Mini Project

SOFTWARE ENGINEERING

Group -3| Mini Project | 19/4/23

WatchWise - A Movie Recommendation System

WatchWise is a movie recommendation system that suggests movies to users based on their selected movie. It is developed using Python and the Streamlit library. The recommendation system uses data from the popular TMDB dataset to suggest similar movies to the user's choice.

FEATURES

- **Movie recommendation**: The system recommends five similar movies to the user's selected movie using data from the TMDB dataset.
- **User-friendly interface**: The recommendation system has a simple and easy-to-use interface, making it accessible for users of all levels.
- **Dropdown list**: The system allows users to select a movie from a dropdown list of available movies in the TMDB
- **Dynamic movie posters**: The system dynamically fetches movie posters for the recommended movies from the TMDB dataset and displays them alongside the movie titles.
- **Theme toggle**: The system allows users to toggle between a light and dark theme, making it more customizable to individual preferences.

TECH STACK USED

- **Python**: The system is written in Python, a high-level programming language known for its simplicity and versatility.

- **Streamlit**: The system is deployed using Streamlit, an open-source Python library used to build web applications.
- **Pandas**: The system uses Pandas, a popular data manipulation library for Python, to handle the TMDB dataset.
- **Scikit-learn**: The system uses Scikit-learn, a powerful machine learning library for Python, to train the movie recommendation model.
- **TMDB API**: The system utilizes the TMDB API to fetch movie data and posters dynamically.

INSTALLATION

To run the WatchWise Movie Recommendation System, you can clone the repository to your local machine and run the app.py file using the following commands:

- git clone https://github.com/Khdave02/movie_recommender
- cd WatchWise
- pip install -r requirements.txt
- streamlit run app.py

Alternatively, you can access the hosted website at here.

USAGE

Once you run the app.py file, the WatchWise Movie Recommendation System web app will open in your browser.

You can then select a movie from the dropdown list, and click on the "Show Recommendation" button to view similar movie recommendations.

You can also toggle between light and dark themes by clicking on the "Change Theme" button at the top of the page.

FUTURE IMPROVEMENTS

While the WatchWise Movie Recommendation System provides a solid foundation for recommending movies, there are several areas where it could be improved in the future:

- **Improved recommendation algorithm**: The current recommendation algorithm is based on cosine similarity, which may not be the most effective for all cases. In the future, other recommendation algorithms such as collaborative filtering or matrix factorization could be
- **Expanded dataset**: While the current system uses the TMDB dataset, there are other movie datasets available that could be incorporated for a more comprehensive recommendation system.
- **User feedback and ratings**: Currently, the system does not incorporate user feedback or ratings. In the future, user ratings could be collected and used to improve the accuracy of the recommendation system.
- **Advanced features**: Advanced features such as a personalized recommendation system, real-time updates, and integration with social media platforms could be explored to enhance the user experience.

  With these potential improvements, the WatchWise Movie Recommendation System could become an even more powerful and accurate tool for recommending movies to users.

CONTRIBUTIONS

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