

COMP1531 - Major Project - Iteration 3 - Planning the next requirements

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“The contents of this report will be a simplified approach to understanding user problems, developing requirements, and doing some early designs.”

Elicitation

We found 2 people to interview as target users for our “*Flockr*” application. We ensured our target users were familiar with tools similar to “*Flockr*” such as Microsoft Teams, Discord, or even facebook’s Messenger. These were the questions we asked and the interviewees answers to the questions:

Interviewee 1: Naaz Shwany

Interviewee’s email: nshwany@outlook.com

Interviewed by: Hasam Hasam

Q1: Do you use any form of team-work driven communication tools? If so, which ones and how frequently do you use them (i.e. everyday, every couple days, once a week etc)?

A: Skype, everyday, for work - it has screen sharing which I like, and iMessage by Apple. I really like how you can react to messages and how certain words such as ‘congratulations’ will populate the screen with confetti.

Q2: During the pandemic most our communication has shifted to online/technology based methods. A trade-off to this is the lack of real life human interaction. Is there any feature other than video conferencing you can think of that helps counteract this lack of human interaction?

A: Things like the zoom filters make the call feel more alive. I also like the ability to change the groups ‘theme colour’ on messenger. Integrating games in the messaging app using some sort of API also makes the communication tool feel more alive.

Q3: Is there any feature in the communication tool you use that you feel like can be implemented better? I.e reacting on facebook, or quoting a message.

A: With imessages - the drawing feature doesn’t let you have more detailed drawings i.e. letting the finger go. But that isn’t important. The main thing I feel like can be implemented better is if I could have a specific time of the day where all unread messages are sent to me i.e. my phone or computer will show the notification at specifically 3PM - a time I chose. I want this so my day feels more organised and I don’t have to rush to answering people on the tool, and it would overall reduce the stress involved with communication.

Q4: Generally speaking, what problems do you face when using your communication tool of choice?

A: Reminder notification on imessage is annoying. Read receipts are already on by default i.e. persistence in settings. So I guess being able to customise notification options within the app. I.e. how the user is notified. (solution to this mentioned above)

Q5: Off the top of your head, can you think of a feature that your communication tool of choice does not have?

A: If they really wanted to blow my mind, they could integrate touch sensitivity for convenience to bring more options. Also auto word suggestion from the app itself not the phone OS. I just want more customizability to be honest.

Q6: So overall, it seems like you want more freedom with your communication tools. By freedom I mean being able to have a variety of reactions for your messages, and also choosing when the communication tool notifies you of messages i.e. instantly, every X hour, or even at a specified time. Would you agree with this sentiment?

A: Yeah, I think you’re right about that. That would make my day to day life much less demanding, and I’d feel like I can focus on the task at hand more rather than focusing on more ad hoc enquiries from colleagues. I’d be able to dedicate like a portion of my day to just catch up on messages rather than being distracted.

Interview 1 concludes

Interviewee 2: Nathan Bicara
Interviewee 2 email: N.Bicara2430@gmail.com
Interviewed by: Shree Nath

Q1: Do you use any form of team-work driven communication tools? If so, which ones and how frequently do you use them (i.e. everyday, every couple days, once a week etc)?

Yes, I use them regularly both for work in a professional environment and for university. I personally use zoom by far the most I'd say just about every week-day, and discord more casually.

Q2: During the pandemic most our communication has shifted to online/technology based methods. A trade-off to this is the lack of real life human interaction. Is there any feature other than video conferencing you can think of that helps counteract this lack of human interaction?

I think much of the human interaction we have can be through communication which isn't verbal or visual. To that end, features which make the call more fun or convenient to be in, like being able to customize a profile, or even having bots perform tasks in discord can really change the energy of a call.

Q3: Is there any feature in the communication tool you use that you feel like can be implemented better? I.e reacting on facebook, or quoting a message.

To be honest, I'd like to be able to reply to specific messages in zoom, rather than just only being able to type to the group or a single person.

Q4: Generally speaking, what problems do you face when using your communication tool of choice?

The most crucial thing is probably only having one person able to speak at a time. In real life, I feel like you can have meaningful conversations which 'overlap', but in group call, it's either the whole group at once or breakout rooms with everyone at full volume.

Q5: Off the top of your head, can you think of a feature that your communication tool of choice does not have?

I don't think zoom has an option to see all the breakout rooms and move between them, so maybe a way to see all the breakout rooms, and the members of those rooms to give me a better idea of where to be.

Interview 2 concludes

Analysis & Specification - Use Cases

User Story #1 for Naaz (Interviewee 1): As a **daily user of communication tools**, I want to **choose when my message notifications are sent to me**, so that my day feels more scheduled and I can focus on other tasks.

User Acceptance Criteria:

- The user goes to their *Flockr* settings.
- There is a section called '*Notifications*' in the user's *Flockr* settings.
- Under this part of the settings, the user is asked '*How often would you like to be notified of messages?*'
- The user can choose to be notified either: instantly (default), every hour, every three hours, or at a specified time in the day i.e. 'every day at 3PM'
- Once the user has selected their preference, it is applied to their *Flockr* account.
- The user then will only be notified of messages at their preferred time/frequency.

Use Case:

MAIN SUCCESS SCENARIO

Step 1: User logs onto Flockr

Step 2: User then navigates to settings to change how often they received message notifications

Step 3: User changes to 'every day at 3PM' and the change is applied to the user's account.

Step 4: After the change is made, people decide to message the user. Flockr does not notify the user that they have unread messages.

Step 5: Time passes by and it is now 3PM. Flockr sends a notification to our user saying '*You have X unread messages from user1, user2..*' since there have been messages building up over time.

Step 6: The user is now notified and aware of the people that sent them a message.

Step 7: The user opens the message.

Step 7: Flockr is now aware that the user has opened the messages and will no longer notify them of any other messages until the next day at 3PM.

User Story #2 for Nathan (Interviewee 2): As a **daily user of team-communication tools**, I want to **be able to reply to specific messages**, so that **communicating by text is more precise**.

User Acceptance Criteria:

- The user enters a channel.
- The user reads a message.
- The user clicks on a 'reply' button attached to the message.
- The user types in a reply and presses send message button.
- Everyone in the channel can see the user's reply and the original message.

Use Case:

MAIN SUCCESS SCENARIO

Step 1: User logs onto Flockr.

Step 2: User opens channel.

Step 3: Another user has left a message while User was absent.

Step 4: User clicks on a button attached to this message indicating 'reply'.

Step 5: User types in a reply to this specific message.

Step 6: User presses send message button.

Step 7: Reply appears in the text channel, with a visual indication of which message was being replied to.

Step 8: Everyone in the channel can see the User's reply, along with the original message being replied to.

Validation

Interviewee 1's comment on the use case for the 'Notification Preference' feature: I think the notification preference thing is a nice feature to have on an instant messaging application. I can't think of any instant messaging app that does this – maybe Microsoft outlook? But it definitely makes messaging more digestible.

Interviewee 2's comment on the use case for the 'Message Reply' feature: I think this is pretty much exactly what I'd like to see as part of the direct messaging. It helps alot when you can't talk over the speaker but you still need to discuss something with another person.

Interface Design

Interface Design for 'Notification Preference' requirement suggested by interviewee 1:

The 'solution' for the requirement assumes there is a local 'settings' section that the user can edit for their own interface settings.

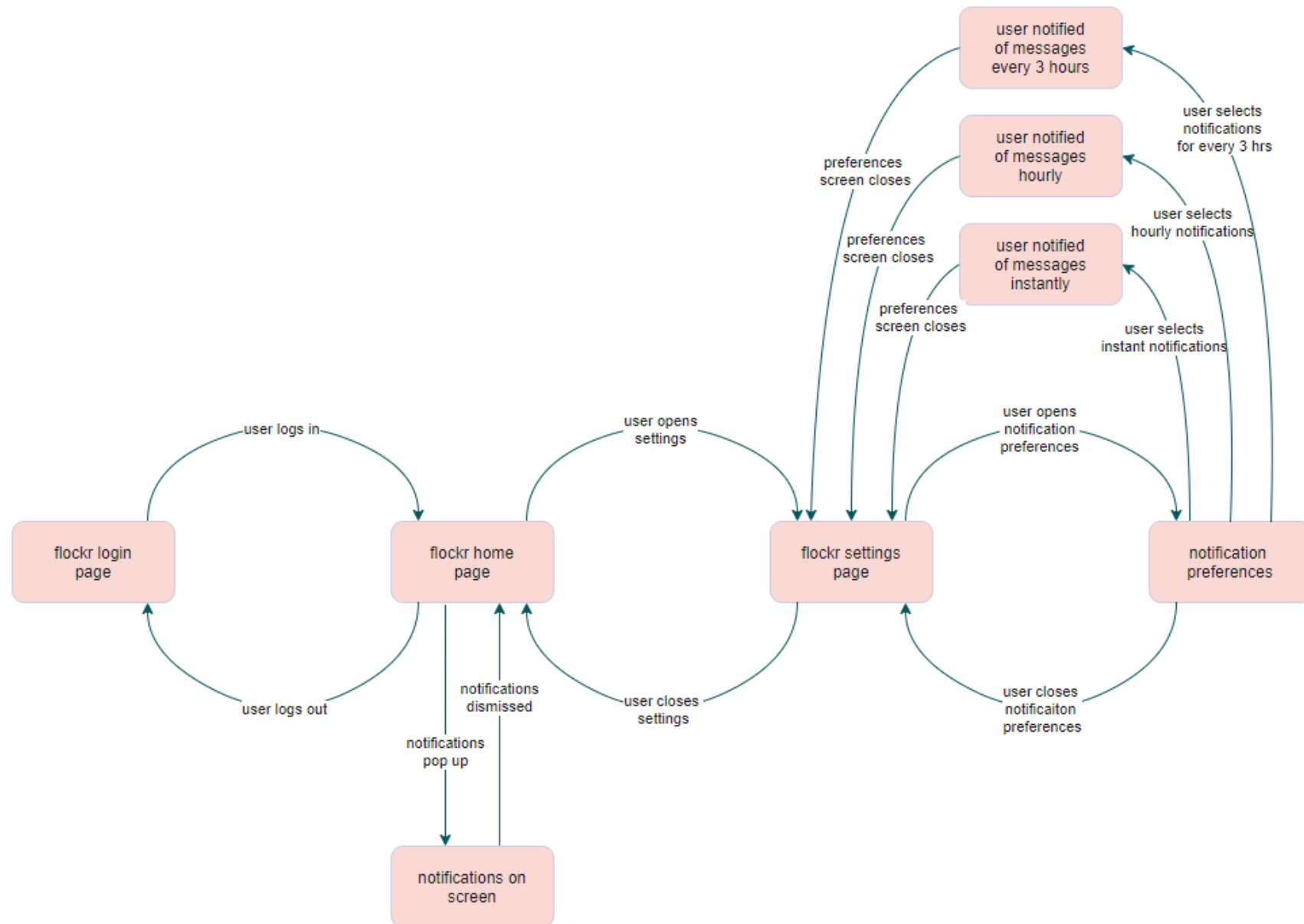
Function	HTTP Method	Parameters	Return Type	Exceptions	Description
settings/notification_preference	POST	{token, notif_frequency}	{}	Input Error : raised when notif_frequency is not a valid time taken from the front-end i.e. instantly, every hour, every 3 hours, or specified time	If notif_frequency is 0, then the notification is instant, if it is 1, then the notifications get sent every hour, if it is 2, every 2 hours and so on. If the user specifies the notification preference to be every day at a specified time, notif_frequency will be of specified time in UNIX timestamp. Overall, notif_frequency will be an integer UNIX timestamp. The front-end will interpret accordingly.

Interface Design for 'Message reply' requirement suggested by interviewee 2:

Function	HTTP Method	Parameters	Return Type	Exceptions	Description
message/reply	POST	{token, channel_id, message_id, message}	{message_id}	InputError when: -Reply is more than 1000 characters Message_id is not a valid message AccessError when: the authorised user has not joined the channel they are trying to post to.	Given a message within a channel, user types in a reply and posts it to the channel, indicating the original message alongside the reply text.

Conceptual Modelling (State)

The following diagram is a state model of the 'Notification Preference' feature inspired by the first User Story:



The following diagram is a state model of the 'Message reply' feature inspired by the first User Story:

