# Project Presentation

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# Outline

- Background
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- Use Cases
- Demo
- Design
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- Lessons Learned
- Future Work

# Background

With so many streaming platforms available, it can be overwhelming to browse every catalog to find a movie that you'll like.

**We aim to provide a personalized streaming experience based on the user's preferences with a movie recommendation tool.**

# Data

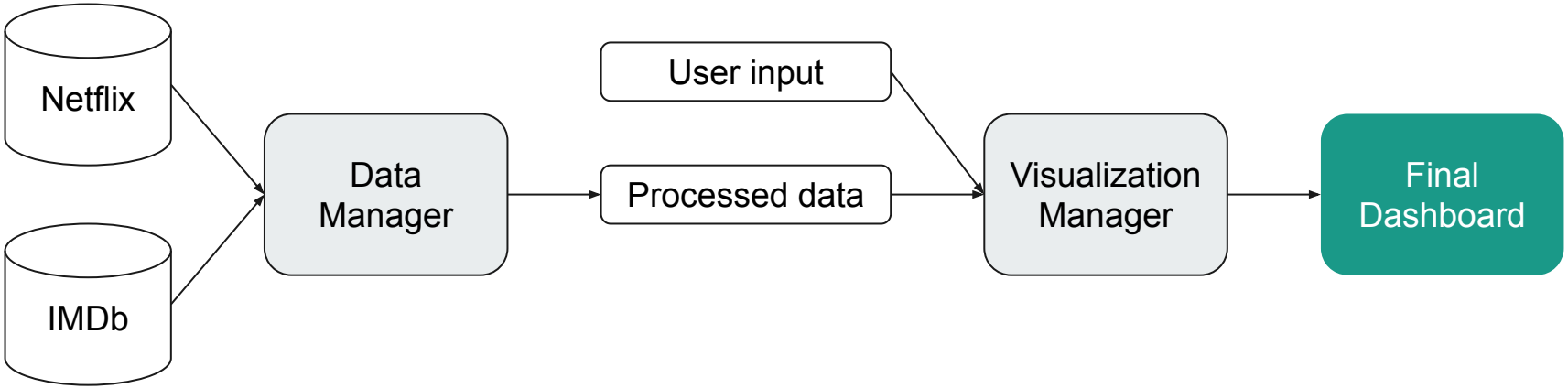
| Source | Files | Features | Highlights |
|---|---|---|---|
| Netflix Prize Data (Kaggle Dataset) | Movie Ratings: combined_data_1.txt, combined_data_2.txt, combined_data_3.txt, combined_data_4.txt | MovieID, UserID, Rating, Date of Rating | Contains 100,480,507 ratings that 480,189 users gave to 17,770 movies. |
| | Movie Titles: movie_titles.csv | MovieID, Title, Year Released | Contains the movie title and released year for the 17,770 movies in the dataset. |
| IMDb Datasets | Basic information of each title: title.basics.tsv.gz | Identifier, Title, Content Type, Genres, Start and End Year, Minutes | Contains 6,842,632 titles, but only 736,380 are movies/tv series. |
| | Rating: title.ratings.tsv.gz | Identifier, Average Rating, Number of Votes | Only 305,357 of the previously filtered titles appear on this file. |

# Use Cases

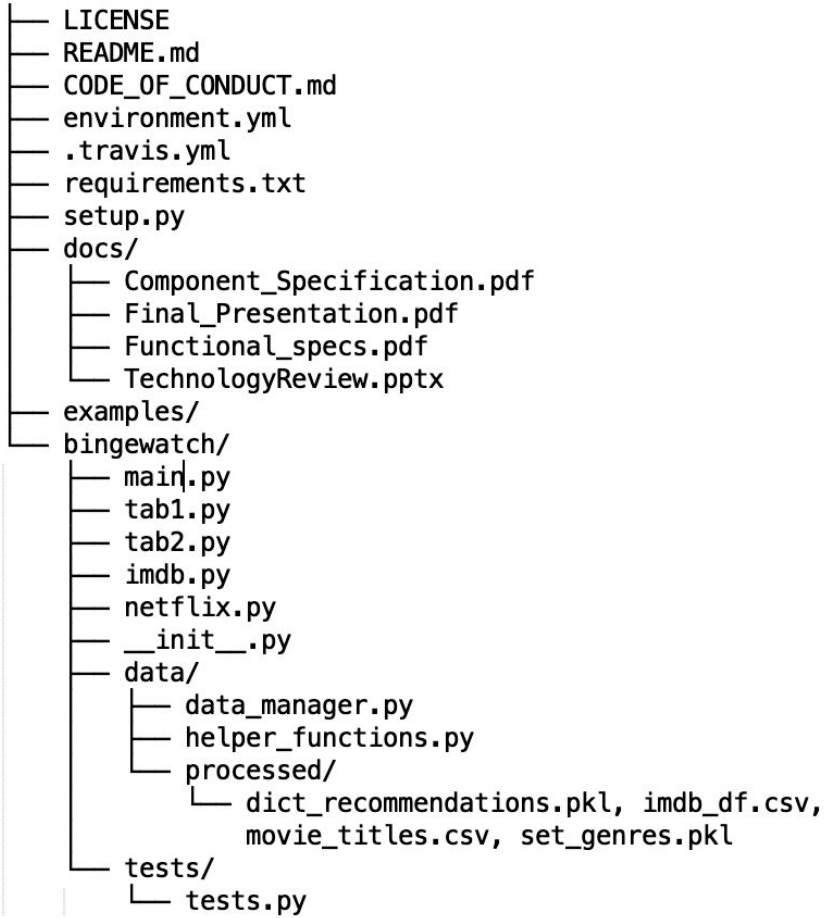
| | | | |
|---|---|---|---|
| ***Use Case*** | **The user wants to watch a movie similar to a movie of their choice.** | **The user wants to see the top 10 movies of a particular year.** | **The user wants to see the top 10 movies from a particular genre.** |
| ***User*** | Inputs the movie they liked. | Inputs a particular year. | Inputs a genre. |
| ***Tool*** | Displays a list of the most similar movies to the one the user input. | Displays a list of the top 10 movies from that year, based on average rating and number of votes. | Displays a list of the top 10 movies from that genre, based on average rating and number of votes. |

# Demo

# Design


Netflix
IMDb
Data Manager
User input
Processed data
Visualization Manager
Final Dashboard

# Project Structure



# Lessons Learned

- Difficulty working between languages (Shiny in R vs Python Dash)
- Building dashboards using Dash app
- Integrating tabs in dash
- It would have been easier to start with the CI and testing from the beginning

# In Progress...

- Increasing testing coverage
- Documentation and PIP8 compliant
- Cosmetic changes in visualization
- Adding examples
- Create a docker image
- Update README.md

# Future Work

- Add more filtering variables. For example, filter by decade instead of year, by director or actors, by MPAA content rating, etc.
- Add data source in order to include TV Shows in the Recommendation System based on a title chosen by the user.
- Continue improving the recommendation system itself.

# Questions?

# Thank you!