#### **PROJECT PART 2**

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• **Title:** Rated - Online Movie Rating System

- Project Summary: An Online Movie Rating System in the form of a stand-alone application. It
  is an online database of movies which allows the users to access movie reviews and ratings.
  The users can add/delete/update reviews. Reviews can also be upvoted and shared on social
  media.
- Project Requirements:

## > <u>User Requirements</u>

| User Re | User Requirement  |                  |  |  |  |
|---------|---|------------------|--|--|--|
| ID      | Description   | User             |  |  |  |
| UR-01   | As a new user, I should be able create a role based account                             | All Actors       |  |  |  |
| UR-02   | As an existing user, I should be able to login to the system                            | All Actors       |  |  |  |
| UR-03   | As a User or a Critic, I should be able to view and give and modify a rating and review | User, Critic     |  |  |  |
| UR-04   | As a User or a Critic, I should be able to delete my rating and review                  | User, Critic     |  |  |  |
| UR-05   | As a user, I should be able to view movie list based on a filter                        | All Actors       |  |  |  |
| UR-06   | As a User or a Critic, I should be able to up-vote an existing review                   | User, Critic     |  |  |  |
| UR-07   | As a User or a Critic, I should be able to share any review on social media             | User, Critic     |  |  |  |
| UR-08   | As an Admin or a Moderator, I should be able to add/remove movie in the list            | Admin, Moderator |  |  |  |
| UR-09   | As an Admin or a Moderator, I should be able monitor reviews                            | Admin, Moderator |  |  |  |
| UR-10   | As an Admin, I should be able to promote Users to Critics and Critics to Moderators.    | Admin            |  |  |  |
| UR-11   | As an Admin, I should be able to add/remove users                                       | Admin            |  |  |  |
| UR-12   | As a Moderator, I should be able to approve request to add movies by a Critic           | Moderator        |  |  |  |
| UR-13   | As a Critic, I should be able to request to add a movie                                 | Critic           |  |  |  |
| UR-14   | As a User or a Critic, I should be able to flag a review                                | User, Critic     |  |  |  |

#### **Business Requirements**

| Business Requirement |             |            |      |
|----------------------|-------------|------------|------|
| ID                   | Requirement | Topic Area | User |

| BR-01 | Must be implemented in Java                  | Implementation | -         |
|-------|--|----------------|-----------|
| BR-02 | Must be a stand-alone application            | Implementation | -         |
| BR-03 | User must login with their Colorado email id | Authentication | Employees |

## **Functional Requirements**

| Functio | Functional Requirement  |                |  |  |
|---------|---|----------------|--|--|
| ID      | Requirement   | Topic Area     |  |  |
| FR-01   | Password based authentication during user login                     | Authentication |  |  |
| FR-02   | All the users should be able to reset password                      | Logging        |  |  |
| FR-03   | The Critics' rating should have higher weightage than Users'        | Rating         |  |  |
| FR-04   | The rating displayed is the weighted average of ratings by Critics/ | Rating         |  |  |
|         | Users   |                |  |  |

## > Non-Functional Requirements

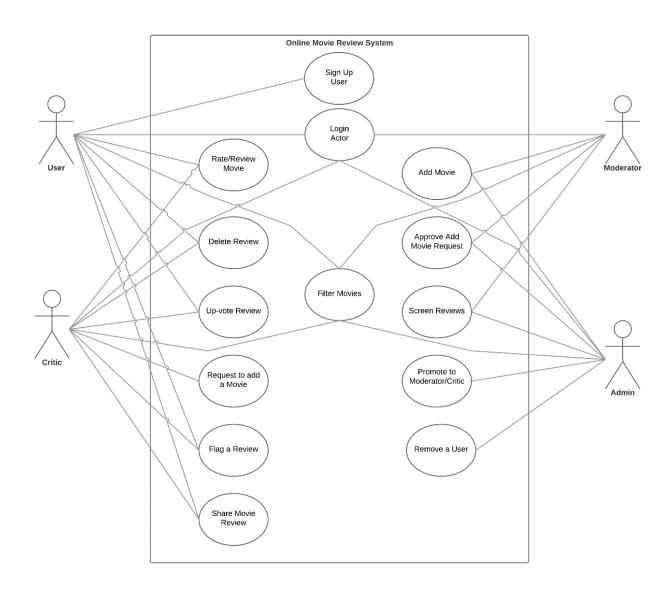
| Non-Func | Non-Functional Requirement                                   |             |  |
|----------|--|-------------|--|
| ID       | Requirement  | Topic Area  |  |
| NFR-01   | The system should run 24x7                                   | Performance |  |
| NFR-02   | The system should create a backup of the database weekly     | Reliability |  |
| NFR-03   | The user password should be hashed [sha-256]                 | Security    |  |
| NFR-04   | The system should automatically start the backup server when | Reliability |  |
|          | the current server fails.                                    |             |  |
| NFR-05   | Adding a Site under maintenance page                         | Updates     |  |

## > Use Cases Diagrams

## > Actors:

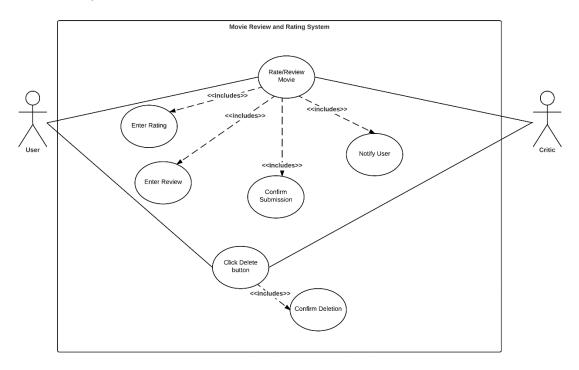
Admin, Moderators, Critic, Users

## > Use Case Overview:

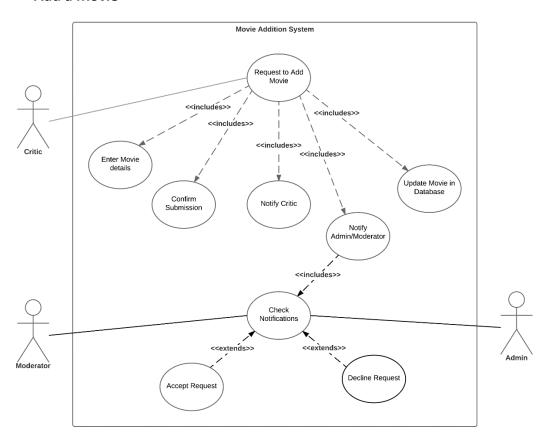


## > Sub-Diagrams

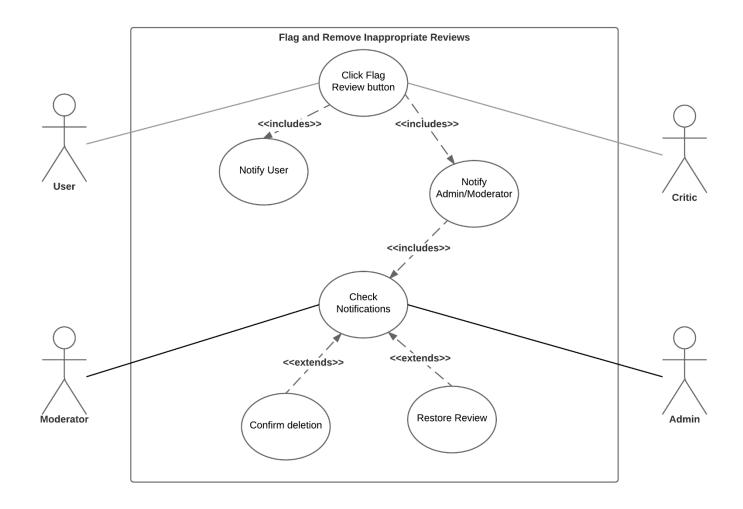
## • Rate/Review a Movie



#### Add a Movie



## • Flag and Screen a Review



# > <u>Use Case Documentation</u>

| Use Case ID: | UC-01  |
|--------------|--|
| Use Case     | Sign-up User   |
| Name:        |  |
| Description: | User can sign up and enter information in the system |

| Actors:            | Use  | r                                 |  |
|--------------------|------|-----------------------------------|--|
| Pre                | Use  | r is not signed up in the system  |  |
| conditions:        |      |                                   |  |
| Post               | Use  | r is signed up in the system      |  |
| conditions:        |      |                                   |  |
| Frequency of Use:  |      |                                   | an account                               |
| Flow of            |      | Actor Action                      | System Response                          |
| <b>Events:</b>     | 1    | Select Sign-up                    | Show a create new account page           |
|                    | 2    | Enter Details                     | Check if all required fields are entered |
|                    |      | Agree to Terms & Condition        |  |
|                    | 3    | Click signup complete             | Store the user information Notify User   |
|                    | 4    | User is signed up in the system   |  |
| Variations:        |      |                                   |  |
| <b>Exceptions:</b> | 1. U | ser with same email-id already e  | xists                                    |
|                    | •    | System notifies the user, asks to | enter the details again                  |
| Developer          |      |                                   |  |
| Notes:             |      |                                   |  |

| Use Case ID:        | UC-02                            |
|---------------------|----------------------------------|
| Use Case            | Login User                       |
| Name:               |                                  |
| <b>Description:</b> | User can login to use the system |

| Actors:            | Use                              | r, Critic, Moderator, Admin       |   |
|--------------------|----------------------------------|-----------------------------------|---|
| Pre                | Actor is signed up in the system |                                   |   |
| conditions:        |                                  |                                   |   |
| Post               | Act                              | or is logged in onto the system   |   |
| conditions:        |                                  |                                   |   |
| Frequency of       | Any                              | time of the day                   |   |
| Use:               |                                  |                                   |   |
| Flow of            |                                  | Actor Action                      | System Response                             |
| Events:            | 1                                | Enter username & password         | Authenticate the user                       |
|                    |                                  | Press login                       |   |
|                    | 2                                | User logged in                    | Display the Movie List Page                 |
| Variations:        | 1. L                             | Jser enters wrong username or p   | assword                                     |
|                    | •                                | System notifies the user, asks to | enter the details again                     |
|                    | •                                | System will block the user in cas | e of three wrong login attempts in the past |
|                    |                                  | half hour                         |   |
| <b>Exceptions:</b> |                                  |                                   |   |
| Developer          |                                  |                                   |   |
| Notes:             |                                  |                                   |   |

| Use Case ID:        | UC-03   |
|---------------------|---|
| Use Case            | Rate/Review Movie                                     |
| Name:               |   |
| <b>Description:</b> | User or Critic can rate and review (optional) a movie |

| Actors:            | Use                                | r, Critic  |  |
|--------------------|------------------------------------|--|--|
| Pre                | User or Critic should be logged in |  |  |
| conditions:        |                                    |  |  |
| Post               | The                                | User/Critic's rating and review                          | w (optional) is given for the movie. The   |
| conditions:        | agg                                | regate rating is updated                                 |  |
| Frequency of Use:  | Anytime of the day                 |  |  |
| Flow of            |                                    | Actor Action   | System Response                            |
| <b>Events:</b>     | 1                                  | Click on a listed movie                                  | Show the movie details page                |
|                    | 2                                  | Select Rate the movie                                    | Display the Rate Movie dialog box          |
|                    | 3                                  | Enter Rating and Submit it                               | Mandatory fields are checked               |
|                    |                                    |  | Rating is added to the database            |
|                    |                                    |  | Aggregate rating is updated                |
| Variations:        | 1. U                               | Iser/Critic has already rated the r                      | novie                                      |
|                    |                                    | <ul> <li>System notifies the user and values.</li> </ul> | d updates the existing rating with the new |
| <b>Exceptions:</b> | 1. U                               | Iser/Critic cancels the rating                           |  |
|                    |                                    | <ul> <li>Return to the movie page.</li> </ul>            |  |
|                    |                                    | <ul> <li>Rating is not updated</li> </ul>                |  |
|                    |                                    |  |  |
|                    |                                    |  |  |
| Developer          |                                    |  |  |
| Notes:             |                                    |  |  |

| Use Case ID:        | UC-04  |
|---------------------|--|
| Use Case            | Delete review  |
| Name:               |  |
| <b>Description:</b> | User/Critic can delete his own review for a listed movie |

| Actors:        | User/Critic  |                               |                                  |  |  |  |
|----------------|--|-------------------------------|----------------------------------|--|--|--|
| Pre            | User/Critic is signed up in the system   |                               |                                  |  |  |  |
| conditions:    | User/Critic is logged in to the system   |                               |                                  |  |  |  |
|                | User/Critic is already on the Movie page for which he wishes to remove review. |                               |                                  |  |  |  |
|                |  |                               |                                  |  |  |  |
| Post           | Use  | r/Critic's review is removed. |                                  |  |  |  |
| conditions:    | Agg  | regate Rating is updated.     |                                  |  |  |  |
| Frequency of   | Anytime of the day.  |                               |                                  |  |  |  |
| Use:           |  |                               |                                  |  |  |  |
| Flow of        |  | Actor Action System Response  |                                  |  |  |  |
| <b>Events:</b> | 1  | Click on Delete review button | Display Confirmation dialog box. |  |  |  |
|                | 2  | Confirm deletion              | Delete it and notify user.       |  |  |  |
|                |  |                               | Update Ratings for movie.        |  |  |  |
|                |  | Return to the movie page.     |                                  |  |  |  |
| Variations:    | If user cancels the delete request during confirmation, return to movie page   |                               |                                  |  |  |  |
| Exceptions:    | If the review does not exist in the database, notify the error to the user     |                               |                                  |  |  |  |
| Developer      | Many-to-many relationship between movies and reviews                           |                               |                                  |  |  |  |
| Notes:         |  |                               |                                  |  |  |  |

| Use Case ID: | UC-05   |
|--------------|---|
| Use Case     | Request to add Movie in the System                |
| Name:        |   |
| Description: | Critic can request to add a Movie in the Database |

| Actors:             | Critic  |                                      |   |  |  |
|---------------------|---|--------------------------------------|---|--|--|
| Pre                 | Critic is signed up in the system   |                                      |   |  |  |
| conditions:         | Crit  | ic is logged in to the system        |   |  |  |
|                     | The   | movie does not exist already         |   |  |  |
| Post conditions:    | The approval request is sent to the Admin (and all Moderators)  |                                      |   |  |  |
| Frequency of Use:   | Any   | time of the day.                     |   |  |  |
| Flow of             |   | Actor Action                         | System Response   |  |  |
| Events:             | 1   | Go to 'request to add a movie' page. | Display the 'request to add a movie' page with all the fields.  |  |  |
|                     | 2   | Enter movie details                  | Get confirmation to send request to add a movie   |  |  |
|                     | If not, notify user to enter<br>Check if movie already exists. If not<br>the request is submitted. Admir  |                                      | Check if movie already exists. If not, then the request is submitted. Admin and Moderator are notified. |  |  |
| Variations:         |   |                                      |   |  |  |
| Exceptions:         | If all required details are not entered, return to request to add a movie page.  If movie already exists, notify the error to the user and return to movie page.  If confirmation is cancelled, return to the movie page. |                                      |   |  |  |
| Developer<br>Notes: |   |                                      |   |  |  |

| Use Case ID: | UC-06  |
|--------------|--|
| Use Case     | Up-vote an already existing review               |
| Name:        |  |
| Description: | User/Critic wants to Up-Vote an existing review. |

| Actors:             | Use   | r/Critic                     |   |  |  |
|---------------------|---|------------------------------|---|--|--|
| Pre conditions:     | User/Critic is signed up in the system User/Critic is logged in to the system User/Critic is already on the Movie page for which he wishes to Up-vote a review. There exists at least one movie review which does not belong to the User/Critic |                              |   |  |  |
| Post conditions:    | User/Critic has successfully Up-Voted a Review.   |                              |   |  |  |
| Frequency of Use:   | Anytime of the day.   |                              |   |  |  |
| Flow of Events:     |   | Actor Action System Response |   |  |  |
|                     | 1   | Click on Up-Vote button.     | Increase the Up-Vote count for the User/Critic whose review has been Up-Voted |  |  |
| Variations:         |   |                              |   |  |  |
| Exceptions:         | <ul> <li>2. User/Critic is Up-Voting their own review</li> <li>Error is reported to the User/Critic</li> <li>Up-Vote is not updated.</li> </ul>   |                              |   |  |  |
| Developer<br>Notes: |   |                              |   |  |  |

| Use Case ID:  | UC-07                  |  |
|---|------------------------|--|
| Use Case  | e Share a Movie review |  |
| Name:   |                        |  |
| Description: User/Critic can share their review online. |                        |  |

| Actors:            | User/Critic                            |                                     |   |  |  |
|--------------------|--|-------------------------------------|---|--|--|
| Pre conditions:    | Use                                    | r/Critic is signed up in the system |   |  |  |
|                    | User/Critic is logged in to the system |                                     |   |  |  |
| Post               | The                                    | movie review's URL is given to th   | e user to share on Social Media.        |  |  |
| conditions:        |  |                                     |   |  |  |
| Frequency of       | Anytime of the day.                    |                                     |   |  |  |
| Use:               |  |                                     |   |  |  |
| Flow of            |  | Actor Action                        | System Response                         |  |  |
| <b>Events:</b>     | 1                                      | Select a Movie review to Share      | Go to the selected movie review page.   |  |  |
|                    | 2                                      | Click on share                      | Generate a Shareable link of the Review |  |  |
|                    |  | Page.                               |   |  |  |
| Variations:        |  |                                     |   |  |  |
| <b>Exceptions:</b> |  |                                     |   |  |  |
| Developer          |  |                                     |   |  |  |
| Notes:             |  |                                     |   |  |  |

| Use Case ID:        | UC-08  |
|---------------------|--|
| Use Case            | Promote to Moderator or Critic   |
| Name:               |  |
| <b>Description:</b> | The Admin can promote any User to Moderator privilege or a Critic privilege. |
|                     |  |

| Actors:            | Admin   |                        |               |         |         |           |    |
|--------------------|---|------------------------|---------------|---------|---------|-----------|----|
| Pre conditions:    | Admin is logged in in the admin console.                      |                        |               |         |         |           |    |
|                    | User to be pron   | noted is signed up on  | the system.   |         |         |           |    |
|                    | One user can or   | nly have one type of p | rivilege at a | point o | f time. |           |    |
| Post               | Selected User h   | as been Promoted to    | Moderator,    | /Critic |         |           |    |
| conditions:        |   |                        |               |         |         |           |    |
| Frequency of       | For moderator <sub>l</sub>                                    | oromotion:             |               |         |         |           |    |
| Use:               | Every time the number of user per moderator is more than 100. |                        |               |         |         |           |    |
|                    | For Critic promotion:   |                        |               |         |         |           |    |
|                    | Number of Up-Votes for a critic is greater than 100.          |                        |               |         |         |           |    |
| Flow of Events:    | Actor Act   | ion                    | System Re     | esponse |         |           |    |
|                    | 1 Select the  | e User and promote     | Update        | the     | User    | privilege | to |
|                    | to Moderator/Critic Moderator/Critic                          |                        |               |         |         |           |    |
| Variations:        |   |                        |               |         |         |           |    |
| <b>Exceptions:</b> |   |                        |               |         |         |           |    |
| Developer          |   |                        |               |         |         |           |    |
| Notes:             |   |                        |               |         |         |           |    |

| Use Case ID:   | UC-09  |
|----------------|--|
| Use Case Name: | Approve add Movie request  |
| Description:   | Admin/Moderator can approve a add Movie request from only Critic after |
|                | review   |

| Actors:            | Admin/Moderator   |                                   |                                    |  |
|--------------------|---|-----------------------------------|------------------------------------|--|
| Pre conditions:    | Admin/Moderator is signed in.   |                                   |                                    |  |
|                    | The   | y have pending request in the 'ad | dd a movie requests' page.         |  |
|                    | Adn   | nin/Moderator have received a n   | otification.                       |  |
| Post conditions:   | Afte  | er approval movie is added to the | e Movie list.                      |  |
| Frequency of       | Wh  | enever a Critic makes an 'add a n | novie' request.                    |  |
| Use:               |   |                                   |                                    |  |
| Flow of Events:    |   | Actor Action                      | System Response                    |  |
|                    | 1   | Go the 'add a movie requests      | Displays the pending Movie request |  |
|                    |   | page'                             |                                    |  |
|                    | 2   | Review the Movie and edit if      | Update the movie list.             |  |
|                    |   | required and Submit.              | Send user success notification.    |  |
| Variations:        | 2. Admin rejects the add movie request                                    |                                   |                                    |  |
|                    | <ul> <li>Send a notification to the User about request denial.</li> </ul> |                                   |                                    |  |
| <b>Exceptions:</b> |   |                                   |                                    |  |
| Developer          |   |                                   |                                    |  |
| Notes:             |   |                                   |                                    |  |

| Use Case ID:   | UC-10  |
|----------------|--|
| Use Case Name: | Remove a User                                      |
| Description:   | Admin can remove a User/Critic/Moderator's account |

| Actors:            | Admin   |  |  |
|--------------------|---|--|--|
| Pre conditions:    | Admin is logged in in the admin console.                                      |  |  |
|                    | User/Critic/Moderator to be removed is signed up on the system.               |  |  |
| Post conditions:   | User/Critic/Moderator has been removed from the system.                       |  |  |
| Frequency of       | Sporadic. Could occur when the violation of the site's terms and condition is |  |  |
| Use:               | made by a User/Critic/Moderator.  |  |  |
| Flow of Events:    | Actor Action System Response  |  |  |
|                    | 1 Find and remove the Remove User/Critic/Moderator from the                   |  |  |
|                    | User/Moderator/Critic database.   |  |  |
|                    | Notify them about account deletion.   |  |  |
|                    |   |  |  |
| Variations:        |   |  |  |
| <b>Exceptions:</b> |   |  |  |
| Developer          |   |  |  |
| Notes:             |   |  |  |

| Use Case ID:           | UC-11   |
|------------------------|---|
| Use Case Filter Movies |   |
| Name:                  |   |
| <b>Description:</b>    | All Actors can filter the Movie list based on different Categories. |

| Actors:            | All Actors   |  |  |
|--------------------|--|--|--|
| Pre                | Actor must be signed up on the system.                       |  |  |
| conditions:        | Actor must be logged in on the system.                       |  |  |
| Post conditions:   | The Movie list is sorted based on selected category.         |  |  |
| Frequency of Use:  | Frequently throughout the day.                               |  |  |
| Flow of            |  | Actor Action                             | System Response  |
| <b>Events:</b>     | 1  | Go to the Movie List page                | Display the List of Movies   |
|                    | 2.   | Select the Category to filter according. | Send a sort request to the Movie database based on the category. Return the sorted listed from the Database. |
| Variations:        | User wishes to change the sorting order also (asc. Or desc.) |  |  |
|                    | Return the sorted list and display                           |  |  |
| <b>Exceptions:</b> |  |  |  |
| Developer          |  |  |  |
| Notes:             |  |  |  |

| Use Case ID:  | UC-12          |
|---|----------------|
| Use Case  | Screen Reviews |
| Name:   |                |
| Description: Admin/Moderator can remove a review which is flagged |                |

| Actors:            | Admin, Moderator   |                             |   |  |
|--------------------|--|-----------------------------|---|--|
| Pre                | Admin/Moderator is signed in.  |                             |   |  |
| conditions:        | They have pending request in the 'flagged reviews' page.                       |                             |   |  |
| Post               | The flagged review is deleted from the database/                               |                             |   |  |
| conditions:        |  |                             |   |  |
| Frequency of       | Weekly basis   |                             |   |  |
| Use:               |  |                             |   |  |
| Flow of            |  | Actor Action                | System Response                             |  |
| <b>Events:</b>     | 1  | Navigate to flagged review  | Display the list of flagged reviews with an |  |
|                    |  | page                        | option to remove.                           |  |
|                    | 2  | Click on delete the flagged | Display the confirmation dialog box.        |  |
|                    |  | review                      | The review is deleted from the database     |  |
|                    | and the page is refreshed.   |                             |   |  |
| Variations:        | Admin/Moderator can unflag the review by clicking on the 'Unflag' button.      |                             |   |  |
| <b>Exceptions:</b> |  |                             |   |  |
| Developer          | Option can be given to select multiple reviews at once and Delete/Unflag them. |                             |   |  |
| Notes:             | Once either one is pressed, the page is refreshed.                             |                             |   |  |

| Use Case ID:   | UC-13         |  |  |
|--|---------------|--|--|
| Use Case   | Flag a review |  |  |
| Name:  |               |  |  |
| Description: Users can flag a review if it doesn't comply with the terms and condition |               |  |  |

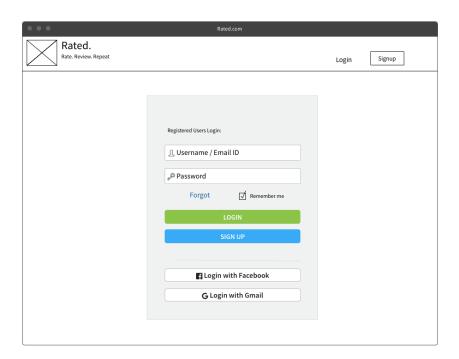
| Actors:            | Use   | r, Critic                       |                                      |  |  |
|--------------------|---|---------------------------------|--------------------------------------|--|--|
| Pre                | User/Critic must be signed up in the system |                                 |                                      |  |  |
| conditions:        | User/Critic must be logged in the system    |                                 |                                      |  |  |
| Post               | The review is flagged                       |                                 |                                      |  |  |
| conditions:        |   |                                 |                                      |  |  |
| Frequency of       | Anytime of the day                          |                                 |                                      |  |  |
| Use:               |   |                                 |                                      |  |  |
| Flow of            |   | Actor Action                    | System Response                      |  |  |
| <b>Events:</b>     | 1   | Navigate to the movie review    | Display the movie review page of the |  |  |
|                    |   | page                            | corresponding movie                  |  |  |
|                    | 2   | Click on the flag review button | The review is flagged                |  |  |
| Variations:        |   |                                 |                                      |  |  |
| <b>Exceptions:</b> |   |                                 |                                      |  |  |
| Developer          |   |                                 |                                      |  |  |
| Notes:             |   |                                 |                                      |  |  |

| Use Case ID:   | UC-14            |  |  |
|--|------------------|--|--|
| Use Case   | Case Add a Movie |  |  |
| Name:  |                  |  |  |
| Description: Admin and Moderator should be able to add a movie |                  |  |  |

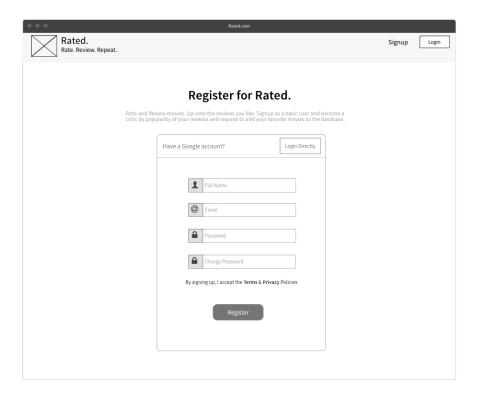
| Actors:            | Adn  | Admin , Moderator                  |  |  |
|--------------------|--|------------------------------------|--|--|
| Pre conditions:    | Admin/Moderator must be logged in the system   |                                    |  |  |
| Post conditions:   | Movie is added to the database   |                                    |  |  |
| Frequency of Use:  | Anytime of the day   |                                    |  |  |
| Flow of            |  | Actor Action                       | System Response  |  |
| Events:            | 1  | Navigate to the 'add a movie' page | Display the 'add a movie' page                                     |  |
|                    | 2  | Enter the details of the movie     | Verify whether all the mandatory fields to add a movie are present |  |
|                    | 3  | Submit the details                 | Movie and its details are added to the database                    |  |
| Variations:        | Admin/Moderator can cancel adding the movie at any point of time before submitting it. |                                    |  |  |
| <b>Exceptions:</b> |  |                                    |  |  |
| Developer          |  |                                    |  |  |
| Notes:             |  |                                    |  |  |

#### ➤ UI Mockups

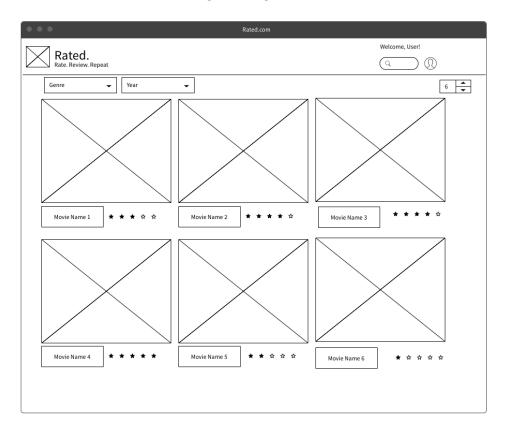
• Home Page for all Users:

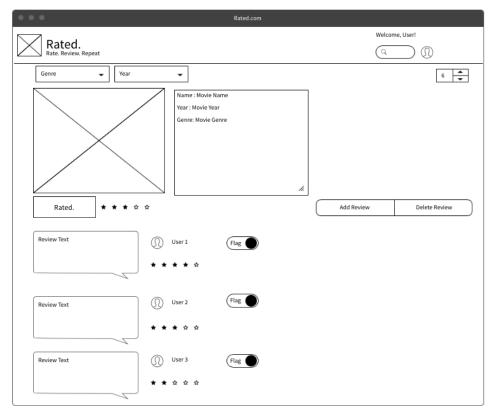


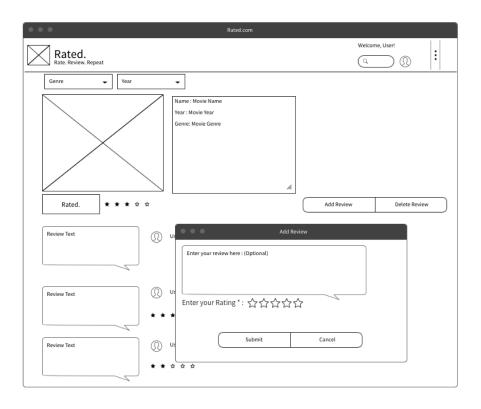
• Sign Up page for all Users

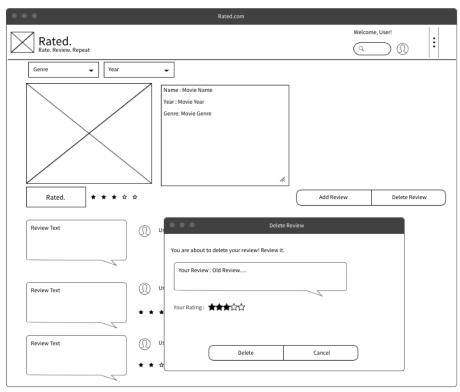


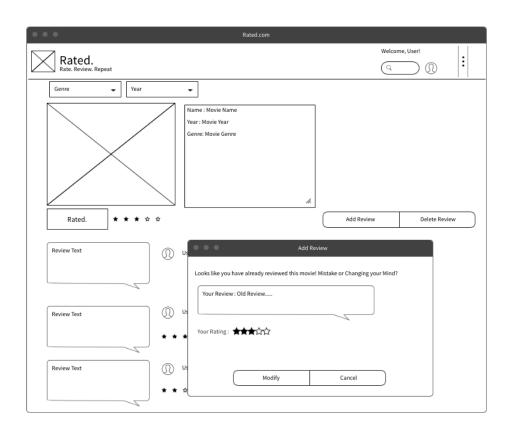
#### • User Home Screen and Navigation Pages from Home Screen

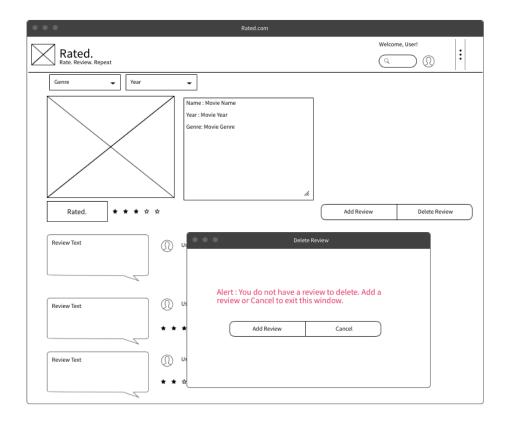




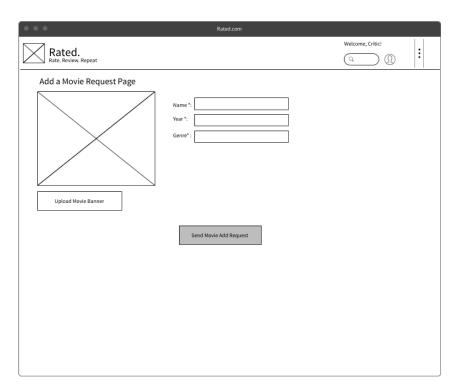




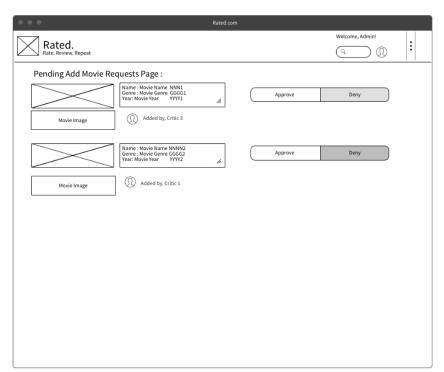


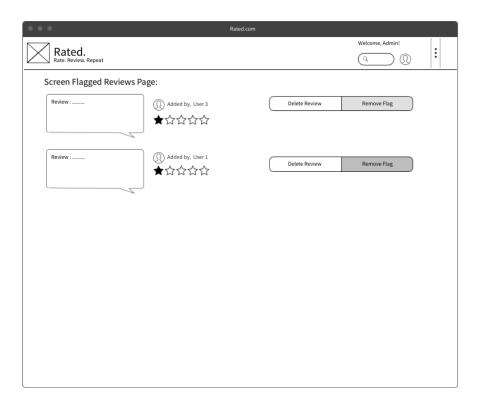


#### • Critic Add Movie Request Screen



## Admin/Moderator Pages





➤ <u>Data Storage:</u> We will be using MySQL to store the user information, movie details and review details in the database. There will be a database proxy class (DBProxy) to handle all database queries and updates.

## > Class Diagram

• **Note:** Please visit this <u>link</u> to get a better resolution image of class diagram. We apologize for the inconvenience.

