Elicitation

To understand the requirements and needs of our users to design the next set of features in our product, we have conducted a series of interviews with three individuals to understand their personal user experience with existing team-communication platforms and their views on UNSW Memes.

Questions:

1. Do you find yourself regularly using team communication platforms such as Microsoft Teams and Discord?

2. If so, what purpose do you use it for, academic work, leisure, business?
3. What are some issues/limitations that you currently find yourself encountering with these platforms?
4. Looking at the current implementation of UNSW Memes, what are some additional features you regularly use on these other platforms that you wish to see in Memes?
5. In what situations do you feel as though these new features would be helpful and utilised?

Responses:

Person 1:
Name: Irene Kim
Email: irene.kim@gmail.com

Q1. Yes I find myself utilising team communication such as Microsoft Teams and Discord quite often.

2. I use Discord to talk to my friends, more often than not to game with them and call after school. I use Microsoft Teams when I have to at school but I use Discord much more.

3. I personally prefer Discord but the app itself does not have a professional feeling established due to its main purpose of leisure. Premium paid subscriptions are also required for more accessibility and customisation to your profile providing further limitations to what the average user can do.

4. I wish to have the freedom of unfiltered chat (preferably the ability to toggle filtration of explicit language if possible as well as the ability to send images, GIFS and to have some extent of user customization such as the ability to change profile pictures.

Person 2:

Name: Jason Zhao

Email: jason.zhao@gmail.com

Q1: Yes I do quite often when working with others.

Q2: I use these communication platforms to study with my peers online, do pair programming and also to communicate with my teachers.

Q3: Some limitations off the top of my head are the disparate discrepancies between the features and abilities offered by Discord that Teams does not have. I understand in the sense that the setting in which Teams and Discord are used differs but I want to be able to have less of a clinical and professional feeling when using Teams for group projects to communicate to my team members. Something that is like Teams but breaks away from the heavily academic and educational vibe it has for its use. Another thing (this is more specific to teams) is that it is very confusing to work around, and oftentimes I find myself lost clicking buttons and trying to find my way around it.

Q4: I would definitely like a screen sharing option, as that is crucial for pair programming and debugging. I use it 90% of the time when working on other communication platforms such as discord. I would also like to see a feature where users are able to check how long another user has been offline for, or even just an activity status.

Q5: I feel as though these new features would provide more freedom to the user in regards to how they are able to adequately communicate with their peers, for either academic work or for leisure, and can provide a midpoint for both a professional work environment as well as a leisurely space for casual users.

Person 3:

Name: Jeffrey Lam

Email: jeffreylam1123@gmail.com

Q1: Yes quite often as it is part of my job, and communication with my students is very important to me.

Q2: In general, I use Teams to communicate with students in my class and discord to communicate more generally with the community of students in the course

Q3: Since there are many students in a class, and many classes, I find that there is a limitation in regards to organisation as it is easy to mix up classes and students and the course work between everything. I often find myself travelling through all my classes and clicking random buttons to get around like a maze.

Q4: More often than not, I find students forgetting about tasks I have set and coursewide tasks such as labs and quiz due dates. So the tutor or in this case I guess the owner of the channel can set tasks as a todo list and can set due dates with them to give students reminders that the task is due soon. Or you could have it so that students can essentially tick off what tasks that they have done. I think it would be a good way to collate class work without students having to make a separate to-do list on a separate software, I think it would streamline things for students more.

Q5: I think what I said above sort of covers this question but yes, both students would be able to see what tasks they have to do set by their tutor but I could also see this being functional to users who use it for more leisure. Perhaps friends could set meetup times or individual tasks that they have to remind themselves on a server that they frequent on. Up to you how you choose to handle the permissions.

Problem:

The problem we have come to outline is that platforms such as Microsoft Teams and Discord are often mutually exclusive in terms of uses being that Microsoft Teams is geared to be used by teachers and tutors for students whereas Discord is much more geared for leisure/non-academic related purposes and used by students outside of class. Another problem that we have come to is that these platforms are often confusing to navigate around as there are so many features which could be seen as overwhelming.

Solution:

The aim to make UNSW Memes a ideal inbetween between these two platforms, serving as being able to cater to both academic and non-academics usage with features emulating those commonly used on Discord which presents a wider functionality to the user. We also aim to make the platform less intimidating to new users and easier to navigate. Possible solutions to address this problem and make the users experience smoother and more enjoyable include incorporating features into our interface that Memes do not have but Discord and Teams do.

Such features can include:

- Making users able to send pictures and GIFs to each other
- Indicator of how long the user has been online/logged into their session for/ indication of whether the user is online or not
- Users can set a to-do list/tasks they want to achieve in channels
- Have users set welcome messages to their channels whenever a user joins
- Having onboarding instructions / tutorials for new users

As a result, we plan on implementing these features into UNSW Memes to better improve and enhance the user's experience with our team-communication platform.

Analysis & Specification

Requirement Type	User Story	User Acceptance Criteria
Functional	As a new user to Microsoft Teams, I want to have a more beginner friendly experience that educates me on the variety of features available to me and how to navigate the interface.	- When a new user joins the platform, simple instructions follow on how they can create channels, send messages, ect. - This can be a walkthrough and interactive
Non-functional	As someone who is very much accustomed to Teams and Discord, when I first sign up and log in, I want to skip/have minimal introductions to the frontend interface of UNSW Memes.	- Make it an option to skip the onboarding introduction instructions
Functional	As a computer science student, I want to see if my friends are online so that I can message them if they are online.	- When user is logged in their status defaults to online and similarly offline when the user is not logged in - Users can manually change their setting to offline once they are logged in if they wish - Users will not receive notifications when they are the offline status

Functional	As a university student, I want to be able to have a platform which has the functionality of Teams but also allows for leisure based communications when undertaking group projects like Discord.	- User is able to send images and gifs through channels ad dms
Functional	As a tutor, I want to be able to make tasks and to-do's easily visible and available to students so that they don't miss important deadlines.	- Have the option for a to-do list in each channel which can be pinned for importance

Use Cases:

User Case 1:

As a new user, I want to know how to navigate the interface and perform basic features that I may be used to, to reduce confusion.

Description	To provide a new user with an introduction and onboarding instructions
Goal	To ease a user into the platform, when a new user is registered, a set of instructions is displayed which walks the user through basic functionalities such as creating a channel, sending a message etc.
Preconditions	A user logs in after registering, ensuring that the token is valid.
Trigger	User logs in and enters the frontpage for the first time after registering

Process	1. User registers into UNSW Memes
	2. User logs into Memes for the first time
	3. User is taken to homepage of frontend
	    a. User goes through the introduction
	        i. User is given instructions that guide

	them through making a channel, creating a Dm, inviting people, and sending messages. OR b. User skips the introduction 4. User is taken back to homepage
Successful end	User finishes introduction or user skips introduction.
Failed end condition	N/A

User Case 2:

As a user, I want to stay organised and up to date with any tasks I need to complete.

Description	To provide users with a feature to make tasks and to-do's in channels.
Goal	To make a task with a due date in a given channel.
Preconditions	A user logs in after registering and joins a channel with a valid channelId.
Trigger	User selects the frontend API to add a task to a channel
Process	1. User logs into Memes 2. User creates a task with a date 3. List of tasks in channel contains new channel
Successful end	Task is successfully added to the list of tasks in the given channel

Validation

The three individuals that were interviewed in the Elicitation stage were once again asked to review our solution and state their extent of their satisfaction regarding our proposed solution with our new set of features to be added to UNSW Memes.

Person 1:

Seeing the new set of features, I think it addresses everything that I said I desired from the platform. The similarities of online status and the addition to send images and GIFs would be a feature that I regularly use given that currently the frontend only has one react emoji. I feel like my user experience with Memes would improve significantly with the following implementation.

Person 2:

Previously, I talked about how platforms like Teams can be confusing and hard to navigate for beginners. I think the onboarding introduction will be a great feature since we are no longer thrown into the deep end straight off the bat. However, I suggest making sure that users are allowed to re-watch the onboarding introduction when necessary as I am a very forgetful person and may need to be reminded of the instructions many times XD. Overall, reading all the proposed implementations, they all seem great and I am very satisfied.

Person 3:

Before, I talked about how I find students forgetting important tasks I have set respective due dates and also the lack of direction when navigating these platforms such as Microsoft Teams. I think that implementing the introduction instructions is great, as that gives me an idea and sense of direction. With the issues on organisation that I mentioned before, I think the to-do list style is a good way for both me and the students to stay organised from the course work as it'll provide a clear structure on what things need to be done. Overall satisfaction!

Interface Design

The following functions throw a 403 error for invalid token.

	HTTP METHOD	DATA TYPES	ERRORS
/message/sendImageChannel	POST	**Headers** { token } **Body Parameters:** { channelId, imgUrl } **Return Object:** {}	400 Error: - imgUrl returns an HTTP status other than 200, or any other errors occur when attempting to retrieve the image - channelId does not refer to a valid channel 403 Error: - channelId is valid and the authorised user is not a member of the channel
/message/sendImageDm	POST	**Headers** { token } **Body Parameters:** { dmId, image } **Return Object:** {}	400 Error: - imgUrl returns an HTTP status other than 200, or any other errors occur when attempting to retrieve the image - dmId does not refer to a valid DM 403 Error: - dmId is valid and the authorised user is not a member of the DM
/message/sendGIFChannel	POST	**Headers** { token } **Body Parameters:** { channelId, imgUrl } **Return Object:** {}	400 Error: - gifUrl returns an HTTP status other than 200, or any other errors occur when attempting to retrieve the image - channelId does not refer to a valid channel 403 Error: - channelId is valid and the authorised user is not a member of the channel

/message/sendGIFDm	POST	**Headers** { token } **Body Parameters:** { channelId, imgUrl } **Return Object:** {}	400 Error: - gifUrl returns an HTTP status other than 200, or any other errors occur when attempting to retrieve the image - dmId does not refer to a valid DM 403 Error: - dmId is valid and the authorised user is not a member of the DM
/user/userOnline	PUT	**Headers** { token } **Body Parameters:** { uId } **Return Object:**	400 Error: - uId does not refer to a valid channel
/welcome	POST	**Headers** { token } **Body Parameters:** { channelId } **Return Object:** {}	400 Error: - channelId does not refer to a valid channel 403 Error: - channelId is valid and the authorised user is not a member of the channel
/walkthrough	POST	**Headers** { token } **Body Parameters:** **Return Object:** {}	N/A
/channel/addTask	POST	**Headers** { token } **Body Parameters:** { channelId, taskName, date } **Return Object:** {}	400 Error: - channelId does not refer to a valid channel - length of message is less than 1 or over 1000 characters 403 Error: - channelId is valid and the authorised user is not a member of the channel

Variable Name	Data Type
imgUrl	String
gifUrl	String
taskName	String
date	Integer (unix timestamp in seconds)

Conceptual Modelling