

Requirements:

Movies (movies.txt):

1. Movie Title: the movie title should be in Pascal Case notation.
2. Movie Id: it must contain all the capital letters in the title followed by 3 unique numbers.
3. Movie title and ID: must be separated by a comma, and it is your responsibility to remove any whitespace (trailing or starting whitespaces).
4. Movie genre: the genre of the movie (horror, action, drama, ...etc)
5. Movie genre: A movie can have multiple genres, genres are comma separated and come immediately in the line after the movie name and ID

Users (users.txt):

6. User Name: It must be Alphabetic characters and Spaces. the name should not start with space.
7. User Id: this field must be Alphanumeric characters of exact length of 9 characters. It should start with numbers and might end with only one alphabetic character. The users' ids must be unique.
8. User name and ID must be comma separated and it is your responsibility to remove any whitespace (trailing or starting whitespaces).
9. User favorite movies: the line after the user name and user id is the line containing the favorite movies, a user can have multiple favorite movies, which are comma separated.

Output (recommendations.txt):

10. Output is a recommendations.txt file:
 - The first line contains the user's name and id separated by a comma
 - The second line contains the movies titles recommended for the user separated by a comma
- And this repeats for every single user in the users.txt file
11. "Recommendation system" works as follows: for each movie a user likes of genre X, you recommend ALL movies in movies.txt file of the same genre X.

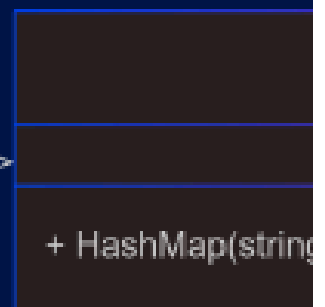
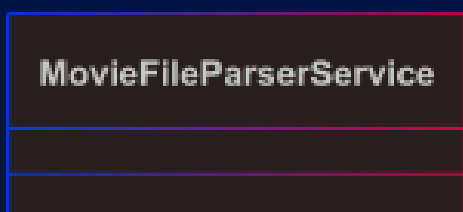
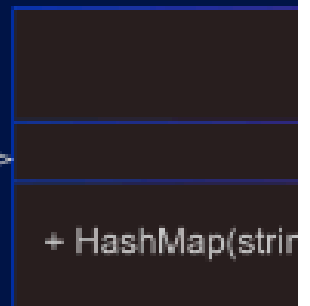
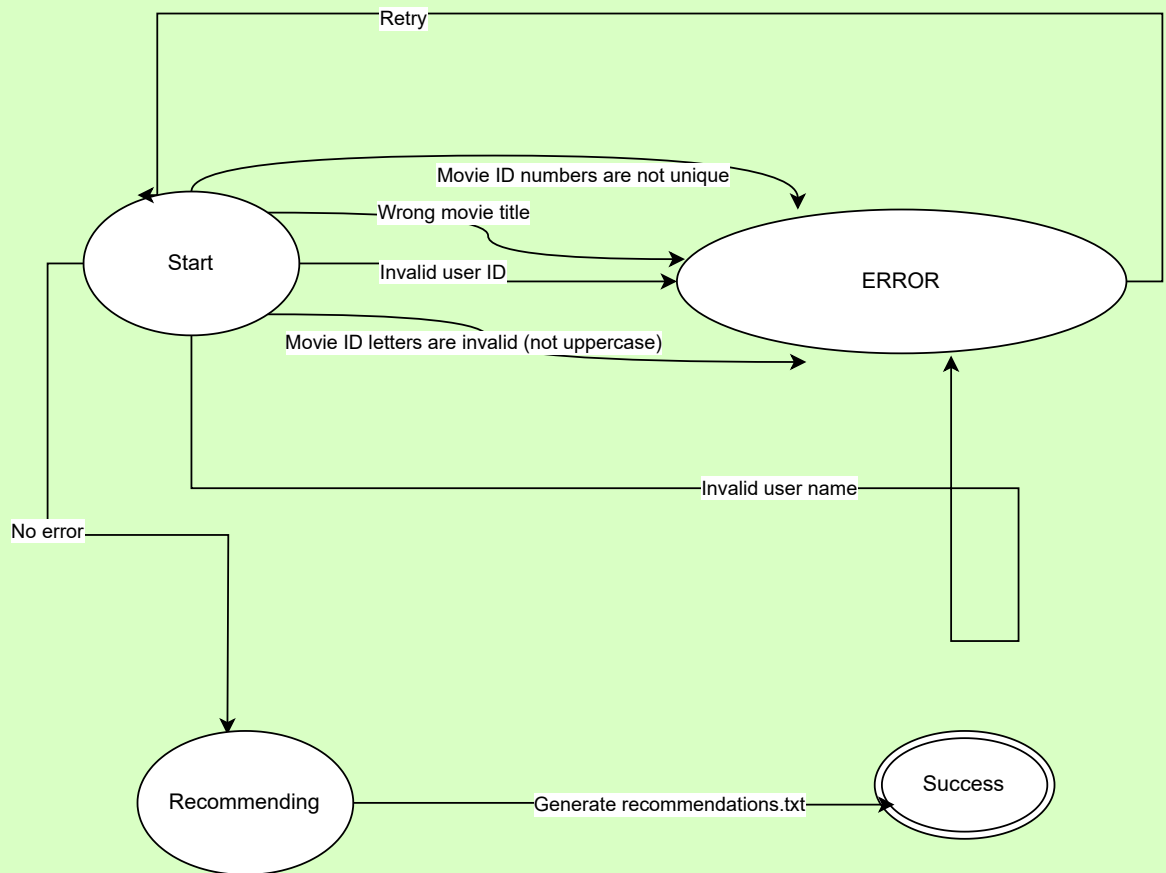
Error Messages:

In case of any error in the inputs file, the output file should contain the error message

Error	Error Message
Error in movie title	ERROR: Movie Title {movie_title} is wrong
Error in movie id letters	ERROR: Movie Id letters {movie_id} are wrong
Error in movie id unique numbers	ERROR: Movie Id numbers {movie_id} aren't unique
Error in user name	ERROR: User Name {user_name} is wrong
Error in user id	ERROR: User Id {user_id} is wrong

In case of multiple errors in the files: only output the first error encountered in the output file

Program state diagram



IUserFileParserService

(string,Movie) parseUsers(string usersTextFilePath)

parses

IMovieFileParserService

(string,User) parseMovies(string movesTextFilePath)

parses

- S
- S
- A
+ S

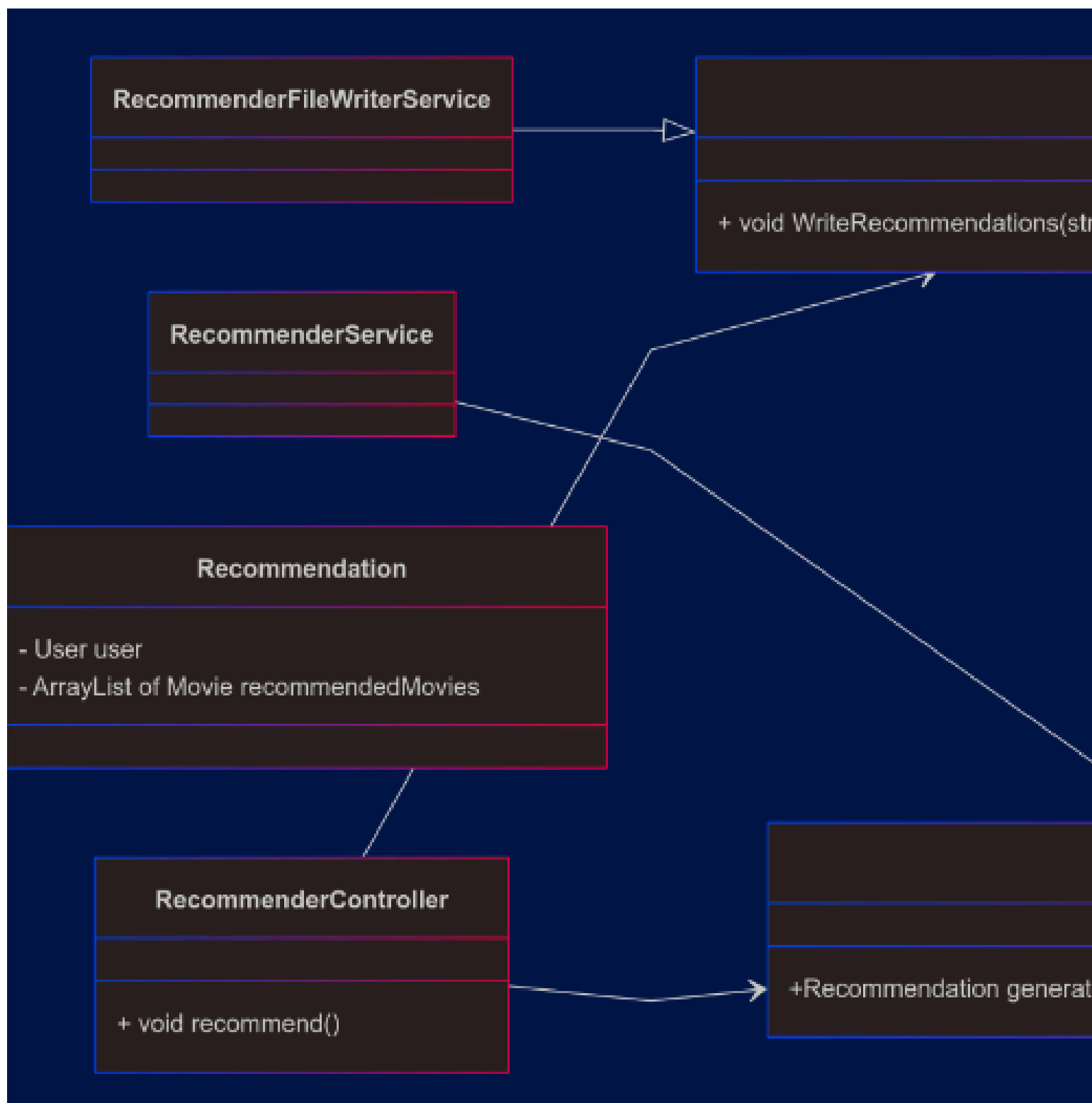
User

String userID

String username

ArrayList of Movie favoriteMovies

String toString()



IRecommendFileWriterService

ing filename,ArrayList(Recommendation) recommendations)

IRecommenderService

eRecommendations(User user, ArrayList of Movie movies)



Movie

- string movieName
- string movieID
- ArrayList of String genres

- + string toString()