

Requirements and Design

[Requirements] Elicitation

Interviewee 1

Name: Detian Duan

Email Address: karinaduan6@gmail.com

Background: UNSW Commerce Student, currently using Microsoft Teams for business group projects.

Q & A

Question: What are some problems you faced when navigating the interface of flockr?

Detian: Flockr does not feel user-friendly as there are insufficient messages to prompt successful implementation of function.

Question: What are some teamwork communication functionalities that you would like to see that are currently not present in flockr?

Detian: I would like to have the ability to send private messages to other users directly without having to create a channel. This can help to ease up the process of private messaging and speed up the ways to communicate with one another.

Detian: I would also like to have the ability to send voice notes to other users in the channel. Currently flockr can only send word messages, but having the ability to send voice messages can help users to quickly communicate their ideas with one another without the hassle of typing in long messages.

Detian: Flockr lacks the ability to send images in channel to other users. As a picture speaks a thousand words, we often need to share images in a team's channel to seek help quickly from other users.

Question: Is there any quality-of-life features that you would like to see that are currently not present in flockr?

Detian: There is only 1 react in flockr, the thumbs-up react. It is insufficient to express emotions through the channels with only one boring thumbs-up emoticon.

Detian: Flockr can introduce a status information for each user to show if a user is online or offline in the channel. This can help to better coordinate work and let you know who is available to help you in a team setting.

Interviewee 2

Name: Jack Li

Email Address: jackli3691@gmail.com

Background: UNSW undergraduate student, year 3, currently majoring in Actuarial Studies

Q & A

Question: Have you ever used any team chat or collaboration applications in learning and studying? What are they?

Jack: I have not used any specific teamwork collaboration app before. Usually I use Facebook Messenger in order to chat and discuss with my teammates when I have teamwork projects.

Question: What problems or difficulties have you encountered when using these apps?

Jack: Firstly, sometimes when I realized that I had been assigned with tasks, the allocating tasks message was hundreds of messages before the current ones. I had to search through messages even though I typed in some key words. Compared with file searching, searching for messages is not that time-consuming. When I need to search for public files, I have to search through all files so as to find the correct one. This becomes extremely tedious when hundreds of files come along with complicated file names.

Questions: What solutions would you suggest in order to solve these problems?

Jack: To solve the first difficulties, a functionality of group notice or announcement that is easy to access should be implemented. For the second one, a file system with file tags will be a great help to distinguish different files.

[Requirements] Analysis & Specification - Use Cases

Interviewee 1

Use Case 1

Use Case: Sending pictures

Goal in Context: User needs to send pictures in a channel

Scope: The web app of flockr

Level: Secondary Task

Preconditions: The User has logged in and has to be an owner or an member of the channel where the channel notice post in

Success End Condition: The user successfully sent pictures in channel

Failed End Condition: The user can not send pictures in channel

Primary Actor: User

Customer Trigger: User clicks the “sending picture” button then clicks the “select picture” button. In the end, the user click “send”

Main Success Scenario:

Step 1. User logs in with correct email and password

Step 2. User clicks the correct channel button

Step 3. User clicks “sending picture” button

Step 4. User can now view all local images

Step 5. User select the image he/she want to send and click send button

Step 6. User successfully send the image in channel

Use Case 2

Use Case: leaving direct comment to another user

Goal in Context: User needs to leave direct comment to another user

Scope: The web app of flockr

Level: Secondary Task

Preconditions: The User has logged in and has to be an owner of the channel where the channel notice post in

Success End Condition: The user sent the comment to another user

Failed End Condition: The user failed to sent the comment to another user

Primary Actor: User

Customer Trigger: User clicks another user's name tag button then click "leave a comment" button

Main Success Scenario:

Step 1. User logs in with correct email and password

Step 2. User clicks the correct user's name tag

Step 3. User clicks "leave a comment" button

Step 4. User write and edit the comment he/she want to send

Step 5. User successfully left a comment to another user

Use Case 3

Use Case: Get status of other users

Goal in Context: User needs to send voice mail in a channel

Scope: The web app of flockr

Level: Secondary Task

Preconditions: The User has logged in and has to be an owner of the channel where the channel notice post in

Success End Condition: The user sent the voice mail to another user

Failed End Condition: The user could not send the voicemail to another user

Primary Actor: User

Customer Trigger: User clicks another user's name tag button then click "leave a comment" button

Main Success Scenario:

Step 1. User logs in with correct email and password

Step 2. User clicks the correct channel

Step 3. User clicks “sending voice mail” button

Step 4. User clicks “recording yourself” button

Step 5. User decides whether to send or not send the just recorded voice mail by clicking “Send” or “deleting” button

Step 6. User successfully send the voice message in channel

Interviewee 2

Use Case 1

Use Case: View channel notice

Goal in Context: User needs to access channel notice to acquire necessary information

Scope: The web app of flockr

Level: Secondary Task

Preconditions: The User has logged in and has to be an owner or an member of the channel where the channel notice post in

Success End Condition: The user viewed the channel notice

Failed End Condition: None

Primary Actor: User

Customer Trigger: User clicks “Channel Notice” button

Main Success Scenario:

Step 1. User logs in with correct email and password

Step 2. User clicks the correct channel button

Step 3. User clicks “Channel Notice” button

Step 4. User successfully view the channel notice

Use Case 2

Use Case: Edit Channel Notice

Goal in Context: User needs to edit channel notice to acquire necessary information

Scope: The web app of flockr

Level: Secondary Task

Preconditions: The User has logged in and has to be an owner of the channel where the channel notice post in

Success End Condition: The channel notice has been edited by the user

Failed End Condition: The user is not an owner of the channel

Primary Actor: User

Customer Trigger: User clicks “Channel Notice” button then click “Edit” button

Main Success Scenario:

- Step 1.** User logs in with correct email and password
- Step 2.** User clicks the correct channel button
- Step 3.** User clicks “Channel Notice” button
- Step 4.** User successfully views the channel notice
- Step 5.** User clicks “Edit” button
- Step 6.** User edits the channel notice
- Step 7.** User clicks “Save” button
- Step 8.** A “You have successfully edited the channel notice” message prompt out

Use Case 3

Use Case: Upload channel file

Goal in Context: User needs to upload a file to the channel

Scope: The web app of flockr

Level: Secondary Task

Preconditions: The User has logged in and has to be an owner or a member of the channel where the file uploads in

Success End Condition: The user successfully uploaded the file they intended to upload

Failed End Condition: The file is oversize

Primary Actor: User

Customer Trigger: User inserts the file, edit “tag”, then clicks “Upload” button.

Main Success Scenario:

- Step 1.** User logs in with correct email and password
- Step 2.** User clicks the correct channel button
- Step 3.** User clicks “Upload File” button
- Step 4.** User successfully insert the file
- Step 5.** User edit “Tag” for the file
- Step 6.** User click “Save” to save the tag
- Step 7.** User clicks “Upload” button
- Step 8.** A “You successfully upload a file” message prompts out

Use Case 4

Use Case: Download channel file

Goal in Context: User needs to download a file from the channel

Scope: The web app of flockr

Level: Secondary Task

Preconditions: The User has logged in and has to be an owner or a member of the channel where the file download from

Success End Condition: The user have successfully downloaded the file they intended to upload

Failed End Condition: None

Primary Actor: User

Customer Trigger: User inserts the key word of “tags” and clicks on a tag, then choose a file and click “Download File”

Main Success Scenario:

- Step 1.** User logs in with correct email and password
- Step 2.** User clicks the correct channel button
- Step 3.** User clicks “Channel File” button
- Step 4.** User types in a keyword in “tag”, then click “search file” button
- Step 5.** User chooses the file they intended to download
- Step 6.** User clicks “Download” button
- Step 7.** A “You successfully download a file” message prompts out

[Requirements] Validation

Interviewee 1

Detian: With the inclusion of the ability to send voicemail, send direct messages and send pictures to other users, it has allowed flexibility in the way I communicate online with others through Flockr. I find these functions very handy and look forward to seeing more functionalities built to simplify my teamwork communication.

Interviewee 2

Jack: These functionalities are all fairly practical functionalities and they successfully solve the problems I met. I will be very glad to see these functions being implemented on Facebook Messengers and your project, Flockr!

[Design] Interface Design

Interface of functionalities inspired by Interviewee 1

Function Name	HTTP Method	Parameters	Return Type	Exceptions	Description
message/privatesend	POST	(token, user_id, message)	{message_id}	InputError when any of: Message is more than 1000 characters User ID is not a valid user_id	Send a message from authorised_user to the user specified by user_id
user/status/view	GET	(token, user_id)	{status_id}	InputError when any of: User ID is not a valid user_id	Given a User with ID channel_id, provide the status of the user
user/status/update	PUT	(token, status_id)	{}	InputError when any of: Status ID is not a valid status_id	Given a status with status_id, update the status of the current authorised user
channel/sendimage	POST	(token, img_url, channel_id)	{}	InputError when any of: img_url returns an HTTP status other than 200. Image uploaded is	Given a URL of an image on the internet, send an image to the channel with channel_id that the authorised user is part of

				<p>not a JPG</p> <p>AccessError when any of:</p> <p>the authorised user is not already a member of the channel</p>	
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Interface of functionalities inspired by Interviewee 2

Function Name	HTTP Method	Parameters	Return type	Exceptions	Description
channel/notice/view	GET	(token, channel_id)	{notice_message}	<p>InputError when any of:</p> <p>channel_id is not a valid channel_id</p> <p>AccessError when any of:</p> <p>User is not a member or owner of the channel with channel_id</p>	Given a Channel with ID channel_id that the authorised user is part of, provide the channel notice of the channel
channel/notice/edit	PUT	(token, channel_id, notice_message)	{is_new_notice_success}	<p>InputError when any of:</p> <p>channel_id is not a valid channel_id</p> <p>Notice contains</p>	Given a Channel with ID channel_id that the authorised user is part of, as well as a new notice message, change the channel notice with the

				<p>more than 1000 words</p> <p>AccessError when any of: User is not an owner of the channel with channel_id</p>	new notice message
channel/file/upload	POST	(token, channel_id, tag_name, file)	{is_upload_success}	<p>InputError when any of: channel_id is not a valid channel_id tag_name is greater than 20 words</p> <p>AccessError when any of: User is not a member or owner of the channel with channel_id The size of file is greater than 1 GB</p>	Given a Channel with ID channel_id that the authorised user is part of, with a file and a tag name, upload the file to the database with a tag name
channel/file/viewfile	GET	(token, channel_id, tag_name)	{file_list}	<p>InputError when any of: channel_id is not a valid channel_id</p> <p>AccessError when any of: User is not a member or owner of the channel</p>	Given a Channel with ID channel_id that the authorised user is part of, and a tag name, provide a list of all file names that are under the tag that contains input tag name

				with channel_id	
channel/file/download	GET	(token, channel_id, file_name)	{file, is_download_success}	<p>InputError when any of: Channel_id is not a valid channel_id No file is under the name file_name</p> <p>AccessError when any of: User is not a member or owner of the channel with channel_id</p>	Given a Channel with ID channel_id that the authorised user is part of and a file name, download the file under the file name file_name

[Design] Conceptual Modelling (State)

