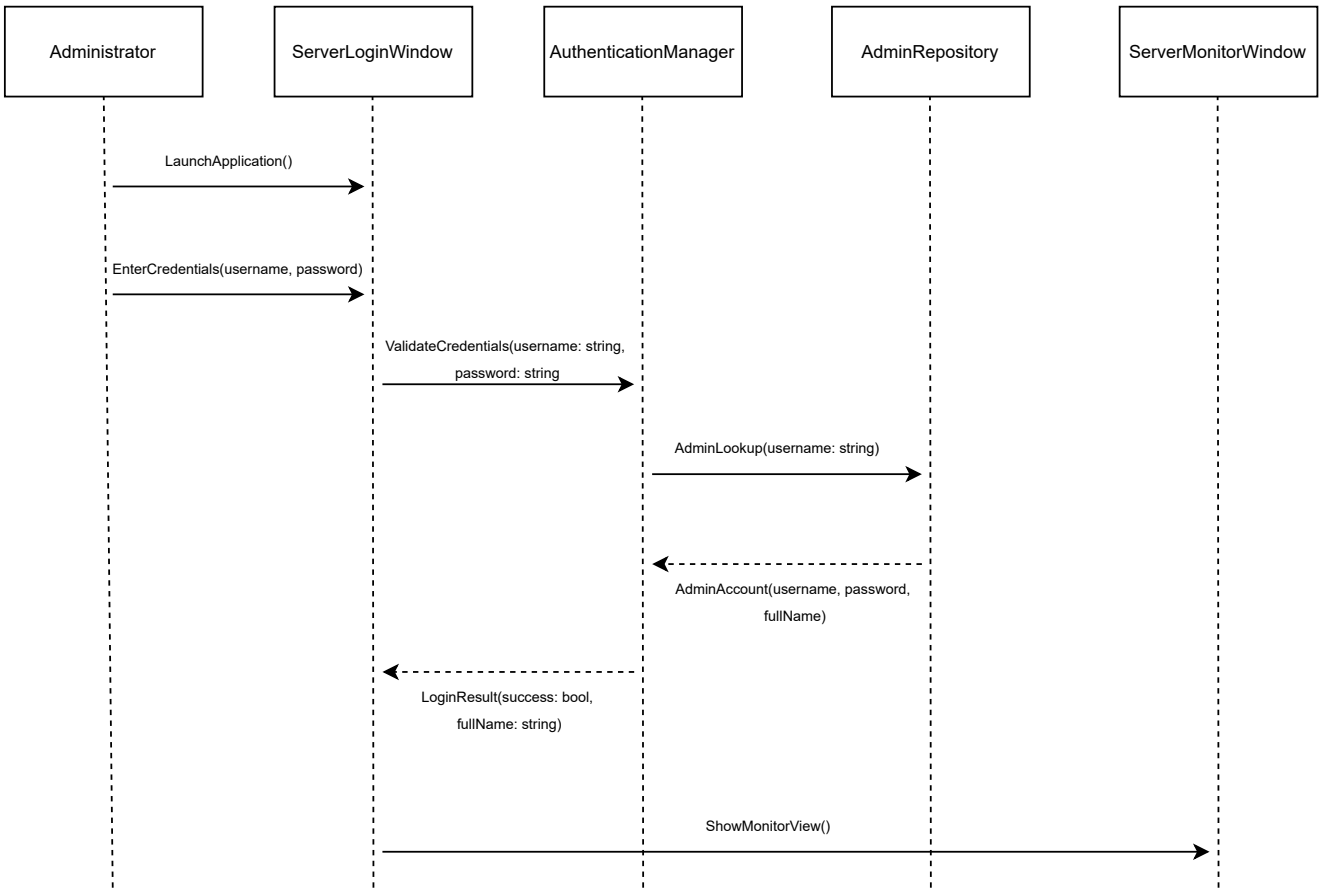
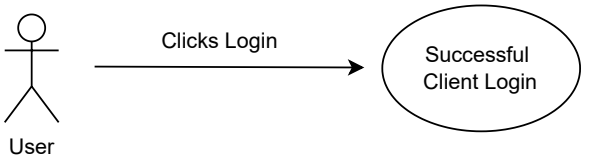
UC-05: Successful Server (Administrator Login - Sequence Diagram



UC-01: Successful Client Login



Actor sees, does, enters

- User launches the client application
- Sees login form with username and password fields
- Enters username and passowrd
- Login button becomes enabled
- Clicks Login button

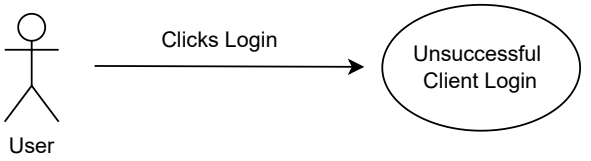
What the app does

- Formats credentials into a JSON login request
- Sends request to server via the WebSocket
- Server validates credentials using the .json
- Server sends success response with user's full name

Actor sees after

- Login form closes
- Main app view is displayed

UC-02: Unsuccessful Client Login



Actor sees, does, enters

- User launches the client application
- Sees login form with username and password fields
- Enters username and passowrd
- Login button becomes enabled
- Clicks Login button

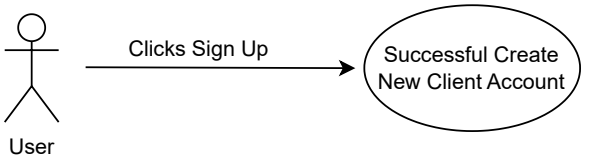
What the app does

- Formats credentials into a JSON login request
- Sends request to server via the WebSocket
- Server validates credentials using the .json
- Credentials are invalid, server sends failure response

Actor sees after

- Login form remains visible
- Error message is displayed indicating that login was unsuccessful

UC-03: Successful Create New Client Account



Actor sees, does, enters

- User launches the client application
- Sees login form and clicks the sign-up button
- Registration form appears
- Enters full name, username, and password
- Submits the registration form

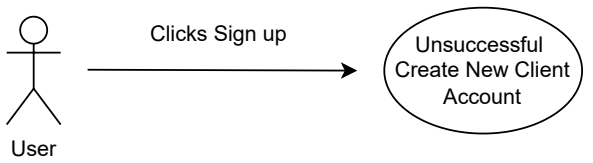
What the app does

- Sends account creation request to server
- Server checks that username is available
- Server creates new account in the .json
- Server sends success response with user's full name

Actor sees after

- Registration form closes
- User is logged in automatically
- Main application view becomes visible

UC-04: Unsuccessful Create New Client Account



Actor sees, does, enters

- User launches the client application
- Sees login form and clicks the sign-up button
- Registration form appears
- Enters full name, username, and password
- Submits the registration form

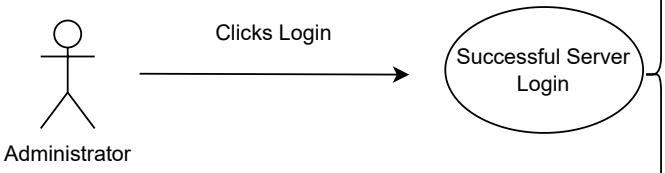
What the app does

- Sends account creation request to server
- Server checks that username is available
- Username is already taken, server sends failure request

Actor sees after

- Registration form stays visible
- Error message is displayed indicating username is unavaliable

UC-05: Successful Server Login



Actor sees, does, enters

- Administrator launches the server application
- Sees login form withh username and password fields
- Enters username and password
- Login button becomes enabled
- Clicks Login button

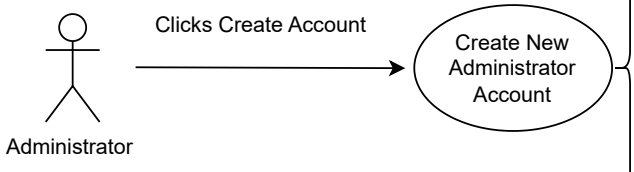
What the app does

- Passes credentials to the AuthenticationManager
- AuthenticationManager requests AdminRepository to look up the username
- AdminRespository reads .json and returns account data
- Authentication Manager compares passwords and confirms valid login

Actor sees after

- Login form closes
- Server monitoring dashboard is displayed
- Shows list of logged-in users and active chat rooms

UC-06: Creates New Administration Account



Actor sees, does, enters

- Administration launches the client application
- Clicks the option to create a new account
- Registration form appears
- Enters full name, username, and password
- Submits the registration form

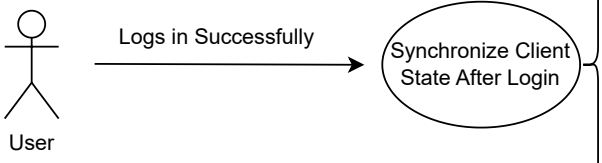
What the app does

- Checks that the username is not already taken in the .json
- Creates a new administrator account
- Stores the new account in the .json

Actor sees after

- Registration form closes
- Confirmation that the account was created successfully

UC-07: Synchronize Client State After Login



Actor sees, does, enters

- The user has just logged in successfully
- Main application view currently loading

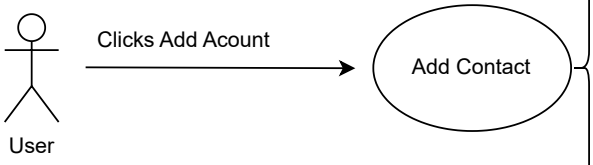
What the app does

- Client request the user's contact list from the server
- Server sends back contact list with an online/offline status
- Client updates the local state with server data

Actor sees after

- Contact list is displayed with current online/offline status
- Main application is fully loaded and ready to use

UC-08: Add Contact



Actor sees, does, enters

- The user is in the main application view
- Selects the option to add a contact
- Enters the username of the contact to add

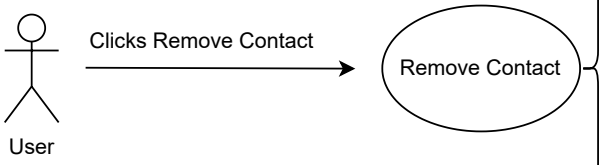
What the app does

- Sends add contact request to the server
- Server checks if the contact username exists in the .json
- Contact exists, server adds them to the user's contact list
- Server sends confirmation back to the client

Actor sees after

- New contact appears in the contact list
- Contact's online/offline status is displayed

UC-09: Remove Contact



Actor sees, does, enters

- The user is in the main application view
- Selects a contact from the contact list
- Clicks the option to remove the contact

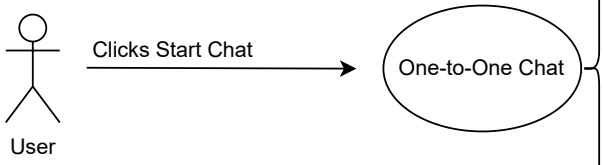
What the app does

- Sends remove contact request to server
- Server removes the contact from the user's contact list
- Server sends confirmation back to the client

Actor sees after

- Contact is removed from the contact list
- Contact list updates to reflect the change

UC-10: One-to-One Chat



Actor sees, does, enters

- The user is in the main application window
- Selects an online chat from the contact list
- Clicks start chat
- Types a message and clicks send

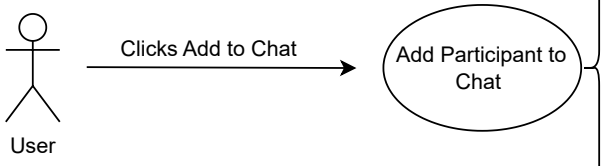
What the app does

- Client sends chat request to the server
- Server creates a chat session between the two users
- Messages are routed through the server to the other user
- Messages are timestamped and tagged with sender's username

Actor sees after

- Chat window opens showing conversation history
- Messages appear with timestamps and the names of the sender
- User can continue sending and receiving messages

UC-11: Add Participant to Chat



Actor sees, does, enters

- The user in in an active one-to-one chat
- Selects the option to add a participant
- Chooses an online contact that is in comon with both chat participants

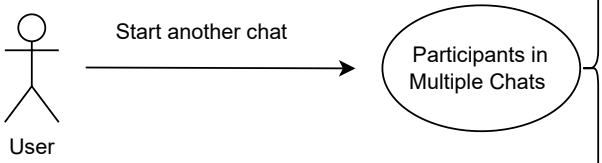
What the app does

- Client sends add participant to server
- Server verifies the third user is online and in common with both participants
- Server adds the third user to the chat session
- Server notifies all participants of the updated chat

Actor sees after

- Chat window updates to show the new participant
- All there users can now send and receive messages

UC-12: Participants in Multiple Chats



Actor sees, does, enters

- The user is already in an active chat
- Selects another online contact from the contact list
- Starts a new chat session with that contact

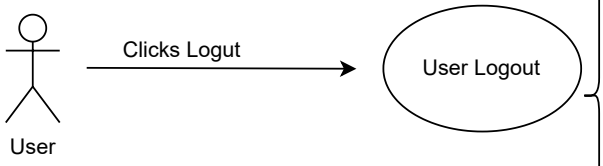
What the app does

- Client sends new chat request to server
- Server creates an additional chat
- Server manages multiple active chats sessions for the user
- Messages are routed to the correct chat session

Actor sees after

- A new chat window opens alongside the existing one
- User can switch between and participate in both chats at the same time

UC-13: User Logut



Actor seeds, does, enters

- The user is in the main application window
- Clicks the logout option

What the app does

- Client sends logout request to the server
- Server removes user from active users list
- Server updates the user's status to offline for all contacts
- Server closes any active chat sessions involving the user
- WebSocket connection gets lost

Actor see after

- Main application view closes
- Login form is displayed again
- Other users see this user's status change to offline