AISSMS

INSTITUTE OF INFORMATION TECHNOLOGY

ADDING VALUE TO ENGINEERING

Department of Computer

A DSBDA PROJECT REPORT

ON

MOVIE RECOMMENDATION SYSTEM

SUBMITTED TO THE DEPARTMENT OF
COMPUTER ENGINEERING AISSMS IOIT

TE Computer Engineering

SUBMITTED BY

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2021 -2022

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CERTIFICATE

This is to certify that the project report
"MOVIE RECOMMENDATION SYSTEM"
Submitted by

STUDENT NAME	ERP No:
Kaustubh Kabra	38
Akash Mete	52
Ashish Patil	60

is a bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. Shilpa Pimpalkar** and it is approved for the partial fulfillment of the Department of Computer Engineering AISSMS IOIT.

(**Prof. Shilpa Pimpalkar**) (**Dr. S.N.Zaware**)

Guide Head of Computer Department,

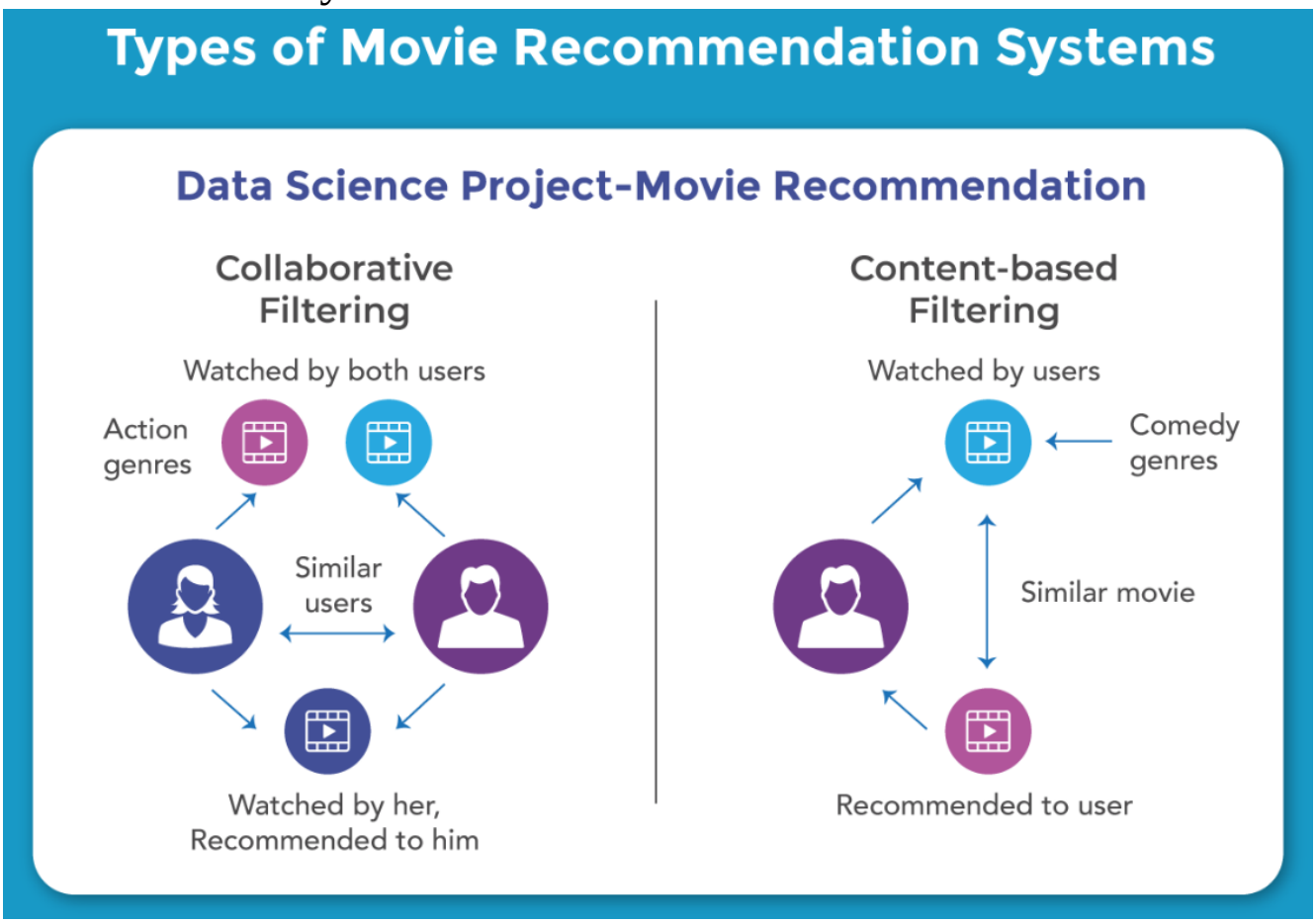
Place: Pune Date: / /2022

Abstract

We have developed a Movie recommendation system, where the information regarding Actors, Directors, Movies, Reviews, ratings etc will be used to recommend movies based on genre, popularity and correlation. Going through the project description and websites like “TMDB”, we have identified the dataset and based on the available data we have processes the recommendation system. And displayed the outcome on a sreamlit based UI.

Introduction

The entire project is based on TMDB dataset and StreamLit library .



Software Requirement Specification

Software Used:

Python Jupyter Notebook

StreamLit API

Front-end:

StreamLit

Back-end:

Python 3.9

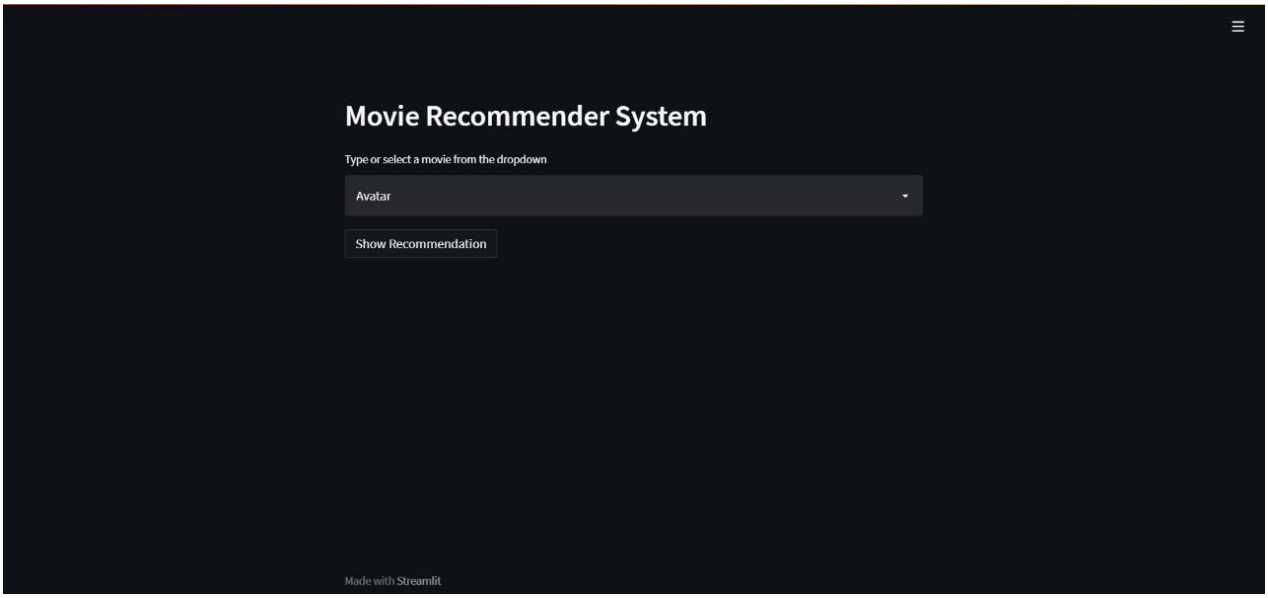
Graphical User Interface

Streamlit is an open-source Python library that makes it easy to create and share beautiful, custom web apps for machine learning and data science. In just a few minutes you can build and deploy powerful data apps.

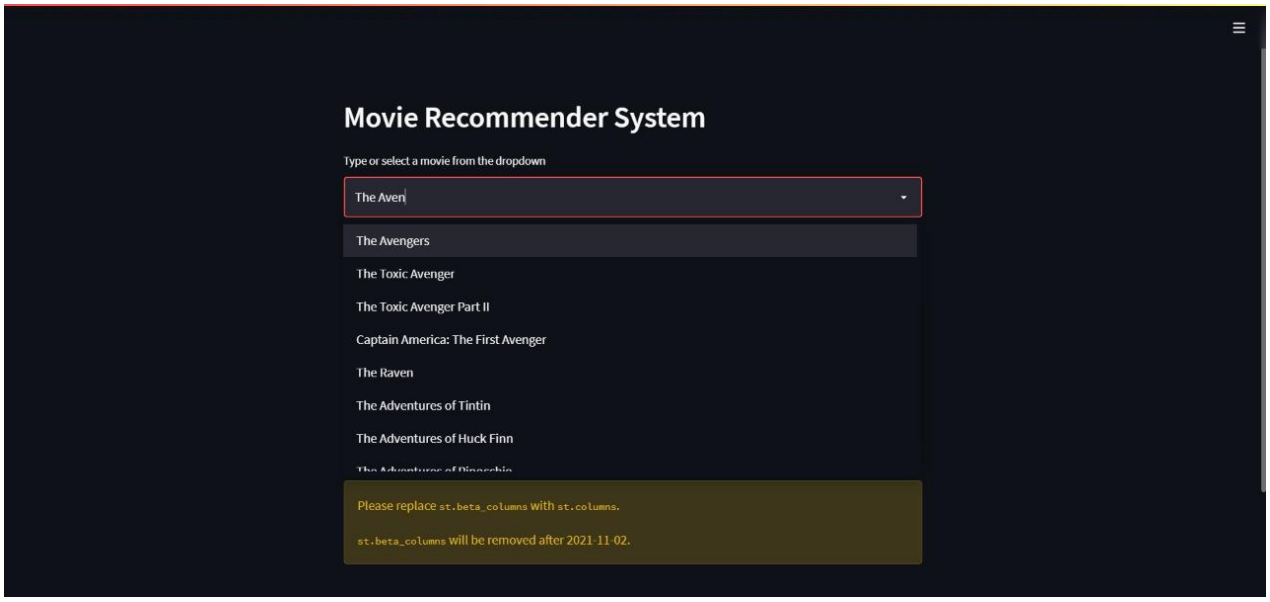
View Contents:

Using the developed system, a user can view,

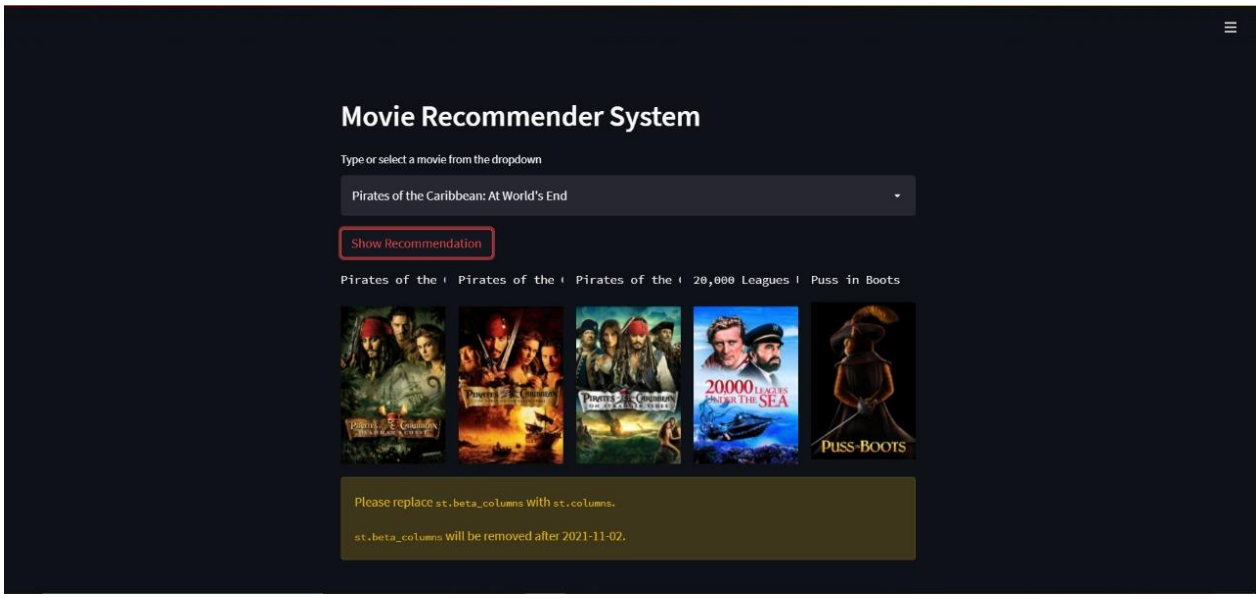
Initial Page:



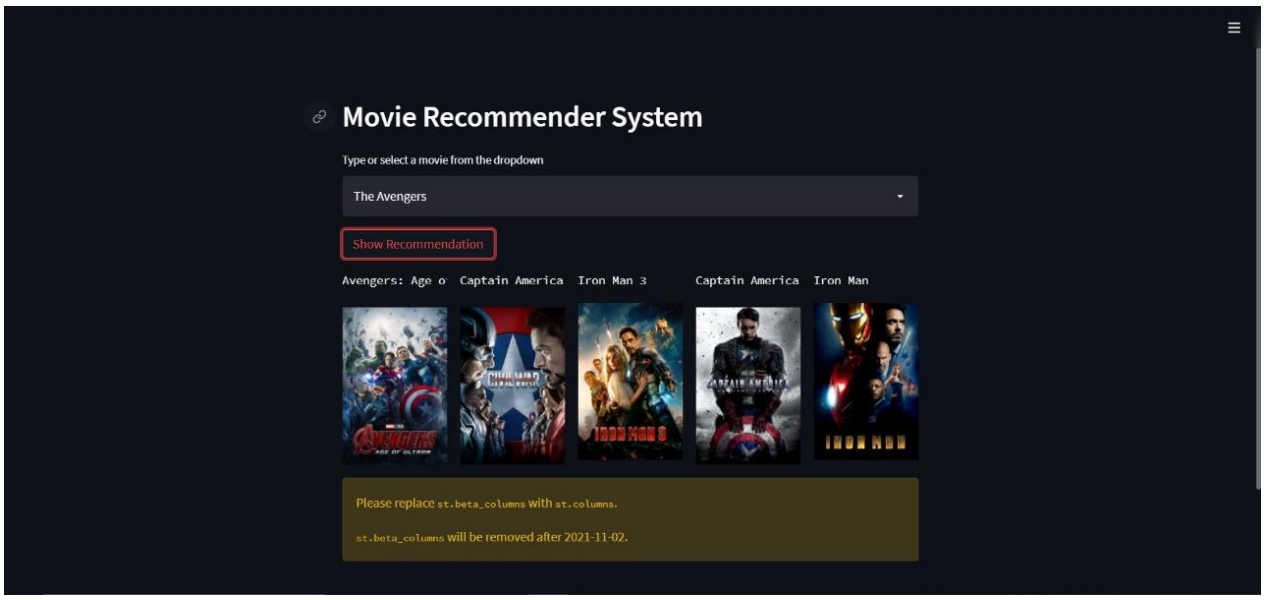
User Input for relatable movies:



Sample Outcome for all related movies:



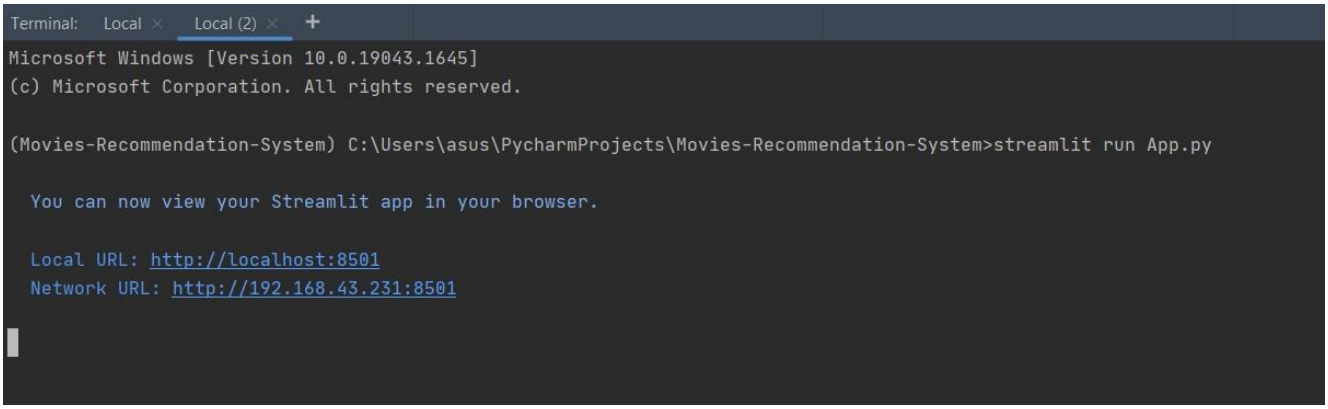
Sample 2 for Movie related outcome:



Source Code:

```
import pickle
import streamlit as st
import requests

def fetch_poster(movie_id):
    url =
"https://api.themoviedb.org/3/movie/{}?api_key=8265bd1679663a7ea12ac168da84d2e8&langu
age=en-US".format(movie_id)
    data = requests.get(url)
    data = data.json()
    poster_path = data['poster_path']
    full_path = "https://image.tmdb.org/t/p/w500/" + poster_path
    return full_path

def recommend(movie):
    index = movies[movies['title'] == movie].index[0]
    distances = sorted(list(enumerate(similarity[index])), reverse=True, key=lambda
x: x[1])
    recommended_movie_names = []
    recommended_movie_posters = []
    for i in distances[1:6]:
        # fetch the movie poster
        movie_id = movies.iloc[i[0]].movie_id
        recommended_movie_posters.append(fetch_poster(movie_id))
        recommended_movie_names.append(movies.iloc[i[0]].title)

    return recommended_movie_names,recommended_movie_posters


st.header('Movie Recommender System')
movies = pickle.load(open('movie_list.pkl','rb'))
similarity = pickle.load(open('similarity.pkl','rb'))

movie_list = movies['title'].values
selected_movie = st.selectbox(
    "Type or select a movie from the dropdown",
    movie_list
)

if st.button('Show Recommendation'):
    recommended_movie_names,recommended_movie_posters = recommend(selected_movie)
    col1, col2, col3, col4, col5 = st.beta_columns(5)
    with col1:
        st.text(recommended_movie_names[0])
        st.image(recommended_movie_posters[0])
    with col2:
        st.text(recommended_movie_names[1])
```

```
        st.image(recommended_movie_posters[1])

    with col3:
        st.text(recommended_movie_names[2])
        st.image(recommended_movie_posters[2])
    with col4:
                        st.text(recommended_movie_names[3])
        st.image(recommended_movie_posters[3])
    with col5:
        st.text(recommended_movie_names[4])
        st.image(recommended_movie_posters[4])
```



Conclusion

By studying and applying the concepts of Data Science and Big Data from Group A and Group B, we implemented Movie Recommendation System mini-project.