Movie Recommendation App

# Requirements

## Basic

### Get Movies by Name

Client sends a search string to the server (e.g. “Arrival”)

Server calls the TMDB API with the search parameters, and gets first page of results

Returns these results in to the client in JSON format

### Get Movies By Genre

Upon program start, get the list of genres from the API and store in the database

Client sends request for available genre list with genre IDs

Display list of genres from the database to client

Client sends the genre ID to the server (e.g. 12345)

Server calls the TMDB API with search parameter where genre ID matches

Returns these the first page of results

### Get Movies By Rating

Client sends JSON object with minimum vote average, maximum vote average, and order

Server finds movies in that range using the API, sorting by the given order

Returns these movies to the client

## Intermediate

### Create User

Client sends proposed username and password to the server

Server checks if the password is long enough, and if the username is taken

Password is hashed, and stored in a user table alongside a username and ID

HTTP code is returned accordingly

### Login User

Client sends username and password to server

Server hashes the password to find a match in the database

If authenticated, server creates a session ID and passes it to the frontend, along with user preferences and favourites (if they are implemented)

### User Authentication

Hash password

Compare hash of password to one stored in database

### 

### User Profile:

### Add Genre Preferences

Client requests list of genres, server sends list of genres with IDs

Client sends session ID, and list of genres to be added

Server updates the database with the new genres for the user

### Remove Genre Preferences

Client sends list of genre IDs to be removed from the given session (corresponding to user)

Server removes the genres from the user in the database

### Get Movies By Genre Preferences:

Client sends a request for movies according to the given session’s user

Server uses API to find movies matching the genres stored within the user’s preferences

These movies are returned to the client

## Advanced (2.0)

### User Profile:

### Add Favourite Movies

### Remove Favourite Movies

### Edit username

### Edit password

### Get Favourite Movies

# Tasks

Documentation:

Class diagram -Shabna

Flowchart - Ruchita

Database ERD - Isaac

User Stories - Isaac

Initialise code base - Isaac

Build database - Isaac/Kojo

**DTO - Isaac**

User

Session

Movie

Genre

**DAO**

UserDao:

Create user - Isaac

Login - Isaac

Authentication - Isaac

Edit preferences - Shabna

Remove Preferences - Shabna

Delete User Profile -Shabna

Add Favourite Movies

Remove favourite movies

Edit Profile

MovieDao:

Get top 20 movies - KOJO

Get movies By Genre - Ruchita

Get movies By rating - Ruchita

Get movies By Preferences - Ruchita

Get movies By alphabetically - KOJO

GenreDao:

Get list of genres - KOJO

**SERVICE**

UserService:

Create user - Isaac

Login - Isaac

Authentication - Isaac

Edit preferences- Shabna

Remove Preferences - Shabna

Delete User Profile -Shabna

Add Favourite Movies

Remove favourite movies

Edit Profile

MovieService:

Get top 20 movies -KOJO

Get movies By Genre-Ruchita

Get movies By rating-Ruchita

Get movies By Preferences-Ruchita

Get movies By alphabetically - KOJO

GenreService:

Get All genres- KOJO

**CONTROLLER**

MovieController:

Get top 20 movies - KOJO

Get movies By Genre -Ruchita

Get movies By rating -Ruchita

Get movies By Preferences-Ruchita

Get movies By alphabetically - KOJO

UserController:

Create user - Isaac

Login - Isaac

Authentication - Isaac

Edit preferences-Shabna

Remove Preferences-Shabna

Delete User Profile -Shabna

Edit Profile

Add Favourite Movies

Remove favourite movies

GenreController

Get All Genres - KOJO

**TESTING**

UserDaoTest

Create user - Isaac

Login - Isaac

Authentication - Isaac

Edit preferences - Shabna

Remove Preferences - Shabna

Delete User Profile - Shabna

Add Favourite Movies

Remove favourite movies

Edit Profile

MovieDaoTest

Get top 50 movies

Get movies By Genre-Ruchita

Get movies By rating-Ruchita

Get movies By Preferences-Ruchita

Get movies By alphabetically

GenreDaoTest

Display list of genres - KOJO

UserService Testing

Create user - Isaac

Login - Isaac

Authentication - Isaac

Edit preferences - Shabna

Remove Preferences- Shabna

Delete User Profile - Shabna

Add Favourite Movies

Remove favourite movies

Edit Profile

Movie Service Testing

Get top 20 movies - KOJO

Get movies By Genre-Ruchita

Get movies By rating-Ruchita

Get movies By Preferences-Ruchita

Get movies By alphabetically -KOJO

GenreService Testing:

Display list of genres - KOJO

### Other

User DTO:

Uid : int

Username : string

Password : string

Preferences : Array<Genre>

FavouriteMovies : Array<Movies>

Session DTO:

sessionId

Username

startTime

Database Structure: (move to a diagram)

User:

uid

Username (email)

Password hash

Movie:

mid

Title

Ratings

Release year

Tag line

Genre:

gid

Name

MovieGenre:

movieId

genreId

UserFavouriteGenre:

userId

genreId

UserFavouriteMovie:

userId

movieId