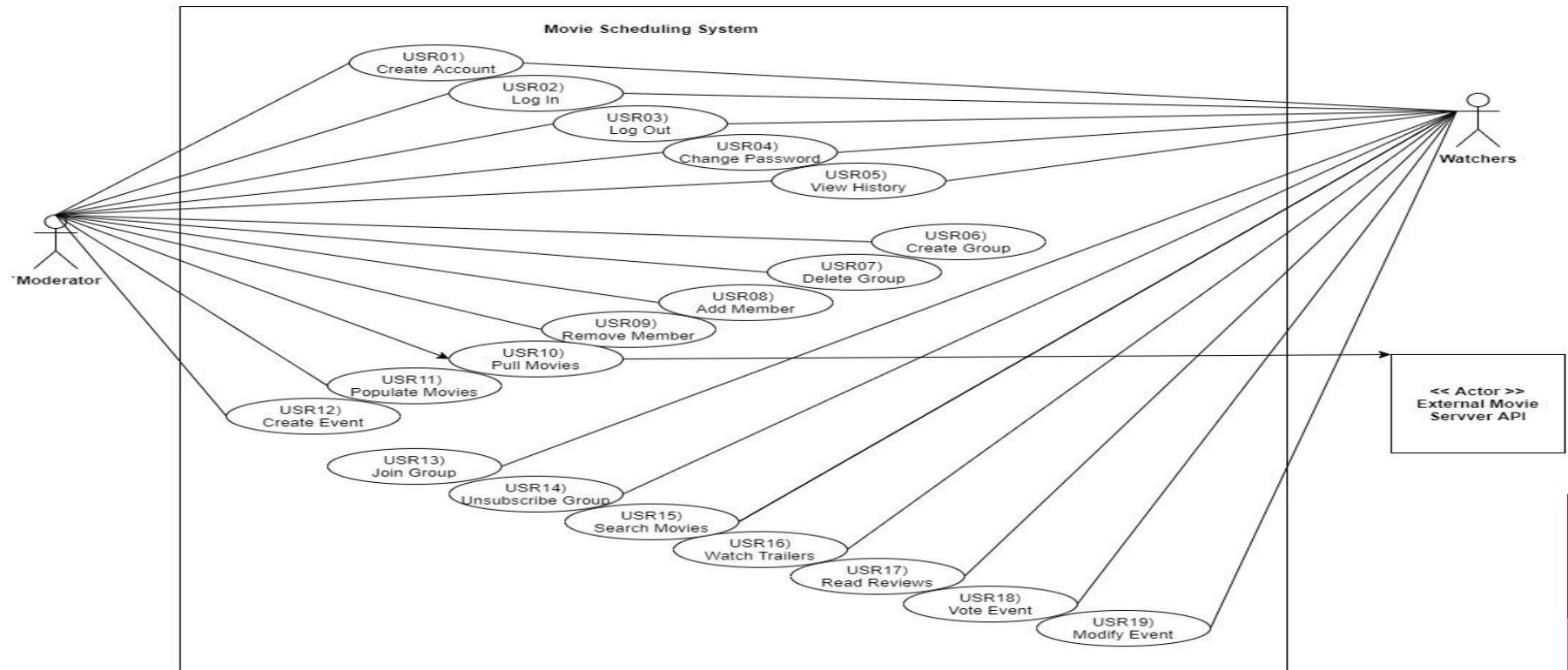


# Object-Oriented Design

Assignment 4  
(Use Case/Class/Sequence/State Diagram/Traceability Matrix)

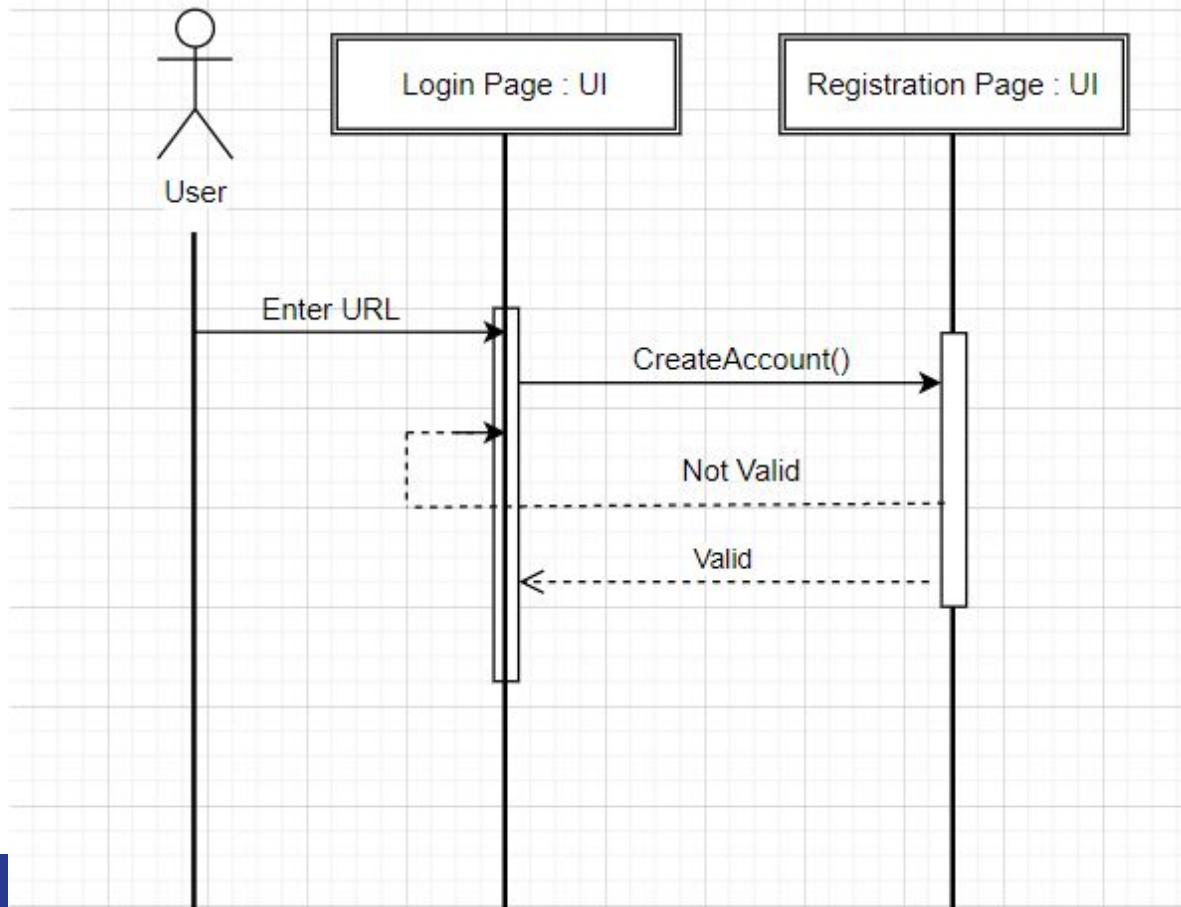
By: Group 13  
Nopphiphat Suraminitkul (Nopi)  
Ayush Singh  
Juhi Sinha  
Somnath Joglekar

# Use Case Diagram



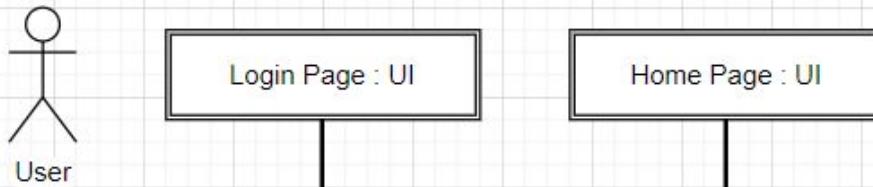
Use Case ID	USR01
Use Case Title	Create Account
Actor(s)	Moderator; Watchers
Summary	Actors create accounts for themselves in the system
Assumption(s)	"Create Account" can only be done once per email; There is only 1 moderator in the system; Moderator will have more privileges than Watchers
Use Case Description	The use case begins when the actors navigated to the homepage of the system via the correct URL on the internet. Both actors will choose "Create Account" by providing their credentials on the registration page. The use case will end when they are able to successfully hit the "Create Account" button.
Pre-condition(s)	Actors have access to the internet via any device
Success End Condition	Actors have created their account and can log in as users of the system
Failed End Condition	Actors are not able to create their account
Step(s)	<ol style="list-style-type: none"> <li>Actors access the login page of the system via the correct URL</li> <li>Actors click on the "Create Account" button</li> <li>System receives the request</li> <li>System displays the registration page</li> <li>Actors input their credentials needed to create the account in the page</li> <li>Actors click on the "Create Account" button</li> <li>System receives the information</li> <li>System checks duplicate email, if no then next step, otherwise displays error and back to step 4</li> <li>System adds the account to the database</li> <li>System displays the login page</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>Actors are not able to access the internet</li> <li>The "Create Account" button does not work and crashes the system</li> <li>The system is down for maintenance</li> <li>An account was previously created with the same email</li> <li>The inputted credential does not meet the requirement of the system, for example empty string</li> </ol>

## Create Account



Use Case ID	USR02
Use Case Title	Log in
Actor(s)	Moderator; Watchers
Summary	Actors log into the system using their account
Assumption(s)	Actors remember the credentials needed to log into their account
Use Case Description	The use case begins when the actor navigated to the login page of the system via the correct URL on the internet. Both actors will choose "Log In" by inputting in their credentials. The use case will end when they are able to log in to the system and enter the main homepage of the system.
Pre-condition(s)	Actors have created their account in the system
Success End Condition	Actors have logged into the system and gained access to user's specific functionalities
Failed End Condition	Actors are not able to log into the system
Step(s)	<ol style="list-style-type: none"> <li>Actors access the login page of the system via the correct URL</li> <li>Actors click on "Log In" button</li> <li>System receives the request</li> <li>System displays the login page</li> <li>Actors input their credentials needed to log in to the system</li> <li>Actors click on "Log In" button</li> <li>System receives the information</li> <li>System checks for valid credentials, if correct then next step, otherwise displays error and back to step 4</li> <li>If the credentials correspond to Moderator, then moderator privileges are granted</li> <li>If the credentials correspond to Watchers, then watchers privileges are granted</li> <li>System redirects the actor to the appropriate homepage of the system</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>Actors are not able to access the internet</li> <li>Actor's accounts are removed from the system</li> <li>The "Log In" button does not work and crashes the system</li> <li>The system is down for maintenance</li> <li>Actors input the wrong credentials (email or password)</li> </ol>

## Login



Enter URL

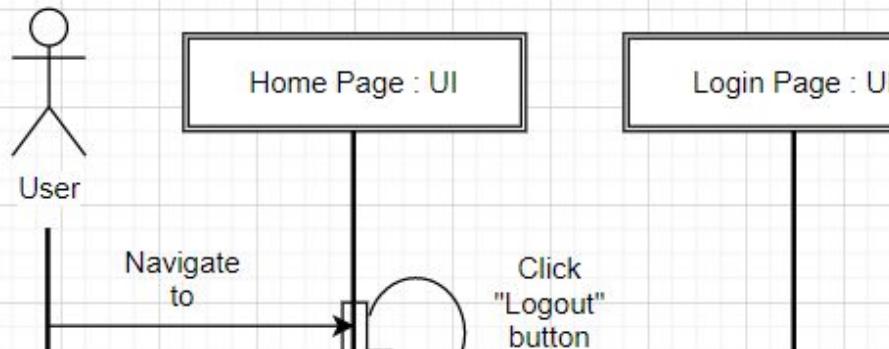
Enter  
Credentials

Not Valid

Login()

Use Case ID	USR03
Use Case Title	Log out
Actor(s)	Moderator; Watchers
Summary	Actors log out from the system
Assumption(s)	Actors chose to exit from the system
Use Case Description	The use case begins when the actor navigated to the "User Profile" button on the homepage of the system. The use case will end when actors select the "Log Out" button on the user profile page.
Pre-condition(s)	Actors are logged into the system.
Success End Condition	Actors have logged out from the system.
Failed End Condition	Actors are not able to log out from the system.
Step(s)	<ol style="list-style-type: none"> <li>Actors click on the "User Profile" button on the homepage</li> <li>System receives the request</li> <li>System redirects the actors to the user profile page</li> <li>Actors click on "Log Out" button</li> <li>System receives the request</li> <li>System logs the actors out of the system and deletes their session</li> <li>System returns the actors to the login page</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>The "Log Out" button does not work and crashes the system</li> </ol>

## Logout



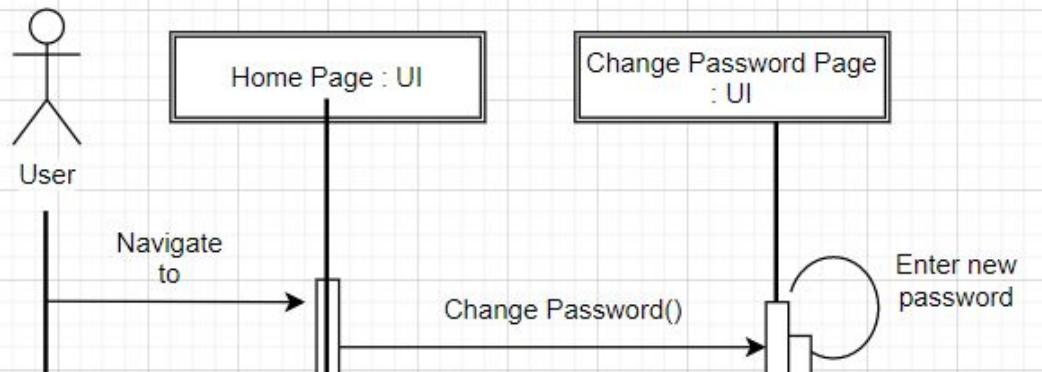
Click  
"Logout"  
button

Not Valid

Logout()

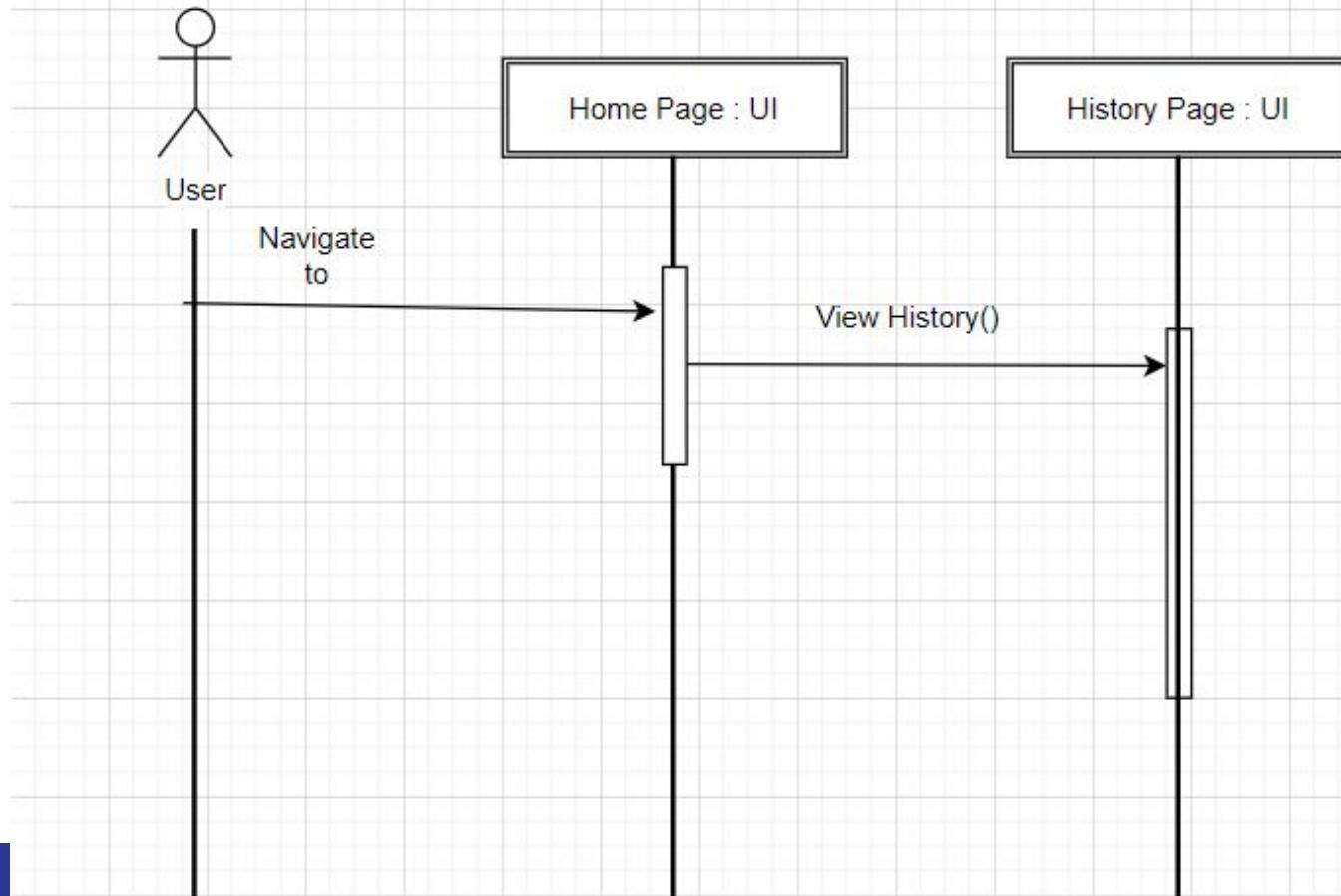
Use Case ID	USR04
Use Case Title	Change Password
Actor(s)	Moderator; Watchers
Summary	Actors change their login credentials of the system.
Assumption(s)	Actors want to change their current password with the new password
Use Case Description	The use case begins when the actor logged into their account on the system. Actors will click the "User Profile" button, which redirects them to the user profile page. Actors will click "Change Password", and input their new password on the change password page. The use case will end when they receive notification that their account password was modified.
Pre-condition(s)	Actors are logged into the system.
Success End Condition	Actors are able to log into the system with the newly changed password
Failed End Condition	Actors are still able to log into the system with their old password
Step(s)	<ol style="list-style-type: none"> <li>Actors click on the "User Profile" button on the homepage</li> <li>System receives the request</li> <li>System redirects the actors to the user profile page</li> <li>Actors click on the "Change Password" button</li> <li>System receives the request</li> <li>System displays the change password page</li> <li>Actors input the new password and click "Change Password" button</li> <li>System receives the information</li> <li>System updates the password on the database</li> <li>System notifies the actors about the password change activity</li> <li>Actors receive notification of the modified password change</li> <li>System returns the actors to the system homepage</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>The "Change Password" button does not work and crashes the system</li> <li>The new password input doesn't meet the criterion of password, for example, empty string</li> </ol>

## Change Password

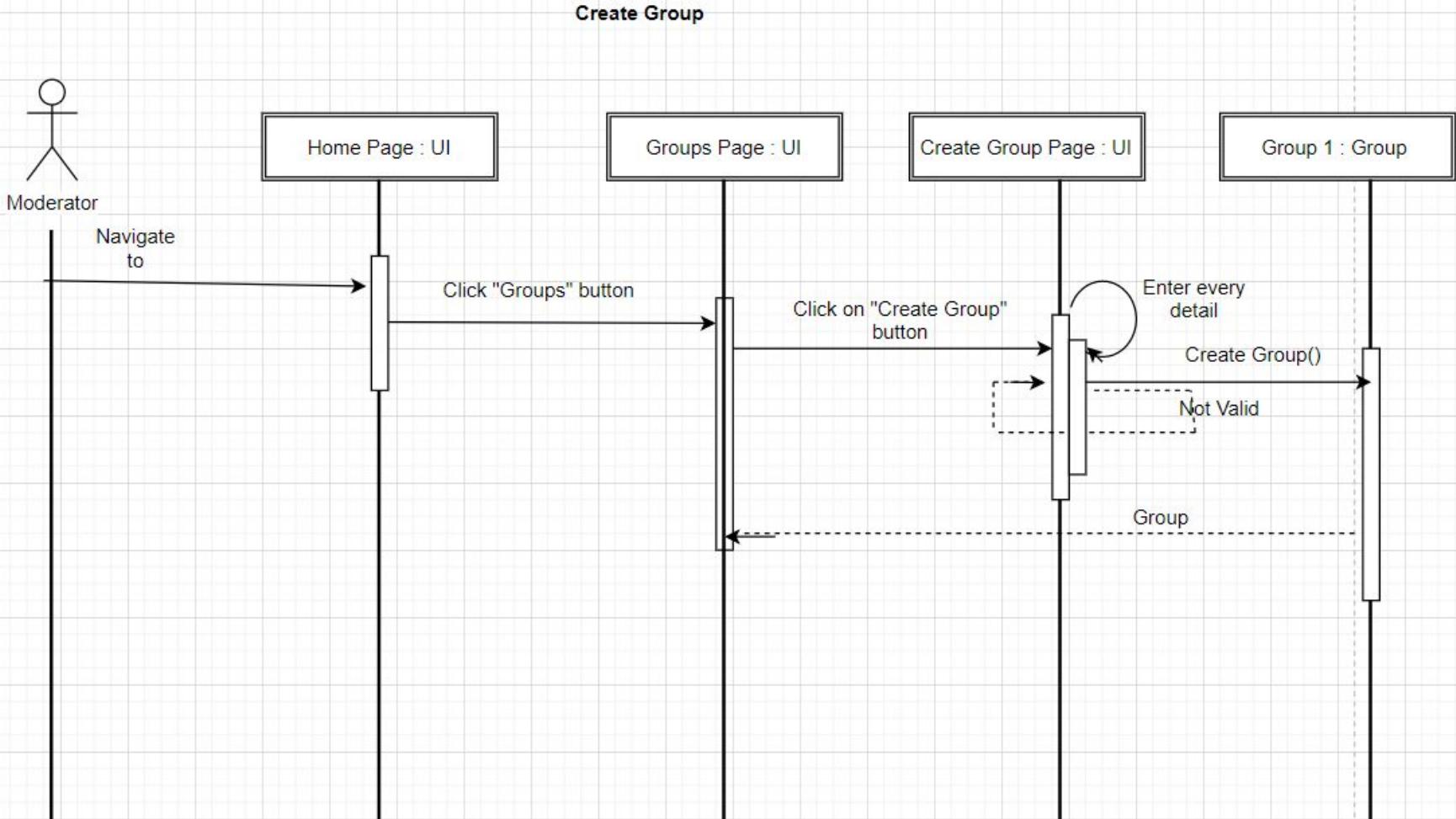


Use Case ID	USR05
Use Case Title	View History
Actor(s)	Moderator; Watchers
Summary	Actors viewed the list containing results (votes, winners, etc.) from past events
Assumption(s)	Actors can access the history page with or without participating in past events; Actors decided to view the results from all the past events that users were in
Use Case Description	The use case begins when the actors logged into their account on the system. Actors will click on the "History" button on the homepage. The use case will end when the actors get redirected to the history page.
Pre-condition(s)	Actors are logged into the system.
Success End Condition	Actors have accessed the content in the history page.
Failed End Condition	Actors are not able to access the "History" tab.
Step(s)	<ol style="list-style-type: none"> <li>Actors click on the "History" button on the homepage</li> <li>System receives the request</li> <li>System redirects the actors to the history page</li> <li>If the events correspond to the actor, then the associated event history are displayed</li> <li>If no events correspond to the actor, then no content are displayed</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>The system is down for maintenance</li> <li>The "History" button does not work and crashes the system</li> </ol>

## View History

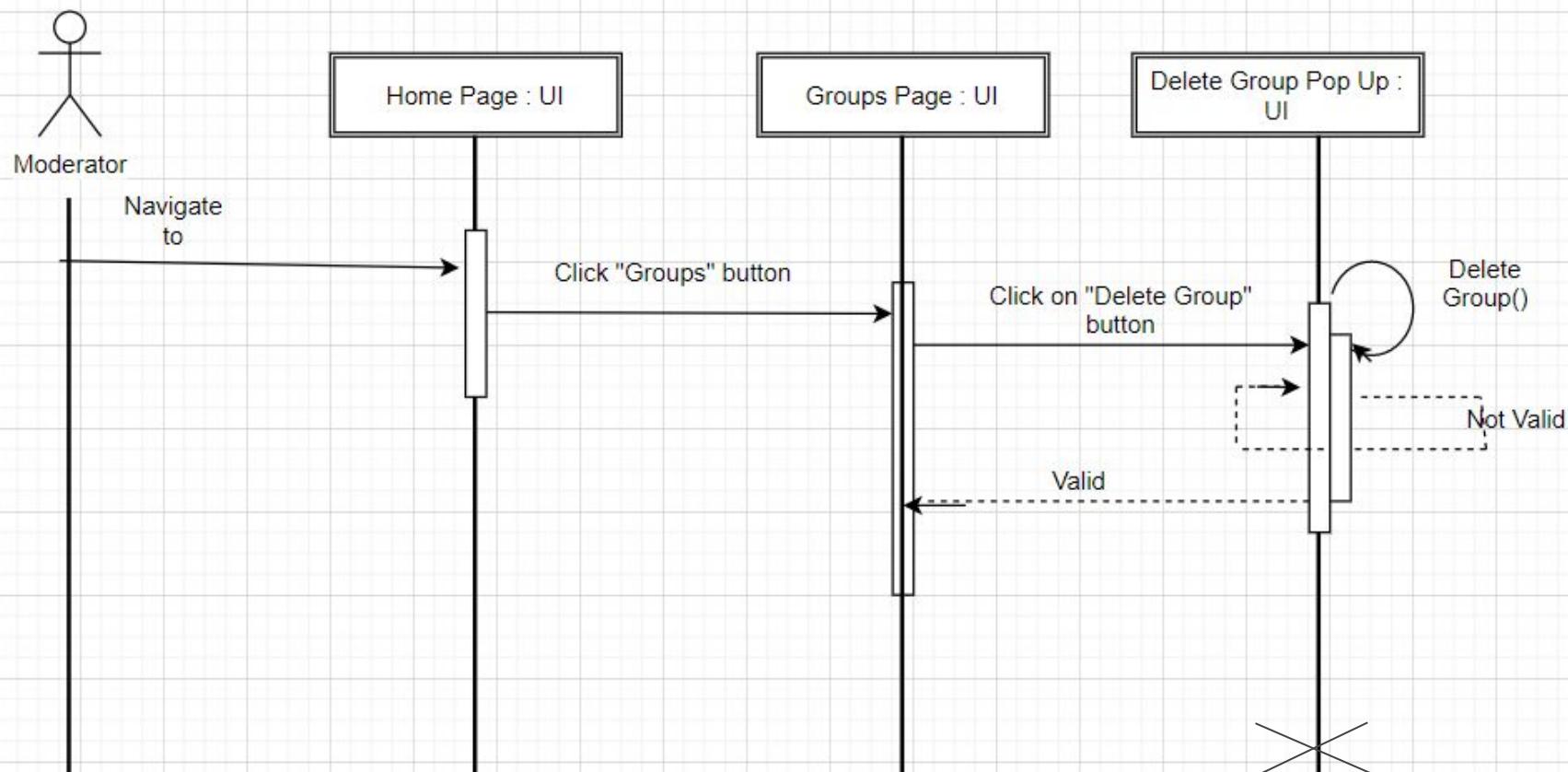


Use Case ID	USR06
Use Case Title	Create Group
Actor(s)	Moderator
Summary	Actors create movie scheduling group(s) for interested watchers.
Assumption(s)	Actors has a list of watchers in the system who are interested to be in a group
Use Case Description	The use case begins when the actor logged into the system homepage. Actors will navigate to groups page through clicking "Group" button. Actors click on "Create Group" button. Actors will input the unique "Group Name" as well as select all the interested watchers that want to be in the same group. The use case will end when the "Create Group" button is clicked.
Pre-condition(s)	Actors are logged into the system as Moderator
Success End Condition	Actors have created a group and the system successfully sends the group invitation to the interested members
Failed End Condition	Actors did not create the group
Step(s)	<ol style="list-style-type: none"> <li>Actors click on the "Groups" button on the homepage</li> <li>System receives the request</li> <li>System displays the groups page that contains all groups details</li> <li>Actors click on the "Create Group" button</li> <li>System receives the request</li> <li>System redirects the actors to the "Create Group" page</li> <li>Actors input the unique "Group Name" for the group</li> <li>Actors select the interested watchers who want to be in the same group from list of all users</li> <li>Actors click on the "Create Group" button</li> <li>If the inputted group name and selected watchers satisfies the create group requirement, then proceed to the next step, else returns to step 6</li> <li>System updates the group information on the database</li> <li>System redirects the actors to the groups page</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>The system is down for maintenance</li> <li>The "Create Group" button does not work and crashes the system</li> <li>The inputted group name doesn't meet the criterion of group name, for example, empty string</li> <li>No watchers are selected</li> </ol>

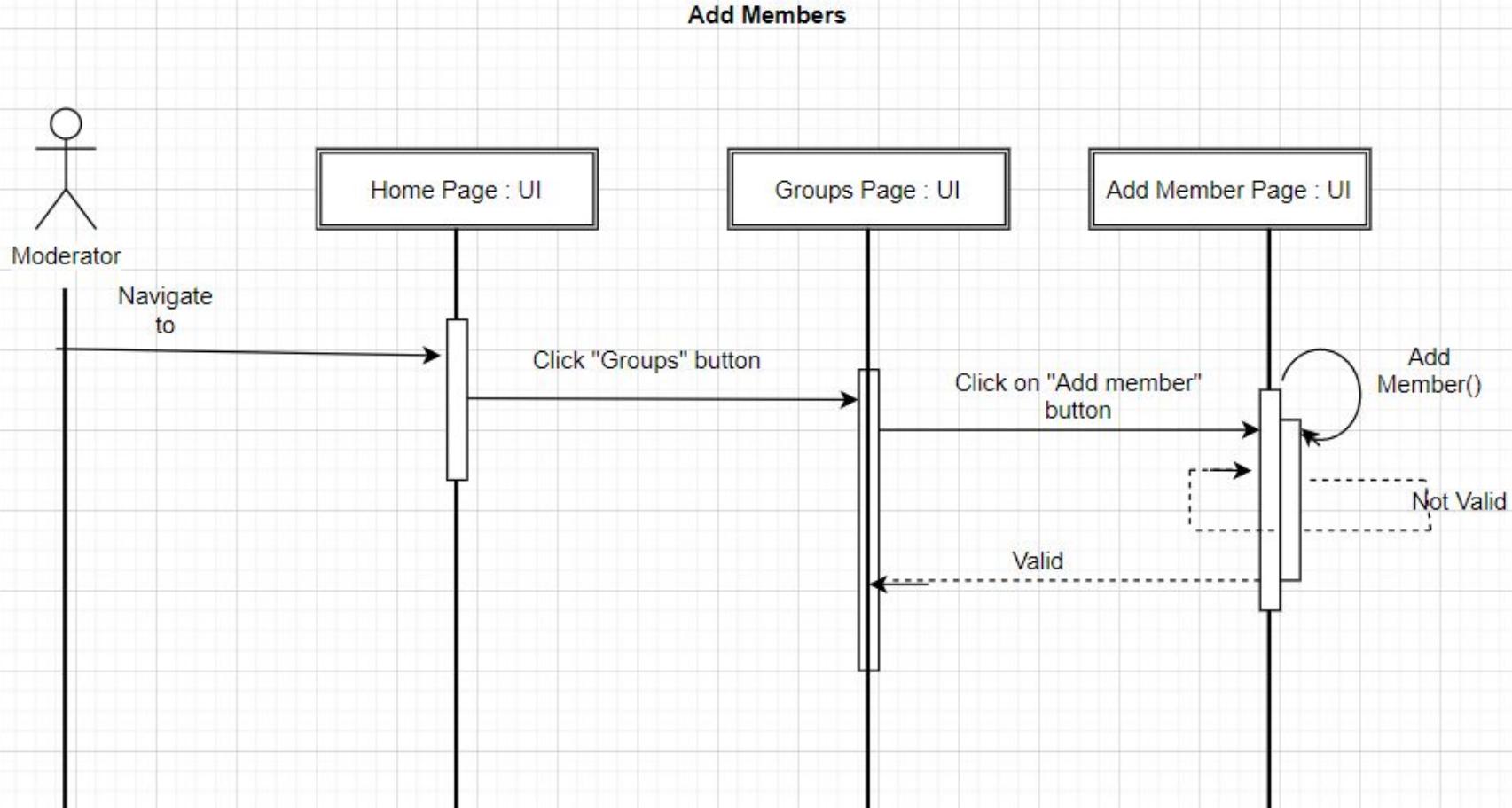


Use Case ID	USR07
Use Case Title	Delete Group
Actor(s)	Moderator
Summary	Actors delete the intended group.
Assumption(s)	Actors decides to remove the intended group from the system
Use Case Description	The use case begins when the actor logged into the system homepage. Actors click the "Group" button, which redirects the actors to the groups page. Actors click on the "Delete Group" button beside the intended group. The use case will end when actors click the "Yes" button on the delete group pop-up to confirm the deletion of the intended group.
Pre-condition(s)	Actors has previously created a group and decided to remove one of the groups
Success End Condition	System updates the intended group(s) status to inactive System does not display the intended group(s) information on the groups page Members of the intended group loses access to the intended group
Failed End Condition	Members of the intended group will continue to have access to their group The group information will still be available on the groups page The group status is still active Actors did not remove the group from the database
Step(s)	<ol style="list-style-type: none"> <li>Actors click on the "Groups" button on the homepage</li> <li>System receives the request</li> <li>System displays the groups page that contains all groups details</li> <li>Actors clicks the "Delete Group" button beside the intended group</li> <li>System receives the request</li> <li>System displays the delete group pop-up</li> <li>Actors click the "Yes" button to confirm the deletion of the intended group</li> <li>System updates the status of the selected group to be inactive</li> <li>System redirects the actors to the groups page</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>System does not display the delete group button on the homepage</li> <li>The system is down for maintenance</li> <li>The "Delete Group" button does not work and crashes the system</li> <li>The updates on the database do not work</li> </ol>

### Delete Group

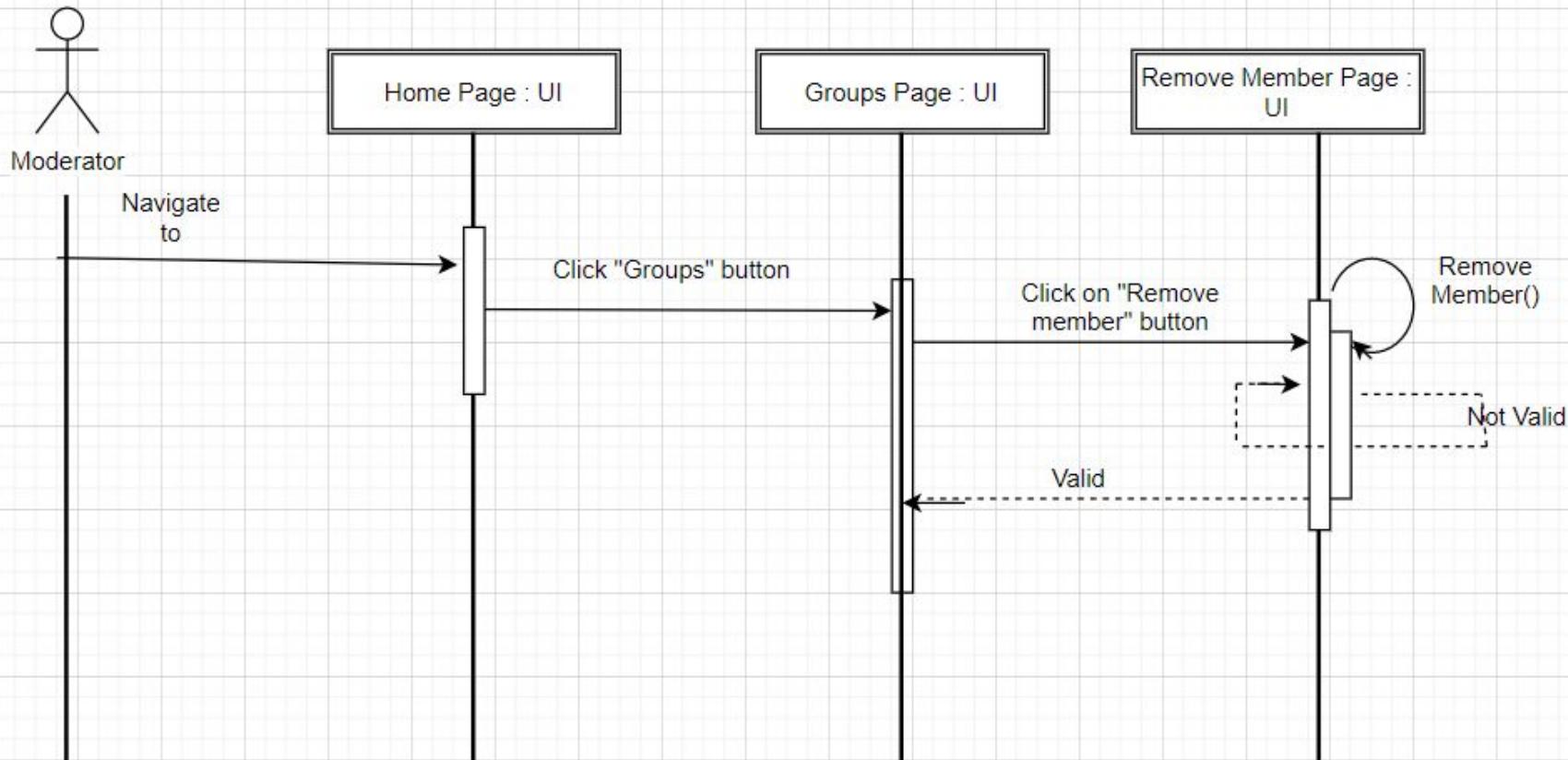


Use Case ID	USR08
Use Case Title	Add Member
Actor(s)	Moderator
Summary	Actors add new watchers to the intended group.
Assumption(s)	Actors know members who wants to be part of the previously created group
Use Case Description	The use case begins when the actor logged into the system homepage. Actors click on the "Group" button, which redirects the actors to the groups page. Actors click on the "Add Member" button beside the intended group. Actors select the watchers who should be added to the group. The use case will end when the "Add Member" button is clicked for the intended group.
Pre-condition(s)	Actors have created group(s) and decided to add watchers to the group
Success End Condition	New watchers are added to the intended group; The newly added watchers will gain access to the group
Failed End Condition	The group will not have new watchers added to the group
Step(s)	<ol style="list-style-type: none"> <li>Actors click on the "Groups" button on the homepage</li> <li>System receives the request</li> <li>System displays the groups page that contains all groups details</li> <li>Actors clicks the "Add Member" button beside the intended group</li> <li>System receives the request</li> <li>System displays the add member page</li> <li>Actors select the interested watchers who want to be added to the group</li> <li>Actors click on "Add Member" button</li> <li>System updates the members of the selected group on the database</li> <li>System redirects the actors to the groups page</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>System does not display the "Group" button on the homepage</li> <li>The system is down for maintenance</li> <li>The "Add Button" button does not work and crashes the system</li> <li>The updates on the database do not work</li> <li>No new watchers are selected</li> </ol>



Use Case ID	USR09
Use Case Title	Remove Member
Actor(s)	Moderator
Summary	Actors remove watchers from the intended group.
Assumption(s)	Actors know members who wants to leave their group
Use Case Description	The use case begins when the actor logged into the system homepage. Actors click on the "Group" button, which redirects the actors to the groups page. Actors click on the "Remove Member" button beside the intended group. Actors select the watchers who should be removed from the group. The use case will end when the "Remove Member" button is clicked for the intended group.
Pre-condition(s)	Actors have created group(s) and decided to remove watchers from the group; There is a list of members who no longer wants to remain in their group
Success End Condition	Watchers who wants to leave their group were removed from their group; Those watchers no longer have access to the group that they were removed from
Failed End Condition	Watchers who wants to leave their group were not removed from their group; Those watchers still have access to the group that they want to leave
Step(s)	<ol style="list-style-type: none"> <li>Actors click on the "Groups" button on the homepage</li> <li>System receives the request</li> <li>System displays the groups page that contains all groups details</li> <li>Actors clicks the "Remove Member" button beside the intended group</li> <li>System receives the request</li> <li>System displays the remove member page</li> <li>Actors select the watchers who want to leave the group</li> <li>Actors click on "Remove Member" button</li> <li>System updates the members of the selected group on the database</li> <li>System redirects the actors to the groups page</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>System does not display the "Group" button on the homepage</li> <li>The system is down for maintenance</li> <li>The "Remove Button" button does not work and crashes the system</li> <li>The updates on the database do not work</li> <li>No watchers are selected</li> </ol>

## Remove Members



Use Case ID	USR10
Use Case Title	Pull Movies
Actor(s)	Moderator; Movie Server
Summary	Actors pull a list of movies and its associated information, like trailer links and review links from the intended movie server API
Assumption(s)	Actors has the access to a movie server that contains a list of movies and its associated information that the actors want to load into the system database
Use Case Description	The use case begins when the actor logged into the system homepage. Actors click on the "Movie" button, which redirects the actors to the movies page. Actors click on the "Pull Movies" button to pull a list of movies from the associated movie server API. The use case will end when the movies page displays a list of movies and their associated information in a VIEW format.
Pre-condition(s)	Actors have logged into the system as Moderator; Actors have the access key to pull the required information from the associated movie server
Success End Condition	Actors have retrieved the list of movies and its associated information; The system successfully display the resulting list of movies and its information in a VIEW format on the movies page
Failed End Condition	The system displays an error; No movies information are loaded into the VIEW format for display
Step(s)	<ol style="list-style-type: none"> <li>Actors click on the "Movie" button on the homepage</li> <li>System receives the request</li> <li>System displays the movies page</li> <li>Actors click on the "Pull Movies" button</li> <li>System calls the external movie server API with access token</li> <li>Movie server verifies the access token</li> <li>Movie server returns a list of movies and its associated information</li> <li>System receives the information and places it into a temporary table</li> <li>System creates a VIEW of the received data for display on the movies page</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>System does not display the "Movie" button on the homepage</li> <li>The system is down for maintenance</li> <li>The "Pull Movies" button does not work and crashes the system</li> <li>The creation of VIEW has problem</li> <li>The access key did not match the external server requirement</li> <li>The internet connection is not good enough to retrieve the information</li> </ol>



Use Case ID	USR11
Use Case Title	Populate Movies
Actor(s)	Moderator
Summary	Actors update the database with the pulled lists of movie data; These movie lists get updated on the movies page for Watchers
Assumption(s)	Actors wants to update the database with the updated movie data that was pulled from the server
Use Case Description	The use case begins when the actor successfully pulled the most recent movies data from the movie server. System will display the resulting list of movies on the movies page in the VIEW format. The use case will end when the actors click on the "Populate Movies" button after confirming that its content is in the right format and that the database was updated with the new list of movie details.
Pre-condition(s)	Actors have successfully pulled the movie data from the movie server and that the pulled content is in the right format as displayed on the VIEW table.
Success End Condition	Actors have populated the most recent movie data on the database; The newly populated movies are now available for displayed the movies page
Failed End Condition	The system displays an error; The new movie details were not updated on the database
Step(s)	<ol style="list-style-type: none"> <li>Actors click "Pulled Movies" button</li> <li>System displayed the resulting pulled data in the VIEW table format</li> <li>Actors verify the correctness of the pulled data</li> <li>If the data format corresponds to the requirements, then continue to the next step, otherwise return to step 1</li> <li>Actors clicked on the "Populate Movies" button</li> <li>System receives the request</li> <li>System redirects the actors to the homepage</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>System does not display the "Movie" button on the homepage</li> <li>The system is down for maintenance</li> <li>The "Populate Movies" button does not work and crashes the system</li> <li>The updates on the database fail</li> <li>System couldn't display the pulled dat on the VIEW table for verification</li> </ol>



Use Case ID	USR12
Use Case Title	Create Event
Actor(s)	Moderator
Summary	Actors create movie watching events for the intended group for specific date
Assumption(s)	Actors can only create one event for any group at any particular time; The voting event will begin the moment the event is created and the voting period will end two days before the initial specified scheduled movie watching date
Use Case Description	The use case begins when the actor logged into the system homepage. Actors clicked on the "Event" button, which redirects the actors to the events page. Actors click on the "Create Event" button. Actors would select the group that the event should be created for. Actors will select the date of the movie. The use case will end when the actors click on the "Create Event" button and the system creates the event for the intended group.
Pre-condition(s)	Actors know in advance the date that which the group members are all available to watch the movie together; Actors have previously updated the movies data on the database; The movies page displays the updated movie information The database contains at least 1 group
Success End Condition	Actors have created movie watching event for the intended group; The group members of the intended group will be allowed to vote for the event
Failed End Condition	The system displays an error; The movie event was not created for the intended group
Step(s)	<ol style="list-style-type: none"> <li>Actors click on the "Event" button on the homepage</li> <li>System receives the request</li> <li>System displays the events page</li> <li>Actors click on the "Create Event" button</li> <li>System receives the request</li> <li>System displays the create event page</li> <li>Actors input the event name</li> <li>Actors select the group to which the event will be created for</li> <li>Actors input the movie watching date</li> <li>Actors click on the "Create Event" button</li> <li>System receives the inputted information</li> <li>System verifies if the inputted information meets the requirement for creating the event</li> <li>If the information are met the standard of "Create Event", then proceed to the next step, otherwise returns to step 6</li> <li>System redirects the actors to the events page</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>System does not display the "Event" button on the homepage</li> <li>The "Create Event" button does not work and crashes the system</li> <li>The inputted information does not meet the requirement for creating event</li> <li>The inputted date has already past</li> <li>The group has already have 1 event created in the same period of time</li> </ol>



Use Case ID	USR13
Use Case Title	Join Group
Actor(s)	Watchers
Summary	Actors accept the invitation to join a group and become members of that group
Assumption(s)	Actors want to be part of the assigned group.
Use Case Description	The use case begins when the actor logged into their email after receiving the notification about the group invitation. Actors will navigate to the email and click the link that was inside the email, which will direct them to the system homepage. Actors will choose the "Accept" button beside the group under notification. The use case will end when the actors are redirected to the group page and the group that the actors are being assigned to are displayed there.
Pre-condition(s)	Actors were invited to join a group that was assigned by the Moderator; Actors were notified of the activity;
Success End Condition	New group members are added to the group; Members that were newly added to the group also gain access to the events
Failed End Condition	Actors are not able to become members of the group
Step(s)	<p>1. Actors receive notification about the group invitation      2. Actors access the email and click on the link that redirects the actors to the system homepage      3. Actors logged into the system homepage</p> <p><b>Method 1)</b></p> <p>4. Actors click on the "Accept" button beside the group invitation from the intended group under the notification section      5. System receives the request      6. System updates the group information on the database      7. System displays the group information page</p> <p><b>Method 2)</b></p> <p>8. Actors click on the "Group" button on the homepage      9. System receives the request      10. System displays the groups page      11. Actors click on the "Accept" button beside the group invitation from the intended group      12. System receives the request      13. System updates the group information on the database      14. System redirects the actors to the group information page</p>
Exception(s)	<p>1. System does not display the "Group" button on the homepage      2. System does not display the notification of the group invitation      3. The group invitation email was not delivered to the actors      4. Actors do not wish to accept the group invitation.      5. System does not display the join group button on the homepage for users      6. The updates on the system fail</p>



Use Case ID	USR14
Use Case Title	Unsubscribe Group
Actor(s)	Watchers
Summary	Actors leave and lose access to their current group
Assumption(s)	Actors decides to leave their current group
Use Case Description	The use case begins when the actor logged into the system homepage. Actors click on the "Group" button, which redirects the actors to the groups page. The use case will end when the actors click on the "Unsubscribe Group" button beside the intended group.
Pre-condition(s)	Actors are part of the intended group
Success End Condition	Actors have exited from their group; The group updates the database and removes the access for that actors
Failed End Condition	Actors are not able to exit from the intended group
Step(s)	<ol style="list-style-type: none"> <li>Actors click on the "Group" button on the system homepage</li> <li>System receives the request</li> <li>System displays the the groups page</li> <li>Actors click on the "Unsubscribe Group" button beside the intended group</li> <li>System receives the request</li> <li>System displays the "Unsubscribe Group Confirmation" pop-up</li> <li>Actors click on the "Yes" button to confirm the unsubscription</li> <li>System updates the groups information on the database</li> <li>System redirects the actors to the groups page</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>System does not display the "Group" button on the homepage</li> <li>System does not display the "Unsubscribe Group" button</li> <li>System does not display the "Unsubscribe Group Confirmation" pop-up</li> <li>The updates on the system fail</li> </ol>



Use Case ID	USR15
Use Case Title	Search Movies
Actor(s)	Watchers
Summary	Actors search for the movies on the movies page
Assumption(s)	Actors wants to know more about the movies on the movies page
Use Case Description	The use case begins when the actor logged into the system homepage. Actors click on the "Movie" button, which redirects the actors to the movies page. Actors will input the movie name that they are looking for into the search box. Actors click on the "Search movies" icon beside the search box. The use case will end when the system displays the results of the search on the movies page.
Pre-condition(s)	Actors are logged into the system as Watchers; There has to be a list of movies available in the system database
Success End Condition	Actors utilize the search function to search for the movies of their choice; The system displays the results of the search on the movies page
Failed End Condition	Actors are not able to utilize the search function to filter from the list of movies; The movies page does not filters according to the search terms
Step(s)	<ol style="list-style-type: none"> <li>Actors click on the "Movie" button on the system homepage</li> <li>System receives the request</li> <li>System displays the movies page</li> <li>Actors input the name of the movie of interests into the search box</li> <li>Actors click on the "Search Movies" icon</li> <li>System receives the request</li> <li>System filters the list of movies on display according based on the searched term</li> <li>If the searched term matches the movie in the movies list, the movies with the associated name will be shown on display on the movies page</li> <li>If the searched term does not contain a match, the movies page will display an empty movie page</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>System does not display the "Movie" button on the homepage</li> <li>System does not display the "Search Movies" icon</li> <li>System does not display the search box</li> <li>The filtering function does not work on the list of movies</li> <li>The search box is empty</li> <li>Actors misspelled the movie name</li> </ol>



Use Case ID	USR16
Use Case Title	Watch Trailer
Actor(s)	Watchers
Summary	Actors access the link which redirects them to external page that contains the trailer of the intended movie
Assumption(s)	Actors wants to get access to the external site that contains the movie trailers of the intended movies
Use Case Description	The use case begins when the actors search for the movie on the movies page. The system displays the results of the search on the movies page. The use case will end when the actors click on the link beside the word "Trailers" and get redirected to the external link.
Pre-condition(s)	Actors searched for the movie on the movies page; There has to be a list of movies available in the system database; The trailer link must be functioning
Success End Condition	Actors get redirected to the website that contains the trailer for the searched movie
Failed End Condition	Actors are not able to access the movie trailer through the movie trailer link
Step(s)	<ol style="list-style-type: none"> <li>Actors searched the movies on the movies page</li> <li>System displays the result of the search on the movie page</li> <li>Actors click on the link next to the word "Trailer"</li> <li>System redirects the actors to the website with URL that matches the link</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>System does not display any movies on the movies page</li> <li>The searched movies information are not available</li> <li>The link is broken and doesn't redirect the actors to the appropriate movie trailer website</li> </ol>



Use Case ID	USR17
Use Case Title	Read Reviews
Actor(s)	Watchers
Summary	Actors access the link which redirects them to external page that contains the reviews of the intended movie
Assumption(s)	Actors wants to get access to the external site that contains the movie reviews of the intended movies
Use Case Description	The use case begins when the actors search for the movie on the movies page. The system displays the results of the search on the movies page. The use case will end when the actors click on the link beside the word "Reviews" and get redirected to the external link.
Pre-condition(s)	Actors searched for the movie on the movies page; There has to be a list of movies available in the system database; The review link must be functioning
Success End Condition	Actors get redirected to the website that contains the reviews for the searched movie
Failed End Condition	Actors are not able to access the movie reviews through the movie reviews link
Step(s)	<ol style="list-style-type: none"> <li>Actors searched the movies on the movies page</li> <li>System displays the result of the search on the movie page</li> <li>Actors click on the link next to the word "Review"</li> <li>System redirects the actors to the website with URL that matches the link</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>System does not display any movies on the movies page</li> <li>The searched movies information are not available</li> <li>The link is broken and doesn't redirect the actors to the appropriate movie reviews website</li> </ol>



Use Case ID	USR18
Use Case Title	Vote Event
Actor(s)	Watchers
Summary	Actors cast their votes for the movie of their interest for an event on specific date created by Moderator for their group within the valid voting period
Assumption(s)	Actors have their preferences for the movies that they want to watch; The group has agreed to watch movies regularly on the same date and time; The group members will be given 1 vote each to vote on the available movies; The voting event hasn't been over
Use Case Description	The use case begins when the actors logged into the system homepage. Actors click on the "Vote" button beside the event name under the notification section, which redirects the actors to the vote event page. Actors will select the movie of interest. The use case will end when the actors click on the "Vote" button.
Pre-condition(s)	Actors received notification about the movie voting event; There has to be a list of movies available in the system database; The voting period hasn't passed
Success End Condition	Actors cast their votes on the movie of interest for the event; The event updates their votes on the system for determining the winner
Failed End Condition	Actors are not able to cast their vote
Step(s)	<ol style="list-style-type: none"> <li>Actors are logged on to the system homepage</li> <li>Actors click on the "Vote" button next to the vote event</li> <li>System receives the request</li> <li>System displays the vote event page</li> <li>Actors select the movie of interest</li> <li>Actors click on the "Vote" button</li> <li>System receives the information</li> <li>System updates the information on the database for the event</li> <li>System redirects the actors to the system homepage with the vote button in another color that differentiating it from the vote button of the event that hasn't been voted</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>System does not display any notifications on the system homepage page</li> <li>The "Vote" button does not function properly</li> <li>The updates of the database fail</li> <li>System does not display the "Vote" button for the vote event</li> <li>There are no movies available to vote</li> </ol>



Use Case ID	USR19
Use Case Title	Modify Vote
Actor(s)	Watchers
Summary	Actors recast their votes for the movie of their interest on their previously casted votes within the valid voting period
Assumption(s)	Actors have their preferences for the movies that they want to watch; Actors have made a mistake for casting the previously casted vote; The old voting result for that particular event will be invalid.
Use Case Description	The use case begins when the actors logged into the system homepage. Actors click on the "Vote" button with colors (one that refers to the vote that was already been cast) beside the event name under the notification section, which redirects the actors to the vote event page. Actors will select the movie of interest. The use case will end when the actors click on the "Vote" button.
Pre-condition(s)	Actors have previously casted votes for the event; There has to be a list of movies available in the system database; The voting period hasn't passed
Success End Condition	Actors recast their most recent votes; The event updates their votes on the system for determining the winner
Failed End Condition	Actors are not able to recast their vote; The previously voted result remain unchanged on the database
Step(s)	<ol style="list-style-type: none"> <li>Actors are logged on to the system homepage</li> <li>Actors click on the "Vote" button next to the previously voted event</li> <li>System receives the request</li> <li>System displays the vote event page</li> <li>Actors select the movie of interest</li> <li>Actors click on the "Vote" button</li> <li>System updates the information on the database for the event</li> <li>System redirects the actors to the system homepage with the vote button in the color that refers to voted</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>System does not display any notifications on the system homepage page</li> <li>The "Vote" button does not function properly</li> <li>The updates of the database fail</li> <li>System does not display the "Vote" button for the vote event</li> <li>There are no movies available for voting</li> </ol>



# Bi-Directional Traceability Matrix

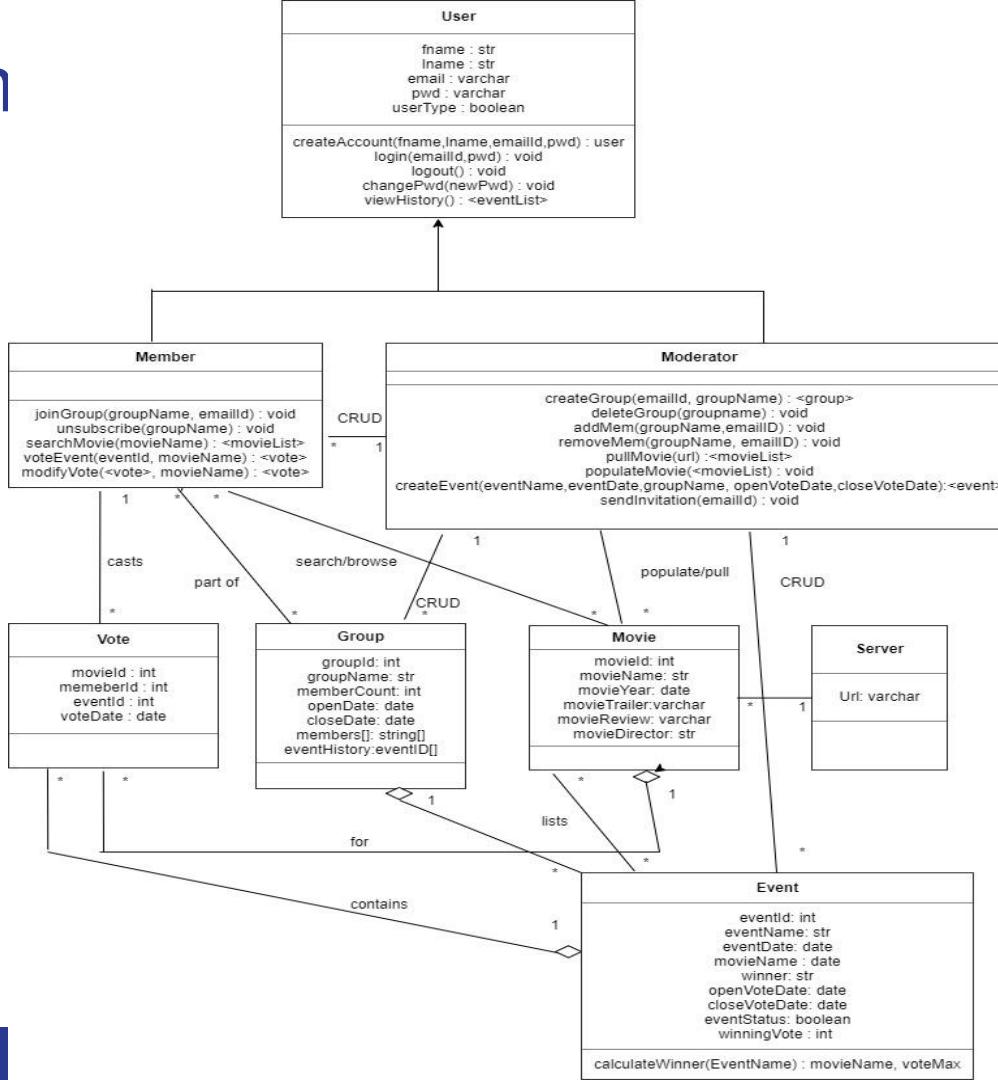
Requirements	Req1	Req2	Req3	Req4	Req5	Req6	Req7	Req8	Req9	Req10	Req11	Req12	Req13	Req14	Req15	Req16	Req17	Req18	Req19
Use Cases	Total																		
Use Case 1	1 X																		
Use Case 2	1	X																	
Use Case 3	1		X																
Use Case 4	1			X															
Use Case 5	1				X														
Use Case 6	1					X													
Use Case 7	1						X												
Use Case 8	1							X											
Use Case 9	1								X										
Use Case 10	1									X									
Use Case 11	2										X	X							
Use Case 12	1												X						
Use Case 13	1													X					
Use Case 14	1														X				
Use Case 15	1															X			
Use Case 16	2																X	X	
Use Case 17	2																	X	
Use Case 18	1																		X
Use Case 19	2																		X X

## Serial Number Required Features

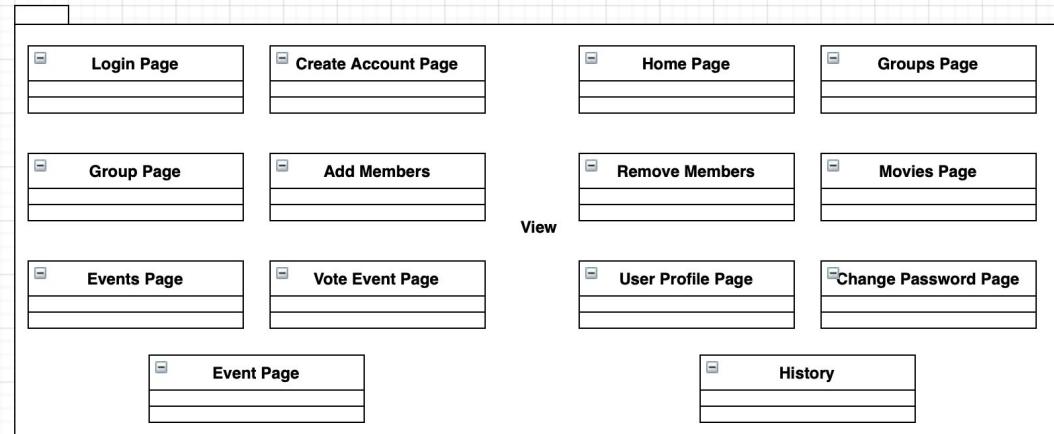
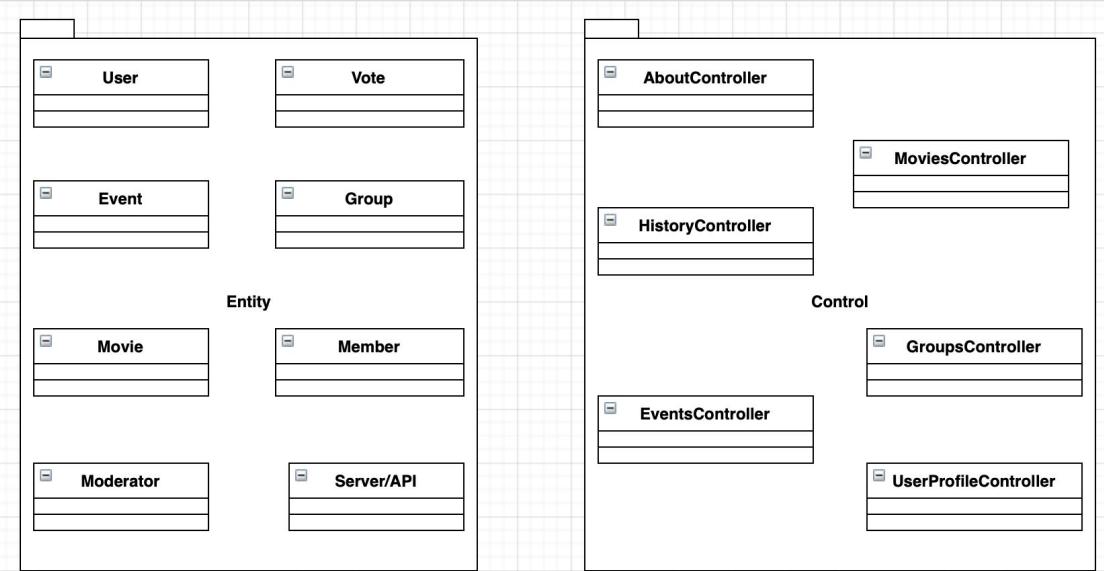
- 1 The system allows all users to create an account.
- 2 The system allows all users to login.
- 3 The system allows all users to logout.
- 4 The system allows all users to change their password.
- 5 The system allows all the users to view the history.
- 6 The system allows the moderator to create a movie watcher's group.
- 7 The system allows the moderator to delete a movie watcher's group.
- 8 The system allows the moderator to add a new member to the group.
- 9 The system allows to remove a pre-existing member from the group.
- 10 The system allows the moderator to pull movies from an External API server.
- 11 The system allows the moderator to populate movies into the database.
- 12 The system allows the moderator to create a movie watching event.
- 13 The system allows the members to join the movie watcher's group.
- 14 The system allows the members to unsubscribe from the movie watcher's group.
- 15 The system allows the members to search for the movies.
- 16 The system allows the members to follow the link to watch the trailer of the movies.
- 17 The system allows the members to follow the link to read the reviews of the movies.
- 18 The system allows the members to cast their vote for a movie.
- 19 The system allows the member to modify their vote.

Serial No.	Use Cases
1	Create Account
2	Login
3	Logout
4	Change Password
5	View History
6	Create Group
7	Delete Group
8	Add Member
9	Remove Member
10	Pull Movies
11	Populate Movies
12	Create Event
13	Join Group
14	Unsubscribe Group
15	Search Movies
16	Watch Trailers
17	Read Reviews
18	Vote Event
19	Modify Vote

# Class Diagram

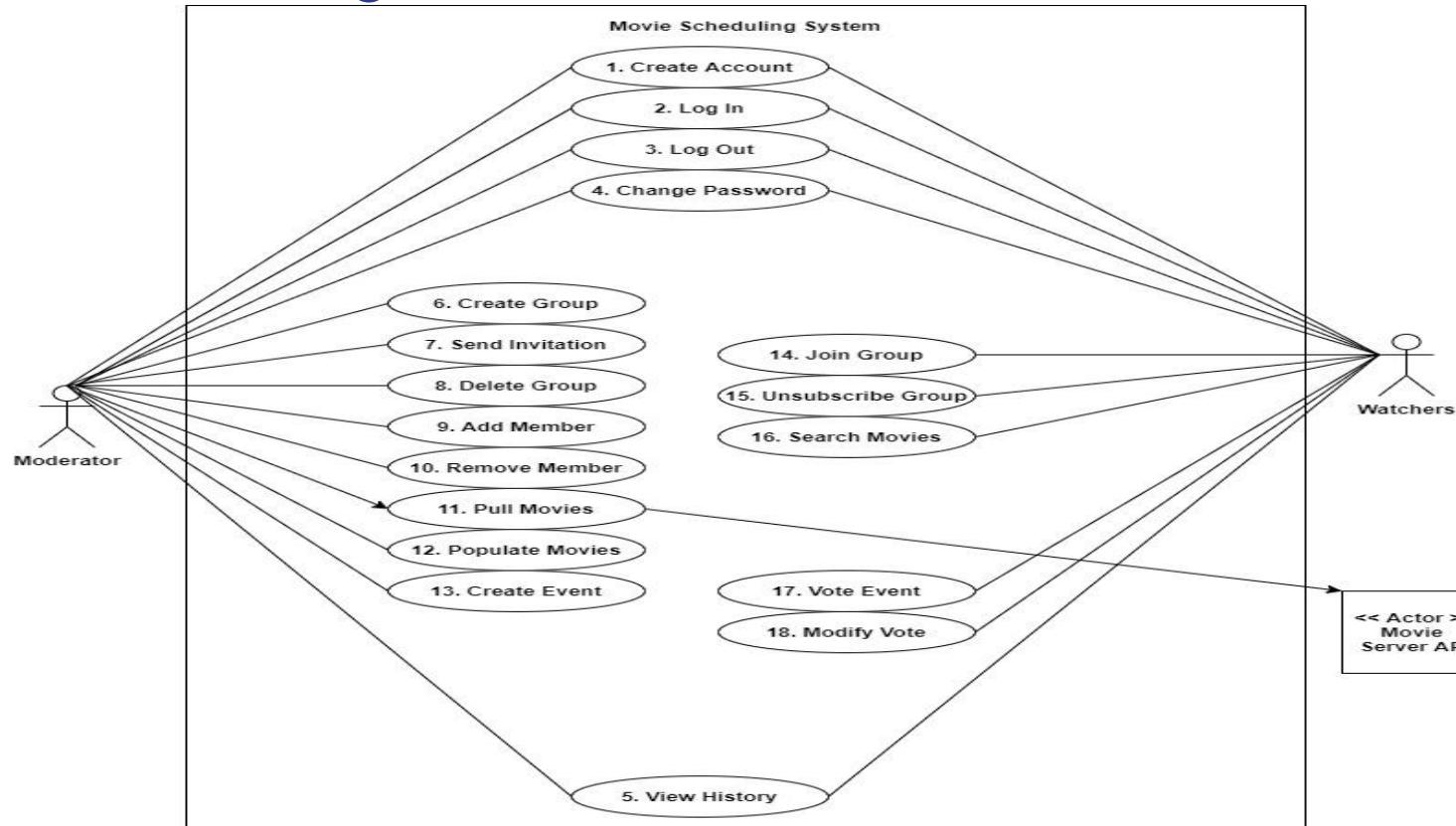


# UML Package Diagram



# Assignment 3

# Use Case Diagram



UID	1
Title	Create Account
Actor(s)	Moderator; Watchers
Summary	Actors create accounts for themselves in the system.
Assumption(s)	“Create Account” can only be done once; Moderators will have more privileges than Watchers.
Precondition(s)	Actors have access to the internet via any device.
Description	The use case begins when the actor navigated to the homepage of the system via the correct URL on the internet. Both actors will choose “Create Account” by providing their credentials. The use case will end when they are able to successfully hit the “Create Account” button.
Step(s)	<ol style="list-style-type: none"> <li>1. Actors access the homepage of the system via the correct URL on the internet.</li>   <li>2. Actors click on the “Create Account” button.</li>   <li>3. Actors input their credentials needed to create the account.</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>1. Actors are not able to access the internet.</li>   <li>2. The “Create Account” button does not work and crashes the system.</li>   <li>3. The system is down for maintenance.</li> </ol>
Success End Condition	Actors have created their account and can log in as users of the system.
Failed End Condition	Actors are not able to create their account.

<b>UID</b>	2
<b>Title</b>	<b>Log in</b>
<b>Actor(s)</b>	Moderator; Watchers
<b>Summary</b>	Actors log into the system using their account.
<b>Assumption(s)</b>	Actors have created accounts and can use those credentials to log in.
<b>Precondition(s)</b>	Actors have created their account in the system.
<b>Description</b>	The use case begins when the actor navigated to the homepage of the system via the correct URL on the internet. Both actors will choose “Log In” by inputting their credentials. The use case will end when they are able to log in to the system and enter the main homepage of the system.
<b>Step(s)</b>	<ol style="list-style-type: none"> <li>1. Actors access the homepage of the system via the correct URL on the internet.</li> <li>2. Actors click on “Log In” button.</li> <li>3. Actors input their credentials needed to log in to the system.</li> <li>4. Actors click on “Log In” button.</li> </ol>
<b>Exception(s)</b>	<ol style="list-style-type: none"> <li>1. Actors are not able to access the internet.</li> <li>2. Actor's accounts are removed from the system.</li> <li>3. The “Log In” button does not work and crashes the system.</li> <li>4. The system is down for maintenance.</li> </ol>
<b>Success End Condition</b>	Actors have logged into the system and gained access to user's specific functionalities.
<b>Failed End Condition</b>	Actors are not able to log into the system.

UID	3
Title	Log out
Actor(s)	Moderator; Watchers
Summary	Actors log out from the system.
Assumption(s)	Actors chose to exit from the system.
Precondition(s)	Actors have logged into the system homepage.
Description	The use case begins when the actor navigated to the “User Profile” button on the homepage of the system. The use case will end when actors select the “Log Out” button.
Step(s)	<ol style="list-style-type: none"> <li>1. Actors navigated to the “User Profile” button on the homepage.</li>   <li>2. Actors click on “Log Out” button.</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>1. The “Log Out” button does not work and crashes the system.</li> </ol>
Success End Condition	Actors have logged out from the system.
Failed End Condition	Actors are not able to log out from the system.

<b>UID</b>	<b>4</b>
<b>Title</b>	<b>Change Password</b>
<b>Actor(s)</b>	<b>Moderator; Watchers</b>
<b>Summary</b>	<b>Actors change their login credentials of the system.</b>
<b>Assumption(s)</b>	<b>Actors have created their account and remember those credentials needed to log in.</b>
<b>Precondition(s)</b>	<b>Actors have logged into their account on the system.</b>
<b>Description</b>	<b>The use case begins when the actor logged into their account on the system. Both actors will choose “User Profile”, select “Change Password”, and input their new password. The use case will end when they receive notification that they have successfully modified their password.</b>
<b>Step(s)</b>	<ol style="list-style-type: none"> <li>1. Actors logged into the system homepage.</li> <li>2. Actors click on the “Change Password” under the “User Profile” tab.</li> <li>3. Actors input the new password and click “Change”.</li> <li>4. Actors receive notification of the modified password change.</li> </ol>
<b>Exception(s)</b>	<ol style="list-style-type: none"> <li>1. Actors are not able to access their account on the system.</li> <li>2. Actors are not able to verify their identity needed to change the password.</li> <li>3. The database does not grant access to change data on the system.</li> <li>4. The system is down for maintenance.</li> </ol>
<b>Success End Condition</b>	<b>Actors have changed their password for their account.</b>
<b>Failed End Condition</b>	<b>Actors are not able to create new passwords for their account.</b>

UID	5
Title	View History
Actor(s)	Moderator; Watchers
Summary	Actors viewed the list containing results from past events.
Assumption(s)	Actors decided to view the results from all the past events that users were in.
Precondition(s)	Actors have logged into their account on the system.
Description	The use case begins when the actors logged into their account on the system. The use case will end when they navigate to the “View History” under the “Event” tab on the homepage.
Step(s)	<ol style="list-style-type: none"> <li>1. Actors logged into the system homepage.</li>   <li>2. Actors click on the “View History” under the “Event” tab.</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>1. The system is down for maintenance.</li> </ol>
Success End Condition	Actors have accessed the content of the “History” page.
Failed End Condition	Actors are not able to access the “History” page from the “View History” tab..

UID	6
Title	Create Group
Actor(s)	Moderator
Summary	Actors create group(s) for interested watchers.
Assumption(s)	Moderator selects the emails of actors who are interested to be part of the group and sends them the invitation to join the group.
Precondition(s)	Moderators have a list of users who are interested to be part of a group.
Description	The use case begins when the actor logged into the system homepage. Actors will navigate and click the “Create Group” button under the “Group” tab. Actors will input the “Group Name” as well as select all the interested watchers. The use case will end when the “Create Group” button is clicked.
Step(s)	<ol style="list-style-type: none"> <li>1. Actors logged into the system homepage.</li> <li>2. Actors select the “Create Group” button under the “Group” tab.</li> <li>3. Actors input the unique “Group Name” for the group.</li> <li>4. Actors select the interested watchers who want to be in the same group.</li> <li>5. Actors click on the “Create Group” button to create a group.</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>1. No watcher(s) are selected when creating the group.</li> <li>2. No unique name was used during the creation of the group.</li> <li>3. System does not display the create group button.</li> </ol>
Success End Condition	Moderator has successfully clicked on the “Create Group” button on the “Create Group” page.
Failed End Condition	Moderator wasn't successful in creating a group.

UID	7
Title	Send Invitation
Actor(s)	Moderator
Summary	Actors sent invitations to interested watchers to join the newly created group.
Assumption(s)	When watchers are selected during the group creation process, their workable emails are included into the emails that will be sent to them to ask them to join the group.
Precondition(s)	Moderator has input the “Group Name”, selected watchers during the group creation, and click “Create Group”.
Description	The use case begins when the actor input the “Group Name” and selected all the watchers to be part of the group. The use case will end when the “Create Group” button is clicked and the invitation emails were sent to the watchers.
Step(s)	<ol style="list-style-type: none"> <li>1. Actors input the “Group Name” and select the watchers on “Create Group”.</li>   <li>2. Actors click the “Create Group” button.</li>   <li>3. System includes the emails of the watchers into the invitation emails that were sent to the watchers to join the group.</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>1. The watcher emails in the system are incorrect, so the emails were not sent successfully to the watchers.</li>   <li>4. System does not display the create group button.</li> </ol>
Success End Condition	System successfully sent the group invitations to all the watchers through the emails that were registered in the system.
Failed End Condition	The emails sent weren't received by the intended watchers.

UID	8
Title	Delete Group
Actor(s)	Moderator
Summary	Actors delete the intended group.
Assumption(s)	Moderator decides to remove the intended group from the system.
Precondition(s)	Moderator has previously created group(s) and decided to remove the group(s).
Description	The use case begins when the actor logged into the system homepage. Actors will navigate and click the “Delete Group” button under the “Group” tab. The use case will end when the “Delete Group” button for the intended group.
Step(s)	<ol style="list-style-type: none"> <li>1. Actors logged into the system homepage.</li> <li>2. Actors select the “Delete Group” button under the “Group” tab.</li> <li>3. Actors select the group(s) that need to be deleted.</li> <li>4. Actors click on “Delete Group”.</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>1. System does not display the delete group button on the homepage</li> </ol>
Success End Condition	Moderator has successfully deleted the group(s) from the system.
Failed End Condition	Moderator did not successfully remove the group from the system.

UID	9
Title	Add Member
Actor(s)	Moderator
Summary	Actors add new members to the intended group.
Assumption(s)	There is a list of members who want to be part of the previously created group.
Precondition(s)	Moderator has previously created group(s). There is a list of watchers in the system who want to be part of the previously created group(s).
Description	The use case begins when the actor logged into the system homepage. Actors will navigate and click the “Add Member” button under the “Group” tab. Actors will select the group that new members should be added to. Actors will select the interested watchers that will be added to the group. The use case will end when the “Add Member” button is clicked for the intended group.
Step(s)	<ol style="list-style-type: none"> <li>1. Actors logged into the system homepage.</li> <li>2. Actors select the “Add Member” button under the “Group” tab.</li> <li>3. Actors select the group(s) that new members will be added to.</li> <li>4. Actors select the members that shall be added to the new group.</li> <li>5. Actors click on the “Add Member” button.</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>1. System does not display the add member button on the homepage.</li> </ol>
Success End Condition	Moderator has successfully added new members to the group.
Failed End Condition	Moderator did not successfully add new member(s) to the group.

UID	10
Title	Remove Member
Actor(s)	Moderator
Summary	Actors remove new members from the intended group.
Assumption(s)	There is a list of members who want to be removed from the previously created group.
Precondition(s)	Moderator has previously created group(s). There is a list of members in the previously created group who want to be removed from the group.
Description	The use case begins when the actor logged into the system homepage. Actors will navigate and click the “Remove Member” button under the “Group” tab. Actors will select the group that old members should be removed. Actors will select the members that will be removed from the group. The use case will end when the “Remove Member” button is clicked for the intended group.
Step(s)	<ol style="list-style-type: none"> <li>1. Actors logged into the system homepage.</li> <li>2. Actors select the “Remove Member” button under the “Group” tab.</li> <li>3. Actors select the group(s) that old members will be removed from.</li> <li>4. Actors select the old members that shall be removed from the old group.</li> <li>5. Actors click on the “Remove Member” button.</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>1. System does not display the remove member button on the homepage.</li> </ol>
Success End Condition	Moderator has successfully removed old members from the group.
Failed End Condition	Moderator did not successfully remove old member(s) from the group.

UID	11
Title	Pull Movies
Actor(s)	Moderator
Summary	Actors pull lists of movies (and its associated information, like trailer links and review links) from the intended movie server API.
Assumption(s)	There is a server that contains the lists of movies and its associated information that we want to be downloaded into our database.
Precondition(s)	Moderator has access to the movie server that contains the aforementioned movie information.
Description	The use case begins when the actor logged into the system homepage. Actors will navigate and click the “Pull Movies” button under the “Movie” tab. The use case will end when the system displays the list of movies and its associated information that were pulled from the associated server.
Step(s)	<ol style="list-style-type: none"> <li>1. Actors logged into the system homepage.</li> <li>2. Actors select the “Pull Movies” button under the “Movie” tab.</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>1. System does not display the “Pull Movies” button on the homepage.</li> <li>2. The server doesn't grant access to the list of movies and its associated information.</li> </ol>
Success End Condition	Moderator has successfully retrieved the movies and its associated information. The system displays the resulting list of movies and its information on the “Pull Movies” page.
Failed End Condition	Moderator did not successfully retrieve the movie data. The system doesn't display the movie details on the “Pull Movies” page.

UID	12
Title	Populate Movies
Actor(s)	Moderator
Summary	Actors update the database with the pulled lists of movies (and its associated information, like trailer links and review links) and the movie lists get updated on the “Movie” tab.
Assumption(s)	Actors want to update the database with the updated list of movies that were on the server.
Precondition(s)	Moderator has successfully pulled the movie data from the movie server and they are in the right format as displayed on the “Pull Movies” page.
Description	The use case begins when the actor clicked the “Pull Movies” button under the “Movie” tab. The new list of movie details are shown on the View table format. The use case will end when actors click on the “Populate Movies” and the system updates the database with the new lists of movie details.
Step(s)	<ol style="list-style-type: none"> <li>1. Actors select the “Pull Movies” button under the “Movie” tab..</li> <li>2. Actors observe and check that the lists of movie data on display are in correct format.</li> <li>3. Actors click on the “Populate Movies” button.</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>1. System does not display the “Populate Movies” button on the homepage.</li> <li>2. The database faced errors when updating its data with the new list of movie data.</li> </ol>
Success End Condition	Moderator has successfully populated the movie data on the database. The new list of movie details are now available <u>on</u> “Movie” page.
Failed End Condition	Moderator did not successfully populate the movie data on the database.

<b>UID</b>	13
<b>Title</b>	Create Event
<b>Actor(s)</b>	Moderator
<b>Summary</b>	Actors create movie watching events for the group with specific dates.
<b>Assumption(s)</b>	Actors can only create one event for any group at any particular time. The voting event will begin the moment the event is created and the voting period will end two days before the actual schedule movie watching date that was specified initially.
<b>Precondition(s)</b>	Moderator has a list of movies pulled from the movie server uploaded into the database. Moderator knows when the intended group wants to watch the movie.
<b>Description</b>	The use case begins when the actor clicked the “Create Event” button under the “Event” tab. Actors select the group that the event should be created for. Actors will input the movie watching date. The use case will end when actors click on the “Create Event” and the system creates the event for the intended group.
<b>Step(s)</b>	<ol style="list-style-type: none"> <li>1. Actors select the “Create Event” button under the “Event” tab.</li> <li>2. Actors select the group that the event shall be created for.</li> <li>3. Actors input the movie watching date.</li> <li>4. Actors click on the “Create Event”.</li> </ol>
<b>Exception(s)</b>	<ol style="list-style-type: none"> <li>1. System does not display the “Create Event” button on the homepage.</li> <li>2. The system does not display the group for creating events.</li> </ol>
<b>Success End Condition</b>	Moderator has successfully created the movie watching event for the intended group with specified movie watching event date.
<b>Failed End Condition</b>	Moderator did not successfully create the movie watching event.

<b>UID</b>	14
<b>Title</b>	Join Group
<b>Actor(s)</b>	Watchers
<b>Summary</b>	Actors accept the invitation to join a group and become members of that group.
<b>Assumption(s)</b>	Actors want to be part of the group.
<b>Precondition(s)</b>	Actors have received the invitation and accessed their email.
<b>Description</b>	The use case begins when the actor logged into their email after receiving the notification about the group invitation. Actors will navigate to the email and choose the “Accept” button that will direct them to the system homepage. The use case will end when they logged into the system and accepted the invitation.
<b>Step(s)</b>	<ol style="list-style-type: none"> <li>1. Actors navigated to the group invitation email after receiving notification.</li> <li>2. Actors select “Accept” on the email and get directed to the homepage.</li> <li>3. Actors select “Join Group” on the homepage.</li> </ol>
<b>Exception(s)</b>	<p>Actors do not wish to accept the group invitation.</p> <p>System does not display the join group button on the homepage for users.</p>
<b>Success End Condition</b>	Actors have become members of the group, and can access functions in group.
<b>Failed End Condition</b>	Actors are not able to become members of the group.

UID	15
Title	Unsubscribe Group
Actor(s)	Watchers
Summary	Actors leave their current group and lose access to functions in their group.
Assumption(s)	Actors decide to leave their current group.
Precondition(s)	Actors are a part of at least one group.
Description	The use case begins when the actor access the “Groups” page from the homepage. The use case will end when actors choose “Unsubscribe Group” from the group that they want to unsubscribe from.
Step(s)	<ol style="list-style-type: none"> <li>Actors navigated to the “Groups” page on the system homescreen.</li> <li>Actors select “unsubscribe” from the group that they want to unsubscribe.</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>System does not display the unsubscribe group button.</li> </ol>
Success End Condition	Actors have exited from their group, and lose access to functions in group.
Failed End Condition	Actors are not able to exit from their current group.

<b>UID</b>	16
<b>Title</b>	<b>Search movies</b>
<b>Actor(s)</b>	<b>Watchers</b>
<b>Summary</b>	Watchers can search for a movie for themselves in the system.
<b>Assumption(s)</b>	“Search Movie” can be used by watchers
<b>Precondition(s)</b>	1.They have to navigate to the system. 2.There has to be a list of movies available in the system
<b>Description</b>	The use case begins when the actor navigates to the movies page. Actors will navigate to the system by clicking on the movies page and then clicking on the “search movies” button. Actors type in the name of the movie they are looking for and hit enter. Actors see the movie page of the system with only the movie that was found on searching through the system database. The use case will end when they are able to successfully find the movie.
<b>Step(s)</b>	<ol style="list-style-type: none"> <li>1. The watchers navigate to search the movie page .</li> <li>2. They click on the search bar on the right hand corner of the screen</li> <li>3. The movie name along with the review links and trailer links appears on the the page</li> </ol>
<b>Exception(s)</b>	<ol style="list-style-type: none"> <li>1. The Actors misspell the movie name.</li> <li>2. The “Search Movie” button does not work and crashes the system.</li> </ol>
<b>Success End Condition</b>	Actors have exited from their group, and lose access to functions in group.
<b>Failed End Condition</b>	Actors are not able to exit from their current group.

UID	17
Title	Vote Event
Actor(s)	Watchers
Summary	Actors vote for the movie that is scheduled to watch with their current group.
Assumption(s)	Actors have preferences for the movies that they want to watch. The group has agreed to watch movies regularly on the same date and time. The group members will be given 1 vote each.
Precondition(s)	There is a list of movie data on the database. The group members received notification about the movie voting event.
Description	The use case begins when the actor receives notification about the created event. The actors will navigate to the "Vote Event" under the "Event" tab. The use case will end when the actors pick the movies that they want to watch and click "Vote" button.
Step(s)	<ol style="list-style-type: none"> <li>1. Actors navigated to the "Vote Event" after receiving notification.</li> <li>2. Actors select the movie that they want to watch.</li> <li>3. Actors select "Vote".</li> </ol>
Exception(s)	<ol style="list-style-type: none"> <li>1. The "Vote" button doesn't function properly.</li> <li>2. System does not display the "Vote Event" button on the homepage for users.</li> </ol>
Success End Condition	Actors have voted for the event.
Failed End Condition	Actors are not able to vote for the movie.

UID	18
Title	Modify Vote
Actor(s)	Watchers
Summary	Watchers can modify their vote during the "Vote period" which is created by the "Moderator" of the system.
Assumption(s)	"Modify Vote" can be used by Watchers to change their vote for a movie that they want to watch during the "Movie watching event". Watchers cannot modify their vote after the "Voting Period" has passed. The "Vote period" is created by the "Moderator".
Precondition(s)	The "Moderator" has created a "Vote period". There has to be a list of movies available in the system. There has to be at least one group in the system. Watchers must have already cast a vote for a movie.
Description	The use case is for watchers wishing to change their vote for the movie watching event.
Step(s)	<ol style="list-style-type: none"> <li>1. Watchers must click on the "Vote Period" option from the "Events" tab.</li> <li>2. Watchers update their vote by clicking on the new movie they want to watch during the movie watching event.</li> <li>3. The use case will end when the updated vote successfully recorded.</li> </ol>
Exception(s)	There are no movies in the list of movies available for vote
Success End Condition	System has allowed the actors to modify their vote for the movie watching event.
Failed End Condition	System has not allowed the actors to modify their vote for the movie watching event.

# Bi-Directional Traceability Matrix

# Bi-Directional Traceability Matrix

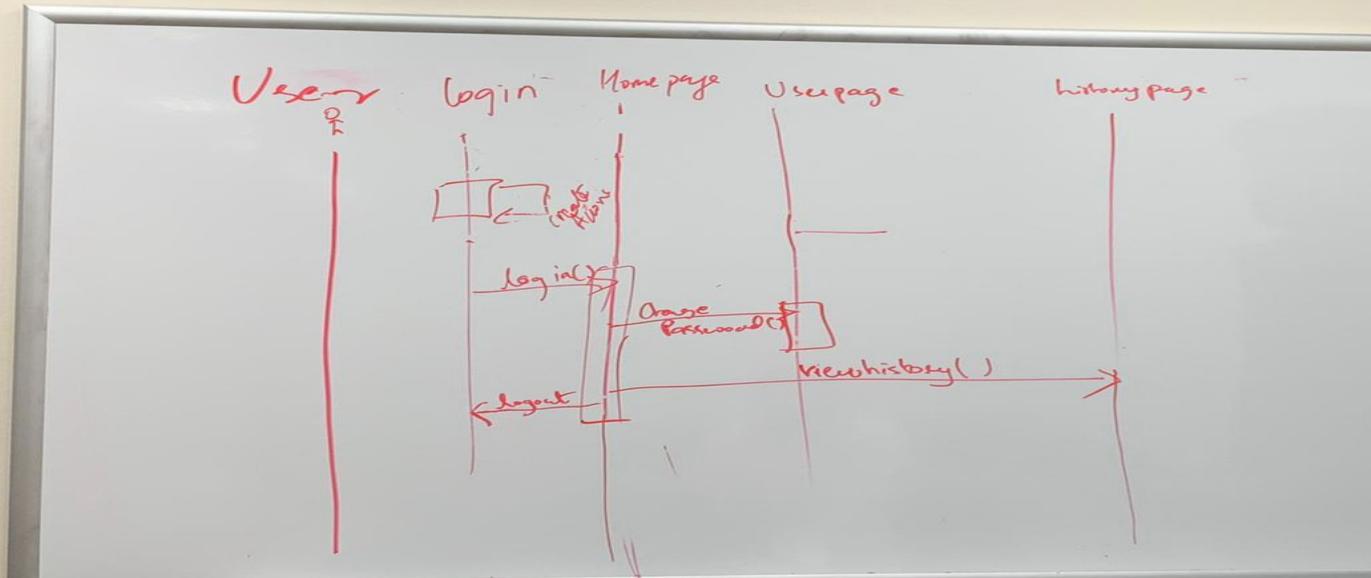
Requirements	Req1	Req2	Req3	Req4	Req5	Req6	Req7	Req8	Req9	Req10	Req11	Req12	Req13	Req14	Req15	Req16	Req17	Req18	Req19
Use Cases	Total																		
Use Case 1	1 X																		
Use Case 2	1	X																	
Use Case 3	1		X																
Use Case 4	1			X															
Use Case 5	1				X														
Use Case 6	1					X													
Use Case 7	1						X												
Use Case 8	1							X											
Use Case 9	1								X										
Use Case 10	1									X									
Use Case 11	2										X	X							
Use Case 12	1												X						
Use Case 13	1													X					
Use Case 14	1														X				
Use Case 15	1															X			
Use Case 16	2																X	X	
Use Case 17	2																	X	
Use Case 18	1																		X
Use Case 19	2																		X X

## Serial Number Required Features

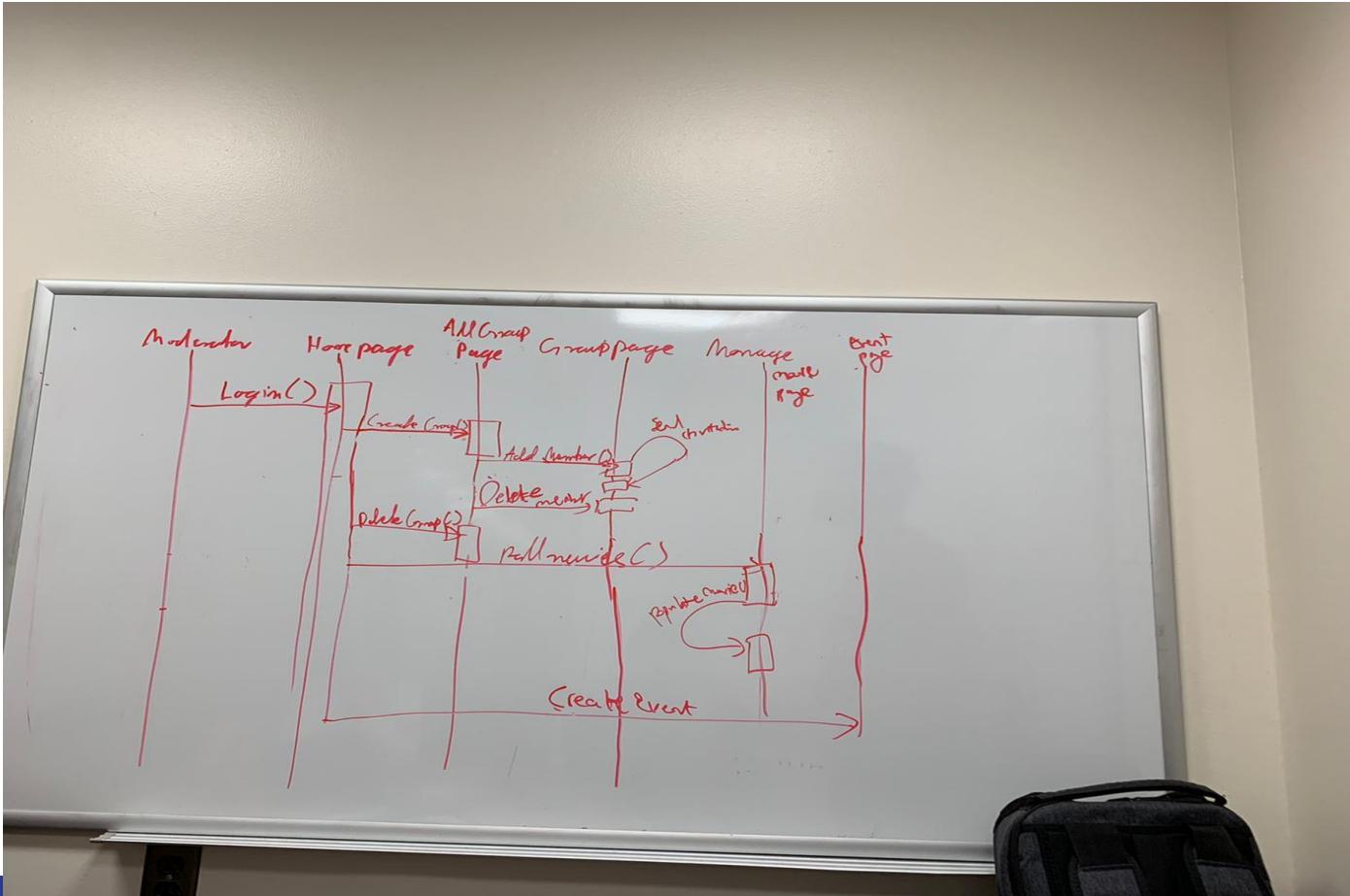
- 1 The system allows all users to create an account.
- 2 The system allows all users to login.
- 3 The system allows all users to logout.
- 4 The system allows all users to change their password.
- 5 The system allows all the users to view the history.
- 6 The system allows the moderator to create a movie watcher's group.
- 7 The system allows the moderator to delete a movie watcher's group.
- 8 The system allows the moderator to add a new member to the group.
- 9 The system allows to remove a pre-existing member from the group.
- 10 The system allows the moderator to pull movies from an External API server.
- 11 The system allows the moderator to populate movies into the database.
- 12 The system allows the moderator to create a movie watching event.
- 13 The system allows the members to join the movie watcher's group.
- 14 The system allows the members to unsubscribe from the movie watcher's group.
- 15 The system allows the members to search for the movies.
- 16 The system allows the members to follow the link to watch the trailer of the movies.
- 17 The system allows the members to follow the link to read the reviews of the movies.
- 18 The system allows the members to cast their vote for a movie.
- 19 The system allows the member to modify their vote.

Serial No.	Use Cases
1	Create Account
2	Login
3	Logout
4	Change Password
5	View History
6	Create Group
7	Delete Group
8	Add Member
9	Remove Member
10	Pull Movies
11	Populate Movies
12	Create Event
13	Join Group
14	Unsubscribe Group
15	Search Movies
16	Watch Trailers
17	Read Reviews
18	Vote Event
19	Modify Vote

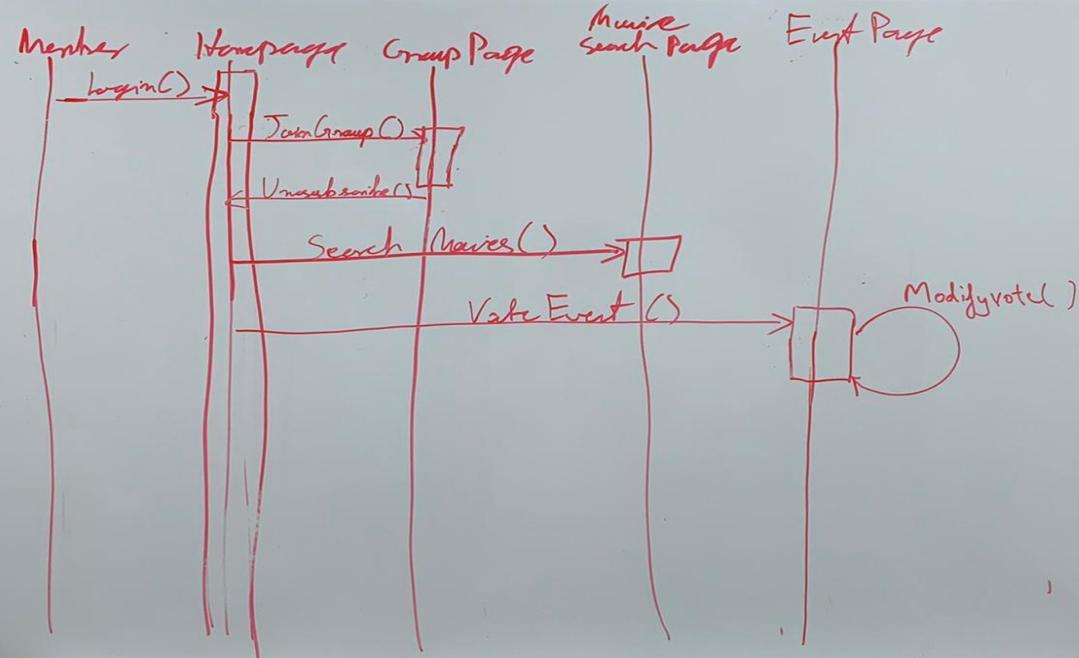
# Sequence Diagram (User)



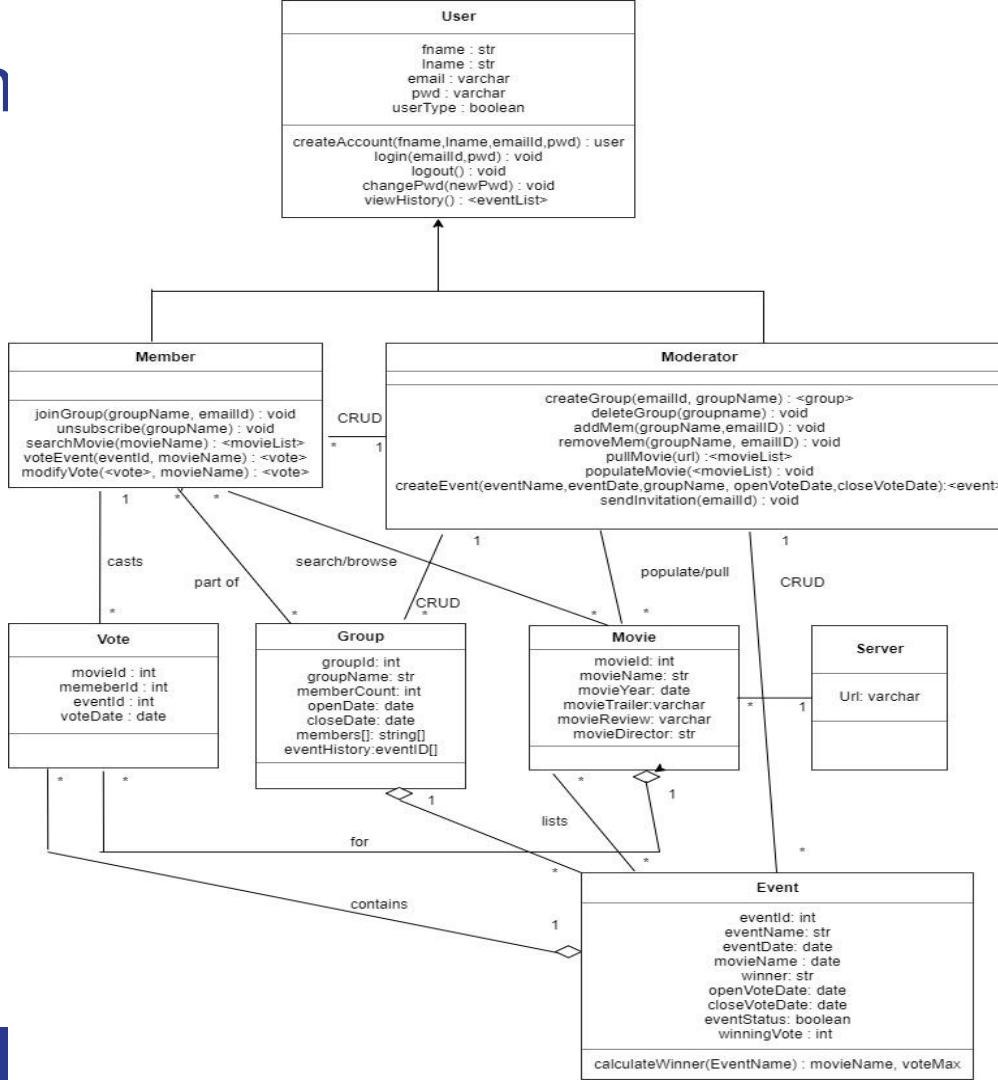
# Sequence Diagram (Moderator)



# Sequence Diagram (Watchers)



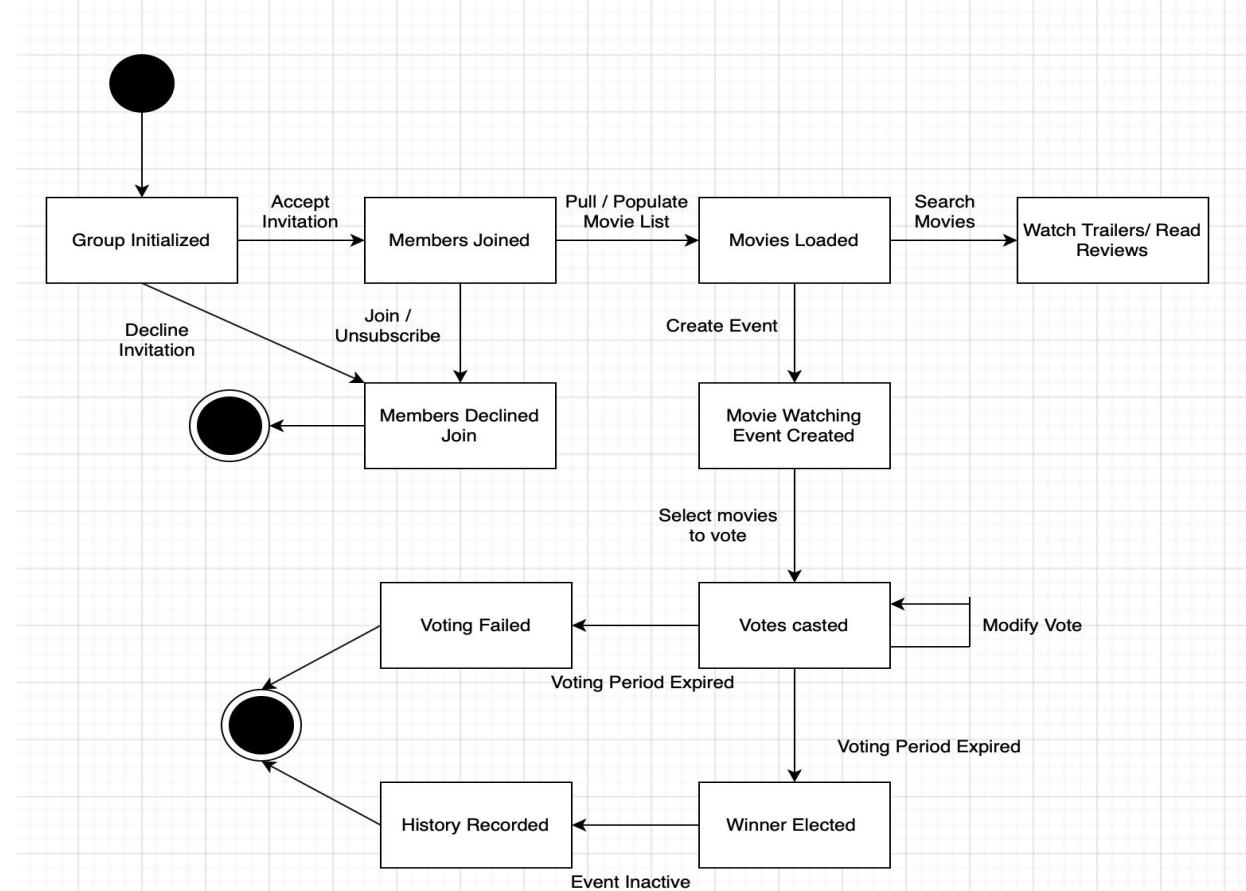
# Class Diagram



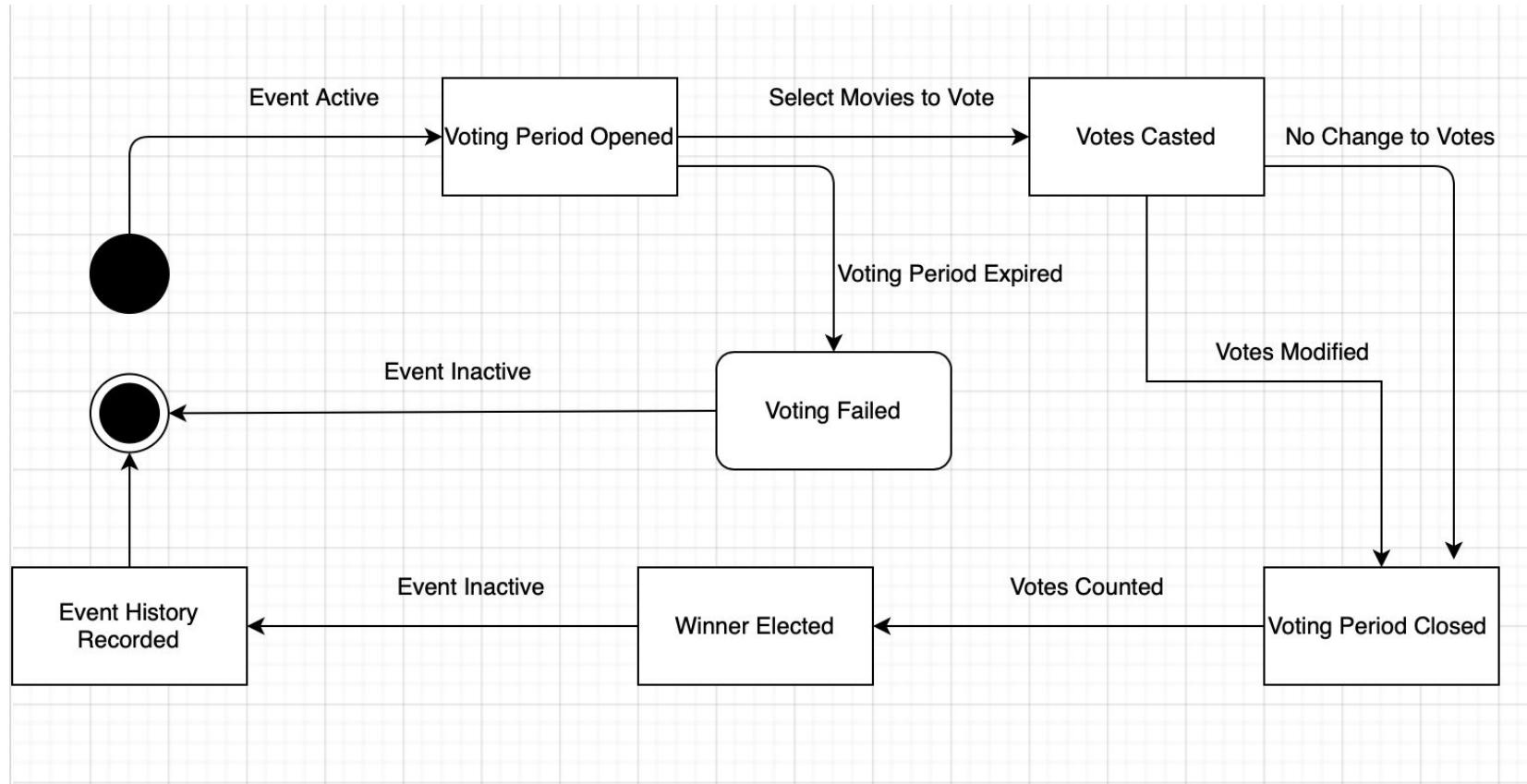
# Class Description

1. User: This class provides description of superuser that contains common operations by Moderator and Watcher, like create account, log in, and view history.
2. Moderator: This class provides description of admin that operates the system, like manage groups and members, create event, and pull movies.
3. Member(Watcher): This class provides description of user that uses the system, like search movies and vote event.
4. Vote: This class provides the attributes of a vote casted by the member (watcher) of the group. The attributes contains MovieID, MemberID, EventID and Vote Date.
5. Group: This class provides the attributes of a group of which members are part of and which moderators created. The attributes contains GroupID, GroupName, MemberCount to name a few.
6. Movie: The attributes contains the attributes of a movie that has been pulled and populated into the groups with movie trailers links and review links related to the movie.
7. Server/API: This is the secondary actor that will provide the movie list with trailer/review links and will be pulled by the moderator.
8. Event: This class provides the information about the events that are created by the moderator for the members of the group to vote for movies

# Activity Diagram



# State Diagram (Voting)



# Thank you



# List of Actors

1. **Moderator (Admin)**: Moderator is the actor who is taking care of all the administrative tasks. That includes inviting people to join a group, managing polls, populate movie list to name a few.
2. **Friends & Family (Participants)**: We are combining both friends & family as one actor where they essentially serve as customers in the group. As a part of their functionality they shall join the group, browse the movies, vote for movies to name a few.
3. **Movie Server API**: An API to pull the movie list from. The movie server has the movie list that will be populated by the moderator.

# List of Use Cases (Moderator)

1. Moderator creates group: The moderator shall create a movie watcher's group.
2. Moderator sends invitation: The moderator shall send an invitations to family and friends to join the group that they are invited to.
3. Moderator pull movies list: The moderator shall extract a list of movies that the family and friends shall browse from an external movie server. It's similar to the process of extraction in an ETL process
4. Moderator populate movie links: The moderator shall populate the movies list (including links) into the group for family and friends to browse or search.
5. Moderator populate movie trailer links: The moderator shall populate the movie trailers links along with movies list into the group for family and friends to browse or search and watch.
6. Moderator populate movie review links: The moderator shall populate the movie review links along with movies list into the group for family and friends to browse or search and read.
7. Moderator create movie watching event: The moderator shall create a movie watching event that already has a pre-specified date and time of movie screening.
8. Moderator opening polling periods: The moderator has the ability to set (open) polling time frame for a specific poll posted under a movie watching event.
9. Moderator closing polling periods: The moderator has the ability to set (close) polling time frame for a specific poll posted under a movie watching event.

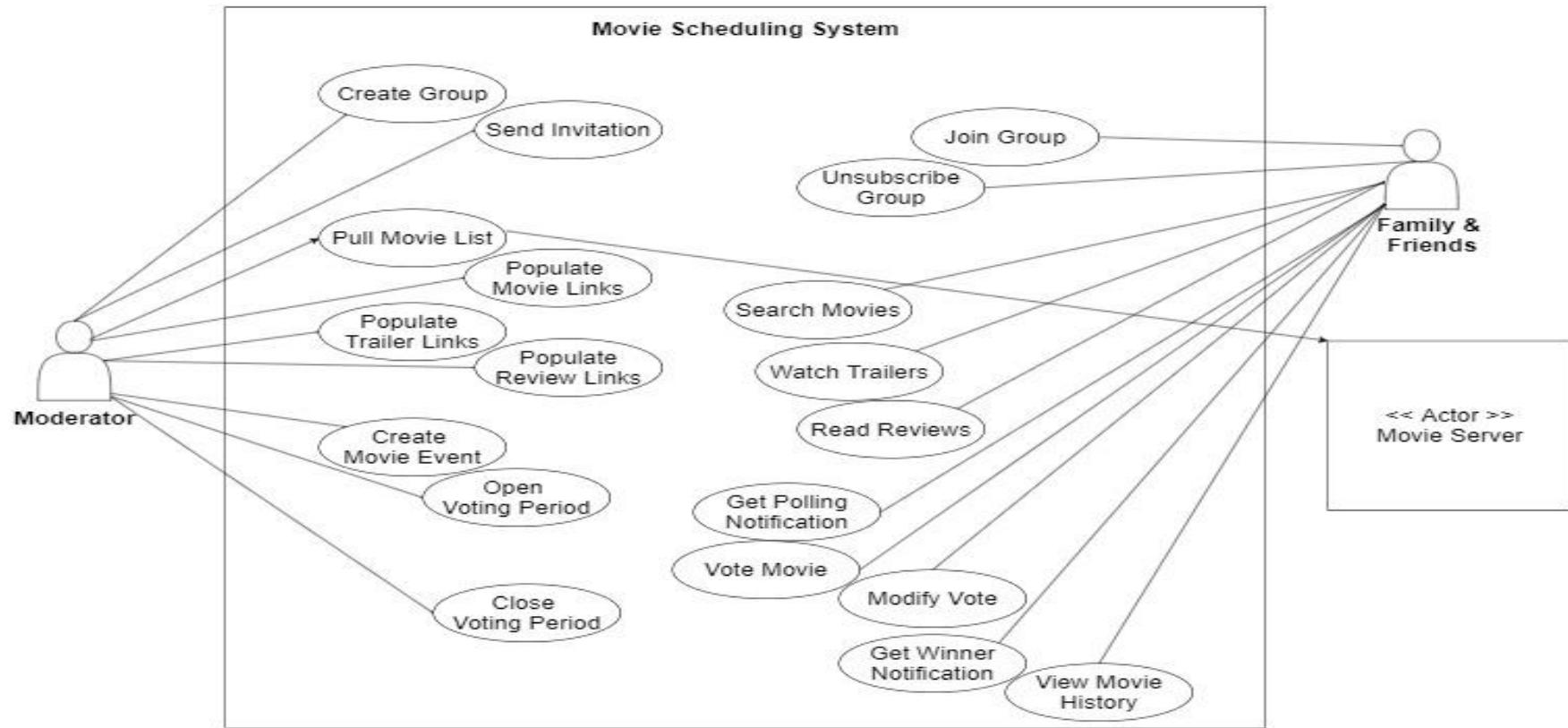
# List of Use Cases (Family & Friends)

1. Family & friends join group : Family & friends shall accept the invitation to join a group.
2. Family & friends unsubscribe from group : Family & friends shall be able to unsubscribe from the group.
3. Family & friends search movies : Family & friends shall be able to search a particular movie from the list of movies.
4. Family & friends watch trailers : Family & friends shall be able to watch a trailer after they select a particular movie from the list of movies.
5. Family & friends read movie reviews : Family & friends shall be able to view the review after they select a particular movie from the list of movies.
6. Family & friends get polling notification : Family & friends shall receive a polling notification for the list of movies.
7. Family & friends vote for movie : Family & friends shall be able to vote for a particular movie from the list of movies.
8. Family & friends modify vote : Family & friends shall be able to modify their votes during the polling period before the pre-specified closing date and time.
9. Family & friends get winner notification : Family & friends shall be notified of the movie that won the poll.
10. Family & friends access movie history : Family & friends shall be able to access their history of movies viewed.

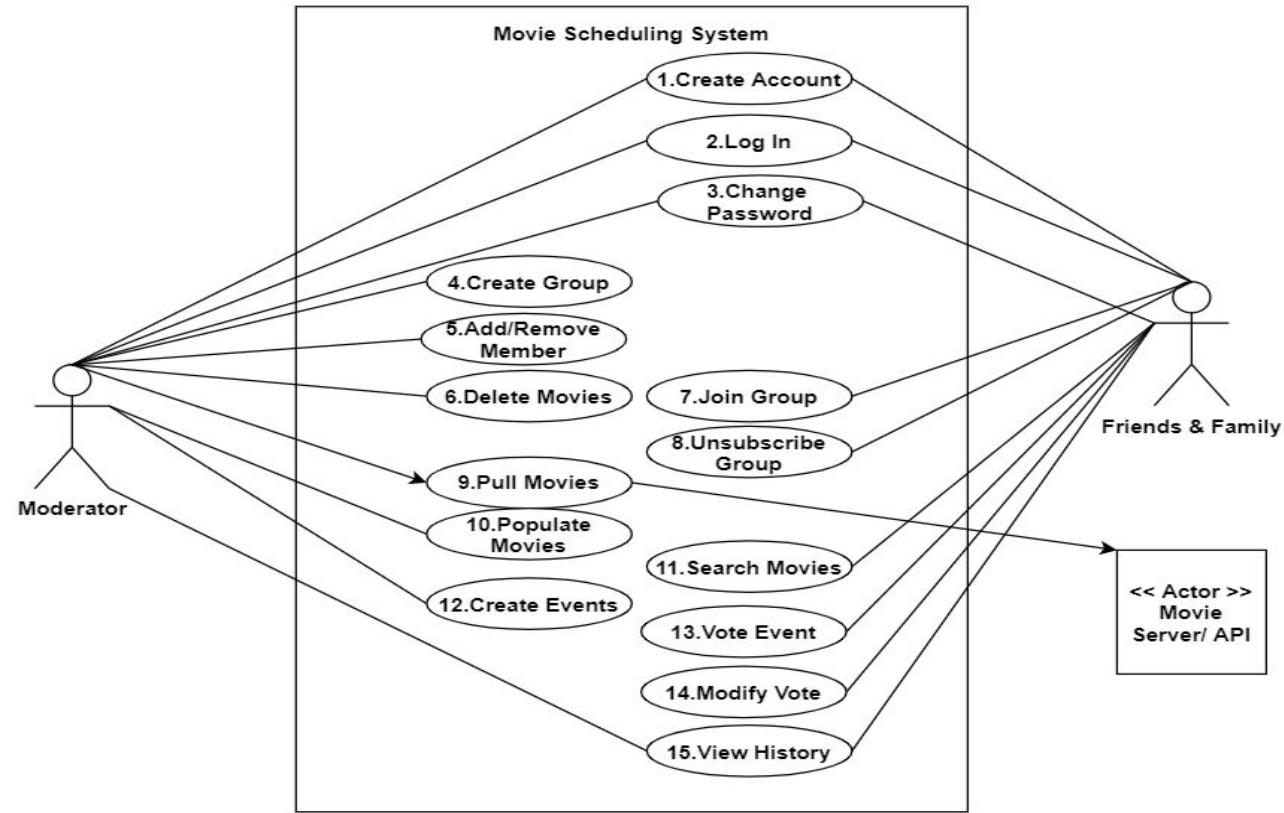
# List of Use Cases (Movie Server)

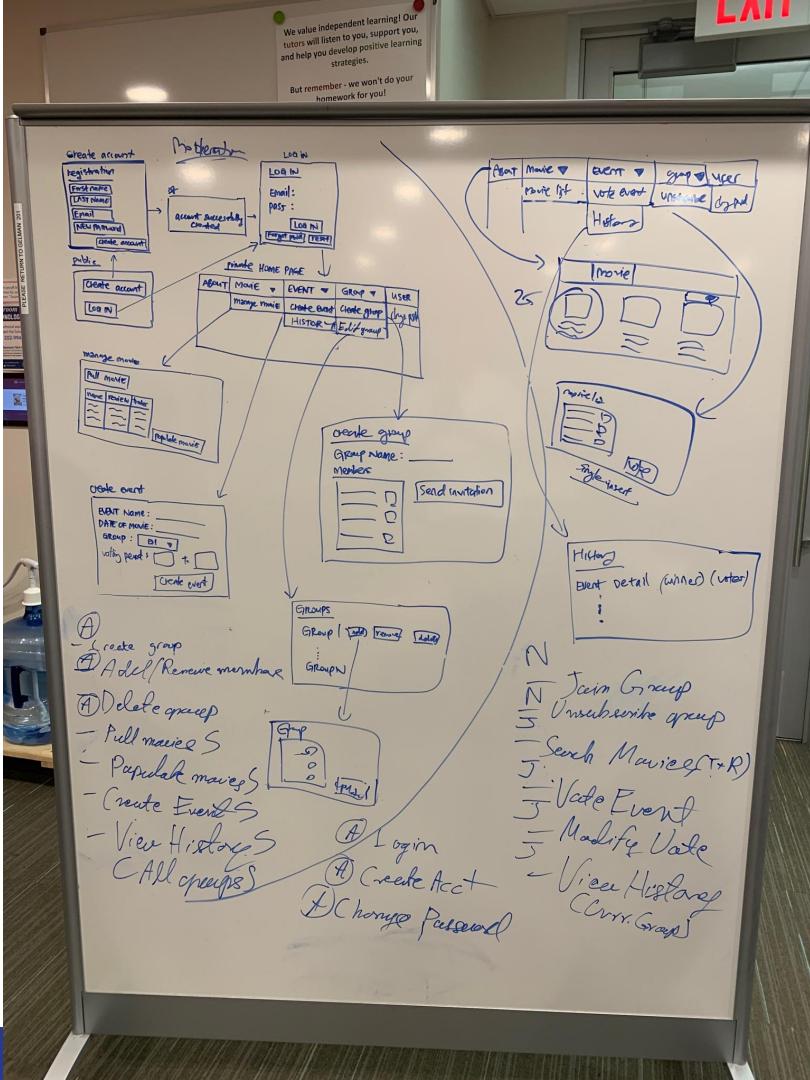
1. Movie Server Grants Access to List of Movies: Movie Server gives access of the list of movies to the moderator

# Use Case Diagram (Assignment 1)



# Use Case Diagram (Assignment 2)





# Use Case: Create Account

1. Use Case Name and Number : "Create Account" with UCID : 1.
2. Date : {Last Updated On}.
3. Summary : Both "Moderator" and "Friends & Family" will create an account for themselves in the system.
4. Assumptions: "Create account" can be used by Moderator and Friends & Family only once. The "Create Account" section is on the homepage itself with form validation feature.
5. Actor : "Moderator" and "Friends & Family".
6. Precondition:
  - All the actors have to be connected to the internet.
  - They have to navigate to the system.
7. Description: The use case begins when the actor is connected to the internet with their device. Actors will navigate to the system by putting in the correct URL or opening up the application on their devices. Actors see the homepage of the system where they will choose to create an account by inputting their credentials. The use case will end when they are able to successfully hit the "Create Account" button.
8. Exceptions:
  - The actors are not able to connect to the internet.
  - The system is down for maintenance.
  - The "Create Account" button does not work and crashes the system.
9. Post Condition: System has allowed the actors to input their credentials and create an account for themselves.

# Use Case : Log in

1. Use Case Name and Number : “Login” with UCID : 2.
2. Date : {Last Updated On}.
3. Summary : Both “Moderator” and “Friends & Family” will login to their accounts for themselves in the system.
4. Assumptions: “Login” option can be used by Moderator and Friends & Family multiple times. One email can only be used for creating one account.
5. Actor : “Moderator” and “Friends & Family”.
6. Precondition:
  - All the actors have to be connected to the internet.
  - They have to navigate to the system.
  - All the actors need to have an account already created in the system.
  - All actors need to know their email and password
7. Description: The use case begins when the actor is connected to the internet with their device and will navigate to the system. Actors see the homepage of the system where they will choose to login by inputting their credentials. The use case will end when they are able to login to their account successfully and land on the homepage.
8. Exceptions:
  - The actors are not able to connect to the internet.
  - The actors forgot the password and need to reset it.
  - The “Login” button does not work and crashes the system.
9. Post Condition: System has allowed the actors to input their credentials login to their account and land on homepage..

# Use Case : Change Password

1. Use Case Name and Number : "Change Password" with UCID : 3.
2. Date : {Last Updated On}.
3. Summary : Both "Moderator" and "Family and Friends" can change their password for login, should they need to.
4. Assumptions: "Change Password" option can be used by Moderator and Friends & Family multiple times. The password can be changed for the account that has already been registered.
5. Actor : "Moderator" and "Friends & Family".
6. Precondition:
  - All the actors have to navigate to the system.
  - All the actors need to have an account already created in the system.
  - All actors should be logged-in in order to change their password.
  - All the actors need to know their previous password in order to change it.
7. Description: The use case begins when the actor is connected to the internet with their device and will navigate to the system. Actors need to log in to their accounts with their email id and their pre existing password. They must click on the "Change Password" option available in the drop down list of the "User" tab . The use case will end when they will input the old password, new password and to click on the "Change Password" button.
8. Exceptions:
  - The actors forget their old password.
  - The actors cannot login to the system with their email.
  - The "Change Password" button does not react the way it is supposed to be and crashes the website on user's end.
9. Post Condition: System has allowed the actors to input their old password, new password that they wish to set and updates the password for their account.

# Use Case : Create Group

1. Use Case Name and Number : "Create Group" with UCID : 4.
2. Date : {Last Updated On}.
3. Summary : "Moderator" will create a group where they will select the users for invitation.
4. Assumptions: "Login" option can be used by Moderator and Friends & Family multiple times. One email can only be used for creating one account.
5. Actor : "Moderator" and "Friends & Family".
6. Precondition:
  - All the actors have to be connected to the internet.
  - They have to navigate to the system.
  - All the actors need to have an account already created in the system.
  - All actors need to know their email and password
7. Description: The use case begins when the actor is connected to the internet with their device and will navigate to the system. Actors see the homepage of the system where they will choose to login by inputting their credentials. The use case will end when they are able to login to their account successfully and land on the homepage.
8. Exceptions:
  - The actors are not able to connect to the internet.
  - The actors forgot the password and need to reset it.
  - The "Login" button does not work and crashes the system.
9. Post Condition: System has allowed the actors to input their credentials login to their account and land on homepage.

# Use Case: Add/Remove Member

1. Use Case Name and Number : "Add/Remove Member" with UCID : 5.
2. Date : {Last Updated On}.
3. Summary : Only "Moderator" of the group has the privilege to add/remove a member from a group.
4. Assumptions: "Add/Remove" option can be used by moderator multiple times. The add option is available for those users that are not part of the selected group. The remove option is available for users who are already a part of the selected group.
5. Actor : "Moderator".
6. Precondition:
  - Moderator have to navigate to the system.
  - Moderator should be logged-in in order to add or remove members.
  - Moderator must choose new members or remove members which already have an account in the system.
7. Description: The use case begins when the moderator has logged into their account. Moderator must click on "Groups" tab on the top navigation bar in order drop down and click on "Edit Group" option. They will be redirected to a page where they have 2 buttons with "Add" and "Remove" label on them. Moderator can click on the add button to add users that are not part of the selected group. Moderator can click on the "Remove" button to remove users who are already a part of the selected group. The use case ends with Moderator either adding new members or removing existing members from a selected group.
8. Exceptions:
  - Moderator cannot login to the system with their email.
  - All the users are already a member of a selected group, hence the moderator cannot add anyone else.
  - There is no member in the selected group available to be removed by the moderator.
9. Post Condition: System has allowed the moderator to select users to add and members to remove from a group and hence, the users have been added and members have been removed from the group.

# Use Case: Delete Group

1. Use Case Name and Number : “Delete Group” with UCID : 6.
2. Date : {Last Updated On}.
3. Summary : Only “Moderator” of the group has the privilege to delete a group.
4. Assumptions: “Delete Group” option can be used by moderator once for every group. The “Delete Group” option is available for moderator to choose for the group which has no reason to exist anymore.
5. Actor : “Moderator”.
6. Precondition:
  - Moderator have to navigate to the system.
  - Moderator should be logged-in in order to see all the groups available.
  - The group must exist, with or without any members, for the moderator to delete.
7. Description: The use case begins when the moderator has logged into their account. Moderator must click on “Groups” tab on the top navigation bar in order drop down and click on “Edit Group” option. They will be redirected to a page where they have a button with “Delete Group” label on it. Moderator can choose from the given list of selected groups to delete from. The use case ends with Moderator deleting the group from the system, notifying the users that their group has been deleted.
8. Exceptions:
  - Moderator cannot login to the system with their email.
  - There is no group in the list of groups available to be deleted by the moderator.
  - The “Delete Group” button does not work and crashes the website on moderator’s end.
9. Post Condition: System has allowed the moderator to select a group from the given list of groups and hence, the moderator has deleted the group which did not have a reason to exist anymore.

# Use Case: Join Group

1. Use Case Name and Number : “Join Group” with UCID : 7.
2. Date : {Last Updated On}.
3. Summary : “Friends & Family” have accepted the invitation to join group created by “Moderator” of the system.
4. Assumptions: “Join Group” can be used by interested members of “Friends & Family” to join movie watching group that were created by “Moderator” of the system.
5. Actor : “Friends & Family”.
6. Precondition:
  - The “Friends & Family” are users of the system.
  - The “Friends & Family” email are selected and included in group creation detail when “Moderator” created the group.
  - The “Friends & Family” are notified of the group invitation, and decided to be part of the group.
7. Description: The use case begins when the “Moderator” sends invitation to chosen candidates of the group. “Friends & Family” will be notified of the group invitation, and has to decide if they are interested to be members of the group. If interested and chose to accept the invitation, their details will be added to the group. The use case will end when their details are included inside the newly created group, and they become part of the group..
8. Exceptions:
  - The details of chosen candidate are incorrect, and the invitation was not sent to the chosen candidate.
  - The chosen candidate did not accept the group invitation due to reasons such as not interested, to name a few.
9. Post Condition: “Friends & Family” who have accepted to be part of the group has become members of the group, and thus have accessed to functionalities such as “voting” and “history”, to name a few.

# Use Case: Unsubscribe Group

1. Use Case Name and Number : "Unsubscribe Group" with UCID : 8.
2. Date : {Last Updated On}.
3. Summary : "Friends & Family" members of the group decided to leave the group.
4. Assumptions: "Friends & Family" are not interested to remain members of movie watching group.
5. Actor : "Friends & Family".
6. Precondition:
  - The "Friends & Family" are members of the group.
  - The "Friends & Family" members are not interested in remaining part of the group, and decide to leave..
7. Description: The use case begins when the "Friends & Family" who are users of the movie watching group decides to leave their current group, and press "Unsubscribe Group". The use case will end when the System receives notification that the member decides to leave the group, and removes the access of the member to the group.
8. Exceptions:
  - The details of member are not successfully removed from the group.
9. Post Condition: "Friends & Family" who have previously been part of a group has loses access to their previous group.

# Use Case: Pull Movies

1. Case Name and Number : "Pull Movies" with UCID : 9
2. Date : 02/11/2020
3. Summary : "Moderator" pulls movies from an external API into the system in order to populate the movie list for the "Friends and Family" to select and view review links and trailer links
4. Assumption:
  - The movie list is available in the API along with the review links and trailer links.
  - The API contains all the movies that the "Friends and Family" want to choose from
5. Actor : "Moderator"
6. Precondition:
  - The API is available to be fetched.
  - All the movies have their trailer links and review links updated in the API
7. Description: The "Moderator" uses the Pull movies function to fetch movies from an external system into the application and the "Friends and Family" will be able to see the review links and trailer links on the webpage.
8. Exceptions:
  - There are no movies in the API to be fetched
  - Error in fetching the API when the external application is down
9. Post Condition: Application has pulled the movies into the system and "Friends and Family" are able to view the list of movies along with their trailers links and review links

# Use Case: Populate Movies

1. Case Name and Number : “Populate Movies” with UCID : 10
2. Date : 02/11/2020
3. Summary : “Moderator” uses the populate movies function to retrieve all the movies that were pulled from an external API into the applications database
4. Assumption:
  - The moderator does not wish to add/delete the list of the movies that were pulled from the API
  - The API contains all the movies that the “Friends and Family” want to choose from
5. Actor : “Moderator”
6. Precondition:
  - The pull movie function was successful in pulling all the movies from an external API
  - All the movies have their trailer links and review links updated in the API
7. Description: The “Moderator” needs to retrieve all the movies from the API using the pull movies function and then use populate movies to insert all the movies into the application’s database
8. Exceptions:
  - No movies were fetched when the pull movies function was triggered
  - An error in inserting the values into the database due to database connection issues
9. Post Condition: The movie list which was fetched from the API was successfully inserted into the applications database

# Use Case: Search Movie

1. Use Case Name and Number : "Search Movie" with UCID : 11.
2. Date : {Last Updated On}.
3. Summary : Both "Moderator" and "Friends & Family" can search for a movie for themselves in the system.
4. Assumptions: "Search Movie" can be used by Moderator and Friends & Family. The "Search Movie" option is on the right hand side corner of the movies page.
5. Actor : "Moderator" and "Friends & Family".
6. Precondition:
  - They have to navigate to the system.
  - There has to be a list of movies available in the system.
7. Description: The use case begins when the actor navigates to the movies page. Actors will navigate to the system by clicking on the movies page and then clicking on "search movies" button. Actors type in the name of the movie they are looking for and hit enter. Actors see the movie page of the system with only the movie that was found on searching through the system database. The use case will end when they are able to successfully find the movie.
8. Exceptions:
  - The "Search Movie" button does not work and crashes the system.
  - The Actors misspell the movie name.
  - There are no movies in the list of movies available to be searched for by the actors.
9. Post Condition: System has allowed the actors to input their desired movie name and search for it from the list of available movies.

# Use Case: Create Event

1. Case Name and Number : "Create Event" with UCID : 12
2. Date : 02/11/2020
3. Summary : "Moderator" creates an event which will contain the voting period , event name and the date of the event.
4. Assumption:
  - "Moderator" decides the voting time window for the movie.
5. Actor : "Moderator"
6. Precondition:
  - The "Moderator" has a list of users in groups to whom the event invite will be sent.
7. Description: "Moderator" provides the time window within the create event tab along with the event name and date of the event. A voting link is sent to "Friends and Family" once the event is created by the moderator.
8. Exceptions:
  - The voting time window entered by the "Moderator" is invalid.
  - The same event name already exists.
9. Post Condition: "Moderator" creates an event with an event name, date of the event and voting time for the event. A link will be sent to the users of the group to vote for the event.

# Use Case: Vote Period

1. Use Case Name and Number : "Vote Period" with UCID : 13.
2. Date : {Last Updated On}.
3. Summary : "Friends & Family" are notified of a "Vote period" created by the "Moderator" of the system.
4. Assumptions: "Vote period" can be used by "Friends & Family" to vote for a movie that they want to watch during the "Movie watching event". The "Vote period" is created my the "Moderator". The "Moderator" has a list of movies that should be up for voting.
5. Actor : "Moderator" and "Friends & Family".
6. Precondition:
  - The "Moderator" is aware of the start and end time of the "Vote period".
  - There has to be a list of movies available in the system.
  - There has to be at least one group in the system.
7. Description: The use case begins when the "Moderator" creates an event. "Friends & Family" will be notified of the voting event along with the start and end time of the "Vote period". The use case will end when a "voting period" event is successfully created.
8. Exceptions:
  - There are no movies in the list of movies available to be searched for by the actors.
9. Post Condition: System has allowed the actors to input their vote for the movie watching event.

# Use Case: Modify Vote

1. Use Case Name and Number : "Modify Vote" with UCID : 14.
2. Date : {Last Updated On}.
3. Summary : "Friends & Family" can modify their vote during the "Vote period" which is created by the "Moderator" of the system.
4. Assumptions: "Modify Vote" can be used by "Friends & Family" to change their vote for a movie that they want to watch during the "Movie watching event". "Friends & Family" cannot modify their vote after the "Voting Period" has passed. The "Vote period" is created by the "Moderator".
5. Actor : "Moderator" and "Friends & Family".
6. Precondition:
  - The "Moderator" has created a "Vote period".
  - There has to be a list of movies available in the system.
  - There has to be at least one group in the system.
  - "Friends & Family" must have already cast a vote for a movie.
7. Description: The use case begins when "Friends & Family" wish to change their vote for the movie watching event. "Friends & Family" must click on "Vote Period" option from the "Events" tab. A list of movies for the movie watching event is presented with the vote option. "Friends & Family" update their vote by clicking on the new movie they want to watch during the movie watching event. The use case will end when the updated vote successfully recorded.
8. Exceptions:
  - There are no movies in the list of movies available for vote.
9. Post Condition: System has allowed the actors to modify their vote for the movie watching event.

# Use Case: View History

1. Case Name and Number : "View History" with UCID : 15
2. Date : 02/11/2020
3. Summary : "Moderators" and "Family and Friends" view the history of movies that were selected by the "Friends and Family" along with the name, date and number of votes that were given to a movie.
4. Assumption:
  - The application has recorded the events created from the system.
5. Actor : "Moderator" and "Friends & Family".
6. Precondition:
  - The details of previously voted movies is present within the system.
7. Description: The "Moderator" and "Friends and Family" click on the view history tab and view all the movies which had been selected . The details include the name of the movie, date on which it was selected and the number of votes it received.
8. Exceptions:
  - No records were found in the database for the history of movies.
  - The same event name already exists.
9. Post Condition: The "Moderator" and "Friends and Family" view the movies which had been selected . The details include the name of the movie, date on which it was selected and the number of votes it received.