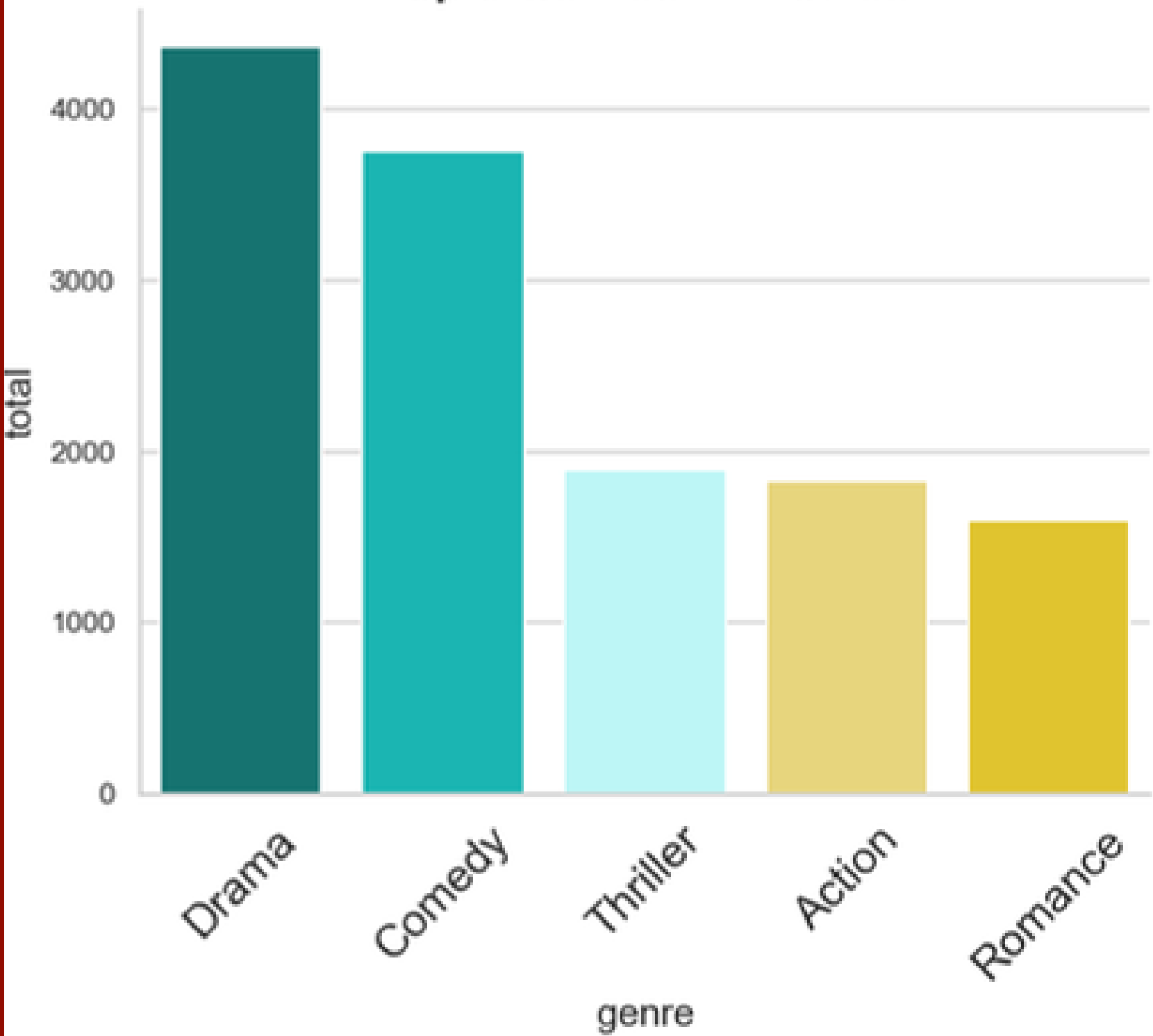
- What are the most prevalent genres among the movies?
- What are the movies that garnered the most positive feedback?
- How many users have rated these movies with a perfect rating?
- What insights can be drawn from the distribution of ratings across movies?
- Do highly rated movies also tend to have a high number of ratings?

WordCloud visualization based on movie genres

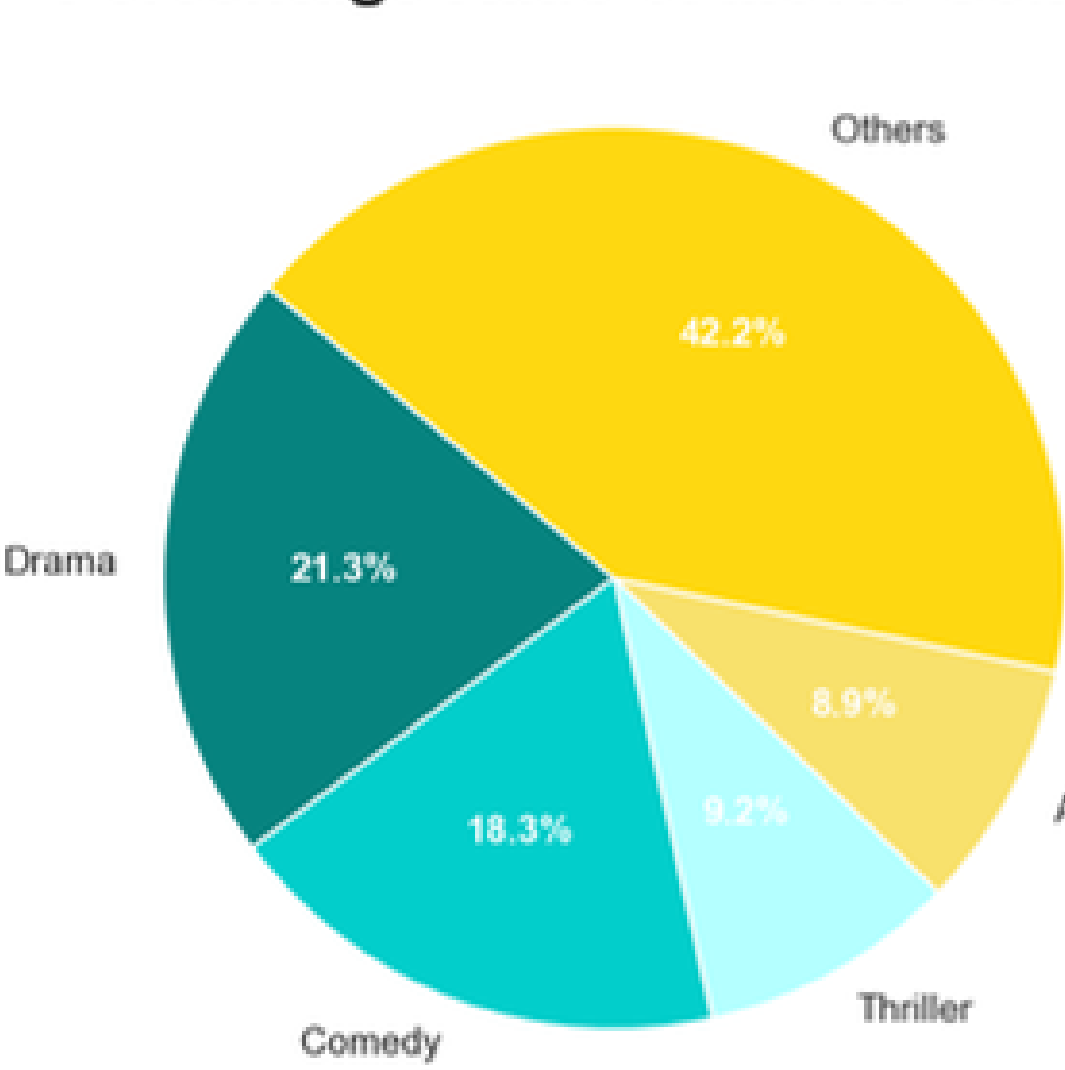
**WHAT ARE THE MOST PREVALENT GENRES AMONG THE
MOVIES??**

Most Prevalent Genres

Top 5 Genres in Movies



Percentage Ratio of Movie Genres



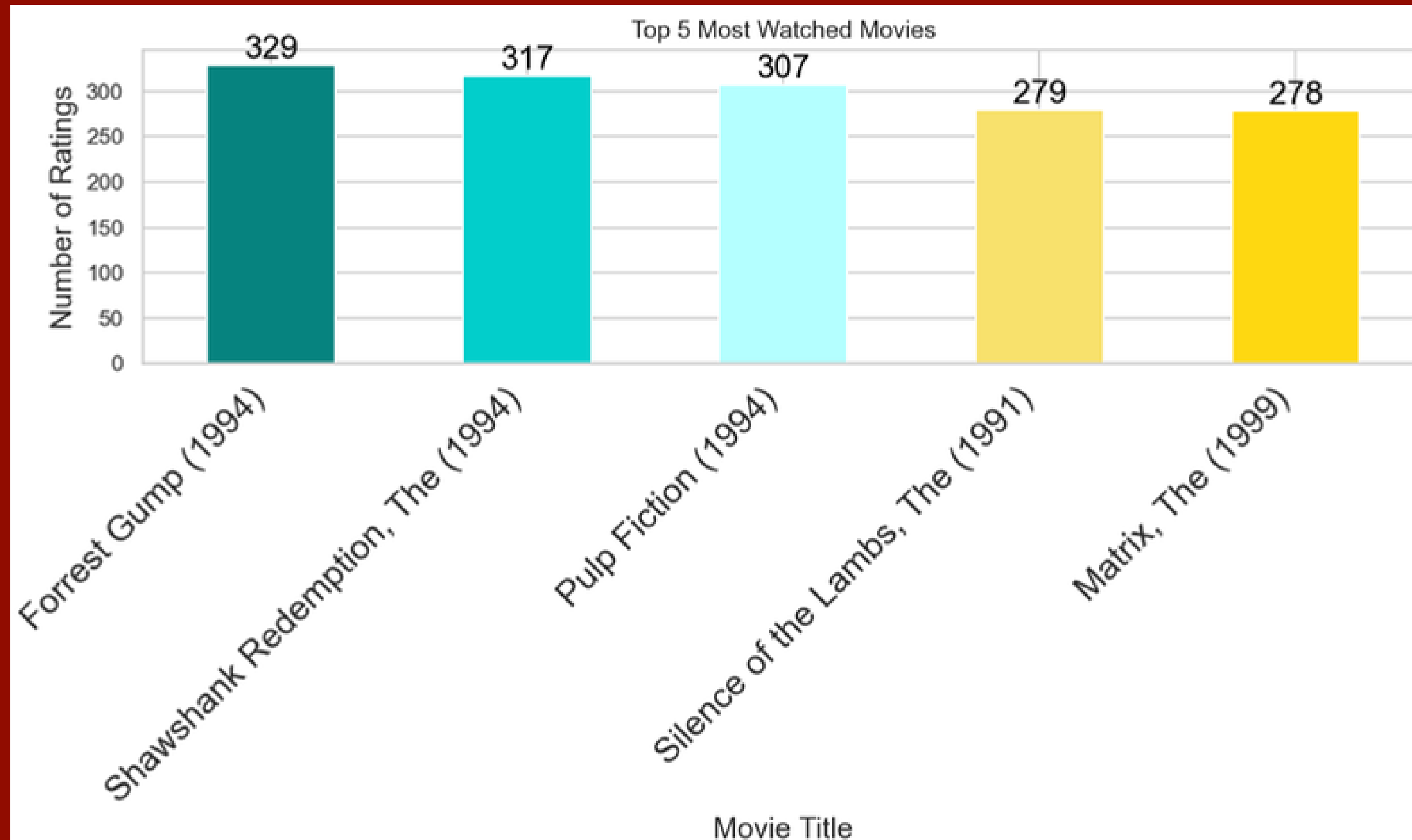
Most Prevalent Movies

- The most prevalent movie genres in our dataset are comedy, drama, adventure, and action. These genres consistently appear as top choices among users, reflecting their enduring popularity in the world of cinema.
- We can see which genres have the highest frequency, helping us tailor our movie recommendations to align with the most popular and sought-after genres among our audience.

Top Watched Movies

WHAT ARE THE MOST-VIEWED MOVIES BASED ON USER
INTERACTIONS?

Top watched Movies

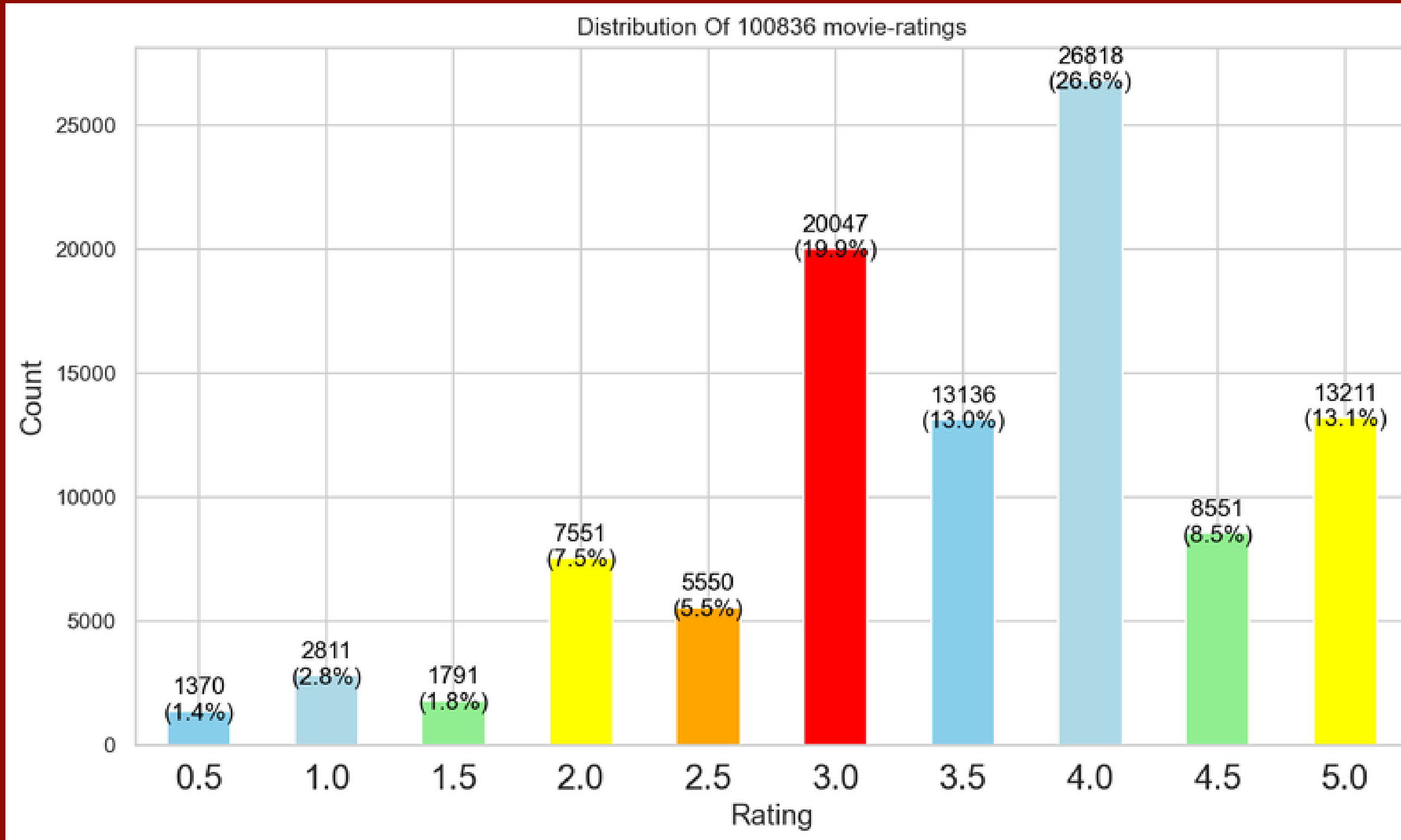


The release years of these top movies span from 1991 to 1999, demonstrating their enduring popularity across different generations of viewers

Distribution of Ratings across Movields

HOW ARE RATINGS DISTRIBUTED ACROSS DIFFERENT
MOVIE IDS?

Distribution of Ratings across Moviefields



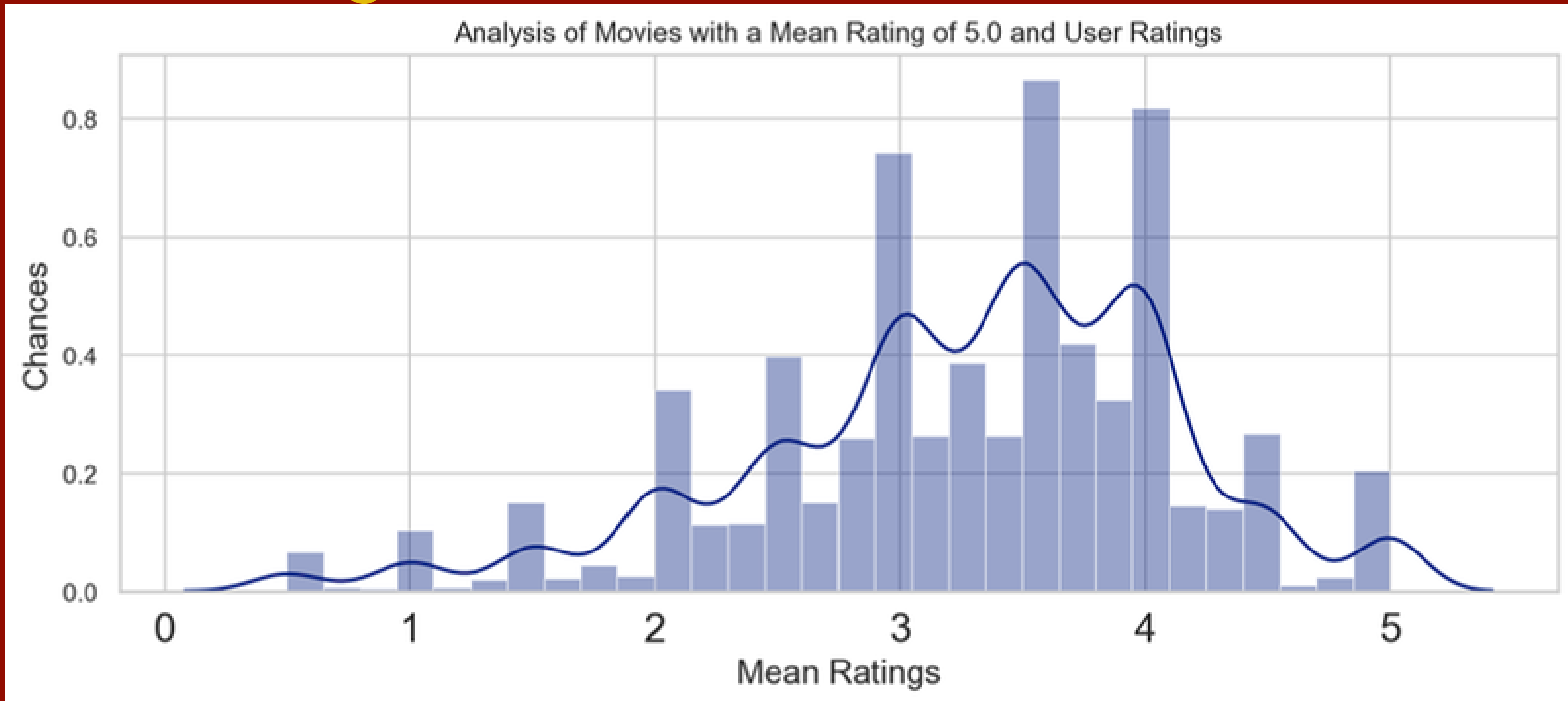
The majority of these top movies received ratings falling between 3 and 4.5, indicating a balance between critical acclaim and broad audience appeal. This suggests that movies with well-rounded ratings tend to capture a wider viewership.



Mean Rating of 5.0 and User Ratings

How many movies have a perfect 5.0 mean rating?

Mean Rating of 5.0 and chances of occurrence



Movies with a perfect 5.0 mean rating are relatively rare, while those rated between 2.5 to 4.0 are more prevalent. This suggests that achieving a perfect rating is an exceptional feat, making such movies stand out in our dataset.



DEPLOYMENT

FLASK SERVER DEPLOYMENT

Deployment Cont...

- Flask web application deployment offers users access to our project's interactive platform, where they can explore, engage, and benefit from its features
- My deployed Flask app offers core features like content recommendation, and interactive interfaces, empowering users to explore, rate, and discover content seamlessly
- I've utilized Flask for hosting my application, and while it's currently deployed locally, I'm actively working on making it accessible online through platforms like Heroku for broader user reach

Deployment cont...

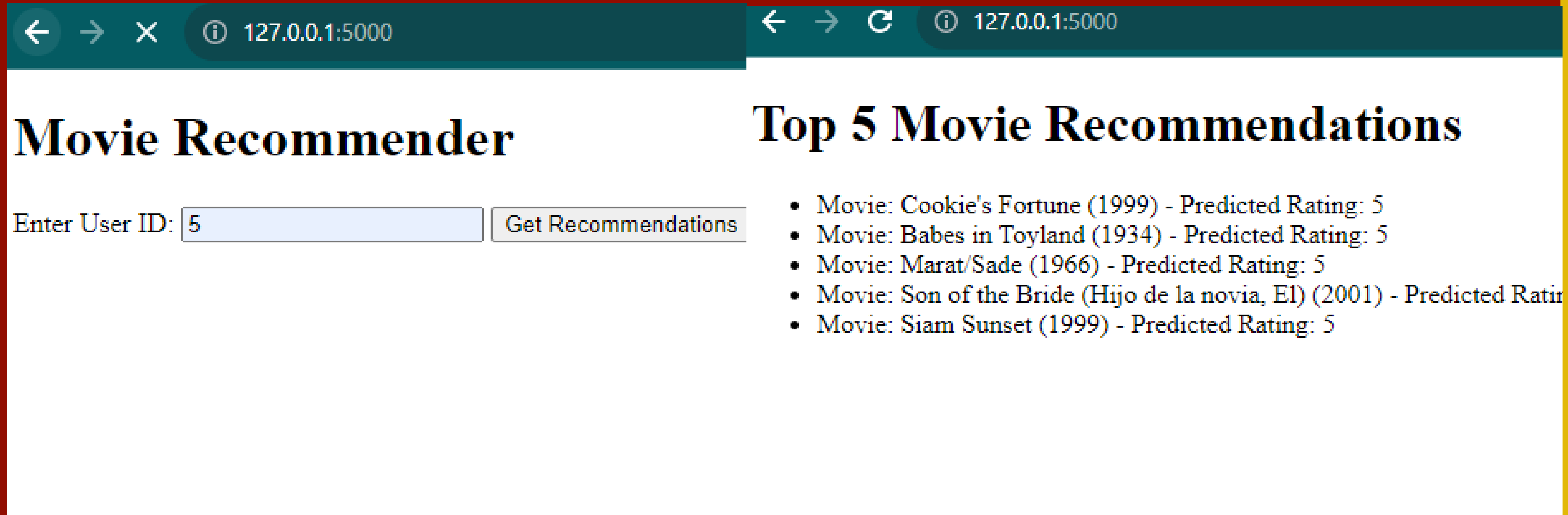
Purpose

Our application aims to address the need for personalized content recommendations, enhancing user engagement and satisfaction within our project's ecosystem

Benefits

Our application offers users tailored content recommendations, enriching their experience, while also advancing our project's goal of maximizing user engagement and satisfaction.

Application Interface Showcase



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Movie Recommender

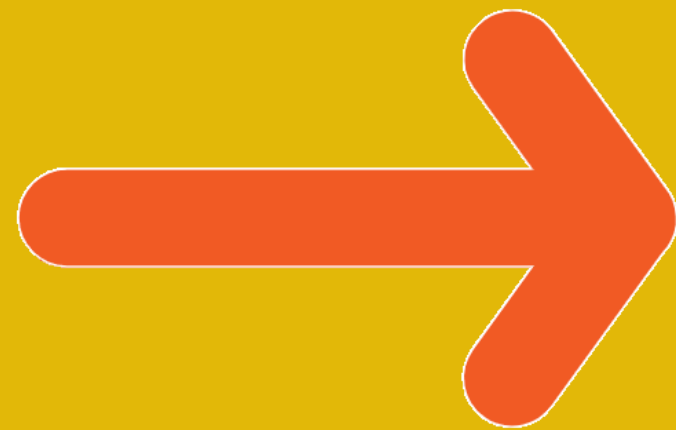
Enter User ID:

Top 5 Movie Recommendations

- Movie: Cookie's Fortune (1999) - Predicted Rating: 5
- Movie: Babes in Toyland (1934) - Predicted Rating: 5
- Movie: Marat/Sade (1966) - Predicted Rating: 5
- Movie: Son of the Bride (Hijo de la novia, El) (2001) - Predicted Rating: 5
- Movie: Siam Sunset (1999) - Predicted Rating: 5

- Explore the user-friendly interface of our Flask-based web application
- Here are the visual representation of key screens that users encounter when accessing our deployed application

Movie Recommendations



- **User Feedback:** Implement a feedback system for users to rate and provide input on recommendations.
- **Personalization:** Improve user experience with personalized recommendations based on user history and preferences.
- **Additional Features:** Enhance recommendations by incorporating movie genres, release years, or user demographics.
- **A/B Testing:** Evaluate system impact with A/B tests on user engagement.
- **Feedback Loop:** Continuously gather user feedback to refine algorithms and adapt to changing preferences.

Conclusions

- Recommendation model boosts engagement, leading to longer sessions and increased interactions for added platform value
- Improved User Satisfaction: By providing personalized content recommendations, we are actively enhancing the user experience. Satisfied users are more likely to return and become loyal customers, contributing to the long-term success of our platform. make as short as possible
- **Positive Business Outcomes:** The positive effects of our recommendation system are evident in various key performance indicators, including user retention, session duration, and conversion rates. These outcomes directly contribute to the success and growth of our business.

Questions & Answers

Let's Talk

- Instructions: Feel free to ask questions at any time during or after the presentation. I'll address them shortly.
- Contact Information: For any follow-up questions or discussions, please reach out to martindudi6@gmail.com.
- Time: We have 10 minutes allocated for the Q&A session.

*Thank
You*