A Project Report on

Movie Recommendation Expert System

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Introduction

The Movie Recommendation Expert System is a computer program designed to suggest movies to users based on their preferences. The system will provide recommendations based on genre, director, actors, and other relevant factors to the users. The system's goal is to provide users with personalized movie suggestions that match their interests and preferences. The movie recommendation expert system can be used by streaming services, movie theaters, or any organization that wants to help users discover new movies to watch. The system can be built using various programming languages, including Prolog, which is a logic-based programming language that is well-suited for building expert systems.

The Movie Recommendation expert system implemented in Prolog is designed to provide personalized movie recommendations based on user preferences and input. The system takes into account various factors such as movie genre, duration, language preference, and mood to suggest suitable movies to the user.

Motivation

The motivation behind developing this expert system is to assist users in finding movies that align with their preferences and current mood. With the abundance of movies available across different genres, languages, and time periods, it can be overwhelming for individuals to choose a movie that suits their taste. This system aims to simplify the movie selection process and enhance the user experience by providing tailored recommendations.

Objectives

The primary objectives of this Movie Recommendation expert system are as follows:

1. Gather user information: The system collects user information such as name, sex, mood, preference for old films, preferred genre, available time, preference for English cinema, and whether the main character should be male or not.

2. Analyze user preferences: Based on the user input, the system evaluates the user's preferences and assigns weights to different factors such as genre, duration, language, and character gender.

3. Match preferences with movie database: The system compares the user's preferences with the movie database, which contains information about various movies including their year of release, genre, duration, production, special features, and main characters.

4. Generate recommendations: Using a rule-based approach, the system filters the movie database and generates a list of movie recommendations that closely match the user's preferences.

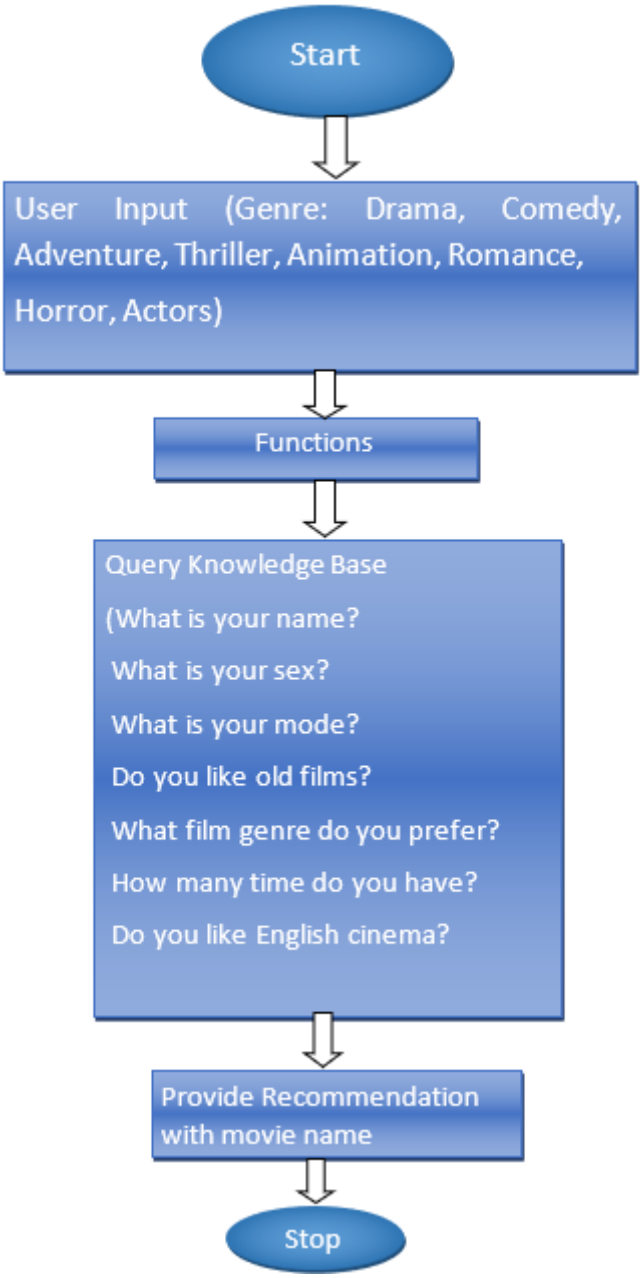
Methodology

1. User Input: The system begins by gathering user information through a series of questions. The user is prompted to provide their name, sex, mood, preference for old films, preferred genre, available time, preference for English cinema, and whether the main character should be male or not.
2. Query KB: Once the user input is collected, the system queries the movie database based on the user's preferences. The movie database contains information about various movies, including their year of release, genre, duration, production, special features, and main characters.
3. Filter: Using a rule-based approach, the system filters the movie database based on the user's preferences. It applies rules and weights assigned to different factors such as genre, duration, language, and character gender to narrow down the selection of movies that closely match the user's preferences.
4. Recommendations: After filtering the movie database, the system generates a list of movie recommendations. These recommendations are based on the user's preferences and the matches found in the database. The recommendations include movie titles along with additional information such as the year of release, genre, duration, production details, special features, and the main character.
5. Output: The system presents the user with the movie recommendations. The user is provided with personalized suggestions based on their input and preferences. The system continues to generate recommendations until the user is satisfied or decides to exit the system.

The methodology of the Movie Recommendation expert system involves collecting user input, querying the movie database, filtering the results based on user preferences, and generating personalized recommendations. This approach ensures that the system provides tailored suggestions that closely match the user's movie preferences and enhances their movie selection process.

Flow Chart

The flow chart for the Movie Recommendation expert system is as follows:



Result (Output)

The output of the Movie Recommendation expert system is a personalized movie recommendation based on the user's preferences. The system presents the user with a movie title, along with additional information such as the year of release, genre, duration, production details, special features, and the main character.

Example output: "You should watch this movie: 'Inception' (2010). It is a thriller movie with a duration of 148 minutes. Directed by Christopher Nolan, it features mind-bending concepts and stunning visual effects."

The system continues to provide recommendations until the user is satisfied or decides to exit the system.

In conclusion, the Movie Recommendation expert system implemented in Prolog aims to assist users in finding movies that align with their preferences and current mood. By gathering user input and matching it with a movie database, the system generates personalized recommendations that enhance the movie selection process.

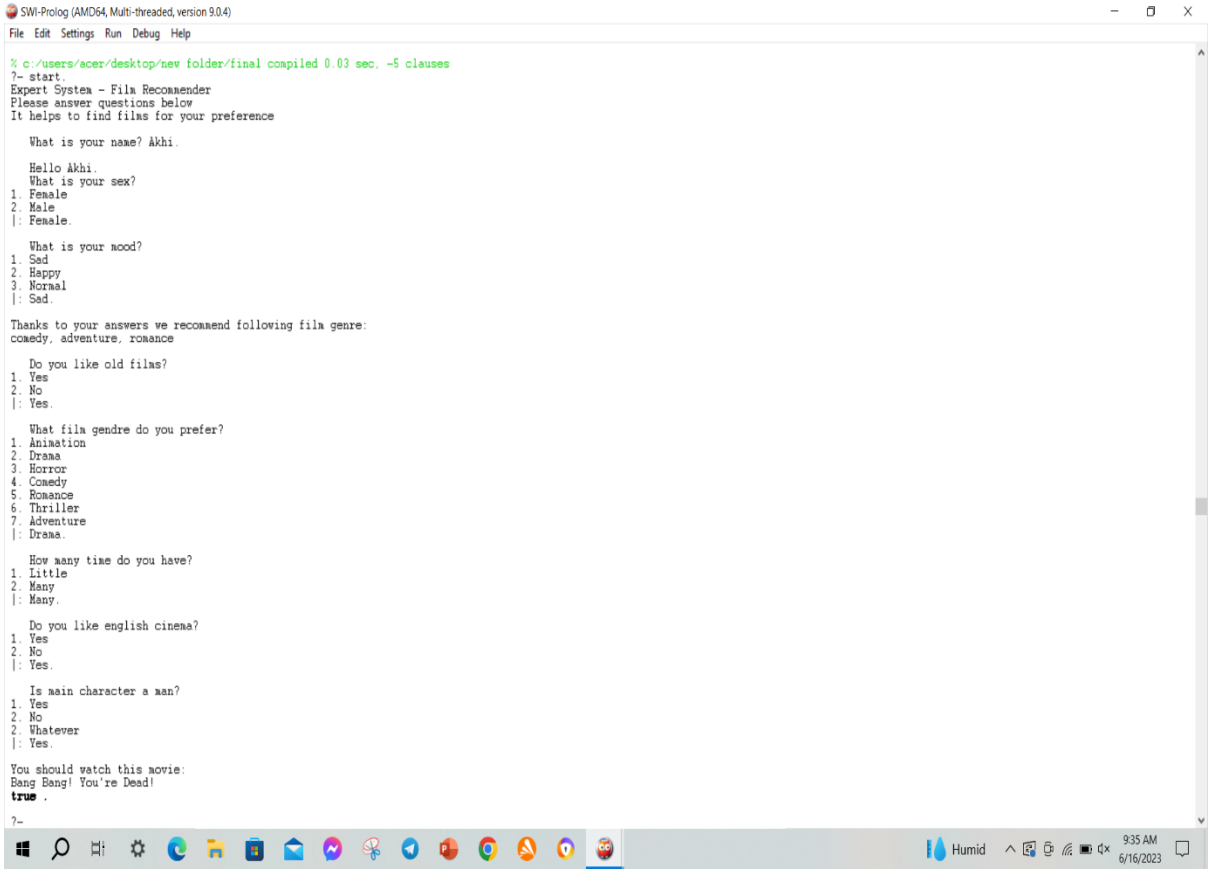


Figure: Result(Output)