## **Interview Questions**

The purpose of the interview is to ask target users to understand what *problems* they might have with teamwork-driven communication tools that are currently unsolved by flockr. Before talking to the users, the frontend has been set up on a lap top and is on the login page. Then the laptop will be handed to the users and multiple questions will be asked after they finish their experience with it.

The question lists (in order):

- 1. Did you find setting up your profile page intuitive?
- 2. Was the variety of the channels diverse enough? If not, what other types of the channel would you want?
- 3. How did you find the options given for a channel?
- 4. How did you find the messaging text box? Does it provide all the functionalities you want?
- 5. How did you find the options given for messages already sent (reacting, pinning, editing and deleting)?
- 6. Are there any other forms of communication you would like to see added?
- 7. What would you rate your overall experience from a scale of 0 to 10?

## **Users' responses**

User1

o Name: Zoe Hu

o Email: zoehu1030@gmail.com

• User2

o Name: Owen Su

• Email: <a href="mailto:sym.owen@gmail.com">sym.owen@gmail.com</a>

• User3

o Name: Jacob Ro

o Email: jhkripano@gmail.com

# Q1: Did you find setting up your profile page intuitive?

#### User1:

No. I didn't understand the use of the handle and there was no explanation on the page. Also, the way to upload a profile image is too complicated. It is way too hard to upload a picture since I have little knowledge of the types of the image and don't know what it is asking for. However, the way to reset the name and the email is intuitive.

#### User2:

It was alright. The buttons are simple to use but more colours might be added to the page to make it more beautiful. For the uploading image part, it might be better to provide a preview on the page to allow me seeing the image before uploading.

#### User3:

For the most part yes, but I had no idea how to change the profile pic and it was uncomfortable changing my details because I had to press the edit button next to each of the textboxes.

# Q2: Was the variety of the channels diverse enough? If not, what other types of the channel would you want?

#### User1:

Yes. Public and private channels look good to me.

#### User2:

Yeah. Looks good!

#### User3:

There were not enough features on the channel rather than a variety of channels. For example, features like muting, blocking and kicking people off channels were not easy to find if there was such a feature.

# Q3: How did you find the options given for a channel?

#### User1:

The options given for a channel were insufficient. There was no way to rename a channel once it was created, neither was there any way to delete a channel I created. I would have liked a feature where the channel can be switched from public to private once a certain number of members is reached in a channel. For example, if the limit is 200 people for a public channel, then as long as there is less than 200 people, anyone is able to join. However, after this any new members can only be added via invitation. I would also like to have a session on the channel page to display the description of this channel.

#### User2:

The functionalities already there look good to me, but they are not sufficient. I would like to be able to comment a sent message, rather than just simply do the like reaction to it. I would also like to forward a sent message from a channel to another different channel that I'm in.

#### User3:

Somewhat complicated because they were not very well explained or intuitive enough to find easy to use in the limited time given. It also seems very rigid because i can't seem to change the name of a channel after i made a typo in its name. It also seems like i can't delete the channel i made after realising my typo but maybe i just couldn't figure it out.

# Q4: How did you find the messaging text box? Does it provide all the functionalities you want?

#### User1:

No. I would like the ability to mention someone in a text box so that this user will be notified individually. I would also like to send images, emojis and files through a messaging text box.

#### User2:

It's too simple. The font size and the font colour are fixed, but I really want a feature allowing me to modify them when I am texting. Also, being able to send a table is helpful for group work communications. Furthermore, other functionalities in any other rich text editors including bullet points, images, files and links would be better to be included as well. :)

#### User3:

It was decent. There were some features that were missing such as a wider range of emotes, sending images and files etc. Also, you have to manually copy url links that are sent by other users, i would like the feature of clicking the url and have it opened in my browser.

# Q5: How did you find the options given for messages already sent (reacting, pinning, editing and deleting)?

#### User1:

I found that the options were generally good. Pinning, editing and deleting messages was fine but for reacting, i would like extra reactions for messages other than liking.

#### User2:

Except commenting, it might be better to also have the dislike reaction:)

#### User3:

Good, there was a wide variety given and all features that i would think of for messages already sent were there however i do question if other people are able to edit and delete my messages because i believe only the person sending the message should be able to edit and delete their messages.

# Q6: Are there any other forms of communication you would like to see added?

#### User1:

I would like to see screen sharing and video calls being added into channels. I would also like the ability to private message specific users.

#### User2:

To me, audio messages are far more convenient compared to manually typing up the text messages. However, considering the situations where it might be inconvenient for other members in channel to listen to the audio messages at anytime, a feature transformming an audio message to a text message is helpful. Also, an anonymous drop box would be fun for a group weekly review where people can drop their personal opinions without others being able to see their identities.

#### User3:

Calls, video calls, private messaging.

# Q7: What would you rate your overall experience from a scale of 0 to 10?

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7:)

#### User2:

6.5:P

#### User3:

10 because i think you guys did really good for your first time.

## **Analysis & Specification**

### **User stories with User Acceptance Criteria**

- As a user, I want an explanation of the use of handle on the profile page so that I know what it is for
  - 1. The user has navigated to the page of the profile.
  - 2. The user clicks the question mark button next to the handle text box.
  - 3. A text box appears explaining what a handle is and what it is for.
- As a user, I want a way to directly upload a profile image by using mouse to drag, drop and crop so that the action is more intuitive.
  - 1. The user has navigated to the page of the profile.
  - 2. The user clicks the button called "upload profile image" and a box will appear on the page.
  - 3. The user drags a locally saved image to the box and resizes the crop box to the desired dimensions before clicking the button "upload".
- As a user, I want to mention a specific user in the channel by typing the character "@" before their unique handle so that this specific user will be notified individually.
  - 1. The user navigates to the channel page.
  - 2. The user clicks the message text box.
  - 3. The user enters the character "@" with the specified user's handle and press enter.
  - 4. The specified user is notified individually that they have been mentioned.
- As a user, I want to drag a locally saved image or a file to the message text box so that it will be sent when I press enter.
  - 1. The user navigates to the channel page.
  - 2. The user clicks the message text box.
  - 3. The user drags a locally saved image/file to the message text box and presses enter.
  - 4. The image/file is sent to the channel as a message
- As a user, I want to be able to select an emoji in a popped up section from an emoji button near the message text box so that it can be added to the text once I click it.
  - 1. The user navigates to the channel page.
  - 2. The user clicks the message text box.
  - 3. The user clicks the emoji button embedded in the message text box and a collection of emojies are displayed on the page in a small box.
  - 4. The user clicks the desired emoji and it will be added to the message text box.
  - 5. The emoji will be sent with other plain text once enter is pressed.
- As a user, I want to be able to click a reaction from a range of displayed reactions for a message already sent so that the reaction will be shown next to the message box.

- 1. The user navigates to the channel page
- 2. The user clicks the reaction button at the end of each sent message.
- 3. A small text box pops up with a range of reactions and the user click on one of them.
- 4. If this reaction hasn't appeared for the message, it will be added to the end of this message box. Otherwise the number representing the occurrence of this reaction will be incremented by one.
- As a user, I want to be able to start a video call in a channel which can be joined by any other members in this channel so that we could turn our mic and webcams on and also share the screen.
  - 1. The user navigates to the channel page.
  - 2. The user clicks the video button at the top right corner of the page, and will be directed to a page for the video call.
  - 3. A message is sent to the channel by system with the button to join the video call.
  - 4. On the video call page, there are four buttons at the bottom which are for the mic, webcams, screen sharing and leaving the video call respectively.
  - 5. An user joined a video call will have there mic, webcam and sreen sharing off by default.
- As an owner of a channel, I want to rename my channel so that the channel's name can be updated after being created.
  - 1. The user has navigates to the page of the channel which the user is an owner of.
  - 2. The user clicks the button called "rename" next to the channel name and a text box appears on the page.
  - 3. The user enters a valid name of the channel in the text box.
  - 4. The channel name is replaced by the new name
- As an owner of a channel, I want to delete my channel so that the inactive channels can be deleted at any time.
  - 1. The user navigates to the page of the channel which the user is an owner of.
  - 2. The user clicks the button called "delete" next to the channel name and a text box appears on the page with the message "Are you sure you want to DELETE the channel? This action is not reversible".
  - 3. If the user clicks YES, then the channel will be deleted and they will be directed to the homepage. Otherwise if the user clicks cancel, they will be directed back to the channel page.
- As an owner of a channel, I want to set up a limit of the number on the members so that the channel can be switched from public to private after the limit is reached and new members can only join via invitation from any owners.
  - 1. The user navigates to the page of the channel which the user is an owner of.
  - 2. The user clicks the button called "set member limit" next to the channel name and a text box appears on the page with the message "Please enter a limit".
  - 3. The user enters a positive integer.
- As an owner of a channel, I want to be able to display a description of the channel at the top of the channel page so that all the members can see it.
  - 1. The user navigates to the page of the channel which the user is an owner of.
  - 2. The user clicks the button called "description" below the channel name and a text box appears on the page with the message "Please enter the description of this channel".
  - 3. The user enters the text in the text box and click the button "done". The user can enter

- no more than 1000 characters.
- 4. The text is added below the channel name.

- As a user, I want a preview of the image being uploading so that it would be easier for me to decide the cropping dimensions.
  - 1. The user navigates to the page of the profile.
  - 2. The user clicks the button called "upload profile image" and a box will appear on the page.
  - 3. The user drags a locally saved image to the box and resizes the crop box to the desired dimensions before clicking the button "upload".
- As a user, I want to be able to comment a sent message in a channel so that the others know which message I'm replying to.
  - 1. The user navigates to the channel page.
  - 2. The user clicks the comment button at the end of a sent message.
  - 3. A small text box pops up allowing the user to write text to it.
  - 4. The text will be shown below the message being commented with a smaller font with the name of the user who performs the commenting.
- As a user, I want to be able to forward a sent message from a channel to another channel I'm a member of so that I do not need to manually copy and paste the message without others being able to see its original author.
  - 1. The user navigates to the channel page.
  - 2. The user clicks the forward button at the end of each sent message.
  - 3. A small text box pops listing all the channels that the user is a member of.
  - 4. After the user clicks the confirm button, a whole copy of the message will be added to the target channel with the name of the user who performs the forwarding appended below the message.
- As a user, I would like a rich editor supplied by the message box so that the functionalities including font size, font colour, table, images, files and links are supported.
  - 1. The user navigates to the channel page.
  - 2. There is a bar embedded in the bottom message box with buttons for font size, font colour, table, images, files and links.
  - 3. The user may click the buttons for font size and font colour. Then the font and colour of the following texts entered are changed to the selected size/colour.
  - 4. The user may click the button for table. Then there will be a small box popping up which allows the user to choose the number of rows and columns. Then a table with a corresponding size will be placed in the message box for the user to edit.
  - 5. The user may click the button for the images and files. Then the user could drag a locally saved image/file to the message text box and presses enter. The image/file is sent to the channel as a message.
  - 6. The user may click the button for the link. Then a text box will pop up on the page and ask the user to enter a text. This text will be treated as a link and added to the message box.

- As a user, I want to be able to send audio messages to a channel and it can be transformed to a text message by other users so that members in a channel can send and read messages in a more efficient way.
  - 1. The user navigates to the channel page.
  - 2. The user clicks and holds a button embedded in the message box and start to talk.
  - 3. The audio is recorded and sent to the channel as a normal message.
  - 4. The other members in this channel could choose to click a button next to the message to turn the audio to a plain text message.
- As a user, I want to be able to build an anonymous drop box so that the messages sent to this box do not show their author.
  - 1. The user navigates to the channel page.
  - 2. The user clicks a button next to their profile image and name to activate an anonymous drop box.
  - 3. There will be an icon added next to user's profile image indicating that this user has activated an anonymous drop box.
  - 4. The other users click on the icon and a text box will pop up on the page, allowing them to enter text.
  - 5. When the user click on their own drop box icon, the anonymous messages will be displayed in a chronological order.
- As a user, I want to be able to click a dislike reaction for a message already sent so that the reaction will be shown next to the message box.
  - 1. The user navigates to the channel page
  - 2. The user clicks the reaction button at the end of each sent message.
  - 3. A small text box pops up with a range of reactions (including the dislike reaction) and the user click on one of them.
  - 4. If this reaction hasn't appeared for the message, it will be added to the end of this message box. Otherwise the number representing the occurrence of this reaction will be incremented by one.

- As a user, I want to be able to click a single button called edit to change my profile details so that I can change my details more intuitively.
  - 1. The user navigates to the profile page.
  - 2. The user clicks the edit button on the profile page.
  - 3. The user clicks on the textbox of the profile detail he wants to edit.
  - 4. The user presses enter and the changes are saved.
- As a user, I want to be able to mute, block and kicking members off channels as an owner.
  - 1. The user navigates to the channel page.
  - 2. The user right clicks the members name and presses the tab and selects mute, block or kick.
  - 3. There will be a message saying the targeted user has been muted/blocked/kicked.
  - 4. The targeted user has been muted/blocked/kicked.
- As a user, I want to be able to click a url link sent from another user and have the link opened up in a browser so that i don't have to manually copy paste the link.

- 1. The user navigates to the channel page
- 2. The user types the url to send in the message box and presses enter.
- 3. The user who wants to open the url link left clicks the url link message.
- 4. The user who clicked on the message will have their preferred browser pop up with the url link already entered.
- As a user, I want to be the only one able to edit/delete my messages so that others cannot edit/delete the messages i sent.
  - 1. The user navigates to the channel page.
  - 2. The user types a message and clicks the edit/delete button.
  - 3. The user is able to edit/delete their own message.
  - 4. Another user who sees the message is not able to see an option to edit or delete the message.
- As a user, I want to be able to call/video call other users so that i can communicate in a different and more personal way.
  - 1. The user navigates to the channel page.
  - 2. The user right clicks the member who they want to call/video call and clicks the tab that says call/video call. The user will be notified that they are calling and the member being called will also be notified.
  - 3. The member can now press accept or decline. If they accept, they are moved into a sub channel with audio/audio & webcam communication on. If they decline then the request is closed and both user and member are returned back to the channel page.
- As a user, i want to be able to message someone privately so that i do not need to create an entirely different channel to message another user personally.
  - 1. The user navigates to the channel page.
  - 2. The user right clicks the member who they want to private message and clicks the tab that says private message.
  - 3. The user is redirected to a new page with a message box whether the user types a message for the targer member and presses enter.
  - 4. The member is notified that the user has notified them and when clicking the notification is sent to the same page with the message show along with a message box.

#### **Use Cases**

**Use Case**: Renaming Channel

**Goal in Context**: An owner of a channel can rename their channel after it is created

Scope: Channel, Channels

**Level**: Sub function of channel & channels

**Preconditions**: The user is an owner of a channel.

**Success End Condition**: The name of the channel is replaced with the new name that the user entered

**Failed End Condition**: The channel name is not renamed.

**Primary Actor**: User

**Trigger**: The user clicks the button to rename the channel

**Use Case**: Deleting Channel

Goal in Context: An owner of a channel can delete their channel after it is created

**Scope**: Channel, Channels

Level: Sub function of channel & channels

**Preconditions**: The user is an owner of a channel.

**Success End Condition**: The channel is deleted.

Failed End Condition: The channel still exists.

Primary Actor: User

**Trigger**: The user clicks the button to delete the channel

Use Case: Limit on Channel

**Goal in Context**: An owner of a channel can set up a limit on the number of the members so that the channel can be switched from public to private after the limit is reached and new members can only join via invitation from any owners.

Scope: Channel

Level: Sub function of channel & channels

**Preconditions**: The user is an owner of a channel.

**Success End Condition**: The limit is set to the user's preference and new members can only join via invitation from any owners.

Failed End Condition: The limit does not exist and an indefinite amount of people can join freely.

Primary Actor: User

**Trigger**: The user enters a positive integer in the limit text box in the channel.

### **Validation**

#### User 1

Zoe: The use cases and user stories all accurately explain and encapsulate the problems i was discussing in my response to the questions given to me. It was actually split up to the point that there were more user stories than the responses i gave. All the use cases also related to suggestions i made, showing how well you guys explained my problems with flockr.

#### User 2

Owen: The use cases were not that specific to the issues i brought up. However i can see that the user stories for me were very informative and explained all the feedback i had in my answers really well. Good job!:)

#### User 3

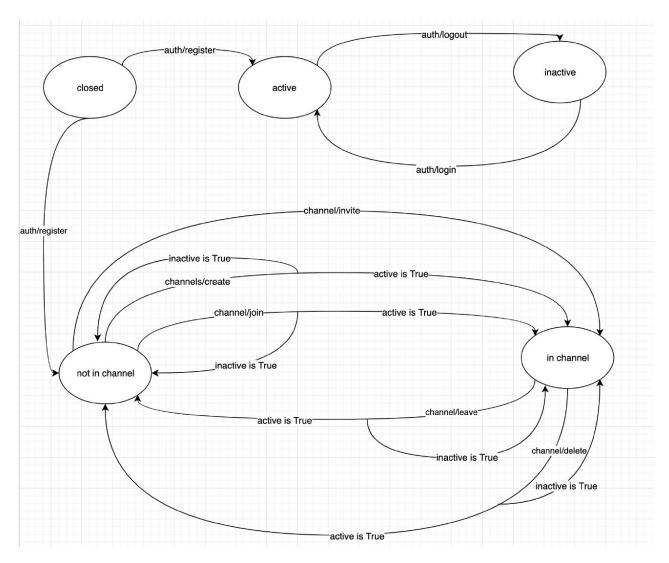
Jacob: The majority of the use cases were pretty specific to the answers i gave in my interview and it was also explained really well. The user stories also went over everything i suggested in my response so im happy with that. All in all the use cases described some of the problems i was trying to solve pretty well!

## **Interface Design**

Function Name	HTTP Method	Parameters	Return type	Exceptions	Description
channel/delete	DELETE	(token, channel_id)	0	AccessError: The token passed in is invalid. The authorised user is not an owner of the channel.  InputError: Channel (based on the id) does not exist.	Given a channel_id for a channel, this channel is removed from channels. The channel_id is kept but other keys within the channel are set to None.
channel/rename	PUT	<pre>(token, channel_id, new_name)</pre>	0	AccessError: The token passed in is invalid. The authorised user is not an owner of the channel.  InputError: Channel (based on the id) does not exist. Name is more than 20 characters long.	Given a new name of the channel, update the channel name with the new name.
channel/setlimit	PUT	(token, channel_id, limit)	0	AccessError: The token passed in is invalid. The authorised user is not an owner of the channel.  InputError: The limit passed in is not a positive integer.	When the member limit set by the user is reached, the channel will switch from public to private. All other new members can only join via inivitation from the owners of that channel after this.

# **Conceptual Modeling**

• The new features added will only affect the User and Channel states



## Channel

