

Shmelegram

Vision

“Shmelegram” is web-application which allows users to chat with one another via private and group chats.

Application should provide:

- Authentication (logging in, registration and log out);
- Displaying list of chats;
- Creating chats;
- Searching for chats by chat title;
- Displaying chat members;
- Updating online statuses of chat members in real-time;
- Displaying chat messages;
- Sending and receiving messages in real-time;
- Editing, deleting, creating service and reply messages.
- Joining chat;
- Leaving chat;

1. Authentication

1.1 Registration

Designed for validation user data and saving it in the database.

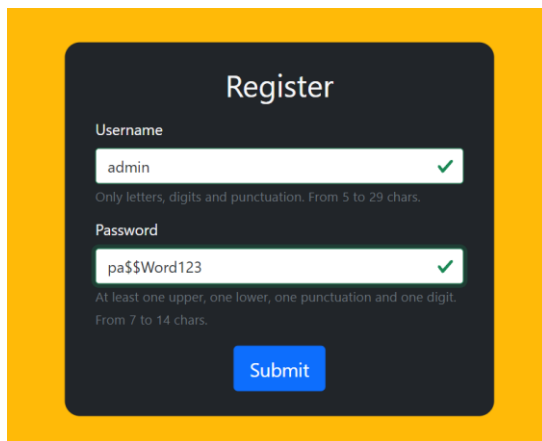
Main scenario:

- Client enters user credentials;
- Data is being validated both on client and server side;
- Data is saved to database;
- Redirects to login page with successful user creating message.

The image displays two screenshots of the Shmelegram web application interface. The left screenshot shows the 'Register' form, which includes fields for 'Username' (containing 'hukyl') and 'Password' (containing 'pa\$\$Word123'). Both fields have green checkmarks indicating successful validation. Below the password field, there is a note: 'At least one upper, one lower, one punctuation and one digit. From 7 to 14 chars.' A blue 'Submit' button is at the bottom. The right screenshot shows the 'Login' form, which includes fields for 'Username' (placeholder 'Your username...') and 'Password' (placeholder 'Your password...'). A blue 'Submit' button is at the bottom. At the top of the right screenshot, there is a green notification bar that says 'User successfully created' with a close button (X).

User exists scenario:

- Client enters user credentials;
- Client does not get redirected and receives existence message.



Register

Username

admin ✓

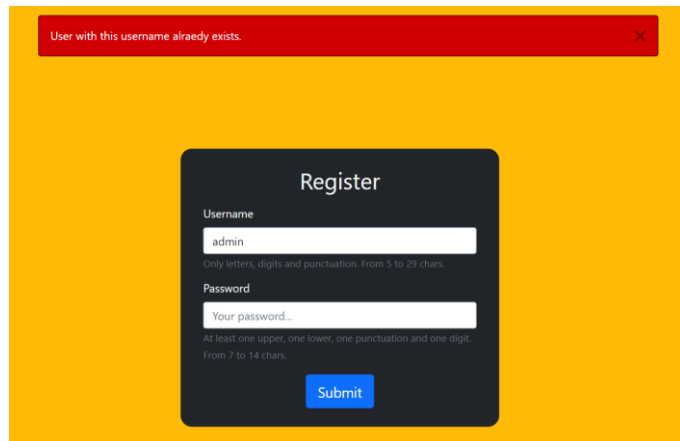
Only letters, digits and punctuation. From 5 to 29 chars.

Password

pa\$\$Word123 ✓

At least one upper, one lower, one punctuation and one digit.
From 7 to 14 chars.

Submit



User with this username already exists.

Register

Username

admin

Only letters, digits and punctuation. From 5 to 29 chars.

Password

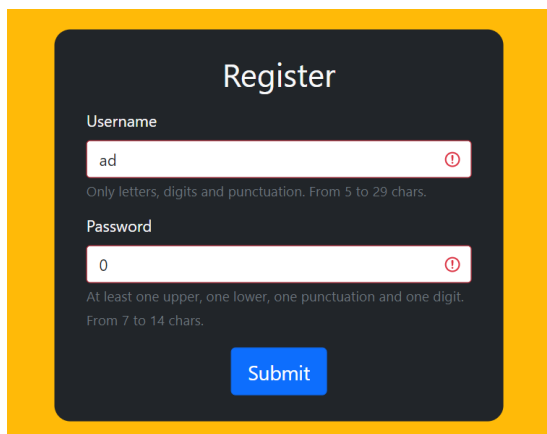
Your password...

At least one upper, one lower, one punctuation and one digit.
From 7 to 14 chars.

Submit

Invalid data scenario:

- Client enters user credentials;
- Username and password fields display their own validation mark;
- Even if user ignored those marks, server-side validation will return corresponding messages for username or password failed validation.



Register

Username

ad ⓘ

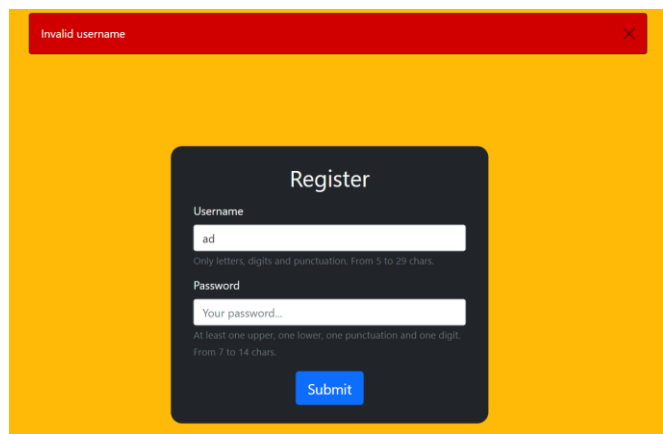
Only letters, digits and punctuation. From 5 to 29 chars.

Password

0 ⓘ

At least one upper, one lower, one punctuation and one digit.
From 7 to 14 chars.

Submit



Invalid username

Register

Username

ad

Only letters, digits and punctuation. From 5 to 29 chars.

Password

Your password...

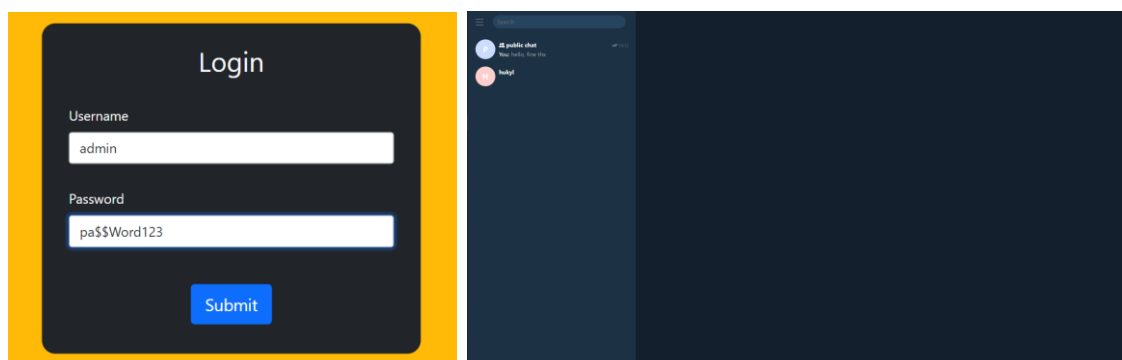
At least one upper, one lower, one punctuation and one digit.
From 7 to 14 chars.

Submit

1.2 Login

Main scenario:

- Client enters user credentials;
- Data is checked on server-side;
- Client is logged in and redirected to messenger page.



Login

Username

admin

Password

pa\$\$Word123

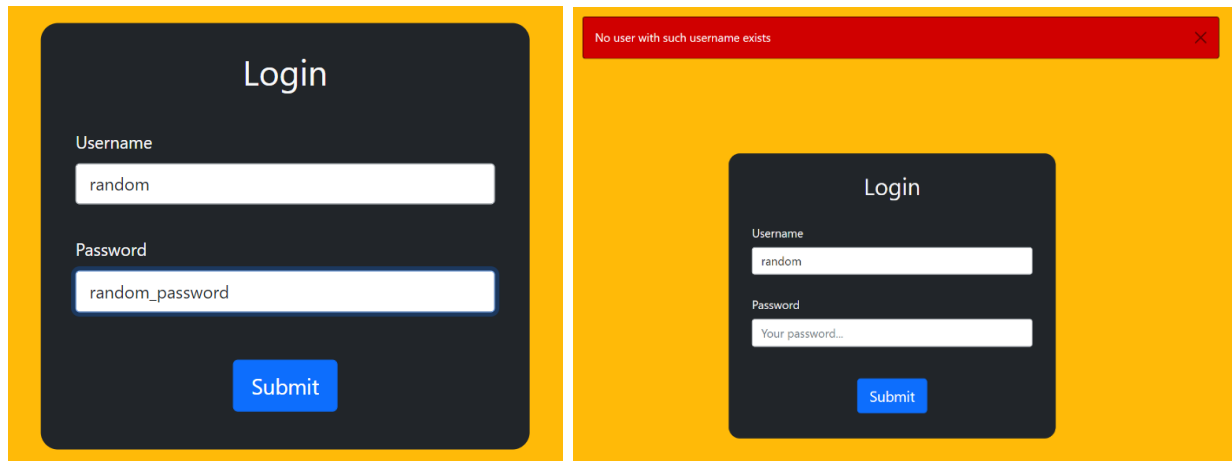
Submit

public chat

help

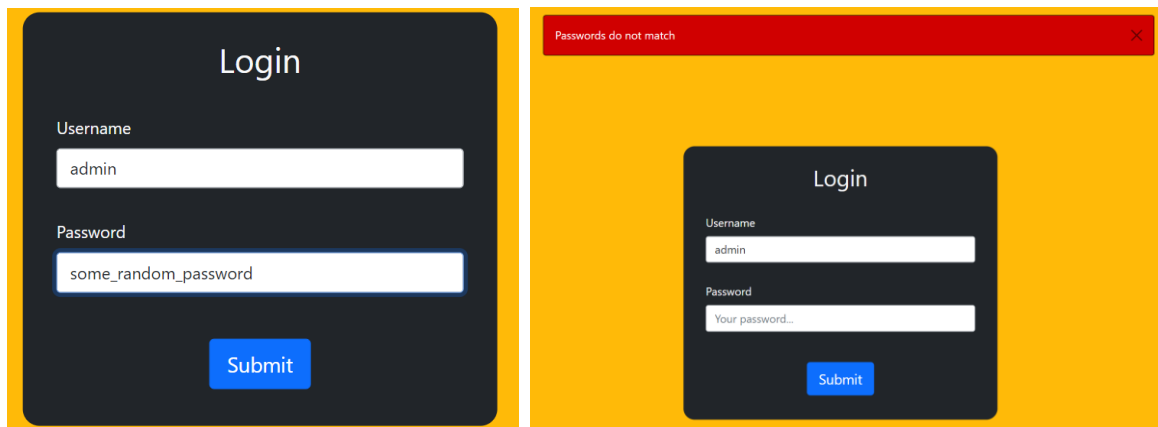
User does not exist scenario:

- Client enters user credentials;
- Data validation failed on server-side;
- Client is not being redirected and receives non-existence message.



Passwords do not match:

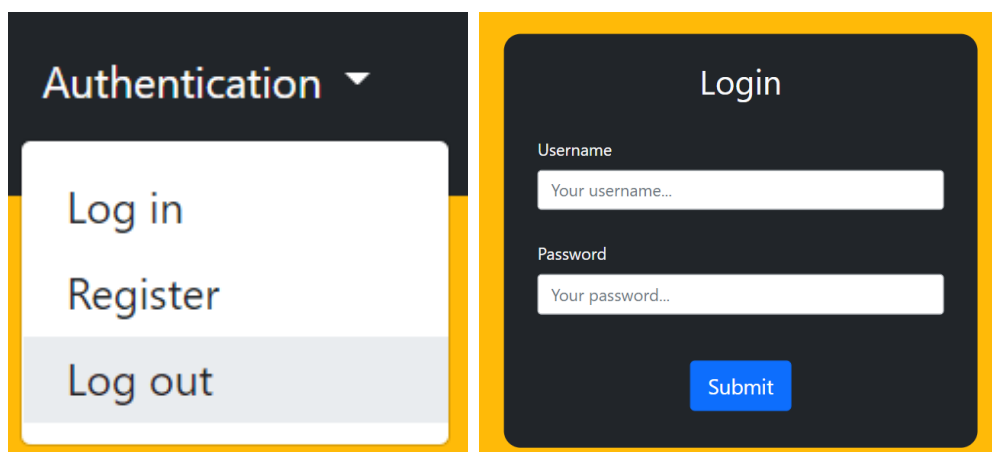
- Client enters user credentials;
- Data validation failed on server-side;
- Client is not being redirected and receives corresponding message.



1.3 Login

Scenario:

- Client has previously logged in;
- Client presses the logout button;
- Client gets logged out and redirected to login page.

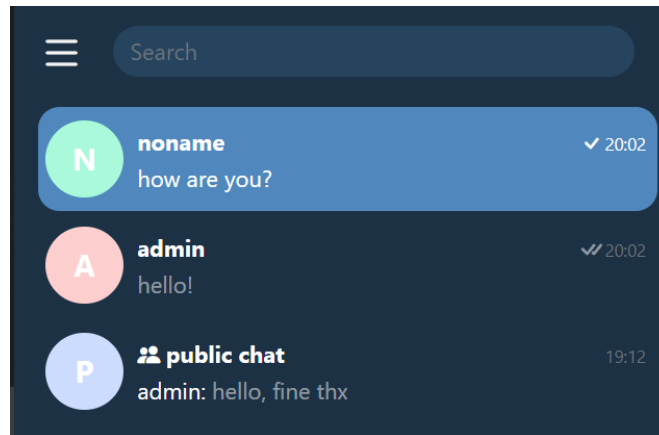


2. Messenger

2.1 Displaying chats

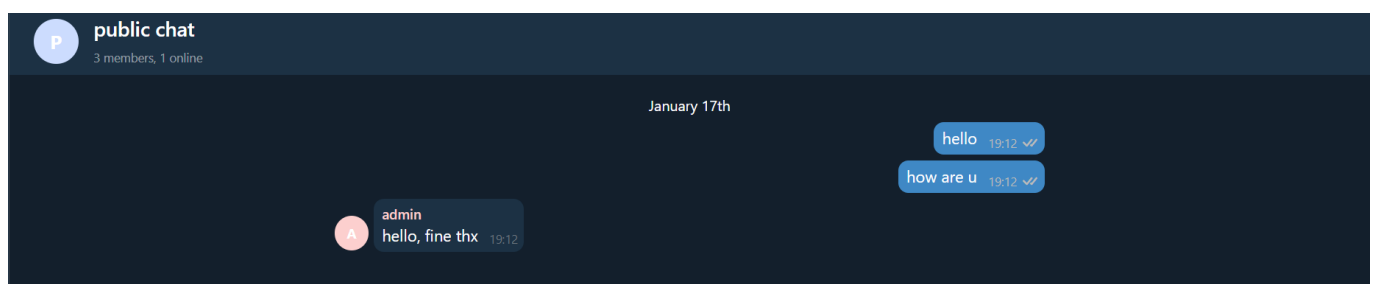
As user gets in the chat, list of his chats are being displayed. Each chat button provides with following information:

- Chat logo;
- Chat type (specific icon appears if the chat type is group);
- Chat title (or companion user's username if chat type is private) (from now on this will be referred as the "chat's title")
- Last message text;
- Last message created time;
- If last message was sent by client's user, seen-unseen mark appears.
- Unread messages count (if equal to 0, is hidden).



2.2 Displaying specific chat

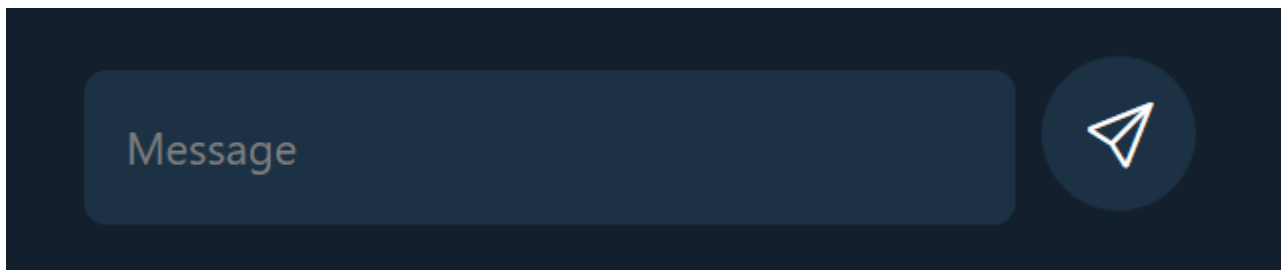
Chat is being displayed in the main page part. Each chat has a header displaying its title and online status of its members. Also, each chat has message block and sending message block. Group chats also have a right block, which can be accessed by clicking the chat's header block. Active chat will have corresponding marking on the chat's list, saying that the chat is being read.



Each message has its text and time of sending. If client's user has sent the message, it'll also have seen-unseen mark. If chat type is group, all messages that are not sent by client's user will have sender's logo and username.

2.3 Sending messages

To send message text client has to type in message text in special message box and click send button.



After clicking the send button, message will appear in message list block and active chat will move to the top in the chat list.

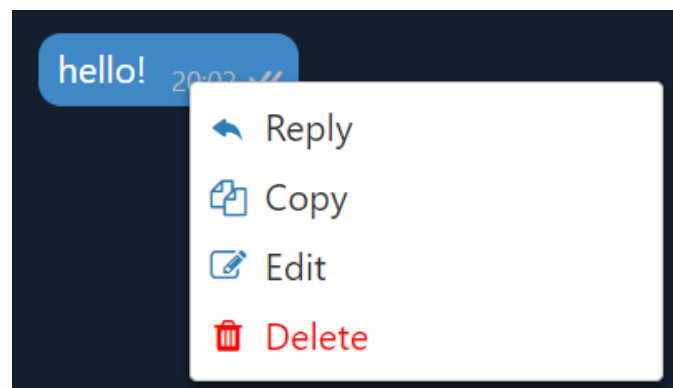
2.4 Receiving messages

Messages are received in the background using web sockets. When receiving a message, if active chat is not the message's chat, unread message counter will increment by one and move to the top of chat list, displaying all data about new last message.

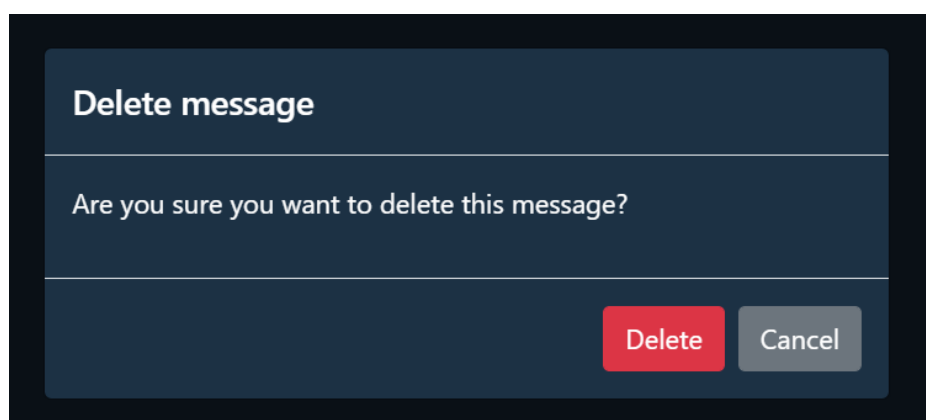


2.5 Deleting messages

To delete message, you have to right-click any message in private chats and own message in group chat, and then press delete.



Modal dialog window will show up confirming to delete a message.



Main scenario:

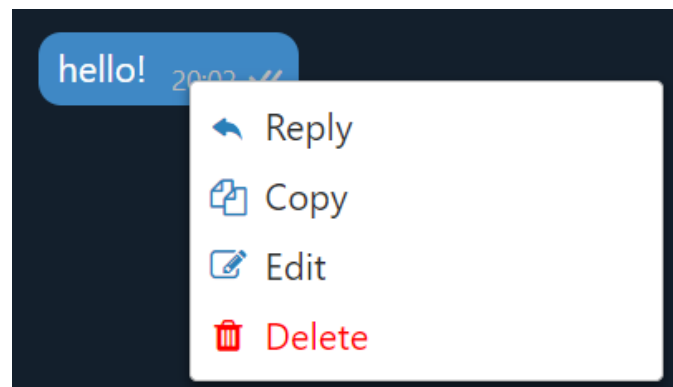
- Client clicks on Delete button;
- Message gets removed for all chat members

Cancel operation scenario:

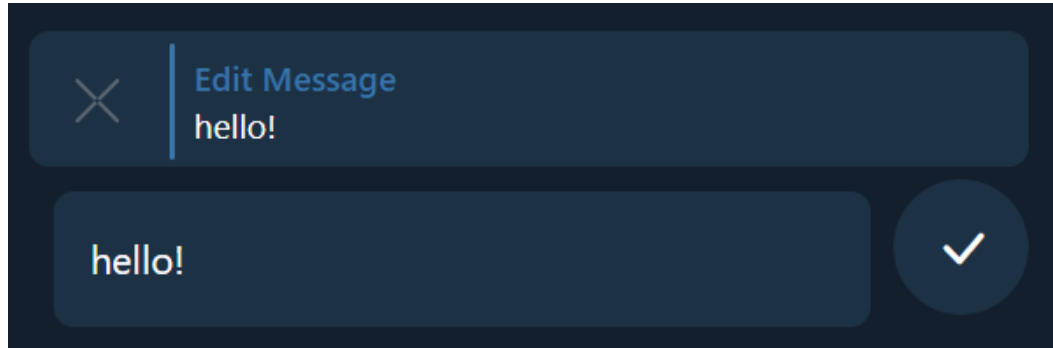
- Client clicks on Cancel button;
- Message does not get removed;

2.6 Editing message

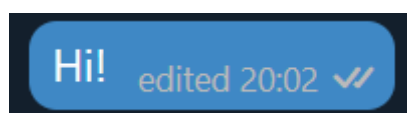
To edit message, client has to right-click own message and select Edit option.



Edit block will appear above the new message text block.

**Main scenario:**

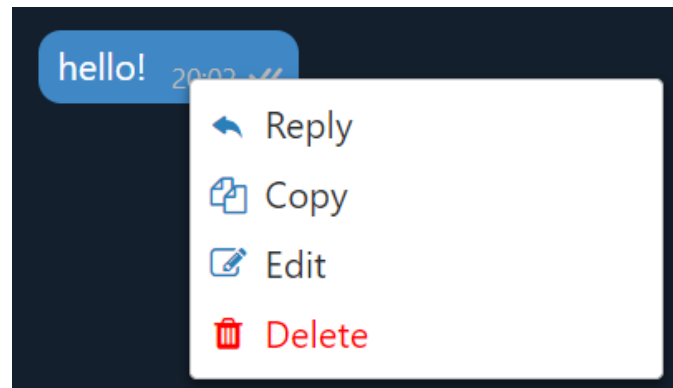
- Client edit's text in message text block;
- Client clicks Checkmark button;
- Message gets edited, having corresponding "edited" mark.

**Cancel operation scenario:**

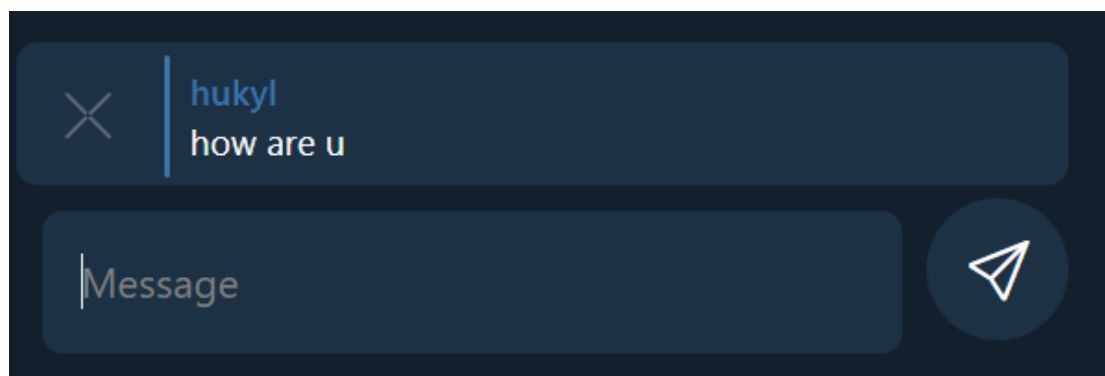
- Client clicks Cross button;
- Message does not get edited.
- Edit block disappears.

2.7 Replying to messages

To reply to a message client has to right-click any message and select “Reply” option.



A reply block will appear above new message text block.



Main scenario:

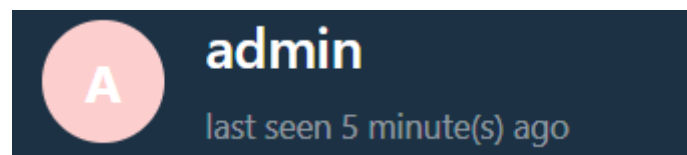
- Client types new message text and clicks “Send” button;
- All members of chat receive a message and it gets displayed.

Cancel operation scenario:

- Client click “Cancel” button;
- Reply block disappears.

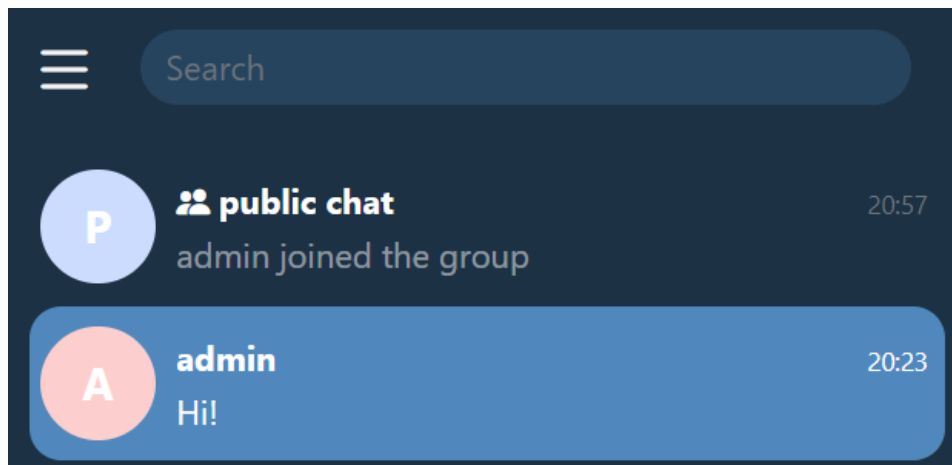
2.8 Update online statuses

Messenger window focus counts as a “set online” event, and window blur – as “set offline” event. This event gets resent to every chat user is member of and the status updates.

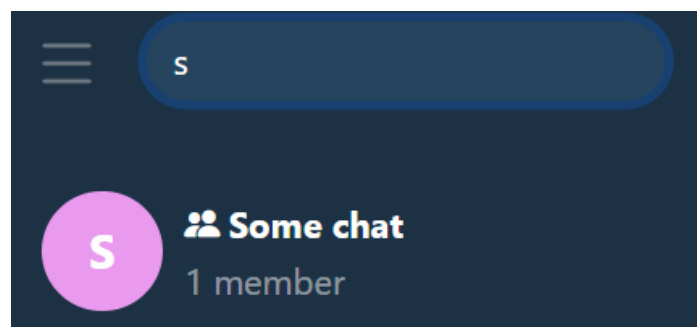


2.9 Searching for chats

To search for chats by name, client has to type query into special search box on top of chat list.



Once non-empty query is typed, chat list displays list of group chats with title starting by query string which user is not member of. Each chat contains information about its name and member count.

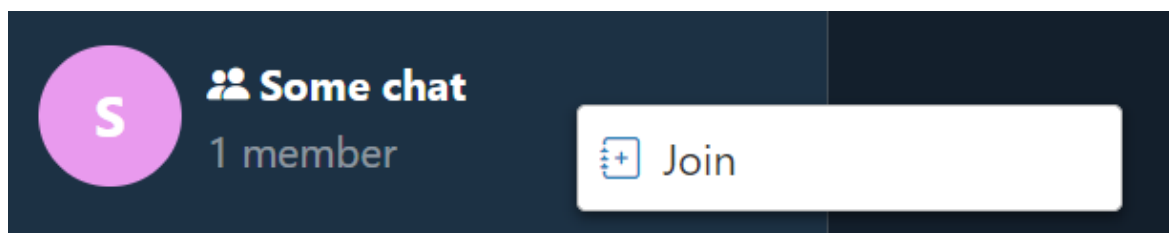


By left-click on chat block, client can select “Join” option to join this chat, unless it already has maximum number of members (which can vary and for now for group chats it is 50 members)

2.10 Joining chats

User can join chat by other users adding him or joining chat by himself via chat searching.

To join chat, client has to enter chat search query and left-click the chat block.



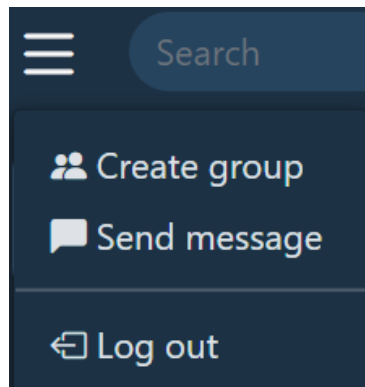
Once “Join” option was selected, all members receive joining message and user joins the chat. New chat gets listed on user’s chat list. New member has access to all previous messages that got sent when he was not a member of the chat.

hukyl joined the group

2.11 Creating chats

Client can create both private and group chats.

To create group chat, client has to click menu button in the top left corner page of the page and select “Create group” option.



Once the button was clicked, it will invoke modal dialog asking for chat title.

A modal dialog box with a dark background. It has a title 'New group title' at the top. Below the title is a text input field. At the bottom right are two buttons: 'Create' (blue) and 'Cancel' (gray).

Chat title can consist any character, and has to have at least length of 1.

Main scenario:

- Client types new group title and click “Create”;
- New group has been created and added to the top of chat list.

Cancel operation scenario:

- Client clicks “Cancel” button;
- Modal dialog closes.

To create private chat, client has to click same menu button and select “Send message” option. Once it was selected, modal dialog for searching users will be invoked.

A modal dialog box with a dark background. It has a title 'Create private' at the top. Below the title is a text input field with the placeholder text 'Query'. At the bottom right are two buttons: 'Add' (blue) and 'Cancel' (gray).

For empty query string, all users that are in local storage but current user does not have private chats with will appear. Once query string is not empty, all users in

database will be filtered by the start of their username matching the query string (matching the same condition).

Main scenario:

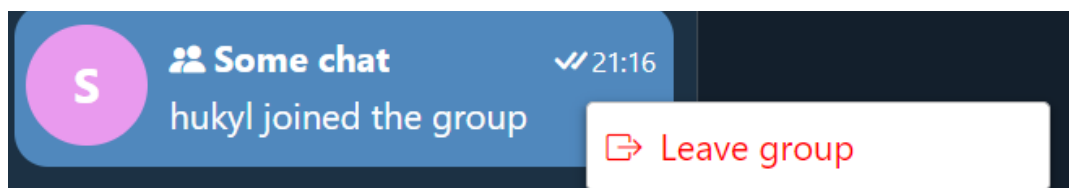
- Client enters optional query string, selects user and clicks “Add”;
- New private chat with selected user is created and added to the top of chat list.

Cancel operation scenario:

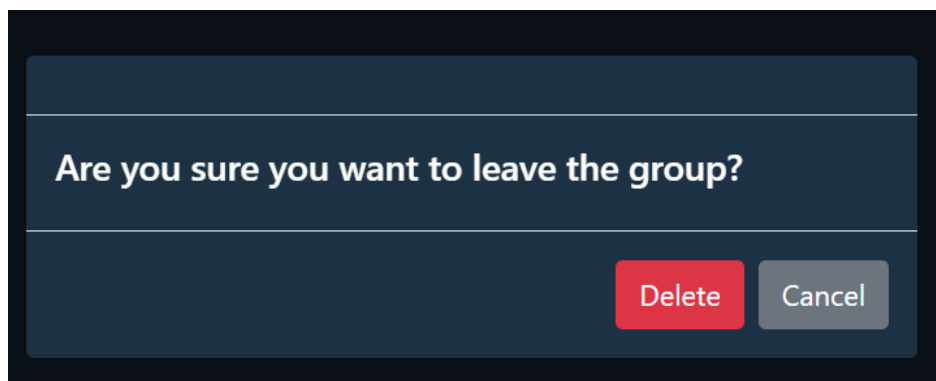
- Client clicks “Cancel” button;
- Modal dialog window closes.

2.12 Leaving chats

To leave chat, client has to click “Leave group” (“Delete” for private chats) option.



Once option was clicked, it will invoke modal dialog confirming leaving/deleting chat.



Main scenario:

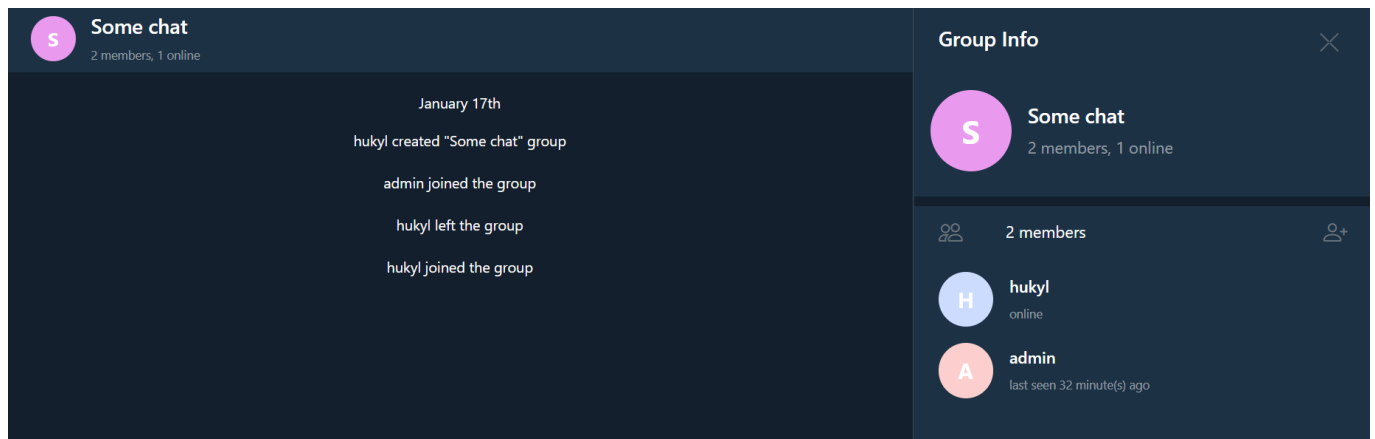
- Client clicks “Delete”;
- If chat is private and has one member left, or chat is group and has 0 members left, it and all its messages get deleted;
- Otherwise, all chat members receive leaving message;
- Chat gets deleted from chat list and hidden in the main body.

Cancel operation scenario:

- Client clicks “Cancel”;
- Modal dialog window closes.

2.13 Adding members to group chat

To add members to group chat, client has to selected chat and click chat header. This way right block will display.



Then client has to click add member icon. Same modal dialog as for creating private chats will appear.

Main scenario:

- Client enters optional query, selects user and clicks “Add” button;
- New chat member will be added;
- All chat members will receive joining message.

Cancel operation scenario:

- Client clicks “Cancel” button;
- Modal dialog closes;