Movie Recommendation System

Abstract

Objective – To develop a complete movie recommendation system using Content – based and Collaborative – based filtering and presenting an interactive UI for the same.

Methodology –

1. **Data Collection** –
   a) For training purposes, we will be using datasets from Kaggle
   b) And for user preferences we would be taking data through our UI and creating the database for the same.
2. **Data Pre-processing** - Cleaning and optimizing the training dataset for training our machine learning models.
3. **Content – Based Filtering** – It is based on user's preferences.
4. **Collaborative – Based Filtering** – Preferences are suggested based on the search pattern of similar users.
5. **Dashboarding** – The interactive view of the final output is displayed.

Tools Required –

- **Hardware Specification –**
  1. RAM – Minimum 4GB
  2. Intel Core i3 processor
  3. Hard Disk – Minimum 1 TB
- **Software Specification –**
  1. Anaconda Navigator (Jupyter Notebook)
  2. Python 3.7 or above
  3. Power BI / Google Data Studio
  4. Excel
  5. MySQL Database / SQLite 3

Benefits –

1. Recommending movies based on content-based filtering
2. Recommending movies based on Collaborative filtering
3. Suggesting movies based on genre.
4. Suggesting movies based on rating.
5. Representing an interactive dashboard.

Conclusion – Building an end-to-end system for recommending movies based on content based and collaborative filtering.

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