

COM1028 Software Engineering

Coursework Assignment

FlickFinder

URN	6830924
Username	rk01161
GitLab Link	https://gitlab.surrey.ac.uk/csee/com1028/2023-24/com1028rk01161
Date	10/05/2024

1 Personas, Scenarios and User Stories

1.1 Personas

1) Tom, age 42, is a movie producer in the United States. He has been in the industry for eleven years and is married. He was born in Florida and raised in New York City, which greatly influenced his career and interest in films and celebrity life. He graduated from New York University, where he studied film and television.

Tom has worked for several film companies and is familiar and experienced with all aspects of the industry. He now wants to make more films that will be talked about around the world and bring him the fame he has desired since the beginning, which he is now confident in. What he is looking for to achieve it, is a website that can help him filter the movies based on categories, actors, directors, ratings and all the other specific stuffs so that he won't have to deal with irrelevant options when making decisions. Unlike other platforms that keeps on showing unrelated movie options, FlickFinder handles this in a secure and time-saving way. FlickFinder also has a simple and effective design, where no unrelated advertisements are displayed, which makes it easier and more efficient for him to use.

2) Charlotte, a 28-year-old actress, lives in Sydney. She was born and raised in Sydney and is currently single. Her grandmother was an actress who performed several times at the Sydney Opera House. So, as a child, Charlotte visited live action theatres, which influenced her future career plans. She studied acting at Yale School of Acting and spent five years in the United States for that purpose.

Charlotte wants to be a famous actress, so she is doing some research on the internet to see the most popular and currently trending productions to get a better idea of the directors that she should try to audition for, check their movies' IMDB ratings, access their actors list, and learn more about the directors. After checking a few websites and apps, she decided that FlickFinder is exactly what she needs for this specific purpose out of all the others. What she also liked was that FlickFinder allows users to play around with application's layout and background's colour. That way she can organize it the way she wants to see it.

1.2 Scenarios

Tom is a film producer. His previous films were not successful, which motivated him to pursue new ideas. He wants to make a new film that will be talked about worldwide. To accomplish this, he spoke with one of his successful director friends for advice on how to succeed and told him what he is looking for.

Tom's friend suggested that he look for the highest rated and most popular films on FlickFinder, a mobile movie search app that stores IMDB ratings for films, directors, and actors. It allows users to filter movies based on what they want to see. That way, he can determine what types of movies, storylines, genres, and visuals the audience is most interested in. He can view the list of actors who appeared in those films and determine which directors were successful.

He can look up an actor's name and see which films they've appeared in. He can do the same to look for directors and see what films helped them succeed over time. What emotions were most

prominently portrayed and captured people's attention. With these observations, he can plan some key parts for his upcoming production.

1.3 User Stories

- 1) As a movie producer, I want to access the list of the timeless movies based on their ratings so that I can have a better idea on what kind of production I can do for the next time to be successful.
- 2) As an actress, I want to find out the highest rated movies' directors so that I can audition to work with them.
- 3) As a director, I need to see the genres that catches the attention of audience so that I can base my next movie around that genre.
- 4) As an acting student, I want to access the list of movies of an actor by searching their name so that I can see how their acting skills have developed by time and observe what actions possibly got them the fame they have.
- 5) As a hair stylist, I want to be able to see the list of popular fashion movies based on their release year and observe the hair styles so that I can have a clue on what styles and colours are used the most during a specific period/era.
- 6) As a VFX artist, I want to be able to search for specific people like actors and directors that are known to be in the movies with best visuals and access the list of their movies by searching their name, so that I can create trending visuals for future.

2 Critical Analysis and Reflection

2.1 Completed Requirements and Reflection

Must-have	
M.1: Retrieve a list of all the movies in the database	completed
M.2: Retrieve a movie by its ID.	completed
M.3: Retrieve a list of all the people in the database	completed
M.4 Retrieve a person by their ID.	completed
Should-have	
S.1: Retrieve a list of stars by a specific movie.	completed
S.2: Retrieve a list of movies by a specific star.	completed
Could-Have	
C.1: Add the parameter 'limit' to `list movies` and `list person route, ratings` route.	completed
C2: Retrieve a list of movies ordered by average rating in descending order	completed

In this project, the ability to straight up access query parameters without having to implement your own parsing for the URL, helped a lot with the implementation of limit parameter on the routes.

M1 – M4 were the most straightforward to implement. S1 - S2 required to think about the structure of the application and which dao would consist of the methods to access the data in case of a join statement. However, could have requirements were complicated due to a variety of edge cases for the limit parameter, ranging from non-numeric to less than or equal to zero to not existing at all. The getRatingByYear method was challenging to implement because of all the possible scenarios we can get the parameters in. The most challenging and rewarding part was implementing getMoviesByRatingOrder. The SQL query for that function was difficult to write, and implementing the entire function's logic took many attempts and was made easy by writing the unit tests for the function.

What could be improved is that I could specify all the constants in a single Java file and import that class rather than hard coding them everywhere. Also, add descriptive error returns for requests that don't go successfully, rather than allowing Javalin to return server error for any unhandled errors, which could range from bad requests to edge cases that were never considered.

2.2 Professional Aspects

In our project, FlickFinder, we developed the back end. Our code is using git version control to track the codebase. Utilizing Continuous Integration and Continuous Deployment (CI/CD), we can effectively handle errors and fix them before we release the code.

Since we applied SRP, each class within our codebase serves a distinct and clearly defined purpose. This architectural approach enhances the maintainability of our code and fosters scalability and ease of understanding for future developers that might use our code.

For the system architecture we used existing frameworks and backed them with good documentation like official IMDB ratings and people list of those movies in our database. Our frameworks and system libraries are comprehensive, and they have active community support. The functions we implemented are reusable and our code is available to refactor and update in the future.

In terms of legal and ethical issues, we have secured legal copyright permission to access the database of IMDB, ensuring compliance with intellectual property regulations. We protect our users' confidentiality by obtaining explicit consent from them before accessing their personal information, thereby upholding the highest standards of data protection.

FlickFinder is a sustainable and maintainable application since we can update stuff and test new conditions and integrate new files to keep the app up to date, ensuring that the application is relevant in a rapidly evolving atmosphere.

3 References

- Abramovitch, S. (2022). The Top 25 Drama Schools in the World. [online] The Hollywood Reporter. Available at: <https://www.hollywoodreporter.com/lists/the-top-25-drama-schools-in-the-world/yale-drama-schools-2022/> .

- Higginbotham, D. (2019). Jobs in the film industry | Prospects.ac.uk. [online] Prospects.ac.uk. Available at: <https://www.prospects.ac.uk/jobs-and-work-experience/job-sectors/media-and-internet/jobs-in-the-film-industry> .
- OpenAi (2022). ChatGPT . [online] chatgpt.com. Available at: <https://chatgpt.com> .
(I used ChatGPT for getting some ideas and insights on how to write professional aspects.)