University of Asia Pacific

Team B1-G3

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Project Title

The title of our project is “**Movie Recommendation System**”.

Functional Requirements

Client application:
The client application is the link between the user and the server application. Its task is to gather information from the users and to allow users to play movies. The information is sent to the server application, where it is stored, and later used to produce recommendations.
In addition, the information is used to measure recommender precision. This allows for investigation of how precision is influenced by different recommender strategies.

Server application:
Application server frameworks are software frameworks for building application servers. An application server framework provides both facilities to create web applications and a server environment to run them. The server application receives information from the client application, and provides the client application with recommendations.

Hardware Requirements

- Pentium IV or higher, (PIV-300GHz recommended)
- 256 MB RAM
- 1 Gb hard free drive space

Software Requirements

Database:

Kaggle, a subsidiary of Google LLC, is an online community of data scientists and machine learning practitioners. Kaggle allows users to find and publish data sets, explore and build models in a web-based data-science environment, work with other data scientists and machine learning engineers, and enter competitions to solve data science challenges.

Operating System:

Windows 10, Linux etc.

ML model name :

K-Nearest Neighbor(KNN):KNN makes inference about a movie, KNN will calculate the “distance” between the target movie and every other movie in its database, then it ranks its distances and returns the top K nearest neighbor movies as the most similar movie recommendations.

Front end and back end technology:

Streamlit is used for front end and back end is handled py python.

Python is a general-purpose interpreted, interactive, object-oriented, and high-level programming language. An interpreted language, Python has a design philosophy that emphasizes code readability (notably using whitespace indentation to delimit code blocks rather than curly brackets or keywords), and a syntax that allows programmers to express concepts in fewer lines of code than might be used in languages such as C++or Java. It provides constructs that enable clear programming on both small and large scales. Python interpreters are available for many operating systems. CPython, the reference implementation of Python, is open source software and has a community-based development model, as do nearly all of its variant implementations.

IDE:

Pycharm Notebook, Collaboratory etc.

Design Requirements

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1. Content based filtering
2. TMDV Dataset
3. Contains 3 columns(movie_id, title, tag).
4. For handling cold start
5. Can use genre, cast, and crew to recommend it to target users
6. Implementation:

- Build k-nearest neighbor algorithm.
- Creating Handcrafted Features : Features which represent the top five similar movies
- Implement the final model
- Connect with website
- deployment