Use Cases:

Use Case ID: CASE_1

Use Case Name: User Account join the 1 to 1 Chat room.

Relevant Requirements: User Class, Chat Class, Notification Class, Chat History Class

Pre-conditions: When users need to join in a 1 to 1 Chat Room.

Post-conditions: Users join a Chat Room and send text messages; they can search users by ID number and send chat requests. Also, they can manage chat history and notifications.

Extensions or Alternate Flows: Admin account can stop chatting at any time, clean the chat history and kick someone from the chat.

Exceptions: Two admin accounts in the chat room, permission conflict.

Related Use Cases: The system generates a chat room and a room number for users to use.

Use Case ID: CASE_2

Use Case Name: User Account join the Group Chat room.

Relevant Requirements: User Class, Chat Class, Notification Class, Chat History Class, Group Chat Class.

Pre-conditions: When users need to join a Group Chat Room.

Post-conditions: Users join a Group Chat Room and send text messages; they can search users by ID number and send chat requests. Also, they can manage chat history and notifications.

Extensions or Alternate Flows: Admin account can stop chatting at any time, clean the chat history and kick someone from the chat.

Exceptions: Two admin accounts in the chat room, permission conflict.

Related Use Cases: The system generates a group chat room and room number for users to use and it can be searched.

Use Case ID: CASE_3

Use Case Name: User Account Delete chat history in Chat room (Group Chat Room).

Relevant Requirements: User Class, Chat Class, Notification Class, Chat History Class, Group Chat Class, Delete Class.

Pre-conditions: When users delete chat history in a chat room.

Post-conditions: Users want to delete chat history in chat rooms and send text messages, but it is only deleted in users' clients. Server still saves the history. Only Admin accounts can be deleted on the server. Users can search users by ID number and send chat requests.

Exceptions: Admin account can delete history in server at any time.

Related Use Cases: Delete chat history.