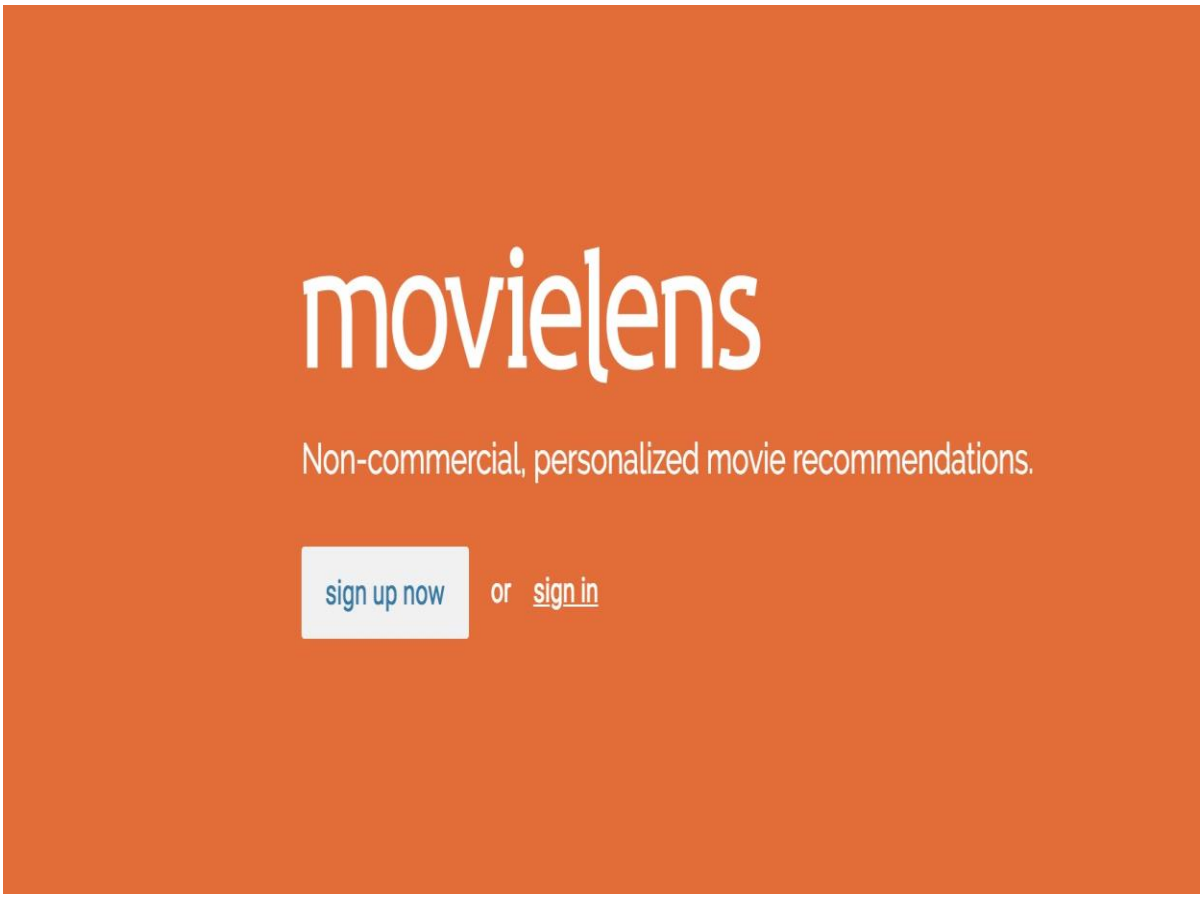

MOVIE RECOMMENDATION SYSTEM

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ANN SAJEE

OVERVIEW:

The Movie Recommendation System offers generalized recommendations on movie popularity and (sometimes) genre. The basic idea behind this recommender is that movies that are more popular and more critically acclaimed will have a higher probability of being liked by the average audience.

GOALS:

To provide some helpful information - things that we wish we could know - to the general people.
Recommending movies based on genre.
To offer a simple web application to let people see the recommendation of movies with the help of machine learning

USE CASES:

Making Recommendation System for movies more efficient. Recommendation system will help people to get the recommendation about movies they will like to watch

DATA:

https://grouplens.org/datasets/movielens/latest/

We will be working with the Movie Lens Dataset. Movie information is contained in the file movie.csv. Genres are a pipe-separated list, and are selected from the following:

Action	Film-Noir
Adventure	Horror
Animation	Musical
Children's	Mystery
Comedy	Romance
Crime	Sci-Fi
Documentary	Thriller
Drama	War
Fantasy	Western

PROCESS OUTLINE:

1. Data Preprocessing
    - Data Cleaning
    - handling missing values
2. Exploratory Data Analysis
3. Study of Supervised approaches and select the best model for prediction
5. Design of a pipeline and system to implement this approach and discussion on the system's capabilities
6. Deploy the Model on AWS
7. Build a web application to demonstrate the prediction and recommendation results.

MILESTONES:

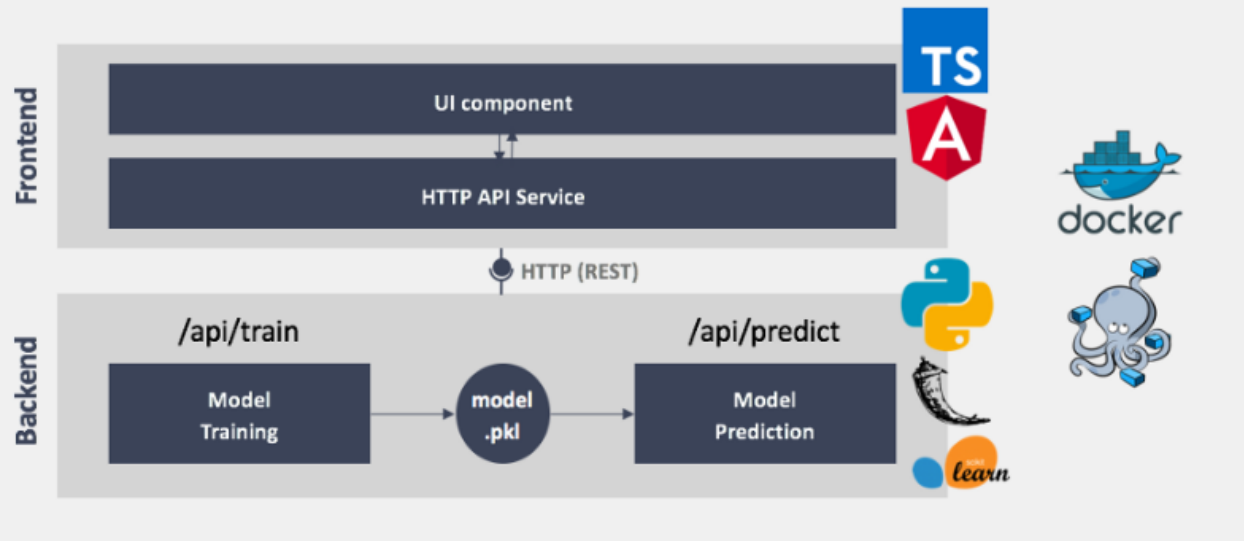
Timeframe	**Delivery**
Day 1-3	Data Preprocessing and Exploratory Data Analysis
Day 4-6	Model Building, Training, Selection
Day 7-8	Deployment of models on cloud and build web application
Day 9-10	System integration and documentation

PERSONNAS:

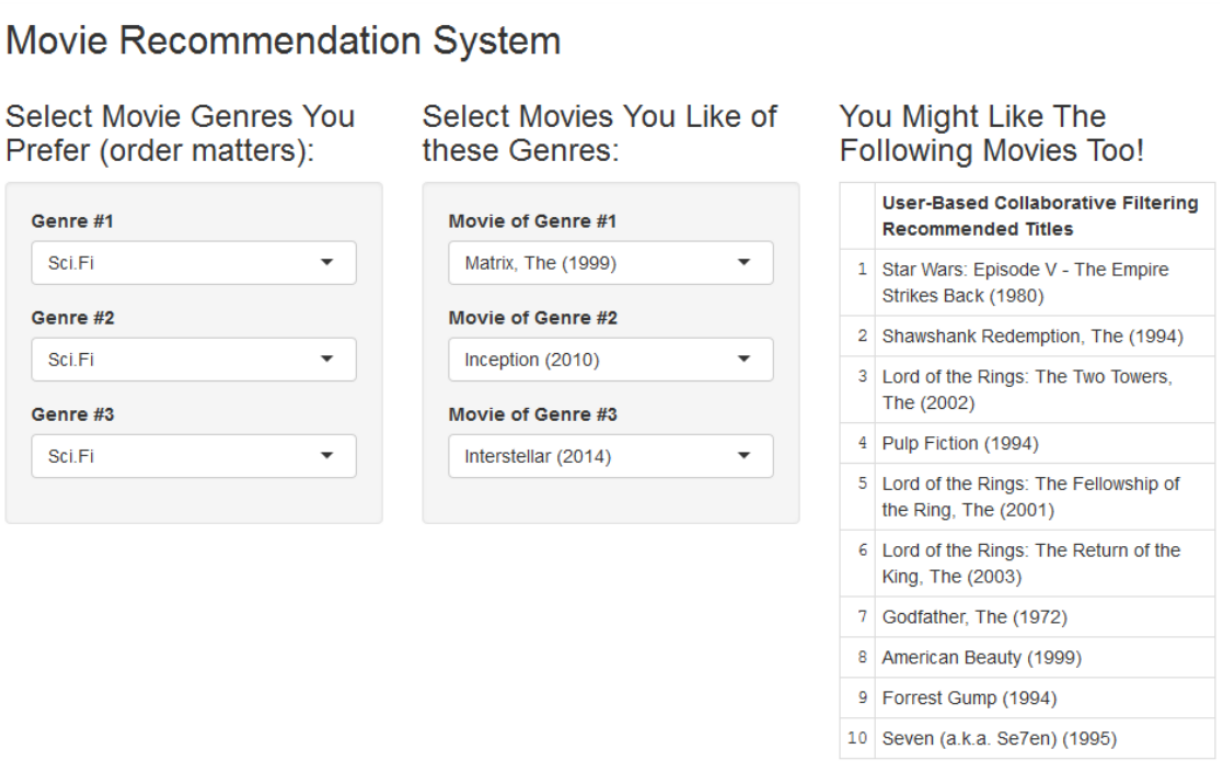
1. End Users:
    - To check for Recommendations of best movies
2. And to provide a filter based on genre

DEPLOYEMENT DETAILS:

1. Language: Python
2. Pipeline: sklearn
3. Container: Docker
4. Cloud Tools/Platforms: AWS (Amazon Web Services) EC2



USER INTERFACE DESIGN PLAN



REFERENCES AND SOURCES:

https://grouplens.org/datasets/movielens/latest/
https://pdfs.semanticscholar.org/e13e/b41de769f124b3c91771167fb7b01bc85559.pdf
http://ieeexplore.ieee.org/document/5575081/