MOVIEGO

SOFTWARE REQUIREMENTS & SPECIFICATIONS

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1. INTRODUCTION

This is the Software Requirements Specification documentation for the MovieGo website.

Subsections:

1.1 Purpose

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1.3 Objectives

1.4 Scope

1.5 Definitions, acronyms, and abbreviations

1.6 References

The document is grouped into six sections as follows:

Section 1 Introduction describes the need for MovieGo, general description of the system, and explanation of 'how' the system will fit within the business objectives.

Section 2 Project Description describes the general factors that affect MovieGo and its requirements.

Section 3 Functional Requirements describes the services provided for the user and product and process standards that must be followed.

Section 4 Non-functional Requirements

Section 5 Appendices includes attached documentation i.e. hardware description, database system description, business rules and policies.

Section 6 Index

1.1 Purpose

The purpose of this project is to create an informative and dynamic website dedicated to movies. There will be three types of users: non-member, member, and administrator. Non-members can view and use the website to search for movies or view information about movies. Members will have the additional capability to participate in the Discussion Board to and submit posts and ratings. Administrators will have the added ability to create, retrieve, update and delete (CRUD) contents on the website.

1.2 Goal

The main goal of the MovieGo website is to provide the online community a platform that is solely about movies. We are building an informative and dynamic website focused on movies that will allow users to view and interact with the website. The website will contain a database of movies which can be used by the user to select their next movie to watch. It can also be a place for users to discuss with one another about movies they've watched or would like to watch.

See Appendix A for the original Project Proposal

1.3 Objectives

1. The system shall create an informative and dynamic website solely dedicated to movies.
2. The system shall provide a search functionality to aid users in finding movies quickly.
3. The system shall provide a platform where users can post movie related questions as well as recommendations.

See Appendix A for the original Project Proposal

1.4 Scope

MovieGo system is designed to provide users information and to facilitate communication between users.

Below is the list of the features of the website.

- The website will have information about movies.
- Use of MySQL database to store content with multiple tables
- A website coded in HTML
- Use of PHP scripting language
- Users can register to become a member
- Non-member and members will have the capability to:

    - Search for specific movies using any of these criteria: title, genre, actor name
    - View movie information: synopsis, cast, awards, year of release, and genre
    - Sort movies
- Members can participate in the Discussion Board
    - Post a question/movie recommendation
    - Reply to posts
- Users can quickly search for a specific movie based on these criteria's: movie title, actor's name. Users can also search by clicking on genre for a list of movies in that category.
- Admin will have the following capabilities:
    - Add/update movie to the database
    - Review posts: approve/reject
    - Monitor the entire website

Below is the list of the features that is out of scope:

- The website will not have the capability to purchase movie tickets.
- The website will not contain movie trailers/videos.

1.5 Definitions, Acronyms, and Abbreviations

Term/Abbreviation	Definition
Activity diagram	Depicts the dynamic behavior of a systems or part of a system through the flow control between actions that the system performs. It is similar to a flowchart except that an activity diagram can show concurrent flows.
Administrator (Admin)	User with special privilege to manipulate website content
CSS	Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language.
Database (DB)	A database is an application that manages data and allows fast storage and retrieval of that data
Dynamic Website	Dynamic websites contain Web pages that are generated in real-time. These pages include Web scripting code, such as PHP or ASP. When a dynamic page is accessed, the code within the page is parsed on the Web server and the resulting HTML is sent to the client's Web browser.[1]
HTML	Hypertext Markup Language, a standardized system for tagging text files to achieve font, color, graphic, and hyperlink effects on World Wide Web pages.
Member	Registered user
MovieGo (MG)	Formal website name
MySQL	Open source database that will be used for this project
Non-member	General website user
PHP	Hypertext Preprocessor; scripting language that will be used for this project
Sequence diagram	Used to show the dynamic communications between objects during execution of a task. It shows the temporal order in which messages are sent between the objects to accomplish that task. One might use a sequence diagram to show the interactions in one use case or in one scenario of the software.

[1] Dynamic Website. (n.d.). Retrieved February 25, 2017, from https://techterms.com/definition/dynamicwebsite

Term/Abbreviation	Definition
Static website	A static website contains Web pages coded in HTML. The content of each page is fixed and does not change unless it is edited and republished by the webmaster.
TBD	To be determined
Use case	Describes how a user interacts with the system by defining the steps required to accomplish a specific goal. See Section 3.2 Use Case Description
Use case diagram	Overview of all the use cases and how they are related. It provides a big picture of the functionality of the systems. *See Section 3.1 Use Case Diagrams*
Web Browser	A web browser (commonly referred to as a browser) is a software application for retrieving, presenting and traversing information resources on the World Wide Web.
Refactoring	Refactoring is a controlled technique for improving the design of an existing code base. Its essence is applying a series of small behavior-preserving transformations, each of which "too small to be worth doing". However the cumulative effect of each of these transformations is quite significant. By doing them in small steps you reduce the risk of introducing errors. You also avoid having the system broken while you are carrying out the restructuring - which allows you to gradually refactor a system over an extended period of time.[2]

[2] Refactoring. (n.d.). Retrieved February 25, 2017, from https://martinfowler.com/books/refactoring.html

1.6 REFERENCES

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2. PROJECT DESCRIPTION

This section describes the general factors that affect the product and its requirements. For specific requirements, see Section 3 - Functional Requirements.

Subsections:

2.1 Product Perspective

2.2 User Interfaces

2.3 Product Functions

2.4 User Characteristics

2.5 Constraints

2.6 Assumptions and Dependencies

2.1 Product Perspective

The MovieGo project is a new, self-contained website that will provide movie information to its users. The MovieGo website is available to anyone using a web browser, and supports number of functions. The website will implement a movie database using MySQL which will be used to access information about movies. The website will need to communicate with the database to store and modify entries/data, as well as retrieve the data that's already stored by its users and admins.

The website will offer the following features:

a) Users will be able to view movie fact, as well as sort and rate movies.

b) User account will allow users to create their account and provide features of updating and viewing their profile.

c) Discussion Board will provide users with a platform to post movie recommendations and ask movie related questions.

d) Search will provide a local search engine based on keywords.

Figure 1 depicts an overview of the system. The user on the client pc will access the website and client side scripting with be implemented on the client pc. The website will utilize server side scripting and access the database to provide a dynamic website.

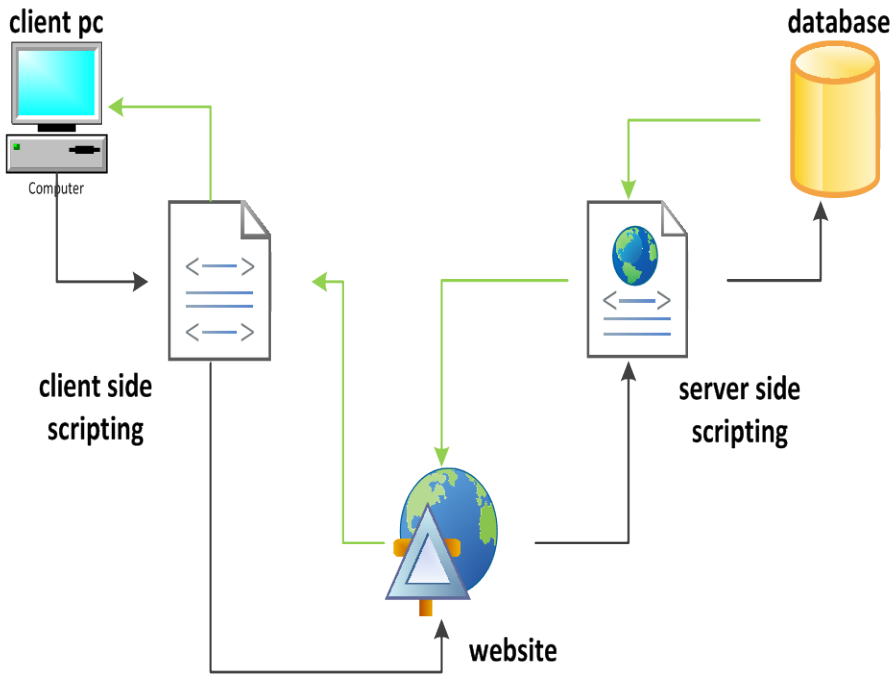


Figure 1: Block Diagram

2.2 User Interfaces

A. Graphic Design - The website will have consistent theme (TBD) throughout and will be organized from top left to bottom. Ample use of white space will be implemented to prohibit clutter and help ease readability. Consistent theme will be applied to:

   a. Color scheme

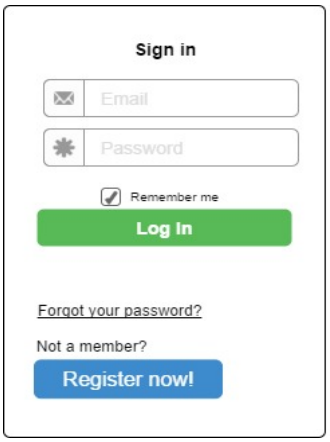
   b. Fonts

   c. Links

   d. Form fields

   e. Navigation in same place for the entire website

B. Interface Designs - Figure 4-6 are preliminary mock-ups of the sign-in page, the profile page, and the registration form which are all parts of the registration component.



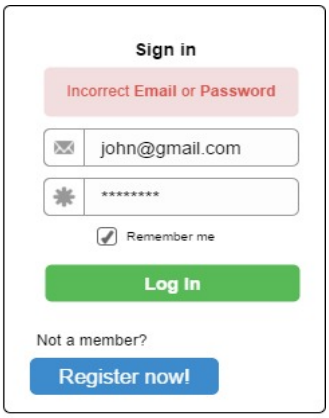


Figure 2: Sign-in Page

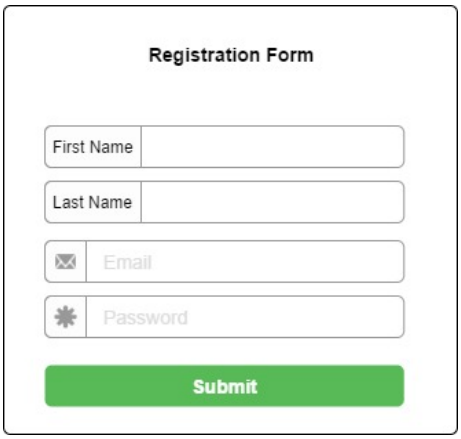


Figure 3: Registration Form

Figure 4: Profile Page

2.3 Product Functions

Features

A. User Registration – allows user to register with MovieGo.

B. Movie Facts (Objective #1) - this section will contain information about a movie such as synopsis, main actors, awards, year of release, genre, etc.

- User view - list of movies that can be viewed in alphabetical order, by year, or by genre. Users do not need to be logged-in.
- Admin view - Add/Edit/Delete movies in the database. This database will contain tables such as Movie, Genre, Actors, and Awards.

C. Search (Objective #3) - this section will allow users to search for specific movies based on certain criteria.

- User view - Users can search using a movie title, actor's name, genre, and year of release.
- Admin view - Admin will provide the search criteria.

D. Discussion Board (Objective #2) - this section will have two categories for discussions: Q&A and movie recommendations.

- User view - Create a post or reply to other users posts under two categories. Members would need to be logged-in to be able to post.
  - Q&A - this section is where users can post their questions related to any movies.
  - Movie recommendations - this section is where users can post a list of movies that is visible to other users. Users can also seek movie recommendations in this section.
- Admin view - Approve or reject posts based on language/offensive comments.

Figure 5 on the next page depicts how these features will be presented in the website.

For more detailed information, click here to Section 3: Functional Requirements.

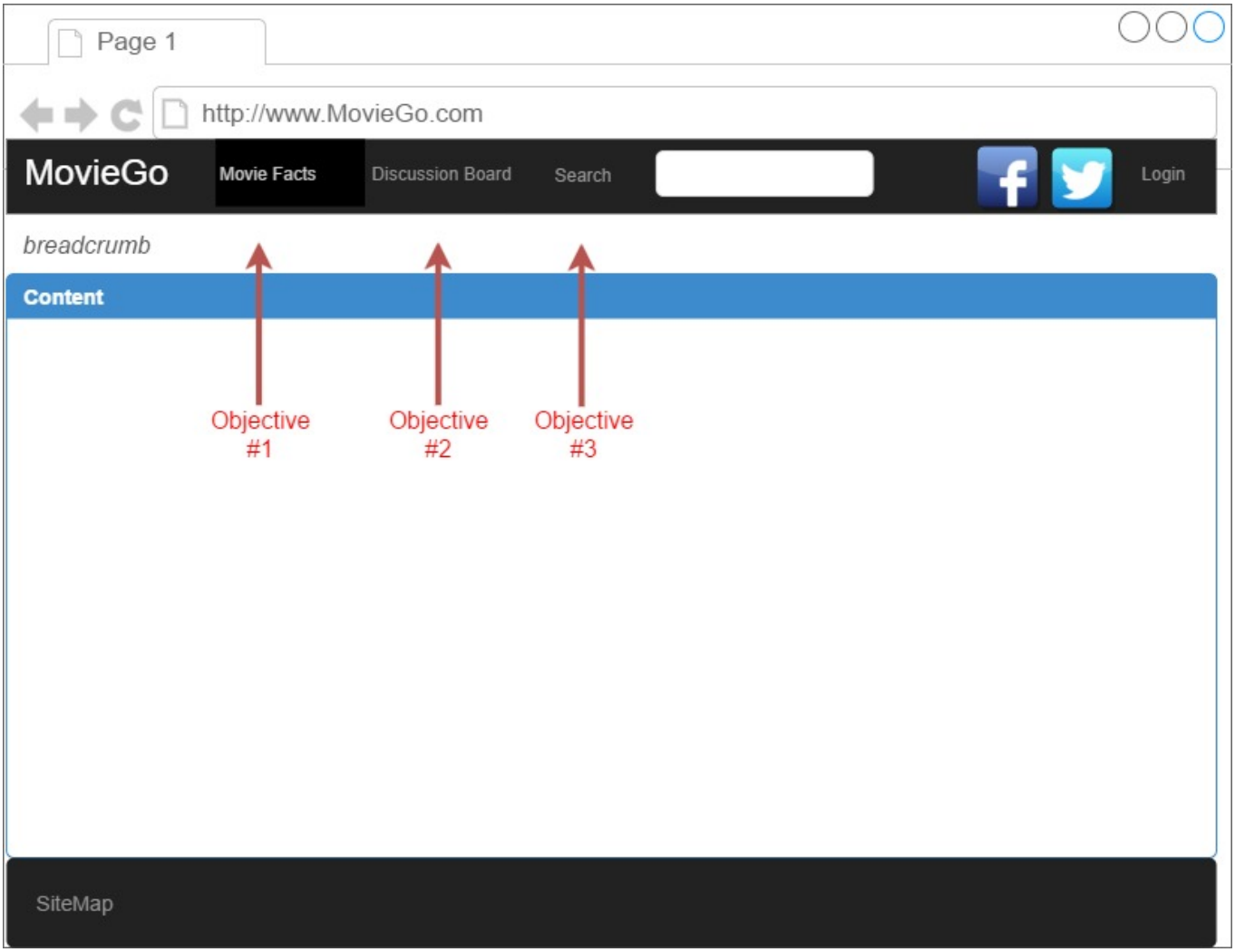


Figure 5: Home page mock-up

2.4 User Characteristics

The MovieGo website is geared towards anyone who has an interest in movies with no restriction on age, race, educational level, or technical expertise. A general knowledge of web-browsing is assumed. There will be three types of users: non-member, members, and admin.

Specific user characteristics are outlined below:

- Non-members are the general users who would like to view information about movies. Non-members will always have the option to register to become a member. This type of user will not be able to access the Discussion Board feature of the website.
- Members are the type of users who register and can interact with other users via the Discussion Board.
- Admin are users with special privileges who manage the web content and the database.

2.5 Constraints

A. Regulatory policies: MG will not share any of the information provided by our members to any other parties. MG admin will monitor the Discussion Board for malicious activities. Anyone violating the policy will be warned, and multiple violations will cause the member's account to be terminated. Valid email address is needed for registration. MG will adhere to the US regulatory policies.

B. Hardware limitations: Internet connectivity and Web browser is required.

C. Interfaces to other applications: MG will work on these web browsers: Firefox, Chrome, Internet Explorer, and Safari.

D. Higher-order language requirements: MovieGo will use PHP, HTML, and MySQL.

E. Safety and security considerations: MG promotes a safe and kid friendly environment for all it's users by monitoring the site for misuse by any of its member.

2.6 Assumptions and Dependencies

As a web app, the functionality of the system is dependent on the client's web browser, and internet connectivity. Changes to these might affect the system, thus, a review of the system requirements will be set forth. Any changes to the database structure, business policies and web interface will also entail a review process of the system requirements.

3. FUNCTIONAL REQUIREMENTS

This section describes the services MG will provide.

Subsections:

3.1 Use Case Diagrams

3.2 Use Case Description

3.3 System Requirements

3.4 System Models

3.5 Domain Analysis

3.1 USE CASE DIAGRAMS

REGISTRATION

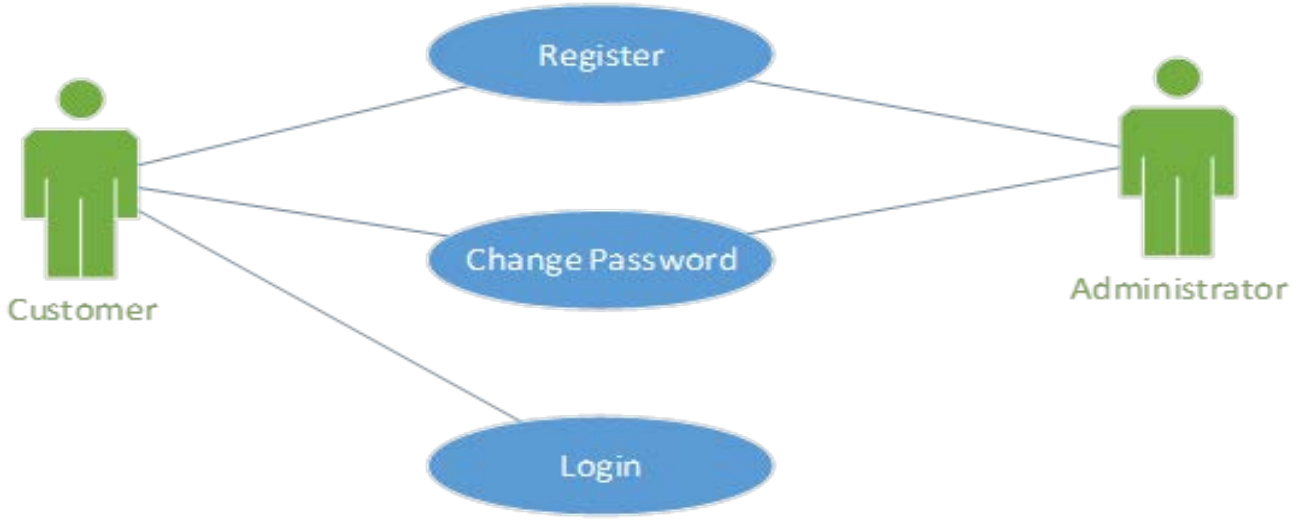


Figure 6: Registration Use Case

MOVIE FACTS

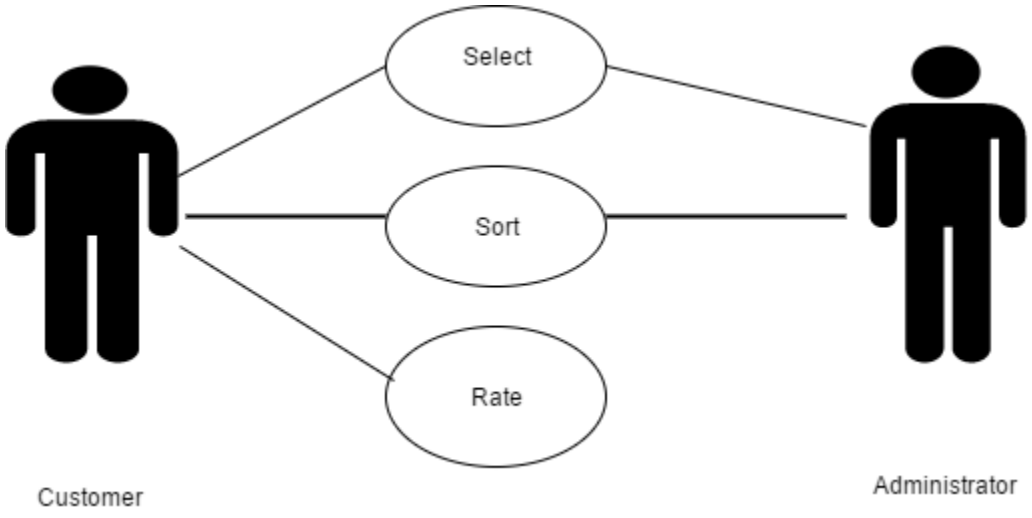


Figure 7: Movie Facts Use Case

SEARCH

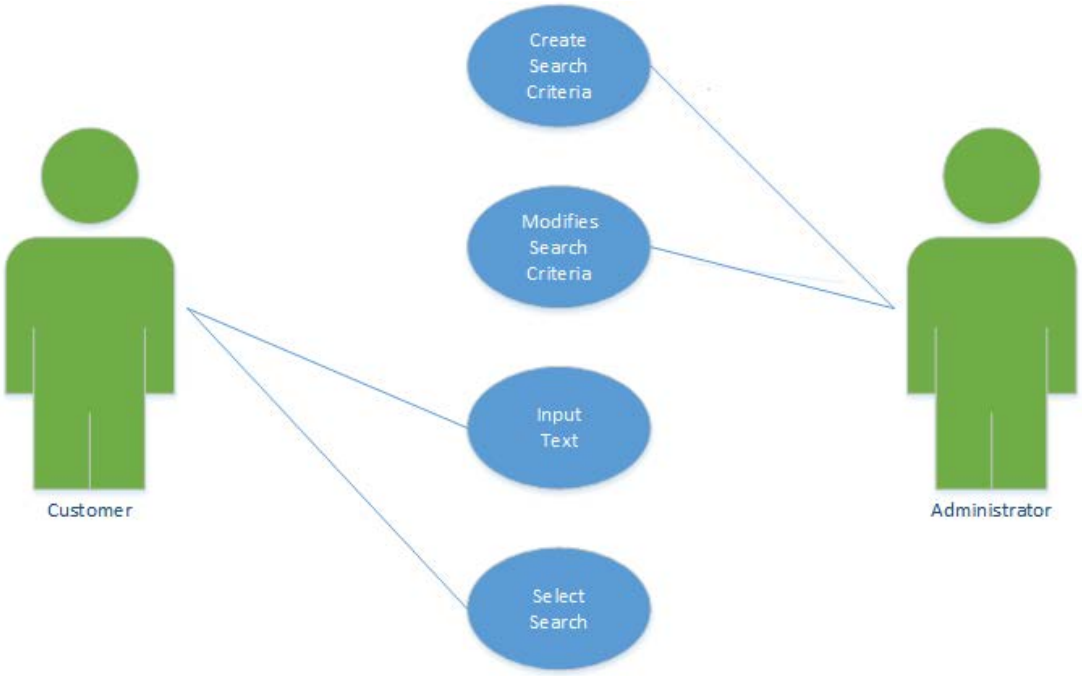


Figure 8: Search Use Case

DISCUSSION BOARD

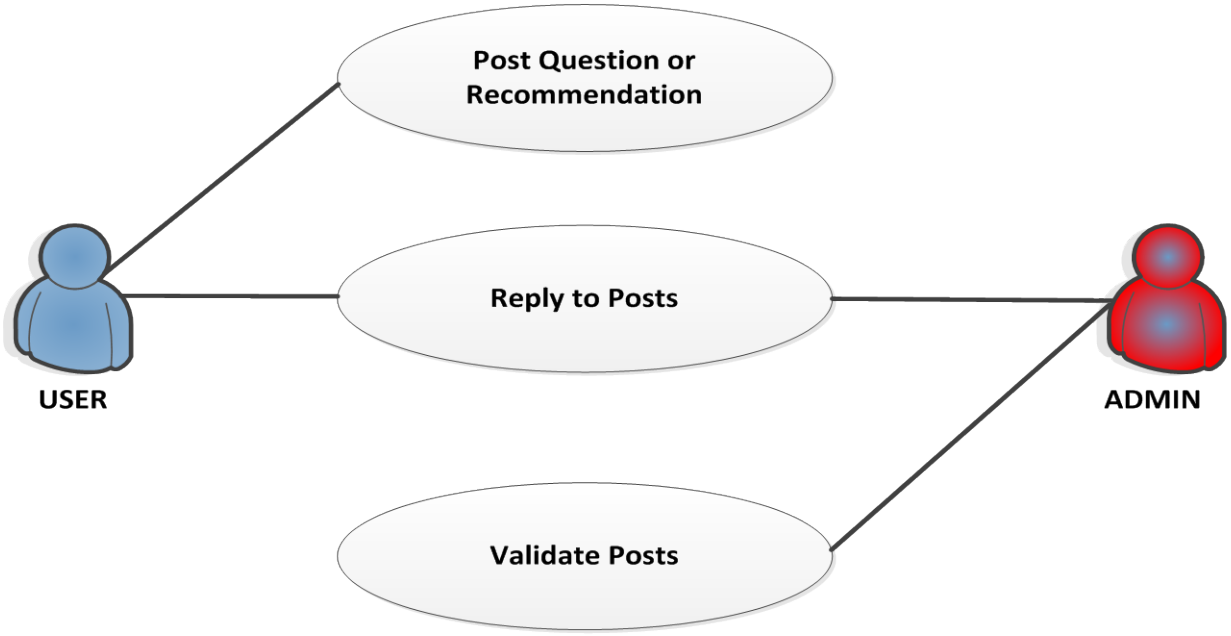


Figure 9: Discussion Board Use Case

3.2 Use Case Description

This section describes the basic steps of each component.

REGISTRATION

REGISTER

[ID R1]

Any current customer should be able to self-register with the MovieGo System (MG) as a Web user. The registration will allow the user to log in the system and access special features such participating in the Discussion Board. This operation is done only one time by the user (or the administrator). An administrator can register any customer using the same process. Only an administrator can register other administrator users. Customers cannot register any administrator type users.

The “registration” use case contains the following basic steps:

1. IMS user fills in and submits data
2. IMS System validates data
3. IMS System creates user’s profile/account
4. IMS System enables the activated account to log into the system

LOGIN

[ID R2]

Any registered user should be able to log into the IMS Web application. To successfully log into the system, the user must be already registered with the IMS. The login screen should be accessible from any place with access to the internet, and should work with all kind of browsers. After successfully authenticating, the user will be redirected to the home page and be granted access to any sections of the IMS Web app for his/her role. Both customers and administrators should use the same Login screen.

The “Login” use case contains the following basic steps:

1. Registered user inputs credentials
2. IMS System validates data against stored registered users
3. If credentials match current user, then IMS System will grant access and redirect user to home page
4. If credentials are incorrect, IMS System will return an error message to user for retry

CHANGE PASSWORD

[ID R3]

Any registered user should be able to access a page of the IMS Web app to change their current password for a new one. To be able to submit a password change, the user must also submit the current password. The new password should be input twice and both fields should match, to ensure the user typed the desired password. All password fields will be masked as to prevent any accidental discovery of the password while the registered user is using the Web app.

The “change password” use case contains the following basic steps:

1. Logged in user access Change Password page
2. User enters current password and new password, then submits the input
3. IMS System validates current password
4. IMS System validates new password meets security policy
5. If current password is valid, then IMS System changes the password stored for the new one submitted
6. If current password fails or the new password does not meet security policy rules, then an error is sent back to the user to correct.

MOVIE FACTS

SELECT

[ID M1]

Any current user should be able to select a movie from a list. Movies will be listed into different categories which the user may then choose from. This function may be done by the user or administrator. The user view will allow the user to select a movie and information will be shown. Information will include movie title, brief description of movie, year made, actors, and awards obtained. Users will also see a rating towards the bottom of the screen similar to other movie sites which will have a rating based on other user’s submissions. The admin will also have access to getting movie titles and the admin may then proceed to delete or edit content for the specified movie.

The “select” use case contains the following basic steps:

1. User will see a default movie list (alphabetical order)
2. User may then click on a movie they wish to get information on
3. Website will display user with the selected movie title
4. User then has the option to return to the main page and try a different title

SORT

[ID M2]

Any user should be able to log in to see a list screen with all movie titles provided by MovieGo! The user may then have the option to sort the list based on criteria offered by MovieGo. This includes sorting the list by year, genre, highest rated, and etc. The admin will create different lists based on what the user inputs into the criteria section.

The “Sort” use case contains the following basic steps:

1. All users may input different criteria to make their movie search easier
2. The criteria is received by website and displays the results to the user
3. The user is then allowed to follow the steps from the previous select function
4. Criteria may be removed and the user can restart their sort criteria for new results

RATING

[ID M3]

Any registered user should be able to rate any movie title on the website. After a user selects a movie title, they may rate the movie based on a percentage scale of 0-100%. Admin will have no control over the rating system. Users are free to rate as many movies as they’d like.

The “rate” use case contains the following basic steps:

1. Users may select a movie to rate by clicking on the rate button.
2. The website will check to make sure the user has not rated this movie before
3. User is then asked to rate the movie based on a rating scale
4. The website will update the current rating to the new rating included the user’s recent submission

SEARCH

CREATE SEARCH CRITERIA

Only administrators can create the search criteria. The criteria will allow users to efficiently search the database. This operation is done only one time, although once created can be modified at a later time.

The “Create Search Criteria” use cases:

1. An admin fills the form that contains fields such as keywords, tags, and phrases
2. Once the form is filled out the administrator submits the data
3. The system then validates the submitted form
4. The system enables the Search

MODIFY SEARCH CRITERIA

Only administrators can modify the search criteria. The admin can modify the preferences, and conditions of the Search. The administrator can add new keywords and phrases that will be accepted by the system so it can process them and return results for the user.

The “Modify Search Criteria” use cases:

1. An administrator opens the form “Modify Search Criteria”
2. The admin can add new or remove the keywords, phrases, or tags from the system
3. The admin submits the form, and the system validates the data
4. System stores the changes to the search criteria’s

INPUT TEXT

Any user can input text into the provided text box. The users can type in keywords, phrases or tags that will correspond to the data that is stored within the system.

The “Input text” use cases:

1. The user must input text into the provided text box
2. At this point the system doesn’t do anything unless the user clicks the Search button.

SELECT SEARCH

Any user can click the Search button. After the user inputs text into the text box, the user must click the Search button in order to receive the results of the search. After the validating of the inputted text, the results are displayed to the user.

The “Select Search” use cases:

1. The user click on the Search button
2. The system then validates the input of the user, and searches the database by comparing the inputted keywords, phrases, or tags
3. If successful, the results are displayed to the user

DISCUSSION BOARD

Any user can view the Discussion Board, but only registered users can participate in the Discussion Board. If a non-member attempts to submit a post, they will be prompted to log-in. The Discussion Board will have two categories: Q& A and Movie recommendations. In Q&A, members can ask/answer questions related to any movies. In Movie Recommendations, members can post a list of the movies they recommend. Members can also seek movie recommendations under this category.

POST

[ID D1]

The "Post" use case contains the following basic steps:

1. Member would need to be logged-in.
2. Member is required to fill in the "subject" textbox.
3. Member would fill in the text box for their question/recommendations.
4. Member would need to click submit post.

REPLY TO POSTS

[ID D2]

The "Reply to Posts" use case contains the following basic steps:

1. Member would need to be logged-in.
2. Member would click on the reply button under their selected post.
3. Member would need to type in their comments on the provided text field.
4. User would need to click submit post.

VALIDATE POSTS

[ID D3]

The "Validate Posts" use case contains the following basic steps and are only for Admin:

1. Admin would need to be logged-in.
2. Admin can delete a post that violates the policy i.e. use of offensive language.
3. Admin can create a list of most recommended movies based on member's post.

REGISTRATION

REGISTER

The following table outlines the details of use case # 1: Registration

Use Case ID:R1	Register
Description	There are two types of users who can register within the IMS Web site, customers and administrators. Customers must register to be allowed to navigate the site and post any desired transactions. Administrators are registered by other administrators and navigate the administrator view of the site. To register with the system, a user must fill in a list of required fields before submitting the form. If the transaction is successful the user account will be created within the system.
Input	▪ First Name ▪ Last Name ▪ Email/Username ▪ Password
Output	If transaction was successful, then the system will return a Thank You message back to the user. If the transaction failed, the system will return the appropriate error message
Preconditions	The Email/Username does not exists within the system at the time the user submits the form.
Post Conditions	If succeeded, the user account will be created and stored within the system.
Action	IMS System will validate the following rules before creating the user account: ▪ All fields have values ▪ Username is unique within the system and does not exist at the time the user submits the registration ▪ Password meets the security policy rules

LOGIN

The following table outlines the “Login” use case details:

Use Case ID:R2	Login
Description	A customer or an administrator will enter their correspondent credentials to get access granted to the site. The system will present the same window to either type of user, and should recognize the user type once authentication is successful, to grant the user different access types based on the predefined role.
Input	Email and Password
Output	User should see the Home page upon successful login.
Pre-conditions	User has been previously registered successfully with the system. In addition, the user account must be active and should have not expired.
Post Conditions	User is redirected to the correspondent page based on the assigned role.
Action	The user submits the credentials (username/email and password). The system will verify that the user email already exists within the system, and will evaluate the posted password to see if it matches the one stored.

CHANGE PASSWORD

The following table outlines the “Change Password” use case.

Use Case ID:R3	Change Password
Description	A user (customer or administrator) should be able to change their account password by providing the current credentials. Since the client browser does not show the values of the password input field, it is important that the system requires two values for the new password to ensure the user has typed the desired value. In addition, the system will required the user’s current credentials to authenticate him or her before updating the account with the new specified password. If the username/email is already stored in memory, then the system will only require the user to specify the current password. If the system uses a “stateless” environment, it will require both username and current password for the authentication.

Input	Old password and new password. Optionally the username/email
Output	If the transaction succeeds, the system will send a “Success” message, but if the transaction fails, the system will send back an “error” message.
Pre-conditions	The user is already registered with the system, and his or her account is active.
Post Conditions	The submitted new password is stored within the system. The user is shown a thank you message.
Frequency of Use	Many times a day

MOVIE FACTS

SELECT

The following table outlines the details of use case # 1: Registration

Use Case ID:M1-A	Select a movie title
Description	All three types of users may access this function and click on movie they would like information on. The function will then display results which was inputted by the admin at an earlier date.
Input	Movie Title (Clicking on Movie Title)
Output	Users will see a small description of the movie selected. The user will also be able to see the year of the movie, main actors, awards won, and rating based on other users feedback.
Preconditions	No pre-conditions exist as the user does not have to be signed up to use this specific feature.
Post Conditions	If succeeded, the user will be granted info to a
Action	After a title is clicked: ▪ The site will check the database for selected title ▪ Once the title is located; the database returns movie title attributes like year, actors, awards ▪ User will see results and then have the option to select a new title

SORT

The following table outlines the “Sort” use case details:

Use Case ID:M2	Sort
Description	A user will first see a movie list implemented by the admins of MovieGo. The user does not have to be a member to access the feature. The user will have the option to sort the list by year of movie, rating, genre, and etc. Only one sort criteria is allowed per list. Once the criteria is entered, a new list will appear with the sorting being completed.

Input	Clicking on the sort button and filling in sort criteria.
Output	User should see a new list with movie titles sorted by criteria they entered previously
Pre-conditions	User must select criteria to which it will sort the list or else the website will sort it by default which is alphabetical order
Post Conditions	User is taken to a new page where the movie titles will be sorted to the their liking
Action	The user submits criteria with info on how to sort the list. The system receives these criteria and finds the webpage that has the list with the criteria met. The site will then redirect the user to this new page where all the movie titles should be sorted to their liking. The user will then proceed to follow steps from the previous feature(Select a movie title) .

RATE

The following table outlines the “Rate” use case.

Use Case ID:M3	Rate
Description	Only registered users are allowed to use this feature. Once a user is logged in then they may select a movie title they wish to rate. The admin will keep track of the ratings because users are only allowed to rate a movie title once. Once the title is rated, the site will update the movies total rating and display it for other users to see.
Input	A number between 0-100 in the space provided by MovieGo
Output	An alert box will appear thanking the user for their rating on the movie title.
Pre-conditions	The user must not have rated the movie title previously. This is done so all movies are given a fair chance to be rated and not see horrible ratings based off one user.
Post Conditions	The submitted rating will be calculated with ratings by other users to display a new total rating for the movie. The user is shown a thank you message.
Actions	Registered users will click on a movie title they wish to rate. The system will check to make sure that the user hasn’t rated this title in the past. If the title wasn’t rated before, the site will then ask the user to rate based on a 1-100 scale. Once the submit button is

	clicked, users will be thanked for their contribution. The site will then calculate the new total rating to be displayed.

SEARCH

CREATE SEARCH CRITERIA

The following table outlines the “Create search criteria” use case.

Use Case ID:R1-A	Create Search Criteria
Description	An administrator can create search criteria’s that will be used by any users. Only an administrator is permitted to create the criteria.
Input	▪ keywords ▪ phrases ▪ tags
Output	If successful then the system message is displayed that the criteria’s were successfully created and stored in the database.
Preconditions	The criteria’s do not exists within the system.
Post Conditions	If successful the criteria’s will be stored within the system.
Action	The admin submits the form that will contain stored keywords, phrases and conditions necessary for the ‘Search’ to return desired results.

MODIFY SEARCH CRITERIA

The following table outlines the “Modify search criteria” use case.

Use Case ID:R1-A	Modify Search Criteria
Description	An administrator can modify the search criteria
Input	▪ keywords ▪ phrases ▪ tags
Output	The system returns a message whether or not the changes were successfully

	stored.
Preconditions	Previously created criteria's must be stored in the system.
Post Conditions	If succeeded the changes made by the administrator are stored within the system.
Action	The admin clicks on the modify search criteria

INPUT TEXT

The following table outlines the "Input text" use case.

Use Case ID:R1-A	Input text
Description	Any user is able to input text into the provided search bar/box
Input	Users can input any phrases or keywords
Output	none
Preconditions	Text must be inputted into the text box
Post Conditions	If text is inputted into the provided text box, users will be able to search the database
Action	

SELECT SEARCH

The following table outlines the "Select search" use case.

Use Case ID:R1-A	Select Search
Description	Any user can click the search button
Input	none
Output	If successful, the users should be presented with returned results of their search.
Preconditions	Text must be inputted into the provided text box and the user must click on the Search button.
Post Conditions	User is redirected to a new page containing the search results.
Action	Search results are displayed.

DISCUSSION BOARD

The following tables outline the details for the Discussion Board use case.

POST

Use Case ID: D1	Posting questions/movie recommendations
Description	Members can create a post in either one of the categories.
Input	Subject of post is required. Members can enter their post in the provided text box.
Output	Members post will appear in the Discussion Board as a new thread.
Preconditions	Members must be logged in. Subject field is required and cannot be left blank.
Post Conditions	If all fields have been supplied, the members post will be displayed in the Discussion Board.
Action	The post will appear in the thread.

REPLYING TO POSTS

Use Case ID: D2	Replying to Posts
Description	Members can reply to posts.
Input	Members can enter their reply on the supplied text box.
Output	Members comment will appear in the Discussion Board under the same post to which they are replying.
Preconditions	Members must be logged in. Text box must not be empty.
Post Conditions	If approved, members reply will be displayed in the Discussion Board.
Action	The admin will review the post and approve/reject based on content. An email will be sent to the member for status update.

VALIDATE POSTS

Use Case ID: D3	Validating Posts
Description	Admin would need to validate posts to ensure compliance with the rules. Admin can approve/reject posts based on content.
Input	Post from members for admin to review.
Output	Rejected posts will be deleted from the Discussion Board. Approved posts will be kept in the Discussion Board.
Preconditions	Admin would need to be logged-in. A new post is added for admin to review. Other admin has not reviewed the post.
Post Conditions	Rejected posts will not be visible on the Discussion Board. Approved posts will remain in the Discussion Board.
Action	Admin would need to monitor the Discussion Board. If rejected, admin would send an email to member outlining why the post is rejected.
Frequency of Use	Many times a day.

REGISTRATION

REGISTER

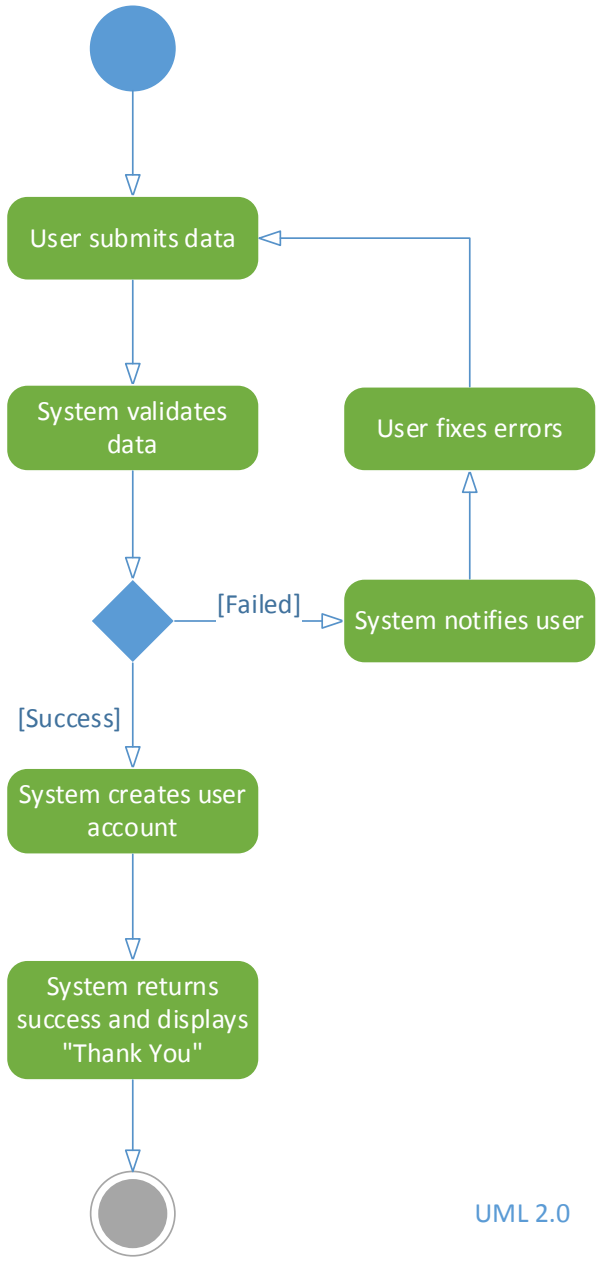


Figure 10: Register Activity Diagram

The diagram on the left describes the process that takes place as part of the registration transaction. The user access the registration page and fills out all required fields. Once the user submits the form, the system begins the processing by first validating each submitted input value.

If any of the fields contains invalid data or is a required field that was left blank, the transaction is aborted and the system returns an error message to the user. Once the user corrects the error and re-submits the process, the input values are once again validated until all fields are validated successfully.

At this point, the system will create and store the new user account within the system repository. If saving the data was successful, then the system will return a “welcome” or “thank you” message to the user.

The same process can be seen in the sequence diagram on the next page. The proposed design defines a middle-tier component (Accounts) that will be responsible for all business rules and processing of the input data. The Web site component just routes all calls to the business logic layer, which in turn retrieves or posts data to the database layer.

The diagram also describes an alternative path for successful and failed transactions. If the transaction fails, then the user will receive a message outlining which input fields did not pass validation as to allow the user to correct the data and re-submit.

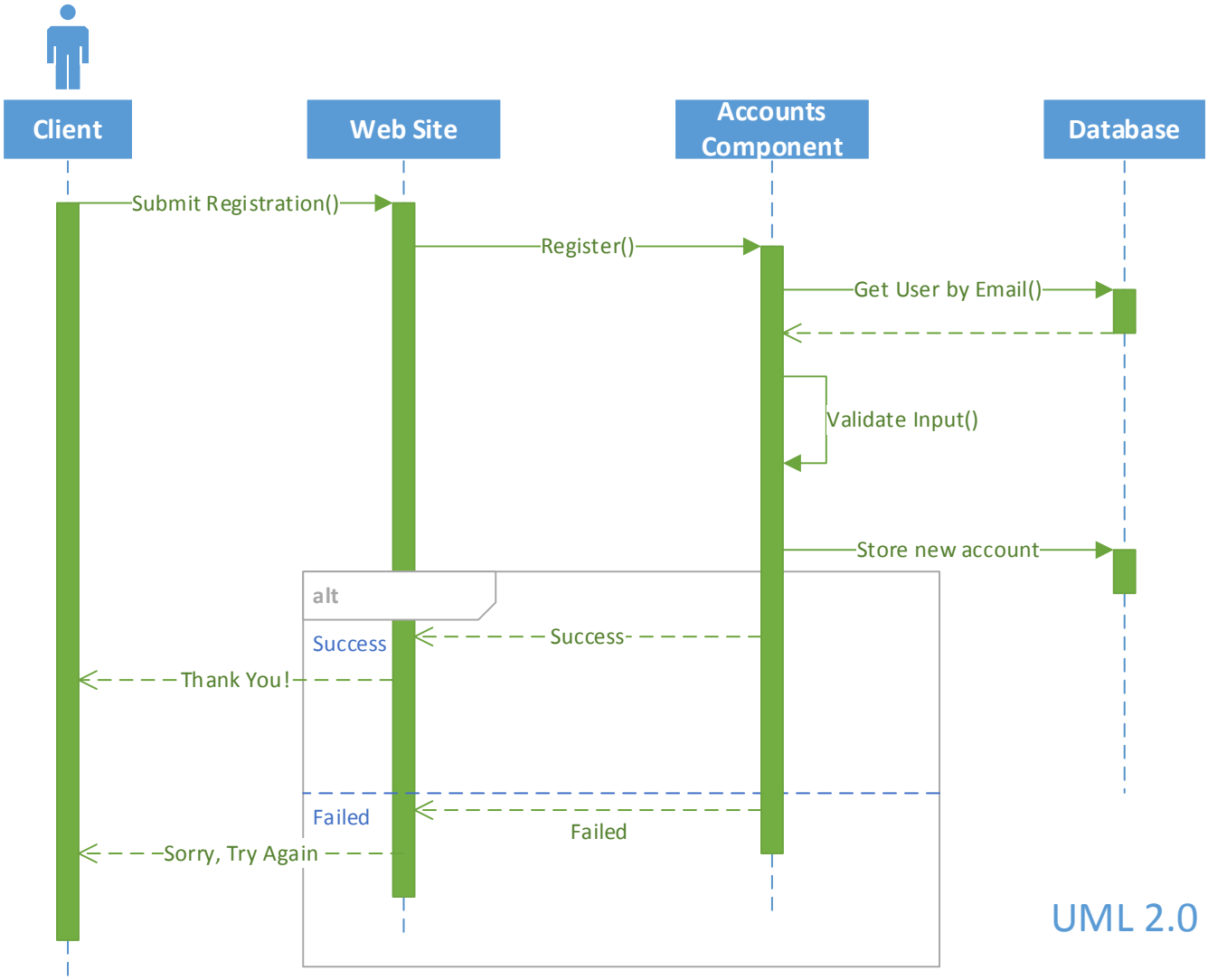


Figure 11: Register Sequence Diagram

LOGIN

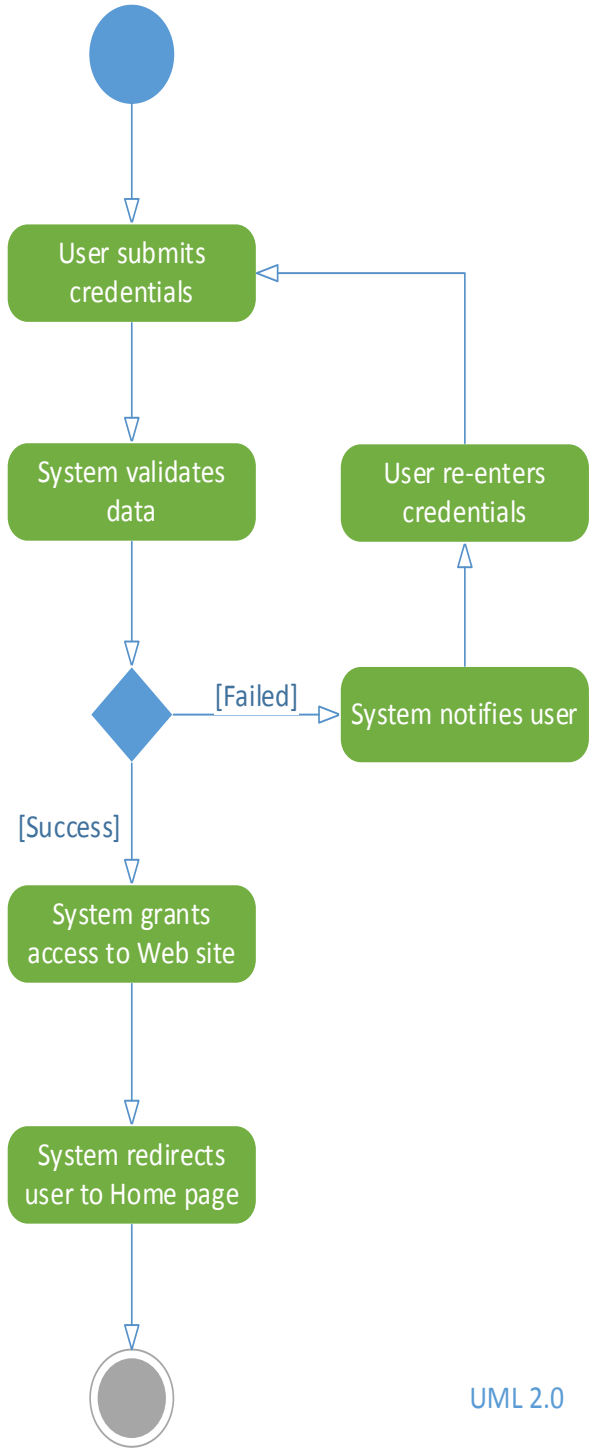


Figure 12: Login Activity Diagram

The steps included in the Login transaction are described in the activity diagram to the left. The transaction begins with the user submitting his or hers username and password. Once the server receives the input, it validates that the username is already registered with the system. If no matching value is found, then the system will return an error message to the user to retype the credentials.

If the username is found in the system, then the stored password is retrieved and evaluated against the one submitted by the user. If both passwords match, then the user is granted access and a successful message is returned. If the passwords do not match, then the system will return an error message to correct the credentials and retry again.

The same process is outlined in the sequence diagram on the next page. The Web Site component is responsible for receiving the user's request, and route the message to the business logic layer or middle-tier. The business component in charge of processing the authentication is the Accounts component.

The Accounts component processes the request, access the data repository and evaluates any business rules required for the transaction. The first task is to retrieve the user account with a matching email/username from the request. If the account is found, the data layer will return a user account back to the Accounts component.

The system will then evaluate, if the account was found, that both passwords match. If so, the system will inform the Web Site component to grant access to the user. The Web Site component will then redirect the user to the appropriate page.

If the credentials did not pass validation, the system will return and error message to the user. This is depicted in the "alternative" flow of the sequence diagram below.

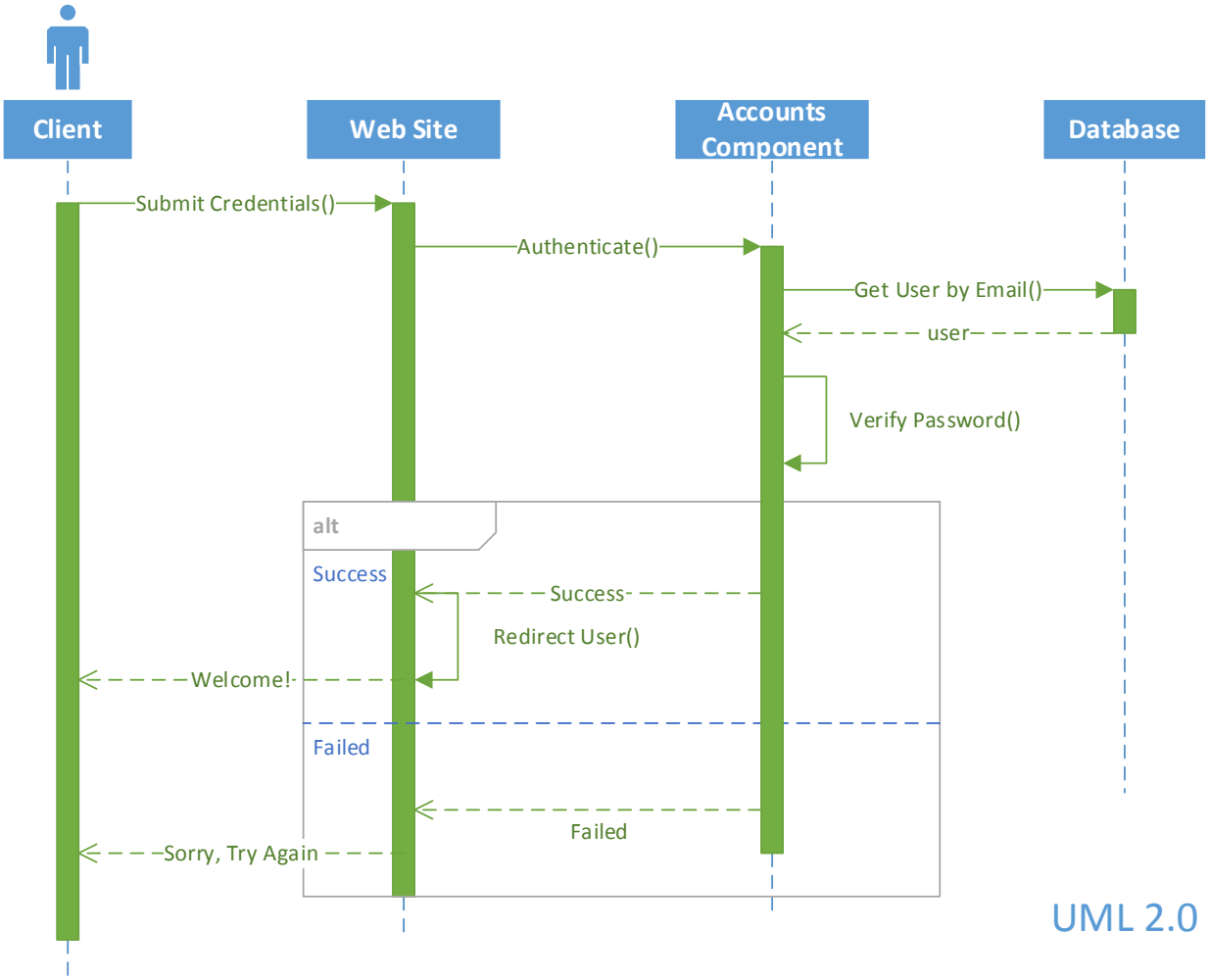


Figure 13: Login Sequence Diagram

CHANGE PASSWORD

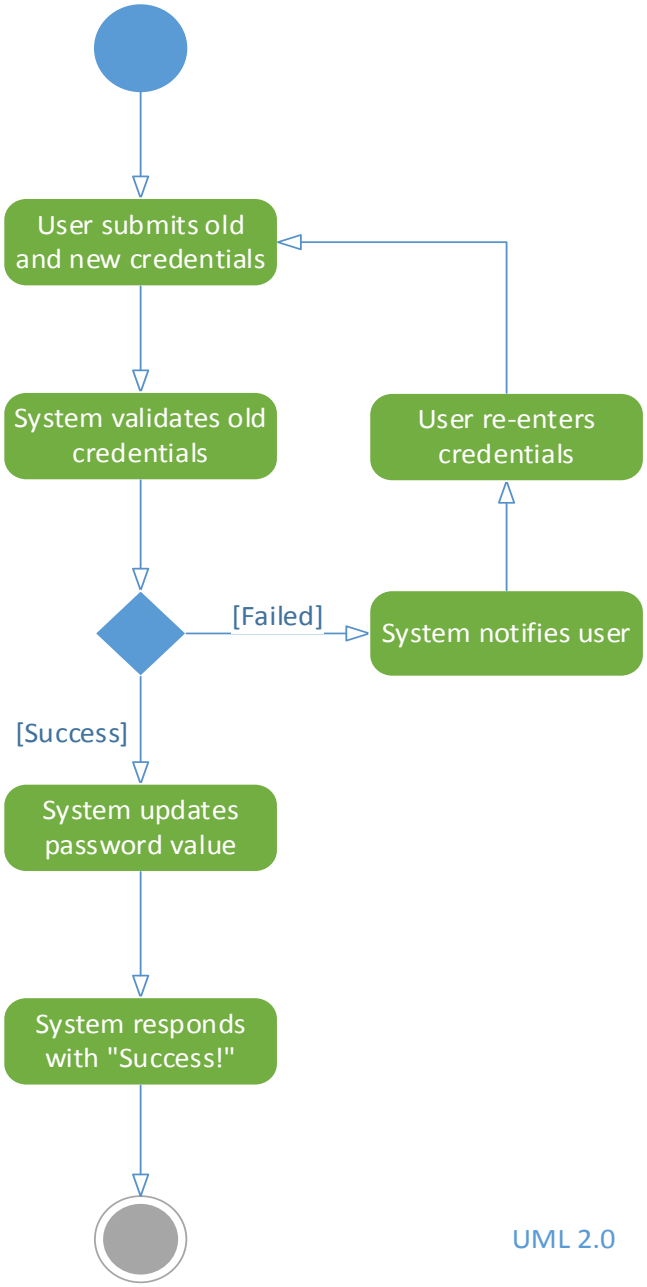


Figure 14: Change Password Activity Diagram

To change the password, the user must submit the old credentials as well as the new ones. This is done to ensure that the user requesting a change of password is authentic. The activity diagram below shows the steps required to process the "change password" transaction.

The first step in the activity diagram represents the system receiving the input values from the user. If the system already has stored the username or email, then only the old password would be required. If the system does not have the current logged in username in memory, then both username/email and password will be required to authenticate the user before updating the account with the new password.

The system validates the user credentials and if they match, it proceeds to update the account with the new password. The new password will be submitted through two fields to ensure that the user has typed the desired value.

The sequence diagram shown below describes the responsibilities for each component. As shown, most of the work is done at the middle-tier layer. The Accounts component is responsible for evaluating the input values, querying the database and updating the user account.

The Web Site component is only in charge of routing the requests to the middle-tier component and returning a transaction result message back to the user.

Not shown in the diagram is the evaluation of both "new password values" entered by the user. This evaluation could be done at the client browser to provide faster feedback.

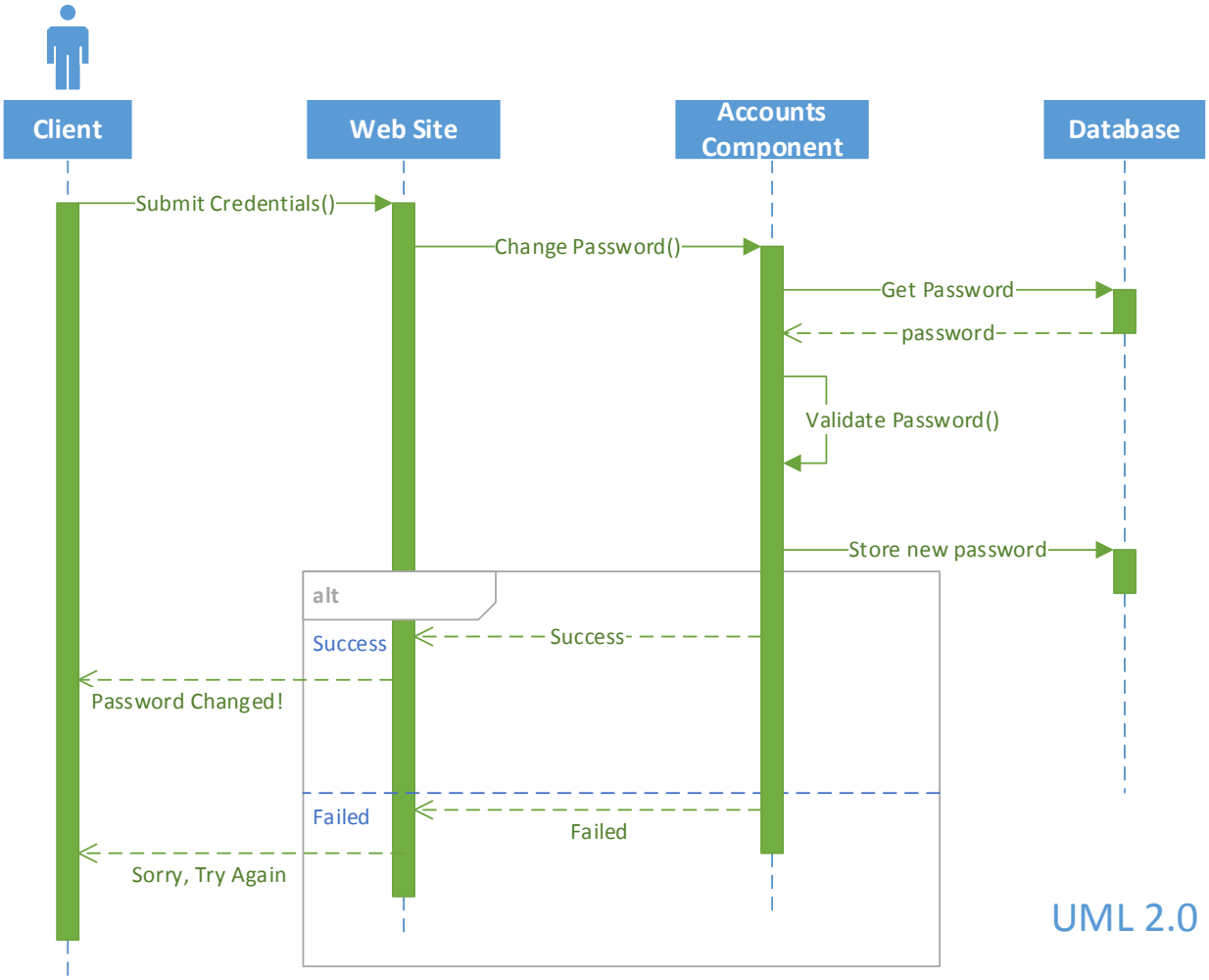


Figure 15: Change Password Sequence Diagram

MOVIE FACTS

SELECT

The steps included in selecting a movie from MovieGo are outlined in the diagram abelow. The user is first given a list, generated by MovieGo with all the movie titles available in the database, and is asked to select a movie title to see further info. The user is then required to make a decision. The user can select a title they wish to get information on or they can continue to search for a movie title. If the user selects on a title, they will be taken to a new screen where all information on the movie title will be provided. If the user has not found the title they seek, the cycle continues and they keep looking for a movie title. Once the information is given to the user, the function has been completed successfully.

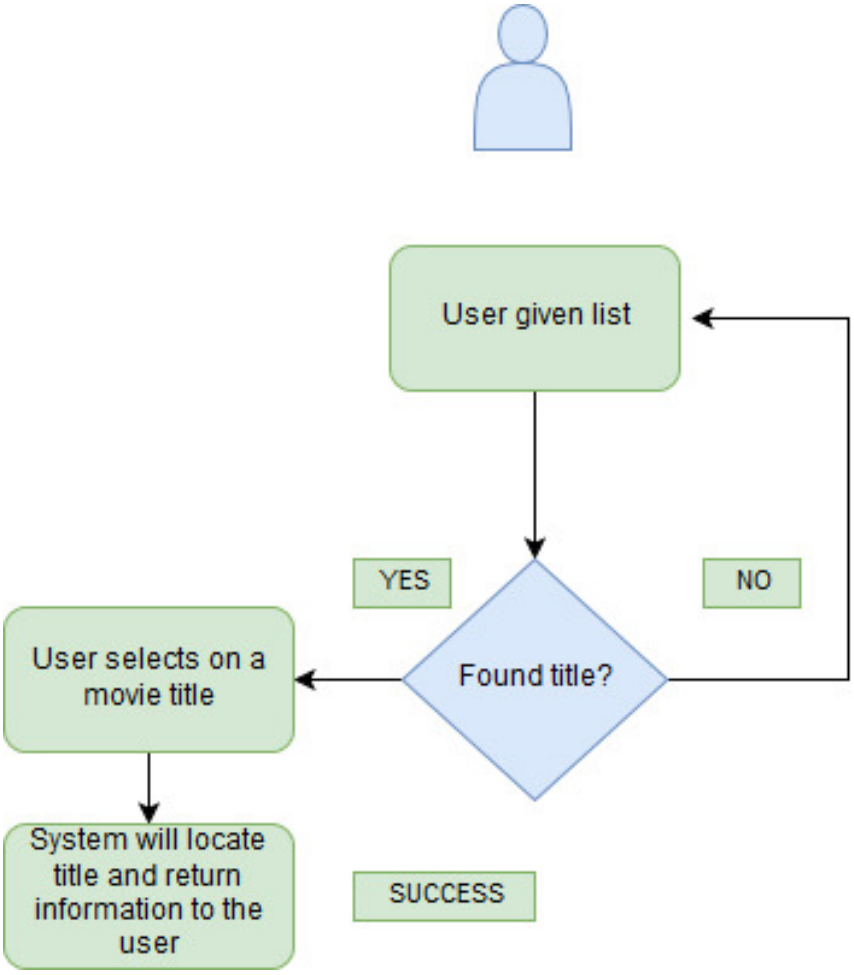


Figure 16: Select Activity Diagram

SORT

The steps to sort a movie list are illustrated below. It begins with the user being given an unsorted list of movies. The user can decide to either work with this movie list to look for a specific title or the user can choose to sort the list. If the user decides to leave the list alone then the task is complete. If the user decides to sort the list then the next step will be to choose the criteria to sort the list. Like specified before, the criteria to sort the list will include sorting by rating, main actors, alphabetical, year of release, and etc. Once the list is sorted, the user can then have the option to either sort the list again with different criteria or be content with the results. If the user is content with the results then the task is completed successfully. If the user wishes to resort the list then the steps outlined before are repeated until the user is content with the results

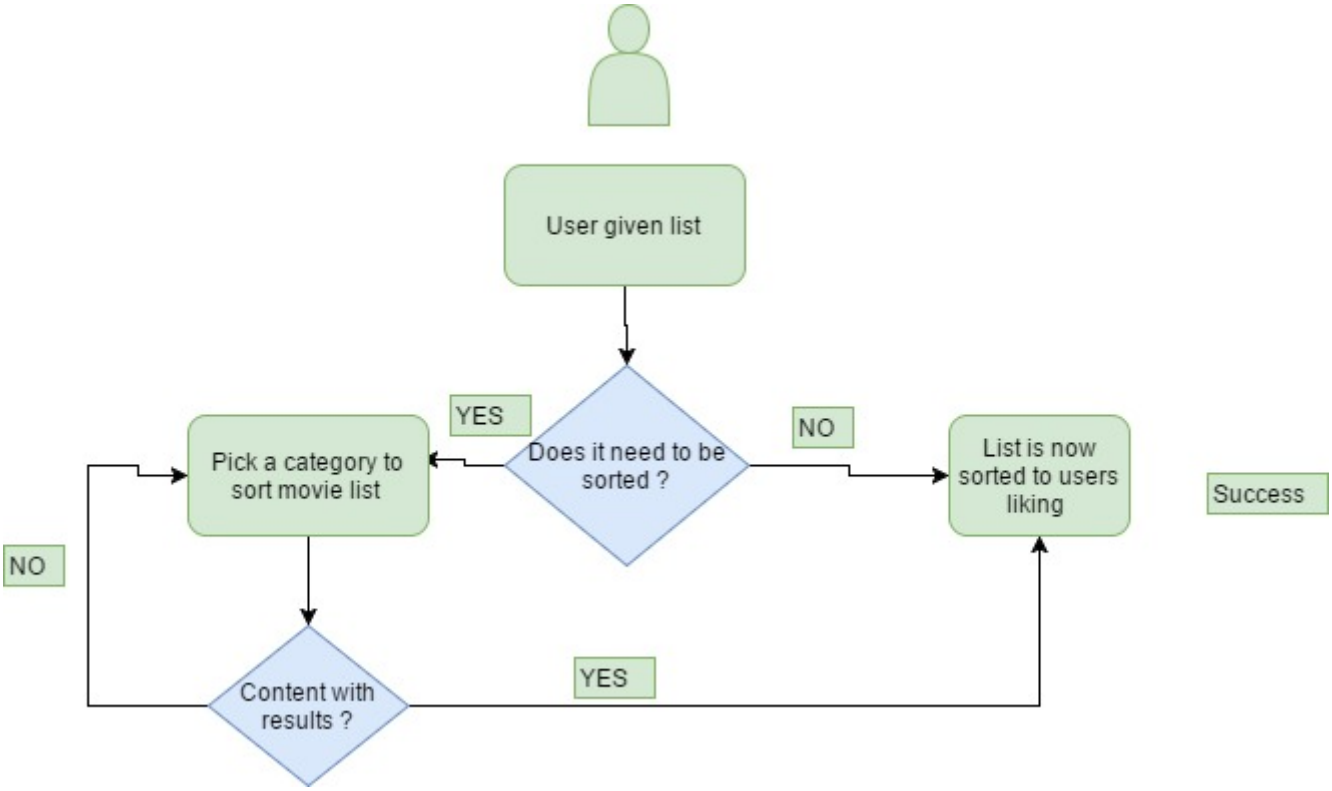


Figure 17: Sort Activity Diagram

RATE

The rate function is illustrated below with diagram 18. Once the user has completed the sort and select movie functions, they have the option to add their own rating to the movie. This rating is made up of the averages of all other users ratings. The process begins with the user selecting a title they wish to rate. If the user wishes to look up a title and not rate it then the process is complete. If the user wishes to rate the title then the site will ask the user to enter a number between 0 and 100 to depict the rating. The websites admin will implement an algorithm which will take the user's rating and add it to the rating of previous users. The admin will also make sure that this user has not rated this title before so it is fair for the title to receive one rating per user. Once the rating is complete, the user may view the new rating and the function has been completed successfully.

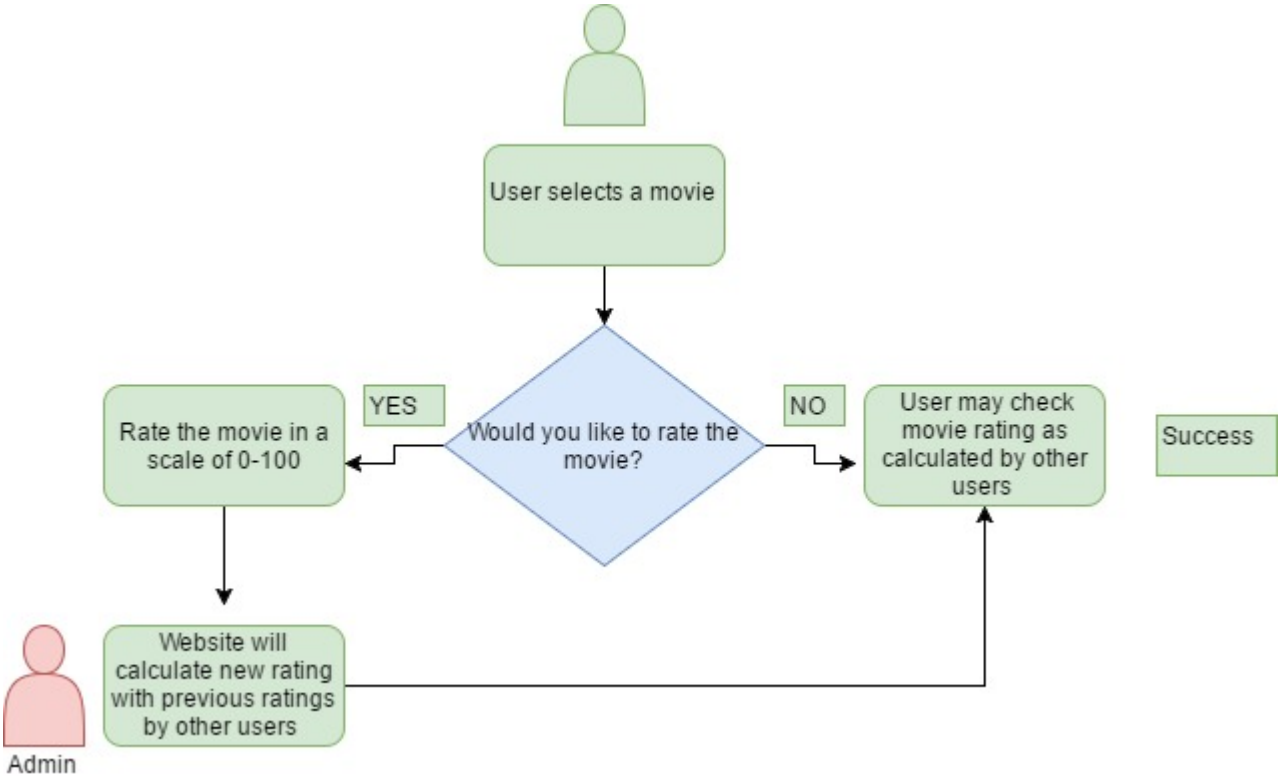


Figure 18: Rate Activity Diagram

SEARCH

CREATE SEARCH

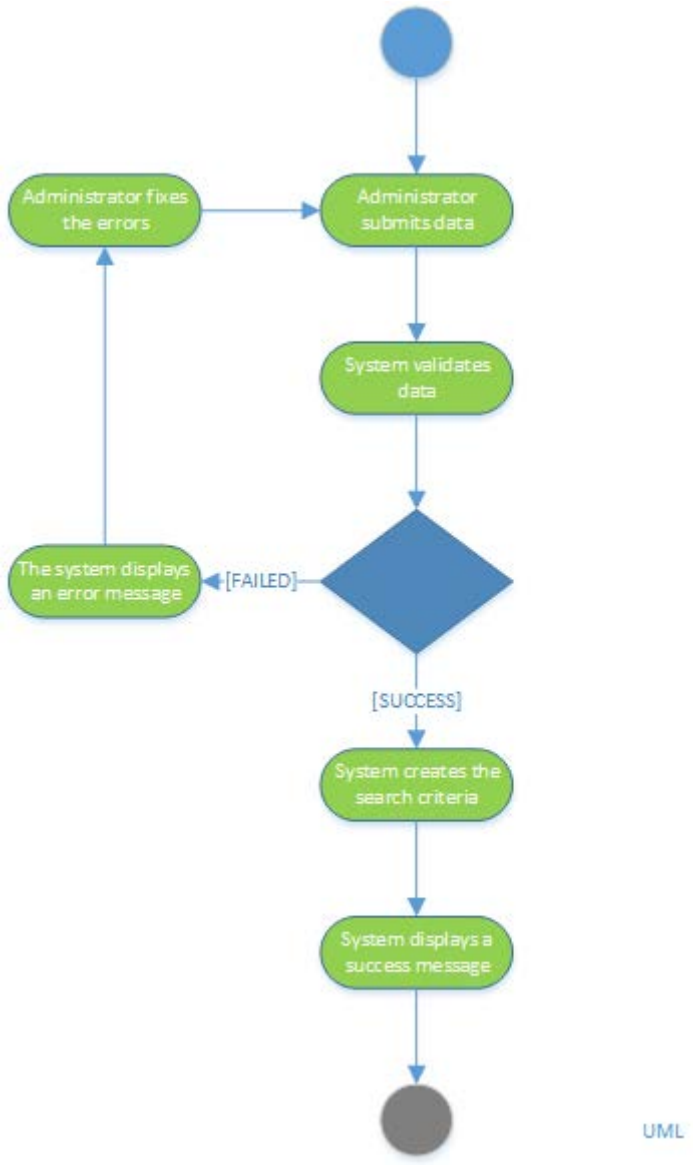


Figure 19: Create Search Activity Diagram

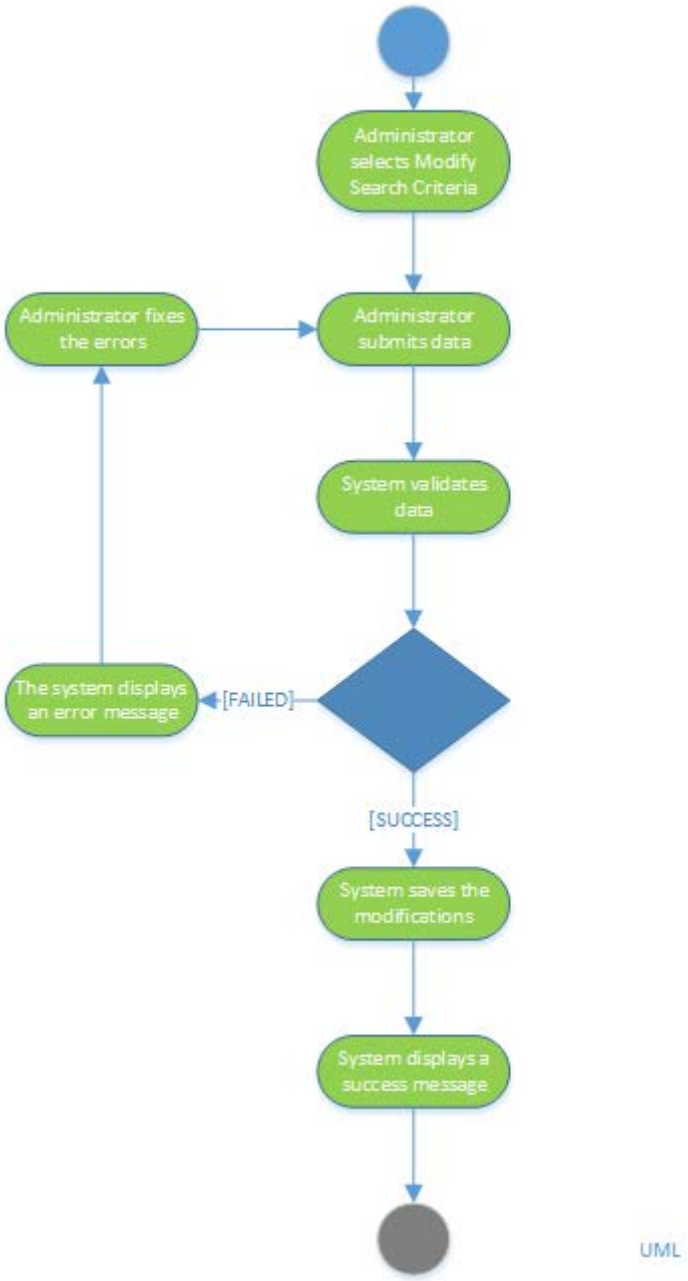
The diagram describes the process of creating search criteria. The administrator access the webpage that contains a form with required fields. Once the form is submitted the system validates each submitted value.

If the submitted form contains invalid data, the process is stopped and the systems displays an error page.

The admin then fixes the errors by entering correct data in the required fields, and submits the form once again for system validation.

The successful validation allows the system to store the data. As a confirmation the system returns message that the operation was successful.

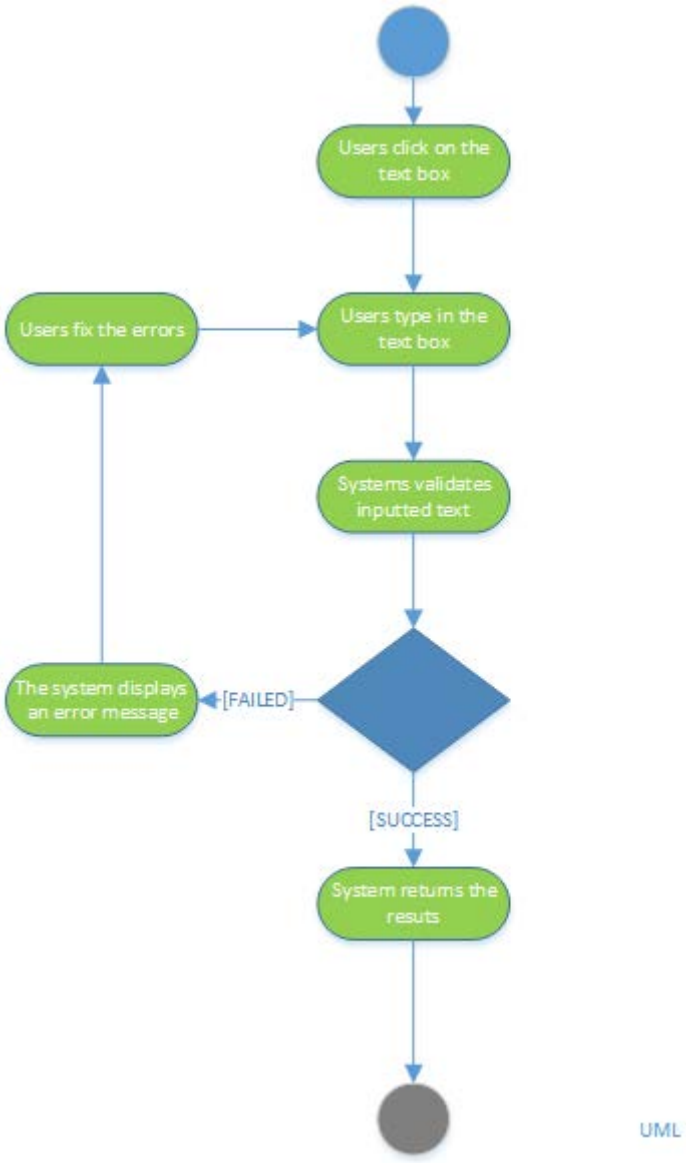
MODIFY SEARCH



The diagram on the left shows the necessary steps in order to modify the search criteria's. The process begins with an administrator selecting a 'Modify Search Criteria' button. He then is greeted with a form that has required fields that need to be filled out. Once the form has all the fields filled out the administrator submits the form. The system then checks the data and if all of the fields are correctly filled out, validates it. In the case it fails it to validate the form, an error message is displayed. The admin rechecks the form, and corrects the errors. If the system successfully validates the data, it's stored in the database, and a "Success" message is displayed.

Figure 20: Modify Search Criteria Activity Diagram

INPUT TEXT



The diagram on the left describes the necessary steps to input text. It begins with a user clicking on the text box that's provided on the website. The user types words, phrases or tags. The system validates the inputted text, and checks if it is a valid text. If not, an error message is returned. The users correct the errors, by typing valid words. The system then validates the data again. When successful the system returns the search results that the user was requesting.

Figure 21: Input Text Activity Diagram

SELECT SEARCH

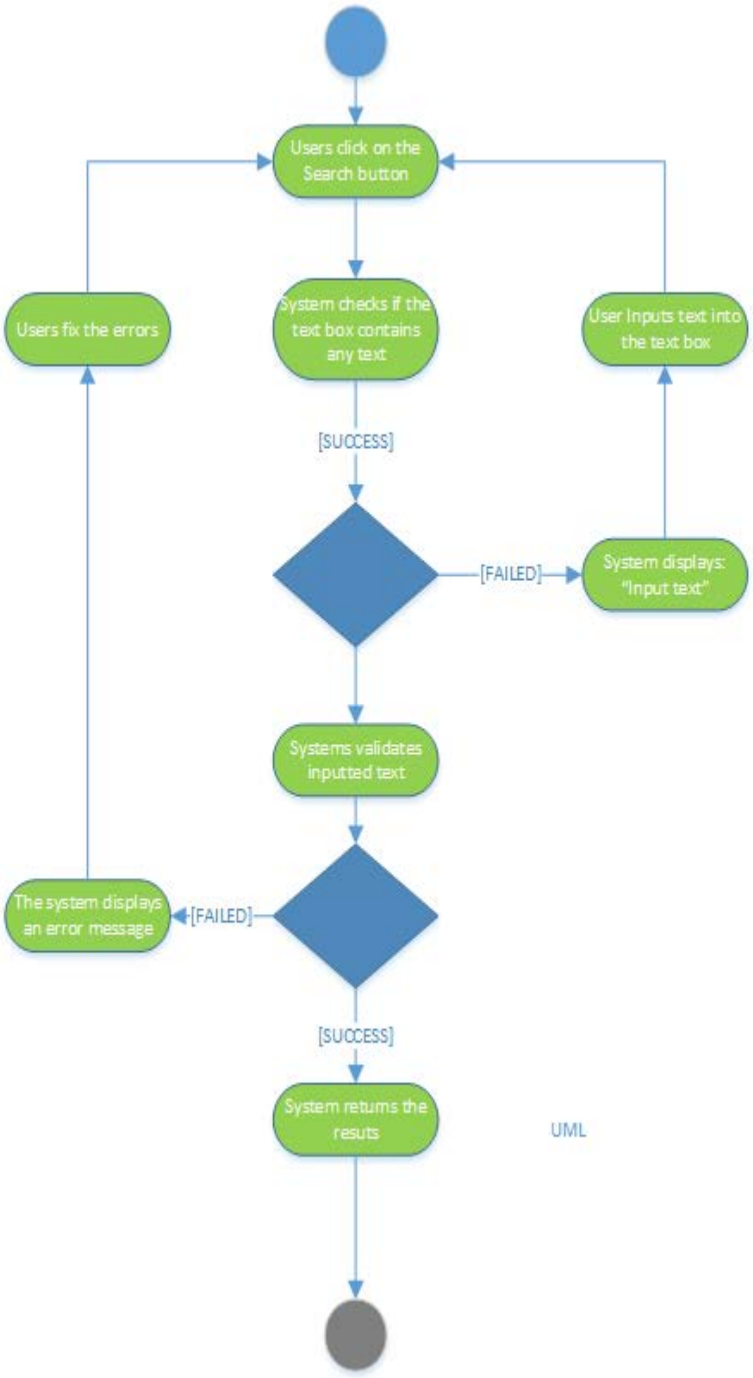


Figure 22: Select Search Activity Diagram

The diagram on the left presents the steps of selecting the search. The users click on the search button. The system checks if the provided text box contains any value in it. If the text box is empty, a message is displayed, to “Input text” in the text box. The User fills the text box, and the system validates the input. If the input is invalid, an error message is displayed. The user has to fix the errors. Once the error has been corrected, the user clicks the search button once again. The system successfully validates the input text, and returns the search results.

DISCUSSION BOARD

POST

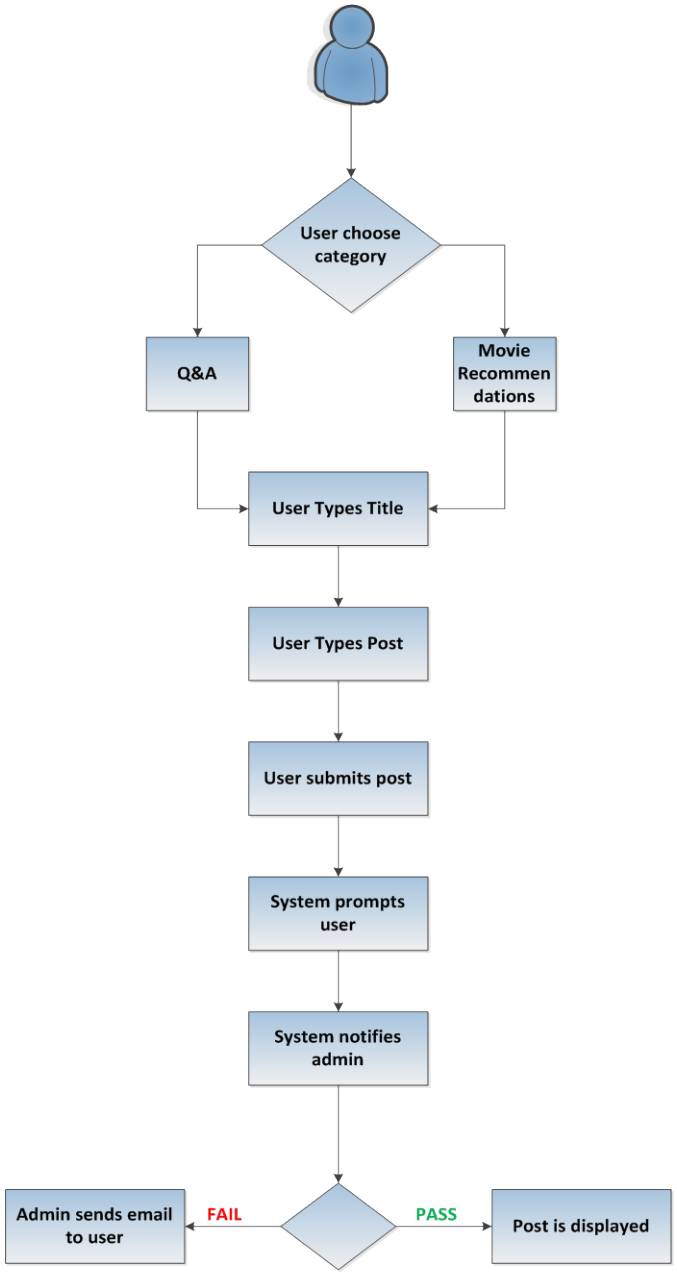


Figure 23: Post Activity Diagram

The activity diagram on the left describes the processes that take place as part of the Discussion Board **"POST"** transaction. Anyone can view the Discussion Board; however, only registered members can post to the Discussion Board. The user can access the Discussion Board page by clicking on the Discussion Board button from the home page.

The user can choose from one of the two categories: Q&A and Movie Recommendations. Once the user selects the category, they can fill out the text fields and click the submit button.

If any of the fields are left blank, the submit button will not be enabled. There will be a note to indicate that all fields are required.

Once the user submits the post, the system will prompt the user that the post has been submitted.

The system will then notify the admin that a new post has been submitted.

The admin will review the post and upon determination, will either display the post in the Discussion Board (pass) or send an email to the user indicating that the post has violated the rules and will not be displayed (fail).

The same process can be seen in the sequence diagram on the next page.

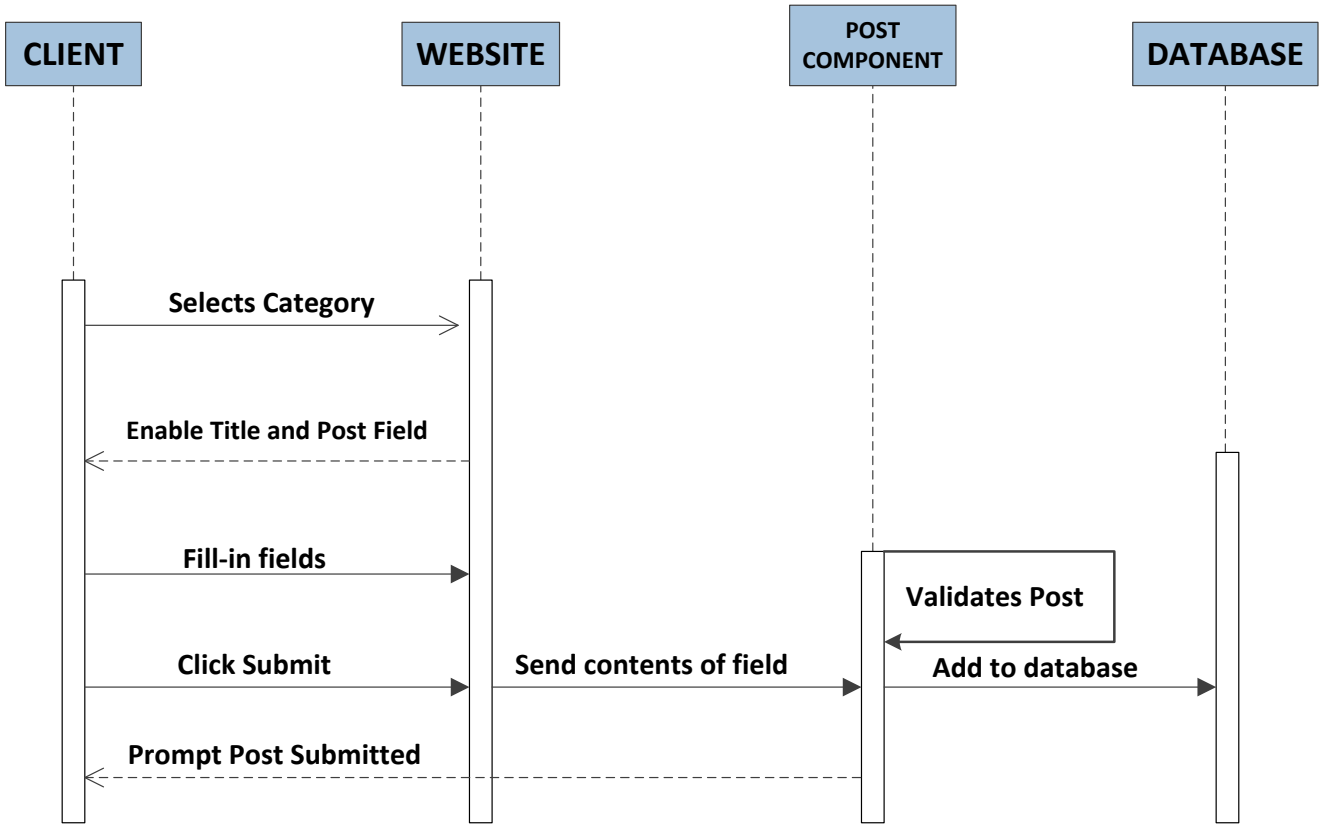


Figure 24: Post Sequence Diagram

REPLY TO POSTS

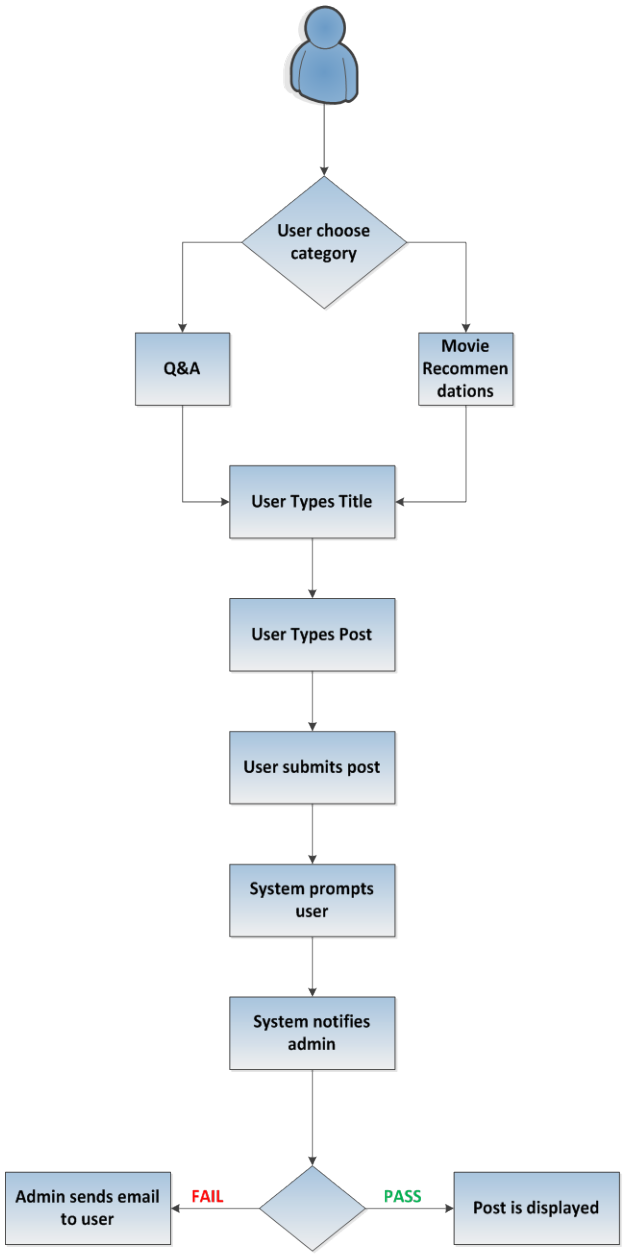


Figure 25: Reply Activity Diagram

The activity diagram on the left describes the processes that take place as part of the Discussion Board **"REPLY"** transaction. Anyone can view the Discussion Board; however, only registered members can post to the Discussion Board. The user can access the Discussion Board page by clicking on the Discussion Board button from the home page.

The user can choose from one of the two categories: Q&A and Movie Recommendations. Once the user selects the category, they can view all the posts and select which one to reply to.

There is only one text field that must be filled. If the user leaves this text field blank, the user will not be able to click the submit button. There will be a note that required fields cannot be blank.

Once the user submits the post, the system will prompt the user that the post has been submitted.

The system will then notify the admin that a new post has been submitted.

The admin will review the post and upon determination, will either display the post in the Discussion Board (pass) under the same thread or send an email to the user indicating that the post has violated the rules and will not be displayed (fail).

The same process can be seen in the sequence diagram on the next page.

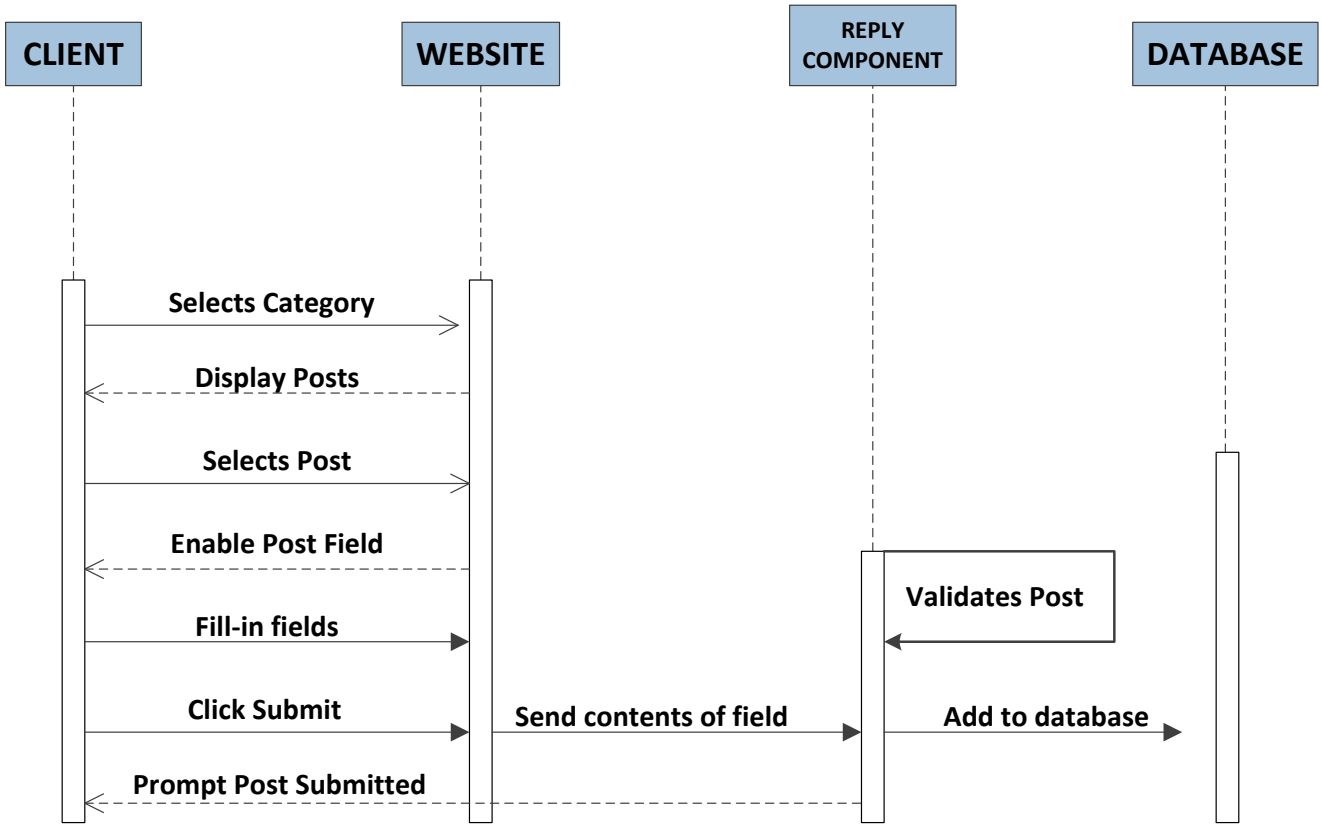


Figure 26: Reply Sequence Diagram

VALIDATE POST

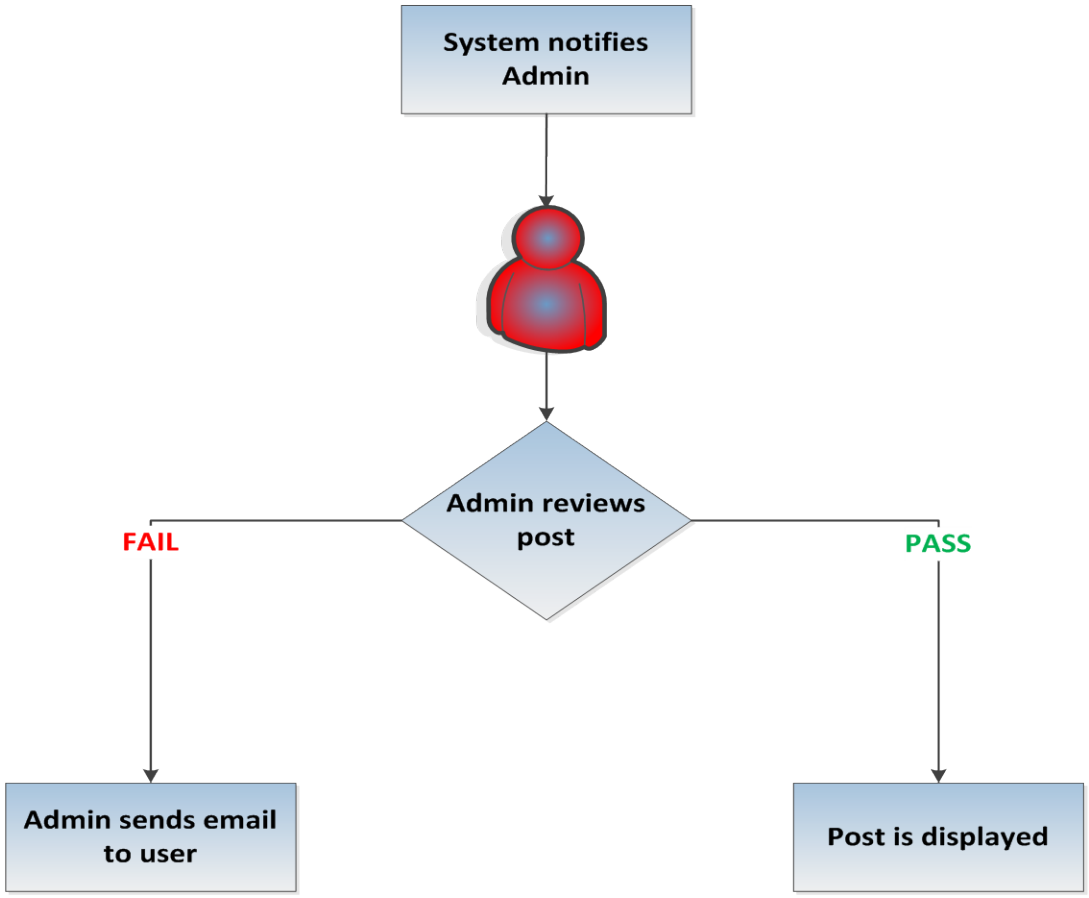


Figure 27: Validate Activity Diagram

The activity diagram above describes the processes that take place as part of the Discussion Board **"REVIEW"** transaction. Once a user submits a post, the admin will be notified that a new post has been submitted. The admin will have to review the post and determine if it violates any of the policies (TBD) or not. If the post is approved, it will be displayed in the Discussion Board. If the post is rejected, it will not be displayed in the Discussion Board and an email will be sent to the user regarding the status of their post.

The same process can is depicted on the sequence diagram on the next page.

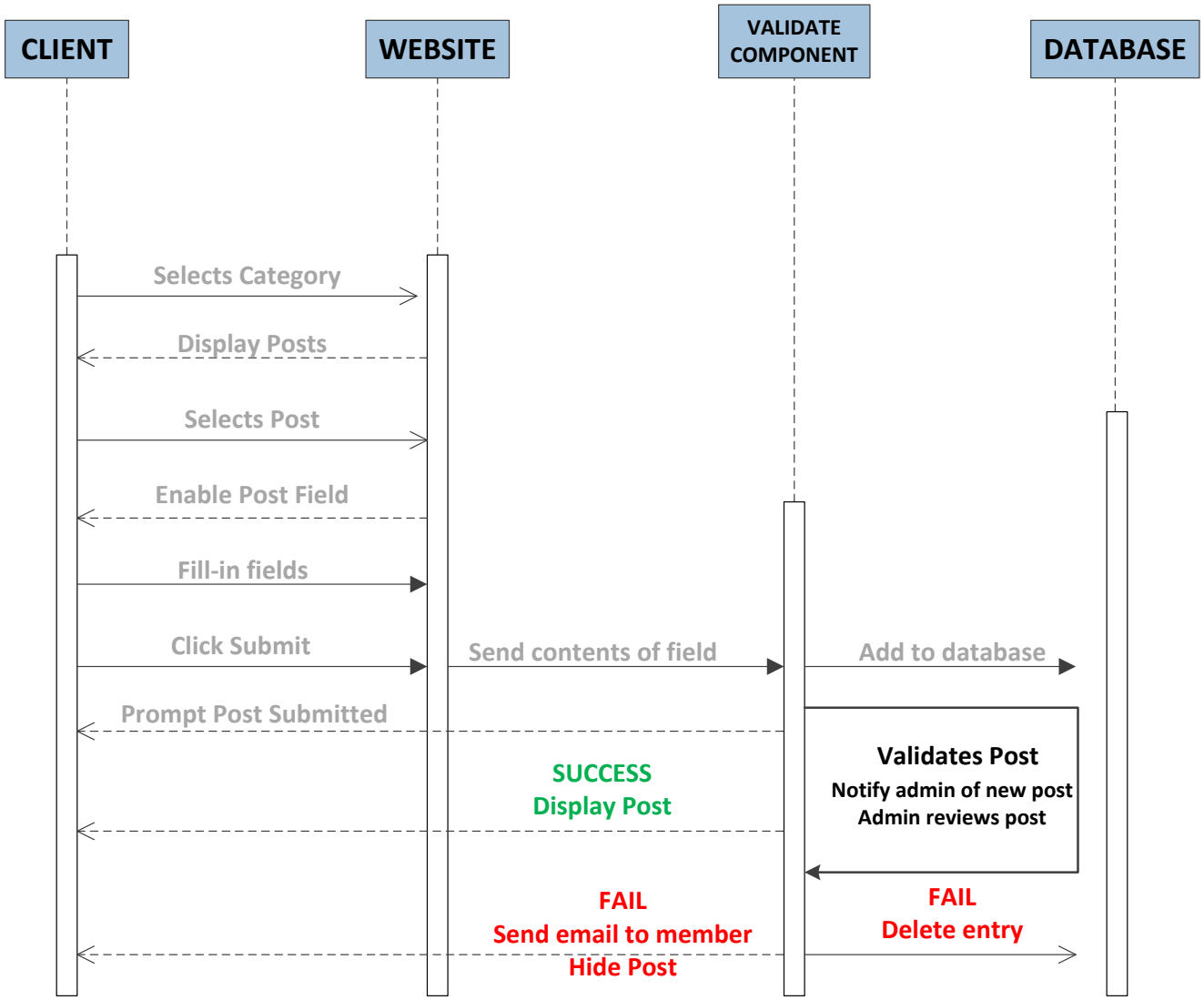


Figure 28: Validate Sequence Diagram

REGISTRATION

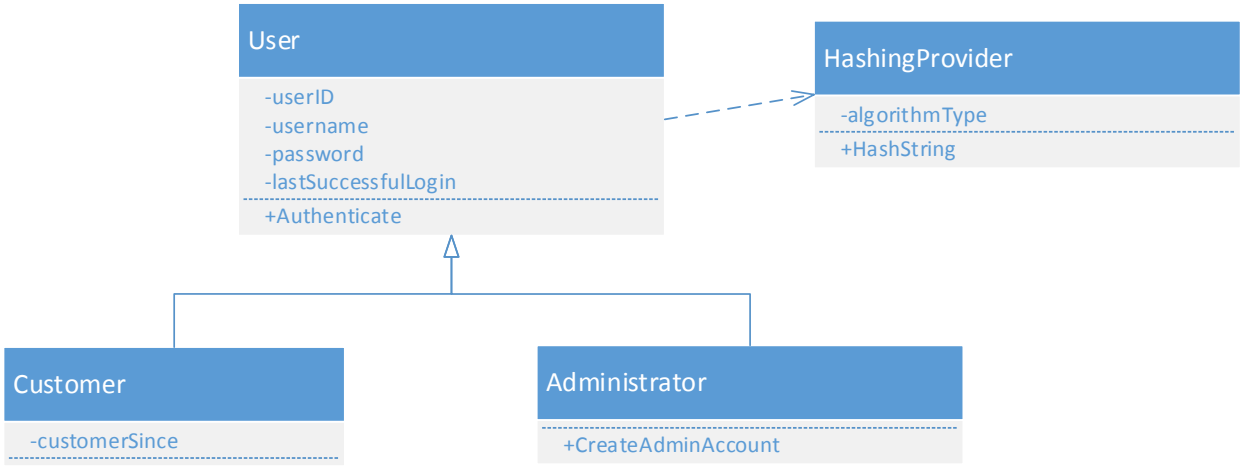


Figure 29: Registration Class Diagram

The class diagram above identifies the main entities for the Registration/Authentication module.

The following entities have been identified:

User:

This entity is responsible for authenticating any user and grant access to the system. The User serves as the base class for all different types of clients, such as Customer and Administrator. The User entity has a dependency on the HashingProvider entity. This utility class is used to hash any password required to authenticate the user.

Customer:

This entity represents a single customer and inherits from the User class. It contains a unique attribute of "CustomerSince" which defines how long a customer has been a client of our system.

Administrator:

This entity also inherits all attributes from the User class. It has the ability to create other Administrator type of users. (only administrators can create other admins).

HashingProvider:

This entity is responsible for hashing any string based on the defined algorithm. It is used by the User entity to hash the password strings.

MOVIE FACTS

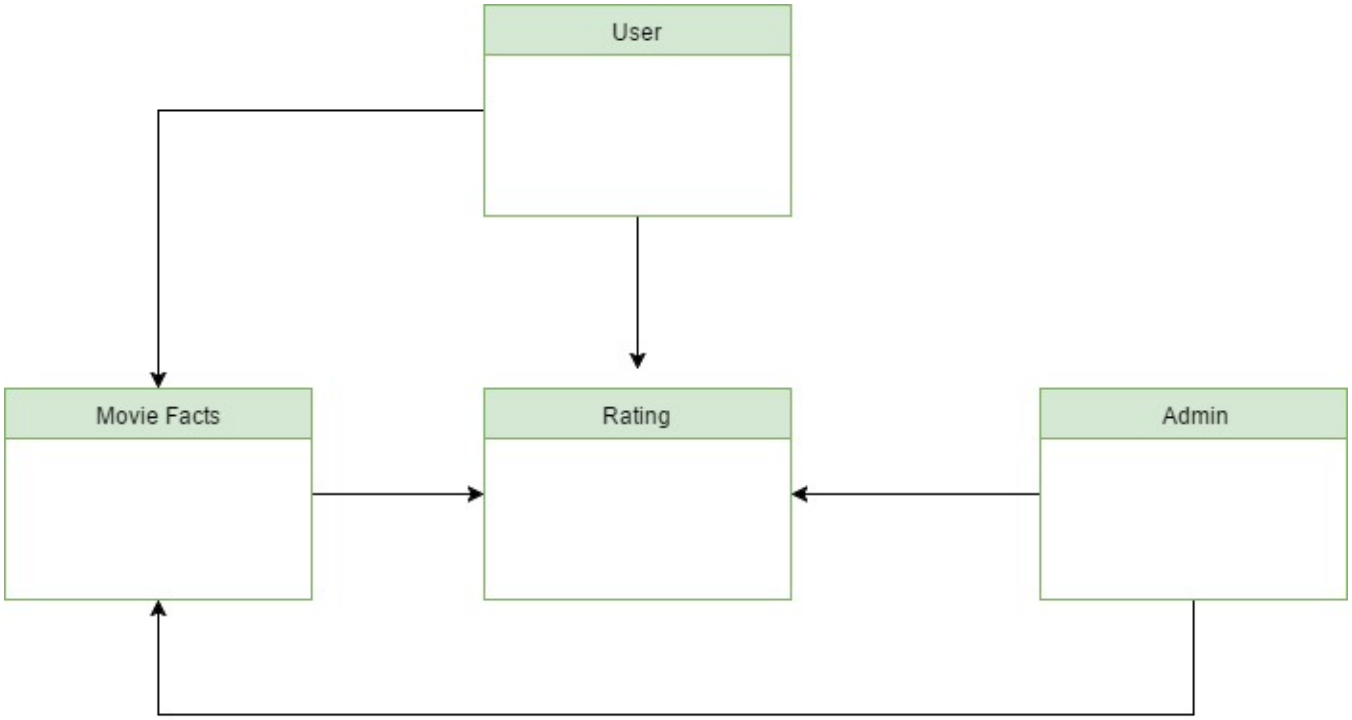


Figure 30: Movie Facts Class Diagram

The class diagram illustrated above shows the entities used in the movie facts module.

The following entities have been identified:

USER: User may access movie facts as well as rate movies for a movie title they choose.

MOVIE FACTS: Movie facts may access the rating entity to obtain the rating for a specific movie title.

RATING: The rating entity will provide ratings for movie titles but will have no authority to access other entities listed above.

ADMIN: Admin will be allowed to access movie rating and movie facts entities to adjust information accordingly.

SEARCH

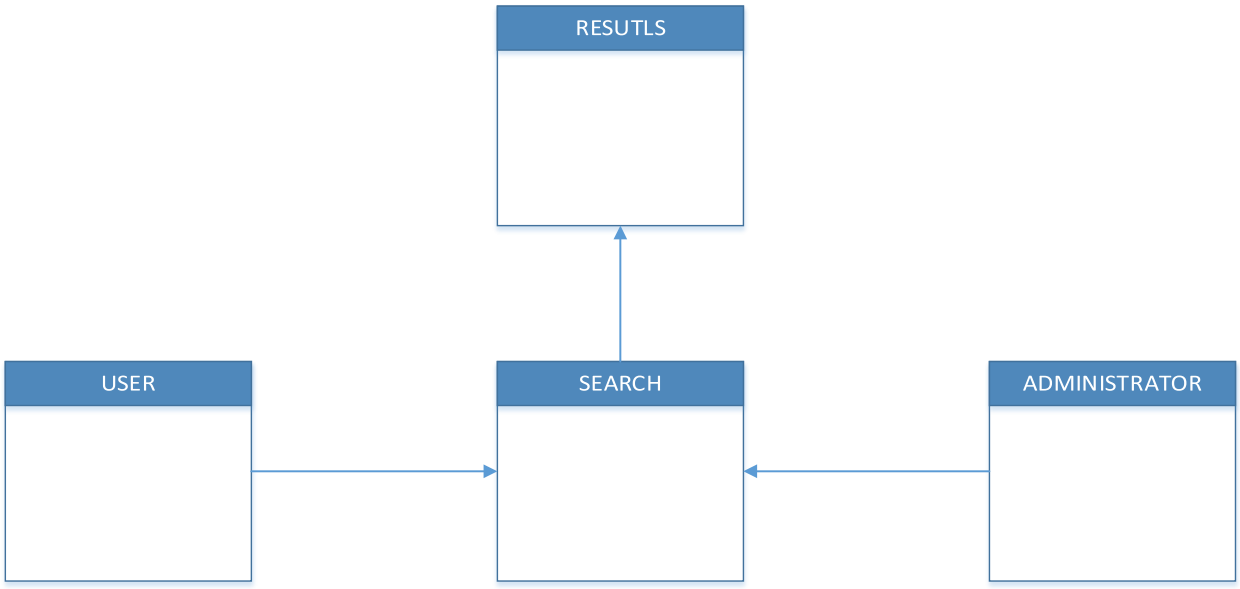


Figure 31: Search Class Diagram

The diagram identifies the entities used in search module:

User
Administrator
Search
Results

DISCUSSION BOARD

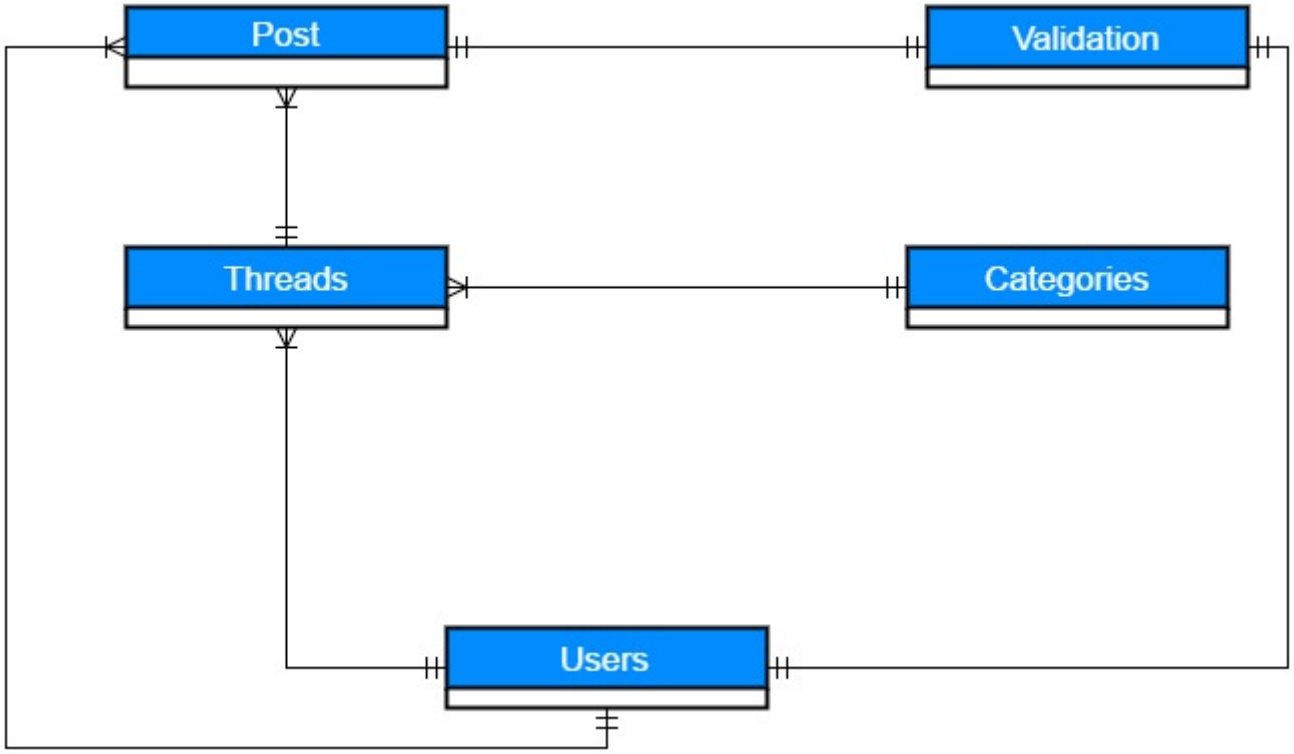


Figure 32: Discussion Board Class Diagram

The class diagram above identifies the main entities for the Discussion Board module.

The following entities have been identified:

Users - This entity is responsible for authenticating any user and grant access to the system. The User serves as the base class for all different types of clients, such as Customer and Administrator.

Post – This entity inherits from the user class. One user can have many posts. One post can only be in one thread, which can only be under one category.

Threads – This entity inherits from the user class.

Categories –Threads can only be under one categories.

Validation – This entity inherits from the user class. There can only be one validation per post and only one user (admin) to validate the post.

See Appendix B for a complete picture of the discussion board module

4. NON-FUNCTIONAL REQUIREMENTS

This section describes the non-functional requirements and constraints of the MovieGo System. Subsections pertains to the web apps:

4.1 Reliability

4.2 Functionality

4.3 Security

4.4 Usability

4.5 Maintainability

4.6 Portability

4.1 RELIABILITY

- Correct link processing to all links in the website
- User input validation and recovery
- Database maintenance

4.2 FUNCTIONALITY

- Searching capability
- Navigation and browsing features

4.3 SECURITY

- Server to rebuff unauthorized access
- Use of certain criteria (TBD) for passwords
- Users shall not be able to access other user's private data
- Use of avoidance techniques to prevent SQL injection attacks

4.4 USABILITY

- Global site understandability by having a distinct theme in the entire website

4.5 MAINTAINABILITY

- Ease of correction by placing comments in codes
- Code refactoring which will improve the internal structure of the system

4.5 PORTABILITY

- Use of common web tools such as bootstrap and jQuery to ensure that the web app will function in a variety of platforms i.e. mobile

5. APPENDIX

This section provides a detailed specific information as it relates to MovieGo system.

Subsections:

Appendix A. Project Proposal

Appendix B. Database Description

Appendix C. Business Rules and Policies

GROUP 6
PROJECT PROPOSAL

Divina Gorospe | Enrique Paredes | Pawel Zajac

OVERVIEW

Group 6 is pleased to submit this proposal for developing a website called Movie GO which will provide the platform for an informative and interactive website about movies.

The Goals

Build an informative website focused on movies that will allow users to view and interact with the website. The website will contain a database of movies which can be used by the user to select their next movie to watch. It can also be a place for users to discuss with one another about movies they've watched.

The Objectives

There will be two type of users: member and administrator. Members will have the ability to view and submit posts and ratings. Administrators will have the added ability to create, retrieve, update and delete (CRUD) contents on the website.

- To create a website dedicated to movies.
- Provide a search functionality to aide users in finding movies quickly.
- Provide a platform where users can post movie related questions as well as recommendations.
- Allow users the opportunity create a list of movies they would like to watch.
- Provide users information on movies they have an interest for.

The Features

1. Movie Facts - this section will contain information about a movie such as synopsis, main actors, awards, year of release, genre, etc.
    - User view - list of movies that can be viewed in alphabetical order, by year, or by genre. Users does not need to be logged-in.
    - Admin view - Add/Edit/Delete movies in the database. This database will contain tables such as Movie, Genre, Actors, Awards.
        - Developer - Enrique Paredes
2. Watchlist - this section is where user's will be able to create their own list of movies they would like to watch.
    - User view - Users will be able to add and delete movies on their watch list. The list will not be visible to other users. Requires member log-in.
    - Admin view - will provide a ranking based on user's watch list.
        - Developer - Pawel Zajac
3. Discussion Board - this section will have two categories for discussions: Q&A and movie recommendations.
    - User view - Create a post or reply to other users posts under two categories. Members would need to be logged-in to be able to post.
        - Q&A - this section is where users can post their questions related to any movies.
        - Movie recommendations - this section is where users can post a list of movies that is visible to other users. Users can also seek movie recommendations in this section.
    - Admin view - Approve or reject posts based on language/offensive comments.
        - Developer - Divina Gorospe

APPENDIX B: DATABASE DESCRIPTION

Database requirements define the logical organization of the data used by the system and the relationships between data. MovieGo website will be a dynamic website. To accomplish this, MySQL will be utilized in the system.

The diagram below outlines the database entity relationship model for the Discussion Board module.

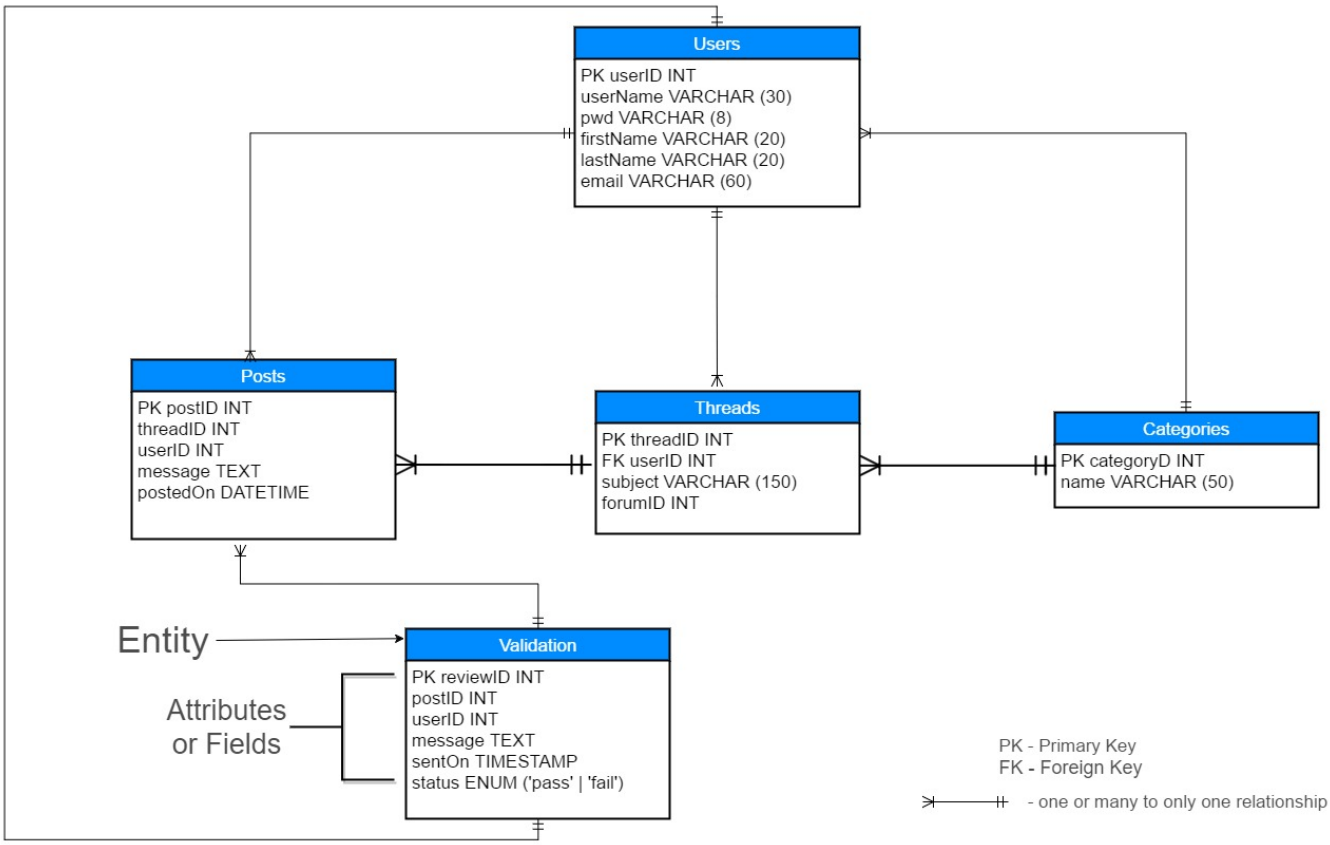


Figure 33: Discussion Board ER Model

APPENDIX C: BUSINESS RULES AND POLICIES

MovieGo Privacy Policy[3]

This Privacy Policy was last modified on February 27, 2017

MovieGo ("us, "we", or "our") operates http:www.moviego.php (the "Site"). This page informs you of our policies regarding the collection, use, and disclosure of Personal information we receive from users of the Site.

We use your personal information only for providing and improving the Site. By using the Site, you agree to the collection and use of information in accordance with this policy.

Information Collection and Use

While using our Site, we may ask you to provide us with certain personally identifiable information that can be used to contact or identify you. Personally identifiable information may include, but is not limited to your name ("Personal Information).

Log Data

Like many site operators, we collect information that your browser sends whenever you visit our Site ("Log Data". This Log Data include information such as your computer's Internet Protocol ("IP") address, browser type, browser version the pages of our Site that you visited, and the time and data of your visit.

[3] https://termsfeed.com/blog/wp-content/uploads/2014/12/example-of-privacy-policy.jpg

6. INDEX