Movie Genre Classification and Recommendation System

This project involves creating a movie recommendation system and a machine learning model that can predict the genre of a movie based on its plot summary or other textual information. The dataset used is the IMDb movie dataset.

Steps to Implement

1. **Import Libraries**:
   - Import necessary libraries for data manipulation, vectorization, similarity computation, and plotting.
2. **Load Dataset**:
   - Load the dataset using `pd.read_csv()` and display the first few rows to understand the structure.
3. **Data Cleaning**:
   - Handle missing values in relevant columns.
   - Create a new description column by concatenating the movie title and plot keywords (if available).
4. **Vectorize Text**:
   - Use `TfidfVectorizer` to convert the text data into a TF-IDF matrix.
5. **Compute Cosine Similarity**:
   - Compute the cosine similarity matrix using `linear_kernel`.
6. **Build Recommendation System**:
   - Create a `get_recommendations()` function to find and display the top 10 similar movies based on cosine similarity.
7. **Identify Best Movie**:
   - Find and display the movie with the highest IMDb score.
8. **User Input and Output**:
   - Prompt the user for a movie name and display recommendations based on the input.

Example Output

- **Best Movie**: Towering Inferno
- **Director**: John Blanchard
- **IMDb Score**: 9.5

User Interaction

The user provides a movie name, and the system outputs the top 10 movies that are most similar based on the description.