

Objects Involved for UC-05

Administrator: The user on the computer

ServerLoginWindow: Login form UGI the admin sees and interacts with, only job is to collect what you type and pass it along.

AuthenticationManager (Middle Man): Gets handed the credentials and handles validation logic, but does not store account data.

AdminRepository: Reads the .json file and the only job is storing and retrieving data.

ServerMonitorWindow: It is the screen the admin sees after a successful login.

Step #	Who Initiates	Who Receives	Why (Intent)
1	Administrator	ServerLoginWindow	To start the application and show the login form
2	Administrator	ServerLoginWindow	Provides credentials so they can be validated
3	ServerLoginWindow	AuthenticationManager	Hands the credentials off for validation
4	AuthenticationManager	AdminRepository	Retrieves the stored account data
5	AdminRepository	AuthenticationManager	Returns the stored data so credentials can be compared
6	AuthenticationManager	ServerLoginWindow	Reports that validation was successful so the UI can update
7	ServerLoginWindow	ServerMonitorWindow	Closes the login form and shows the dashboard

Step-by-Step Narrative

1. The Administrator launches the server application. The ServerLoginWindow is created and displayed with empty username and password fields, a disabled Login button, and an option to create a new administrator account.
2. The Administrator enters a username and password into the ServerLoginWindow. The ServerLoginWindow scans that both fields are non-empty and enables the login button.
3. The Administrator clicks the login button. The ServerLoginWindow takes the credentials that were entered and passes them to the Authentication Manager for validation.
4. The AuthenticationManager receives the credentials and requests the AdminRepository to look up the provided username.
5. The AdminRespository reads the .json file, finds a matching account, and returns the stored account data including the administrator's full name to the AuthenticationManager.
6. The AuthenticationManager compares the provided password with the stored password. Validation succeeds, so it returns a success result along with the administrator's full name to the ServerLoginForm.
7. The ServerLoginWindow closes, and the ServerMainWindow is created and displayed, showing the list of currently logged-in users and active chat rooms.