

Elicitation

Target user:

Two students who often use chat tools.

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1. What is your purpose of using chat software?

Cindy : Meet more friends with similar interests and find more interesting topics.

Artmise: Group chat is more convenient than sending email alone.

2. Which aspect of functions do you use more frequently?

Cindy : Text chat.

Artmise: Transfer documents and channel chat.

3. (briefly describe the existing functions) Are you satisfied if you are allowed to use this software?

Cindy : Generally satisfied.

Artmise: There are more functions worthy of improvement. I hope to develop functions that are more helpful to the work.

4. What functions can be improved?

Cindy : Users' privacy can be improved, and they don't want to expose their personal identity in specific group chat

Artmise: When working, I hope to collect the messages I think are valuable and have a personal list of favourites. And similar functions, such as notes.

5. If we add the memo section, do you have any requirements for its functions?

Cindy : Like news, you can top it, but only show it to yourself

Artmise: It can be sent to others.

Analysis & Specification - Use Cases

1. As a user of the app who values anonymity, I would like a way to omit certain parts of my profile in certain channels so that my personal identity is not exposed.

User Acceptance Criteria:

- A prompt that shows up when you join a channel that asks if you wish to be anonymous.
- When the user selects 'yes' the prompt will disappear.
- The user's first and last name will be randomised from a selection of words.
- When another user attempts to check the user's profile an error will pop up containing "User is anonymous".
- No matter what the user selects initially a mask icon can be pressed to enable and disable it.
- If the user goes to a channel where they are not considered anonymous, their profile shows as normal.

2. As a student who often works in teams, I would like the ability to share documents to the channel so that we can access each other's work and give feedback.

User Acceptance Criteria:

- An icon of a paperclip will be placed near the send later button.
- A prompt will appear over the message bar with a placeholder field asking the user to "Drag and Drop a Document".
- The user can select an 'X' icon to go back to a normal message.
- The placeholder field is replaced with text stating the document name.
- When the user presses the send button a message with a hyperlink to download the document is sent.
- The message cannot be edited but it can be deleted.
- A maximum of 10mb can be sent.
- Only files of '.pdf', '.doc', '.docx' and '.txt' can be sent.

3. As a regular user of the app, I would like a way to save and collect messages to make them easier to access and share.

User Acceptance Criteria:

- A save icon is placed among the other message icons such as edit and delete.
- A saved icon is placed on the bottom of the user's profile.
- When the saved icon is pressed it will appear in the saved page.
- The only option in the page is to remove it from the saved list.
- If the message is deleted by the original sender it is also deleted in the saved list.

Use Case:

- Step 1: The user is prompted to login by the frontend
- Step 2: The user enters details
- Step 3: The server checks if the details match what is contained in the database
- Step 4: The server grants the user access to the application and stores their token
- Step 5: The user presses a channel which is public that they have not joined
- Step 6: The frontend displays a button to join the channel
- Step 6: The user presses join channel
- Step 7: The server uses a prompt to ask the user if they would like to be anonymous
- Step 8: The user selects 'yes'
- Step 9: The server adds the user to the channel
- Step 10: The server identifies their uId to become 'anonymous' in the channel data
- Step 11: The user's profile in the channel details is displayed with a randomised first name, last name and handle
- Step 12: The user selects the paperclip icon in the message bar
- Step 13: The frontend prompts the user to drag and drop a file
- Step 14: The user drags and drops a pdf file
- Step 15: The prompt is replaced by the filename
- Step 16: The user presses send
- Step 17: A message with a hyperlink to download the file is sent under the user's anonymous alias
- Step 18: The user presses the save icon on the message containing the hyperlink
- Step 19: The server stores the message's ID in the database
- Step 20: The user presses the mask icon
- Step 21: The server identifies the user and changes their displayed name in the channel details and user profile becomes what is contained in their user data
- Step 22: The user presses on the saved messages icon
- Step 23: The message with the hyperlink is displayed
- Step 24: The user presses logout
- Step 25: The server invalidates their token in the database

Requirements/ Validation

1. Do the use cases above adequately describe the problem that you were originally having?

Cindy: To a certain extent, I believe user privacy has been improved as people are now able to message anonymously in channels. However, there still is the issue of whether user information like passwords, emails and personal details are securely stored.

Artmise: Yes, the user being able to press a save icon on the file message to privately save the message to their own account does address the problem I described originally.

2. Do you have any concerns or complaints with how the problem you described has been addressed?

Cindy: Whilst the user is able to become anonymous in channels, their profile picture remains the same. I feel as though this could be used to identify the user and does not fully address the problem of user privacy.

Artmise: a small question I have is whether the saved messages are public or private on the user profile.

Design/ Interface Design

Interface Input/Output types

Variable Name	Type
token	String
anonymousUid	Integer
anonymousEmail	String
anonymousNameFirst	String
anonymousNameLast	String
anonymousHandleStr	String
anonymousUser	Object containing: <ul style="list-style-type: none"> • anonymousUid • anonymousNameFirst • anonymousNameLast

	<ul style="list-style-type: none"> • anonymousHandleStr • anonymousEmail
channelId	Integer
messageId	Integer
file	file

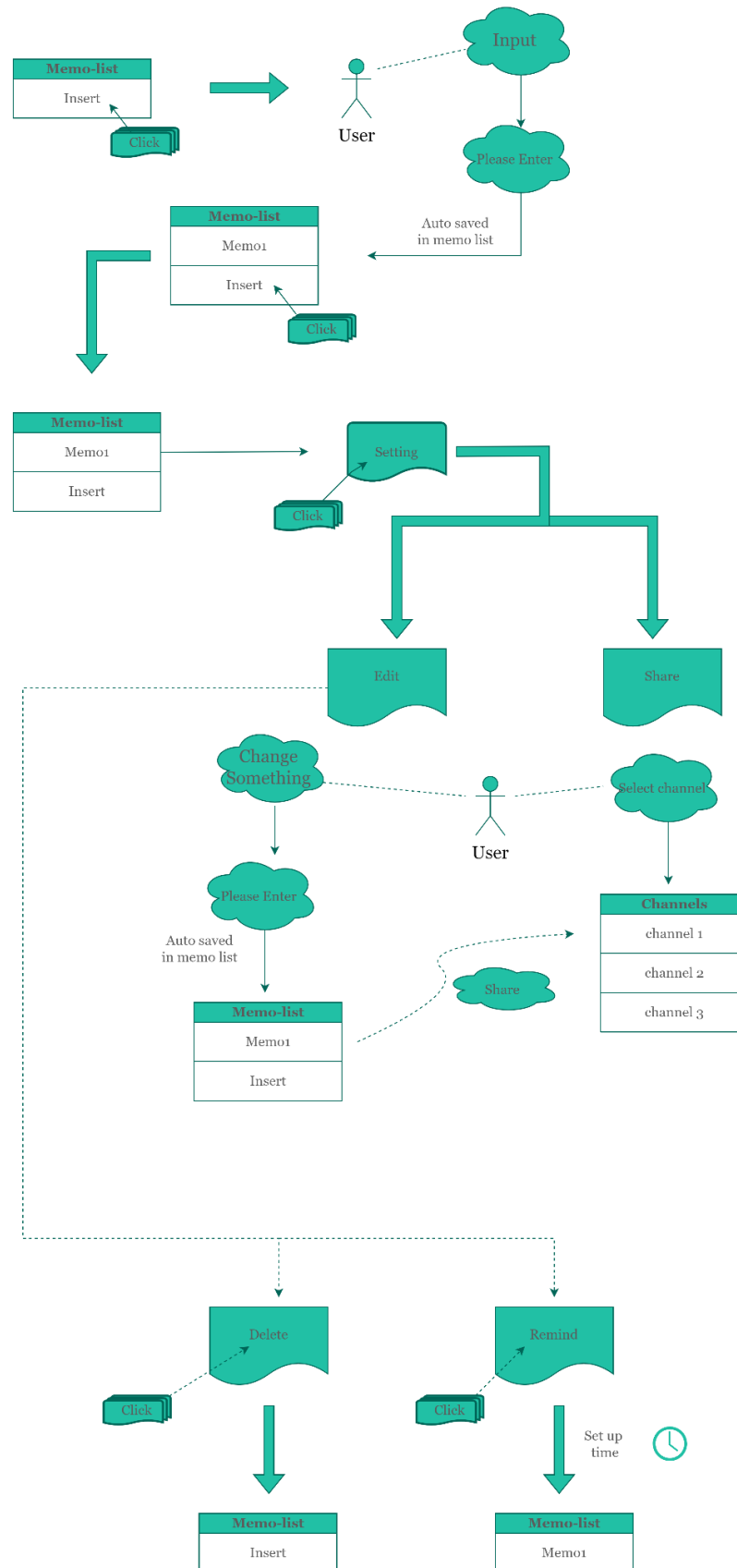
Interface

Name & description	HTTP Method	Data Types	Exceptions
<p>channel/anonymous/enable/v1</p> <p>Given a channelId of a channel the authorised user has permission to join or is already a part of, it masks their profile with a randomly generated first name, last name, handleStr, email and uId. When user/profile/v1 is called a pop-up appears stating “user is anonymous”.</p>	POST	<p>Body Parameters: (token, channelId)</p> <p>Return type if no error: { anonymousUid }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> • channelId does not refer to a valid channel <p>403 Error when any of:</p> <ul style="list-style-type: none"> • Invalid token is entered • The authorised user does not have permission to join the channel as it is private
<p>channel/anonymous/disable/v1</p> <p>Given a channelId of a channel that the authorised user is anonymous joined to the user is changed to be no longer anonymous.</p>	POST	<p>Body Parameters: (token, channelId)</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> • channelId does not refer to a valid channel • The authorised user is not a member of the channel <p>403 Error when any of:</p> <ul style="list-style-type: none"> • Invalid token is entered
<p>message/file/share/v1</p> <p>Sends a file from the authorised user to the channel specified by channelId.</p>	POST	<p>Body Parameters: (token, channelId, file)</p> <p>Return type if no error: { messageId }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> • channelId does not refer to a valid dm • The file size is not between 1 and 10mb • The file is not of type: ‘.pdf’, ‘.doc’, ‘.docx’ or ‘.txt’

			<p>403 Error when any of:</p> <ul style="list-style-type: none"> Invalid token is entered The authorised user does not have permission to send messages in the channel as it is private
<p>message/file/shareDm/v1</p> <p>Sends a file from the authorised user to the DM specified by the dmId.</p>	POST	<p>Body Parameters: (token, dmId, file)</p> <p>Return type if no error: { messageId }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> dmId does not refer to a valid dm The file size is not between 1 and 10mb The file is not of type: '.pdf', '.doc', '.docx' or '.txt' <p>403 Error when any of:</p> <ul style="list-style-type: none"> Invalid token is entered The authorised user is not a member of the dm
<p>message/file/unshare/v1</p> <p>Removes the file in the message specified by messageId from the channel or DM.</p>	DELETE	<p>Parameters: (messageId)</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> messageId does not refer to a valid message in a channel or DM that the authorised user is a member of <p>403 Error when any of:</p> <ul style="list-style-type: none"> Invalid token is entered
<p>message/save/v1</p> <p>Given a message within a channel or DM, adds it to the user's saved Messages array.</p>	POST	<p>Body Parameters: (messageId)</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> messageId does not refer to a valid message within a channel or DM that the authorised user is a part of <p>403 Error when any of:</p> <ul style="list-style-type: none"> Invalid token is entered
<p>message/unsave/v1</p>	POST	<p>Body Parameters: (messageId)</p> <p>Return type if no</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> messageId does not refer to a valid message within a

Given a message within a channel or DM, removes it from the user's saved Messages array.		error: { }	channel or DM that the authorised user is a part of 403 Error when any of: <ul style="list-style-type: none">• Invalid token is entered
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Design/ Conceptual Modelling



https://drive.google.com/file/d/1cuDuB7FNdPhmNW_yMiqFEw-S88DV6A-Q/view?usp=sharing