Movi: movie & tv recommendation service
Final Group Project Proposal
Janae, Ryan, Dom

Project Description

The web app will hold a record of past movies and tv shows you have watched (user selected), and recommends new content. As the user adds more movies and tv shows, the program will get more acclimated to the user's interests and start to recommend new things to watch.

User Stories

- As a user, I would like to be able to add a title to my watched list to keep track of what I have already seen.
  - Definition of Done: An easily accessible text box where a user can add a title; when added, the poster shows up along with the name on the watched list. The movie is then removed from the discover page if present.

- As a user, I would like to add a title to my planned list to keep track of what I want to watch later.
  - Definition of Done: An easily accessible text box where a user can add a title; when added, the poster shows up along with the name on the planned list. The title remains on the discover page but is shown as planned when chosen.

- As a user, when I click on a title, I want to see reviews so that it is easier to choose what to watch.
  - When a title is chosen, a star rating and critic reviews will be shown under the poster.

- As a user, I would like to see titles I have never seen on my discover page that relate to what I enjoy so that I can add them to my planned watch list.
  - Definition of Done: When a movie is added to the watched list, it is removed from the discover page. As more genres/categories are added to the watch list, similar titles will show on the discover page.

- As a user, when I choose a title, I would like to see a description to make a quicker and easier choice.
  - Definition of Done: When a title is chosen, a description pulled from the api will be shown under the poster.

- As a user, I would like the option only to be recommended titles I have access to through the streaming services I have so I know I can watch immediately if chosen.
  - A profile will be available for customization, and this is where users will add what streaming services they have. There will be a filter option to show only the services the user has.

Resources Needed

- Database to store user profile data
- TV API to access movie/tv data and find recommendations
- Servers for frontend and backend deployments
- Tools needed:
    - Unit testing framework (Jest)
    - MongoDB, Express, React, Node.js
    - Movie database API

Participation Value

- Experience developing a full-stack web application using the MERN tech stack
- Using UML to analyze domain and design class diagrams
- Agile development
- Building REST APIs
- Integrating existing APIs underneath a facade API layer
- Using the GitLab flow branch pattern for commits.

Team Communication Strategy

Preferably 2-3 meetings per week 15 minutes each to talk about the commits to the master branch. Outside of these meetings, project communication will take place on our project discord, as well as on pull request comment threads. Trello will hold our sprint planning, including product and sprint backlog.

Structure of Regular Turned-in Updates/Deliverables

Update 1: Node server that can communicate with a database, and a first-pass basic front end (not connected to backend), along with class diagrams, domain analysis diagrams, database schema

Update 2: Back end integrated with movie database (IMDb or "the movie database" developers.themoviedb.org/3). Initial backend REST API. Front end react wireframe implemented with "Watched" and "Recommended" pages (potentially hooked up to back end)

Update 3: Backend movie recommendation algorithm generating recommendation streams, frontend hooked into backend REST API.

Final Deliverable

The final deliverable would be the front page UI integrated with the back-end recommendation system. Hopefully, the final deliverable will also use the machine learning aspect we plan to develop, but for the sake of reigning in the scope, this feature isn't mandatory.

Final Presentation Details

The final presentation would follow a "Opportunity → Process → Results" structure. First we provide an overview of the project goals and market opportunity. Next, we (at a very high level) summarize the design, implementation phases, as well as the project tooling. Finally, we showcase the end-result, including a demo of the implemented front-end UI, a wireframe detailing future UI developments, and a video demo of the back-end based on sample data. We would also discuss future improvements to the recommendation algorithm.

Preliminary Domain Analysis

A multifunctional movie tracker webapp. The user should be able to access a list of movies they have previously watched and add new titles to the list. The discover page will hold a collection of titles that the program will recommend based on the user's watch list. When a title is selected on the discover page, a short description will be shown along with what streaming services it can be viewed on. The user will have a login and profile where they can add what streaming services they have access to. Each title can be labeled as watched or planned

User

Username

Password

Streaming Services

Can edit

WatchList

Watched

Planned

Can be added to   0..*

Displays a list of   0..*

Discover Page

Genres/Categories

Can view

Title

Description

Location(Streaming Service)

Review(Star rating)