

Use Cases

1. Send a message

Use Case	A user sends a message
Primary Actor	User
Priority	High
Preconditions	A user must have valid credentials (username and password) to login and access the application
Trigger	The user types the command
Scenario	User connects to the server. User chooses 1 or 2 for login or registration respectively. User enters values as prompted. On successful connection, user can send different types of messages: 1. /pvt username message: Sends "message" as a private message to the user "username". 2. /grp groupname message: Sends "message" as a group message to the group "groupname" 3. /secretMessage username message: Sends "message" as a private message to user "username" that can only be seen by the specified user 4. /fwd msgID sender receiver: Sends message corresponding to the msgID sent by "sender" to "receiver" and the receiver will know it is a forwarded message
Exceptions	1. User must be logged in. If the command is typed without logging in, error will be shown. 2. The user/group/msgID must be valid. 3. The command should follow the rule, spelling and format.

2. Create a group

Use Case	A user creates a group
Primary Actor	User
Priority	High
Preconditions	A user must have valid credentials (username and password) and be logged in and the group name must not exist
Trigger	The user types the command

Scenario	<p>User connects to server and is prompted with options for login or registration.</p> <p>User chooses option and enters details as prompted.</p> <p>On successful connection, user enters the command: /createGRP groupname: this creates a group “groupname” and makes the user the admin of the group by default</p>
Exceptions	<ol style="list-style-type: none"> 1. The user must be logged in with valid credentials 2. A group with the same group name should not exist

3. Update profile details

Use Case	User updates first name, last name, email, password
Primary Actor	User
Priority	Moderate
Preconditions	A user must have valid credentials (username and password) and be logged in.
Trigger	The user types the command
Scenario	<p>User connects to server and is prompted with options for login or registration.</p> <p>User chooses option and enters details as prompted.</p> <p>On successful connection, user enters the command:</p> <ol style="list-style-type: none"> 1. /updateFN newValue: where “newValue” will be the new first name 2. /updateLN newValue: where “newValue” will be the new last name 3. /updateEM newValue: where “newValue” will be the new email address 4. /updatePW newValue: where “newValue” will be the new password <p>If the user tries to view their profile, the updated values will be displayed.</p> <p>In case of password change, on re-login in, the user must enter the new password.</p>
Exceptions	<ol style="list-style-type: none"> 1. To login, the user must enter valid credentials.

4. Recall message

Use Case	User can delete the last message sent.
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Primary Actor	User
Priority	High
Preconditions	A user must have valid credentials (username and password) and be logged in and the group name must not exist
Trigger	The user types the command
Scenario	<p>User connects to server and is prompted with options for login or registration.</p> <p>User chooses option and enters details as prompted.</p> <p>User enters the command /recall username: this will delete the last message sent to the user "username" if the receiver has not seen it i.e. has not been online since the last message was sent.</p> <p>If unsuccessful, it will send an error message.</p>
Exceptions	<ol style="list-style-type: none"> 1. User must be logged in. If the command is typed without logging in, error will be shown. 2. The user has not been online after the last message was sent. 3. The user has sent at least one message to the receiver they wish to recall the message from.

5. Search for a user

Use Case	A user can search for another user
Primary Actor	User
Priority	Moderate
Preconditions	A user must have valid credentials (username and password) and be logged in and the group name must not exist
Trigger	The user types the command
Scenario	<p>User connects to server and is prompted with options for login or registration.</p> <p>User chooses option and enters details as prompted.</p> <p>On successful connection, user enters the command: /search username: this will allow the user to check if a user with the "username" exists on the system.</p>
Exceptions	<ol style="list-style-type: none"> 1. User must be logged in. If the command is typed without logging in, error will be shown.

6. Wire tapping - CIA

Use Case	The CIA user can view messages sent to and from about the wire tapped user.
Primary Actor	CIA
Priority	High
Preconditions	The CIA user should be logged in with valid credentials.
Trigger	CIA has tapped a user and the user is engaging in activity.
Scenario	CIA user connects to the server. CIA user selects login and enters the credentials. CIA enters commands for: <ol style="list-style-type: none">1. View list of tapped users2. Add another user to be tapped3. View all messages for the particular tapped user CIA will get live updates about the user's activity once logged in.
Exceptions	<ol style="list-style-type: none">1. CIA should be logged in.2. At least one user should be tapped.

7. Push notifications

Use Case	User receives notifications for messages sent when logged out.
Primary Actor	User
Priority	High
Preconditions	A user must have valid credentials (username and password) and should re-login after terminating a previous session.
Trigger	The user logs in.
Scenario	User connects to the server. User logs in with valid credentials. User receives a list of the following: <ol style="list-style-type: none">1. Username and count of unread messages.2. Group name and the count of unread messages.3. Thread subscribed to and the count of unread messages.
Exceptions	<ol style="list-style-type: none">1. User should be logged in.2. There will be no output if there aren't any messages.

8. DND

Use Case	A user can set his status as Do Not Disturb to avoid pop up messages
Primary Actor	User
Priority	Moderate
Preconditions	A user must have valid credentials (username and password) and be logged in
Trigger	The user types the command
Scenario	User connects to server and is prompted with options for login or registration. User chooses option and enters details as prompted. On successful connection, user enters the command: /DND "T" or "F": when passed "T", activates the do not disturb feature for this user so the user will not get any real time messages. When set to "F" (default) will give real time messages to the user
Exceptions	<ol style="list-style-type: none">1. User must be logged in. If the command is typed without logging in, error will be shown.2. The command should follow the rule, spelling and format.

9. Reply/View replies to a message

Use Case	A user can reply to a particular message sent by another user.
Primary Actor	User
Priority	High
Preconditions	A user must have valid credentials (username and password), be logged in and must have some (1 or more messages) chat history with another user.
Trigger	The user enters the command
Scenario	User connects to server and is prompted with options for login or registration. User chooses option and enters details as prompted. On successful connection, user enters the command: /reply msgID username message: With this command, "message" will be sent to "username" as a reply to "msgID". /getReplyChain msgID username: This lists all the back and forth communication in reply to the message starting from msgID till the

	origin of the chat.
Exceptions	<ol style="list-style-type: none"> 1. User must be logged in. If the command is typed without logging in, error will be shown. 2. The username/msgID must be valid. 3. The command should follow the rule, spelling and format.

10. Follow other user

Use Case	A user can follow another user to get updates on their activity.
Primary Actor	User
Priority	Moderate
Preconditions	A user must have valid credentials (username and password) and be logged in and the second user must exist.
Trigger	The user types the command
Scenario	<p>User connects to server and is prompted with options for login or registration.</p> <p>User chooses option and enters details as prompted.</p> <p>On successful connection, user enters the command:</p> <p>/follow username: the user starts following the activity of "username"</p> <p>/unfollow username: the user stops getting updates of the activities of "username"</p> <p>/following: user gets a list of users they are following</p> <p>/followers: user gets a list of users that are following them</p>
Exceptions	<ol style="list-style-type: none"> 4. User must be logged in. If the command is typed without logging in, error will be shown. 5. The user/group/msgID must be valid. 6. The command should follow the rule, spelling and format.

11. Create and post to thread

Use Case	A user creates a thread
Primary Actor	User
Priority	Moderate
Preconditions	A user must have valid credentials (username and password) and be logged in and the thread name must not exist

Trigger	The user types the command
Scenario	User connects to server and is prompted with options for login or registration. User chooses option and enters details as prompted. On successful connection, user enters the command: /createTRD threadname: this creates a group "threadname" Users can subscribe to this thread /subscribe threadname to receive updates when a user posts to this thread.
Exceptions	<ol style="list-style-type: none"> 1. User must be logged in. If the command is typed without logging in, error will be shown. 2. The user/thread must be valid. 3. The command should follow the rule, spelling and format.

12. Change group restrictions

Use Case	The admin of a group can change the restrictions for adding a user to the group.
Primary Actor	Admin of group
Priority	High
Preconditions	A admin must have valid user credentials (username and password) and be logged in and should be the admin of the group to modify
Trigger	The admin types the command
Scenario	Admin connects to server and is selected the option for login. Admin chooses option and enters details as prompted. On successful connection, admin enters the command: /setGroupRestriction groupname "H"/"L": changes the restriction of "groupname" to either "H" or "L" "H" stands for high where only the admin(s) can add users to the group "L" stands for low where any member of the group can add users
Exceptions	<ol style="list-style-type: none"> 1. The user must be the admin of the group.