5.3. Planning for next problems to solve

[Requirements] Elicitation

Interview Questions

1. Do you use any team work driven communication tools, ie slack, teams, discord?
2. If so, are you satisfied with those tools, or are there any obvious issues they have?
   - Explain Flockr and allow them to use it
3. Are there features that other communication tools have, that Flockr doesn't, that you would like to see implemented.
4. Are there any features in Flockr that could be improved or expanded?
5. Would you find this a sufficient platform to use as a WFH platform?
6. Do you think this could replace in person meetings, if not, what features of in person meetings does Flockr not replicate?
7. Does Flockr provide the same level of communication than in person/audio/visual.
8. How often do you find yourself needing to share files/screen or actively work with others.
9. Do you think emotions are properly conveyed over text?
10. Would you rather use features that schedule events / or do it autonomously.
11. Do you like the name?

Details	Response to Interview Questions
Name Harry Braithwaite Email Braithwaite.Harry@gmail.com	1. Yes, trello, mira, jiro 2. No well defined way to use them, up to the user description to how to use it. Inconsistent within teams. Varying ways of storing data. Less customisation or up to the user choose. Trello -> simplicity of tasks and used consistently. 3. File sharing, Groups within groups -> sub groups, Private messaging, Page as a channel -> pinned links and meaningful information. 4. Icon of channel, nest replies to messages

	5. Yeh, hate teams. Link to other video calling
	6. No, not limited by fault of flockr, team work driven communication tools always lack, such as video and voice calls
	7. No, but remedied by sharing links to other platforms. Draw diagrams -> images, send voice messages to communicate tone
	8. Quite often, group projects -> what one person contributions are, working on the same page, knowing where everyone is up to
	9. Not in a professional environment. Messages can be too formal. Voice messages would feel informal but useful for tone.
	10. Schedule thing is good, but meeting are removed from application to reduce clutter
	11. Kinda cool
Name Amy Courtney Email amrrcourtney@hotmail.com	1. Not specifically, but for group projects I usually use Messenger group chats. I have some experience with Teams, and Zoom but only for Lectures and Tutorials.
	2. I'm satisfied with Messenger, I guess it could be better with organising tasks and todos. But it's mainly for communication, and for communication, it's great, but it somewhat blurs the line between professional and social, as I also use messenger to text friends and family.
	3. For group projects we often host group calls, which Flockr doesn't have. Also, smaller groups and 1/1 messaging. If it's a platform just for texting though, then more message reacts than just a thumbs up. In messenger, the reacts are helpful because it doesn't clutter the message board, and is quicker and easier than typing a reply, and you can agree/disagree more clearly.
	4. The message reacts would be useful, also video calling? I

	feel as though a teamwork tool needs to be all in one, it's a pain to use more than one platform, I miss information because I forget to check all of the different sites.
	5. Again, I feel as though, for Flockr to be a WFH platform it will need more features.
	6. Flockr doesn't replicate how quickly people can react to each other. But that's more or less with all online interactions. For things like brainstorming, you either need in person or maybe video calls.
	7. No texting is slower, there is less emotion, etc.
	8. I never really have to share my screen, but in groups we work on a lot of shared files. But we really only use google docs for that.
	9. Not at all.
	10. I'd use features that schedule events. If they are scheduled in one way or another, I am more likely to get them done.
	11. Where is the E?

[Requirements] Analysis & Specification - Use Cases

User Stories & User Acceptance Criteria

As a member of a team I want more simple and straightforward features and functionality because so that my team can use the program consistently and efficiently.
- ❏ Accessible help - tutorial / manual
- ❏ Obvious design elements and simplistic UI

As a member of a team I want to be able to share files with other members of the team so that we don't have to use a different platform to share work.
- ❏ The file upload button is placed in the message box
- ❏ Can upload all types of files
- ❏ Can upload files up to 10Mb
- ❏ Can drag and drop files from desktop

As a casual user I want to be able to message other users individually so that I can have privacy in my conversations.
- ❏ Have a section in sidebar for private messaging
- ❏ To start a private chat, use the same process as starting a channel
- ❏ In group chats there is a message icon that links to a private chat between the message sender and you

As a casual user I want to be able to change channel icons so I can easily identify what channel I'm using.
- ❏ There is an edit icon button at the top of the channel
- ❏ The user can choose from a few preset channel icons, or upload their own

As a group member I want to be able to directly respond to messages so that it is clear as to what point I am referring to.
- ❏ Each message will have a reply icon
- ❏ When the reply icon is pressed, the user can type a message that will quote the message that they are replying to
- ❏ You cannot reply to replies

As a casual user I want to be able to draw diagrams / pictures so I can clearly illustrate ideas.
- ❏ In messages have an icon draw diagrams/pictures
- ❏ When pressed, a blank white board pops up
- ❏ There are options to change brush size and colour as well as add text or shapes
- ❏ When finished with the drawing, it can be sent as a JPG

As a group member I want to be able to send voice messages so that I can closely replicate an in person communication experience.

❏ In the message text box, have an microphone icon next to the timer
❏ Allows a user to speak and records the message as an audio file
❏ The audio file is sent to the channel and played when the message is clicked on

As a group member, I want to be able to share my screen so that all group members are on the same page.
❏ During a group video call, have an icon which allows said user to share their screen with the rest of the group
❏ Before the screen is shared, the user has the option to include their face-cam in the shared screen
❏ While the screen is shared, all users have the option to move the face-cam in such a way that it only affects their screen

As a casual user, I want to be able to react to messages in different ways so that I can quickly and efficiently communicate my thoughts.
❏ For each message, a react option is available
❏ Instead of a default like, the user is presented with a pop-up with emoticons sorted by type
❏ A search bar is present at the top of the pop-up box where the user can search for a specific react either by keyword or react_id

As a team member, I want to be able to actively work on the same files with the rest of my team so that we can easily share work with each other.
❏ For certain file extensions, an option to edit is available
❏ When a file is being edited, changes are synced across all users
❏ All versions are stored so any user can revert to an earlier version

As a team member, I want to be able to easily schedule events so that the entire team can get their work done more efficiently.
❏ In each channel, have an event icon
❏ The event icon has a description, location and date tag
❏ When the event time has been met, all group members will get a notification about the event and a pop-up message will appear if a session is active

As a professional user I want to be able to add tasks to todo lists so that I can be organised
❏ In the channel, there is a sidebar section with the To-Do icon
❏ Show To-do's when the user clicks on the icon
❏ On the To-Do section, there is an additional icon to add tasks
❏ Create a new TO-DO list when the user clicks on the additional icon

As a team member I want to be able to video call my teammates so that we can discuss group projects effectively
- ❏ In a channel, have an icon representing video call
- ❏ Show "Start Video Call" when the user hovers over the icon
- ❏ Video call starts and reaches out to all members of the channel

As a team member I want to be able to create smaller, separate groups within channels so that discussion about projects can be separated accordingly
- ❏ In a channel, have an icon representing sub-groups
- ❏ A new sub-group is created once the team-member clocks the icon
- ❏ A new window pops up, with options of which channel members to select, and sub-group name
- ❏ The user cannot add all channel members to the subgroup
- ❏ Within the channel, sub-groups that the user are a part of are shown on a sidebar

As a casual user I want to be able to privately message other people so that I can talk to people directly rather than to a whole group
- ❏ In a channel, the members are shown on a sidebar
- ❏ Each member has an icon
- ❏ Private messaging starts once the user clicks on the icon of the member

As a user I want to be able to 'react' with different icons (e.g. other than thumbs up) so that I can clearly agree or disagree with a message without cluttering the chat
- ❏ In a channel, have interactive messages
- ❏ Message information is shown when the user hovers over the specific message
- ❏ The message information contains actions pertaining to the message
- ❏ Message react emojis are shown when the user hovers over the emoji icon
- ❏ The emojis include like/dislike

Use Cases

Use Case: Start Video Call
Goal in Context: User wants to virtually meet with other users in a channel on a video call.
Scope: Interface
Level: Primary
Success End Condition: A user is in a video call with other users from the channel.
Failed End Condition: A user fails to create a video call in a channel.
Primary Actor: User
Trigger: User presses call button.
MAIN SUCCESS SCENARIO
1. User clicks on the call icon in the top right hand corner of the channel.
2. Dialogue box appears stating "Call x members of channel?".
3. User clicks yes.
4. Site redirects to a new call page where the call is hosted.
5. A message is sent to the channel with the message "Join Video Call : https:linktovideocall.com".
6. When users in the channel clink on that link, they are redirected and join the video call.

Use Case: React to Message
Goal in Context: User wants to quickly and efficiently react to a message in a channel.
Scope: Interface
Level: Secondary
Success End Condition: A message has an annotated reaction (emoji) (bottom right hand corner of the message).
Failed End Condition: Message does not change.
Trigger: User hovers over message and selects a reaction
MAIN SUCCESS SCENARIO
1. Other users in the channel send a message.
2. User hovers over the message.
3. User selects from a preset list of "reactions".
4. The reaction is visually added to the bottom right hand of the message.

Use Case: Private messages
Goal in Context: User wants to contact a certain individual in a channel.
Scope: Interface
Level: Primary
Success End Condition: A message conversation has been sent to an individual and the conversation appears on the side bar under private messages.
Failed End Condition: Message is not sent or does not appear under private messages on the sidebar.
Trigger: User creates a new message stream (similar to channel) and types and sends a message to the other user.

MAIN SUCCESS SCENARIO
1. Have a section in sidebar for private messaging
2. User clicks on a plus sign next to the title private messages
3. Can search a user in the channel
4. An icon appears on the sidebar under private messages with icon for identification
5. A messaging bar in found at the bottom of the screen where users can message

[Requirements] Validation

Amy Courtney

I think most of those (referencing the User Stories), would be great additions, though I personally think private messages, video calls and reacts are the most important. When the message reacts, I notice that it says like/dislikes. I think it would be worthwhile to include more reactions, like hearts, sad faces, etc.

Harry Braithwaite

I think these User Stories were well thought out and really would improve the application. I feel that including other methods of communication other than messages is really important when working on group projects. I observed that with diagrams there was no way of collaborating on them similar to a white board which could be really useful. Further, as a disorganised person, I would really appreciate having reminders for events at customisable times beforehand.
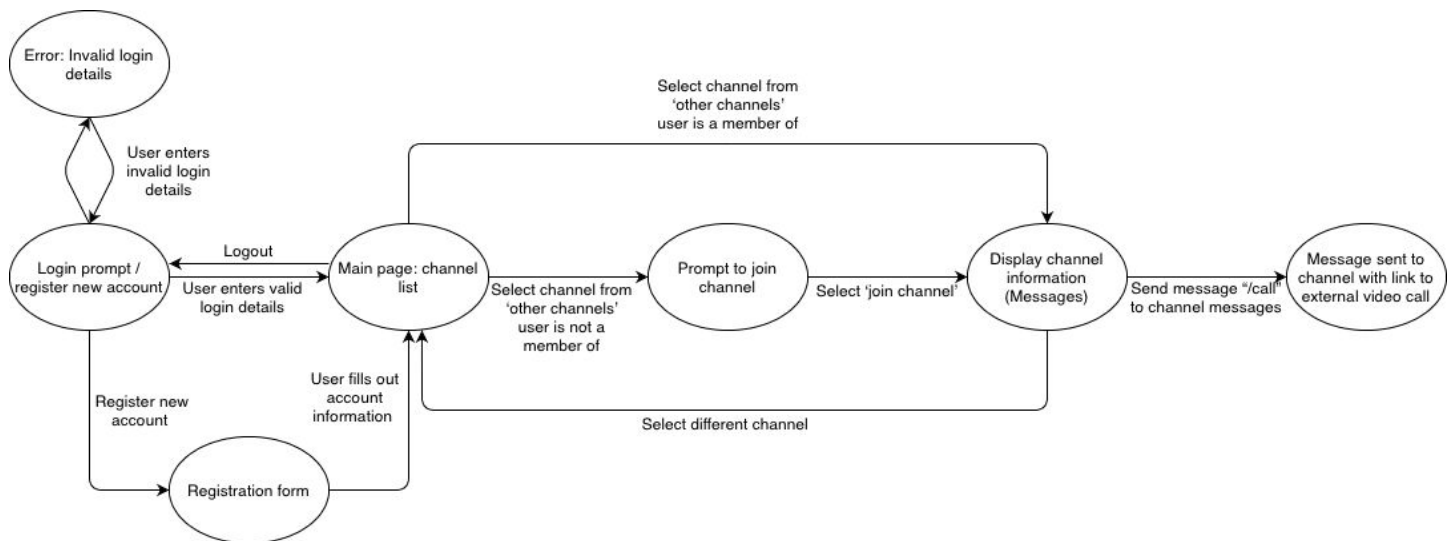
[Design] Interface Design

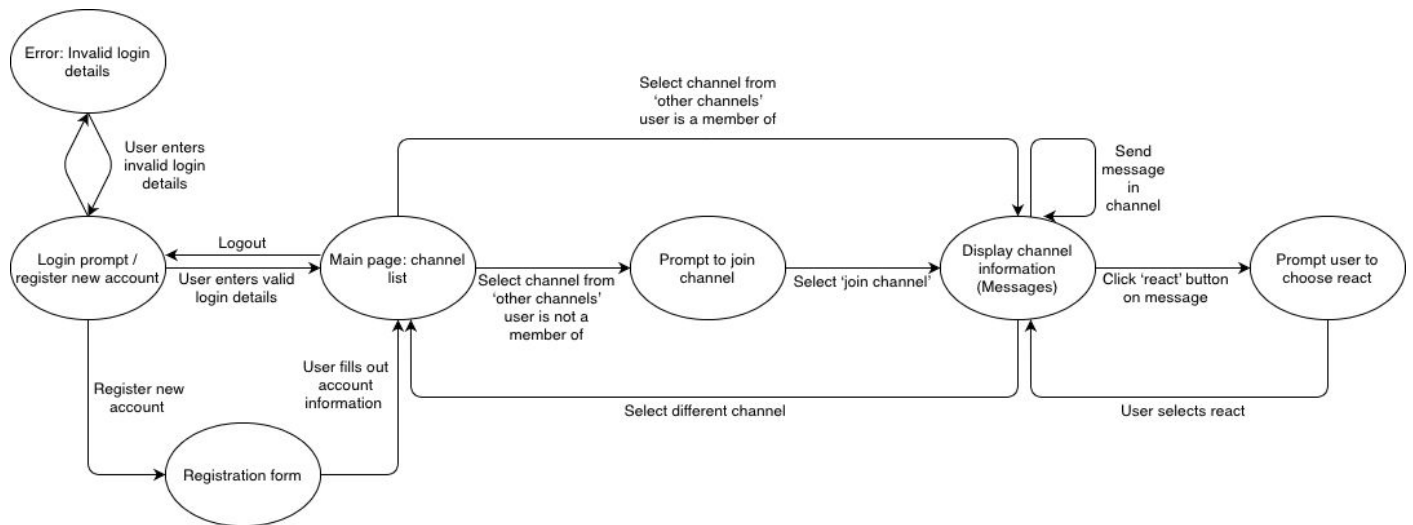| Function Name	HTTP Method	Parameters	Return type	Exceptions	Description
channel/videocall/start	POST	(token, channel_id)	{}	**InputError:** ● Channel ID is not a valid channel ● An active video call is currently running in this channel **AccessError:** ● The authorised user is not a member of the channel that the message is within	For a given channel, start a video call in a second window. Send a message from authorised user to the channel with a link to join the video call.
message/react	POST	(token, message_id, react_id)	{}	**InputError**: ● message_id is not a valid message within a channel that the authorised user has joined **AccessError**: ● The authorised user is not a member of the channel that the message is within	Given a message within a channel, the authorised user is part of, adding a specific "react" with a certain emoji to that particular message. Messages can have more than one react.
message/private	POST	(token, channel_id, u_id, message)	{private_message_id}	**InputError**: ● Message is more than 1000 characters ● U_id is not a member of the channel. **AccessError**: ● when: the authorised user has not joined the channel they are	Send a message from authorised user to another member who is part of the specified channel in a separate message stream from the channel.

				trying to post to ● The authorised user is not a member of the channel that the message is within	

[Design] Conceptual Modelling (State)

channel/videocall/start

message/react

message/private