Movie Recommendation based on emotions - using Python



ABSTRACT

This project is a Python-based web scraping tool that fetches movie titles from IMDb based on user-provided emotional states or genre preferences such as Drama, Action, Comedy, etc. The objective is to recommend movies matching the user's mood by leveraging the IMDb genre-wise search.

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Introduction

Movies have a strong emotional impact and are often chosen based on mood. By automating the selection of genre-specific movies, this tool helps users quickly discover movies that suit their current emotional state. It also serves as an educational project to demonstrate practical web scraping and HTML parsing in Python.

Data Source

The data is sourced from IMDb's public website (https://www.imdb.com), specifically using genrefiltered search result pages. These pages list movies according to genres such as drama, action, comedy, horror, and crime. Movie titles are extracted from the HTML content of these pages using BeautifulSoup, a Python library for parsing HTML and XML documents.

Methodology

The project uses the following approach:

- 1. A dictionary maps genre keywords to corresponding IMDb search URLs.
- 2. The user provides an emotion/genre input.
- 3. The program sends a GET request to the associated IMDb URL using the 'requests' library.
- 4. HTML content is parsed using BeautifulSoup.
- 5. Movie titles are extracted using pattern-matching techniques (regular expressions or tag-based search).
- 6. The top movie titles are displayed to the user.

Conclusion

This project provides a simple and effective way to explore movies based on genre or emotional state. While limited in scope, it demonstrates the power of web scraping for data extraction and content recommendation. With enhancements like better parsing and metadata inclusion, it can be extended into a full-fledged recommendation tool.