

UNSW Memes Plan

Done by: Wong Han Ming and H11A_Dream Team

[Requirements] Elicitation

- Interview questions:

- 1) What collaborative communication software do you currently use and what is the main purpose of using it?
- 2) What are some new features do you think would be cool to implement in your current collaborative communication tool(s) that you currently use?
- 3) What are the main problems you normally face when using tools like Teams or Slack or even Discord etc.?
- 4) What are some existing features that you would like to modify in your current collaborative communication software(s)?
- 5) Are there any existing features that you wish were removed in your current collaborative communication software(s)?
- 6) What improvements can we make for these kinds of communication tools in the future?

- Interviewee Answers:

	<u>Full Name:</u> Huan Jie Choo (Jay)	<u>Full Name:</u> Carlos Aguilera Cortes
	<u>Email Address:</u> jaychoohj@gmail.com	<u>Email Address:</u> carlos.aguilera12555@gmail.com
Q1) What collaborative communication software do you currently use and what is the main purpose of using it?	MS Teams - I use it for my professional/educational settings like my own societies and studies at uni.	MS Teams - I use it for uni since that is the preferred system. Zoom - I use it to call some people who are not able to meet in person

	Discord - I use it for casual communication (e.g. keeping in contact with my friends in Perth).	since that is their preferred method.
Q2) What are some new features you think would be cool to implement in your current collaborative communication tool(s) that you currently use?	<p>MS Teams - Implement a better file organization feature.</p> <p>Discord - Ability to add short descriptions for each text channel so that people will know what is appropriate to post under each respective text channel.</p>	<p>Teams - It has too many redundant features so I would prefer to use a few main features as compared to so many other features that I deem redundant.</p> <p>Zoom - It does not have enough permission handling so my older colleagues always struggle (e.g. members don't have enough permissions to do anything during a Zoom meeting and I wish that the members of the meeting get more permissions in the Zoom meeting).</p>
Q3) What are the main problems you normally face when using tools like Teams or Slack or even Discord etc.?	<p>MS Teams - Performance issues. Teams is very slow, two-factor authentication does not always work and navigating files in Teams is very inefficient.</p> <p>Discord - It just needs a file system/file organization tool (so that organizing files will be much better).</p>	Teams & Zoom - I don't think there are any main problems I have from my side with regards to Teams & Zoom.
Q4) What are some existing features that you	MS Teams - Modify the sound controls on	Teams - I would like other OS such as Linux to have

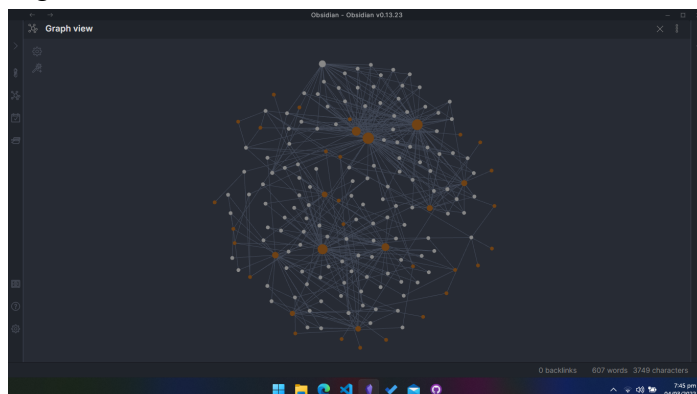
<p>would like to modify in your current collaborative communication software(s)?</p>	<p>mobile to accommodate fine audio volume control so that it is easier to control the volume during pop-up video call. And also when watching lectures on mobile, make the lecturers screen to be fullscreen and not others' screens during lectures on Teams that way it is easier to focus fully on the content when watching lectures.</p> <p>Discord - Modify discord to enable custom skins/themes/backgrounds as BetterDiscord already has them but the official version does not.</p>	<p>better support with regards to Teams (E.g. If used in Linux OS, a lot of features in Teams are not supported like background blur).</p> <p>Zoom - I would like tighter integration with other tools such as google calendar (E.g. If my boss changes the Zoom meeting to another day, my google calendar would not update the new date of the Zoom meeting).</p>
<p>Q5) Are there any existing features that you wish were removed in your current collaborative communication software(s)?</p>	<p>MS Teams - Class Notebooks, it runs slowly and few classes (such as Kellermann's) actually use it.</p> <p>Discord - Threads, it is redundant as not many people use it and if the thread is not very active, it gets removed automatically.</p>	<p>MS Teams & Zoom - I believe the existing features are fine as it is, no need for removal of existing features but I believe the existing features need to be refined further.</p>
<p>Q6) What improvements can we make for these kinds of communication tools in the future?</p>	<p>MS Teams - I hope it runs faster and I hope it is able to perform quickly and efficiently.</p> <p>Discord - I hope that Discord will enable</p>	<p>MS Teams & Zoom - Make them inter-operable (E.g. call someone on Zoom via Discord or send a message on Zoom via discord or send multiple reminders on all platforms</p>

	users to revert back to the old theme and font style before the update. And possibly allowing users to revert back to older versions of discord and being able to use it just fine.	the user is on etc.)
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- **Brief Description of proposed solution**

Based on Jay's and Carlos' answers, I think that the main problems from their end when using collaborative communication software are mainly performance issues, the fact that two-factor authentication does not always work, and poor file organization. Performance-wise, UNSW Memes has limited its number of features to the necessities, such that it maintains a decent capacity to perform a variety of tasks without sacrificing speed. With regards to two-factor authentication, Jay's main issue is that he does not always have his phone with him to log in. As such, we can either implement an option where users choose to sign in with a different method rather than always using two-factor authentication to sign in, or we can just simply not implement two-factor authentication for UNSW Memes at all (sacrificing security for convenience). Lastly, with regards to having a better file organization tool, I suggest we implement a graph based on a file mind-map (like a spanning tree) to know where all the files are in order to have better access to them (just by clicking on it).

E.g:



[Requirements] Analysis & Specification - Use Cases and Validation

User Story 1

Jay: As a student, I want a better file organization feature so that I will know where all the files are in order to have better access to them.

Acceptance criteria:

- Able to access the feature to see where all the files are at
- Able to browse/search through the feature to locate where user's intended file is
- Once the intended file has been found, able to simply access it

User Story 2

Carlos: As a worker right now, I want my colleagues who are members in an online meeting to be able to have more permissions so that I don't have to keep giving permissions to members who want to perform a certain action in the online meeting.

Acceptance criteria:

- Members of an online meeting are now given more permissions
- Members can now simply share screen without admin's permission
- Members can now adjust the time limit of the meeting to his/her satisfaction
- Members can now access more things without needing admin's permissions

User Story 3

Jay: As a student, I would like to be able to sign in via two-factor authentication smoothly even if I don't have my phone with me to authenticate me in so that I am able to get my work done as soon as possible

Acceptance criteria:

- User tries to sign into Memes via two-factor authentication but is unable to because he/she does not have his/her phone with him/her.
- User is then able to use another method to login like simply just entering his/her email address and password.
- If his/her email address and password is valid, he/she is able to login to Memes successfully.
- If not, he/she will have to try again until his/her email address and password is valid.

Use Case 1

Jay: - Wants a better file organization feature

Step 1: User clicks on file organization feature.

Step 2: Once user clicks on file organization feature, a graph will pop up and user is able to see a file-mind map in the graph.

Step 3: User can then locate through the file-mind map to find the intended file he or she is looking for.

Step 4: Once the user has manage to locate his/her intended file, user can click on the intended file in the graph to access it straight away.

Comments from Jay:

- “Generally seems good.”
- “For Use Case 1 I can’t find any faults.”

Use Case 2

Carlos: - Wants members to have a little bit more permissions in an online meeting

Step 1: Members who are in the online meeting are already given additional permissions such as screen sharing and adjustment of time limit of online meeting without needing admin’s permissions.

(Below’s scenario will be with regards to screen sharing without needing admin’s permissions)

Step 2: Members who want to screen share can now simply just click the screen share icon.

Step 3: Once screen share icon has been clicked by member, member can choose which tabs they want to share in the meeting.

Step 4: Once member has chosen his/her intended tab they want to share, his/her intended tab will be displayed in the meeting.

Comments from Carlos:

- “I don’t like it.”
- “I think having too many permissions is not a good thing as it makes it harder for the organizer of the meeting to manage it properly.”
- “I would instead like it if you tried to share your screen without permission, it would send a notification to the host to enable the permission.”

Use Case 3

Jay: - Wants to sign in via two-factor authentication successfully regardless of whether he has his phone or not

Step 1: User tries to sign in via two-factor authentication but realizes he/she does not have his/her phone with him/her to sign in.

Step 2: User then clicks on “Sign in with another method” button on the interface to try to sign in again.

Step 3: User decides to choose the “Sign in manually” option.

Step 4: User is prompted to enter his/her email address and password.

Step 5: User’s entered email address and password is valid and he/she is able to log in.

Step 6: User’s entered email address and password is invalid and he/she is then taken back to Step 4 to repeat the process until his/her email address and password is valid.

Comments from Jay:

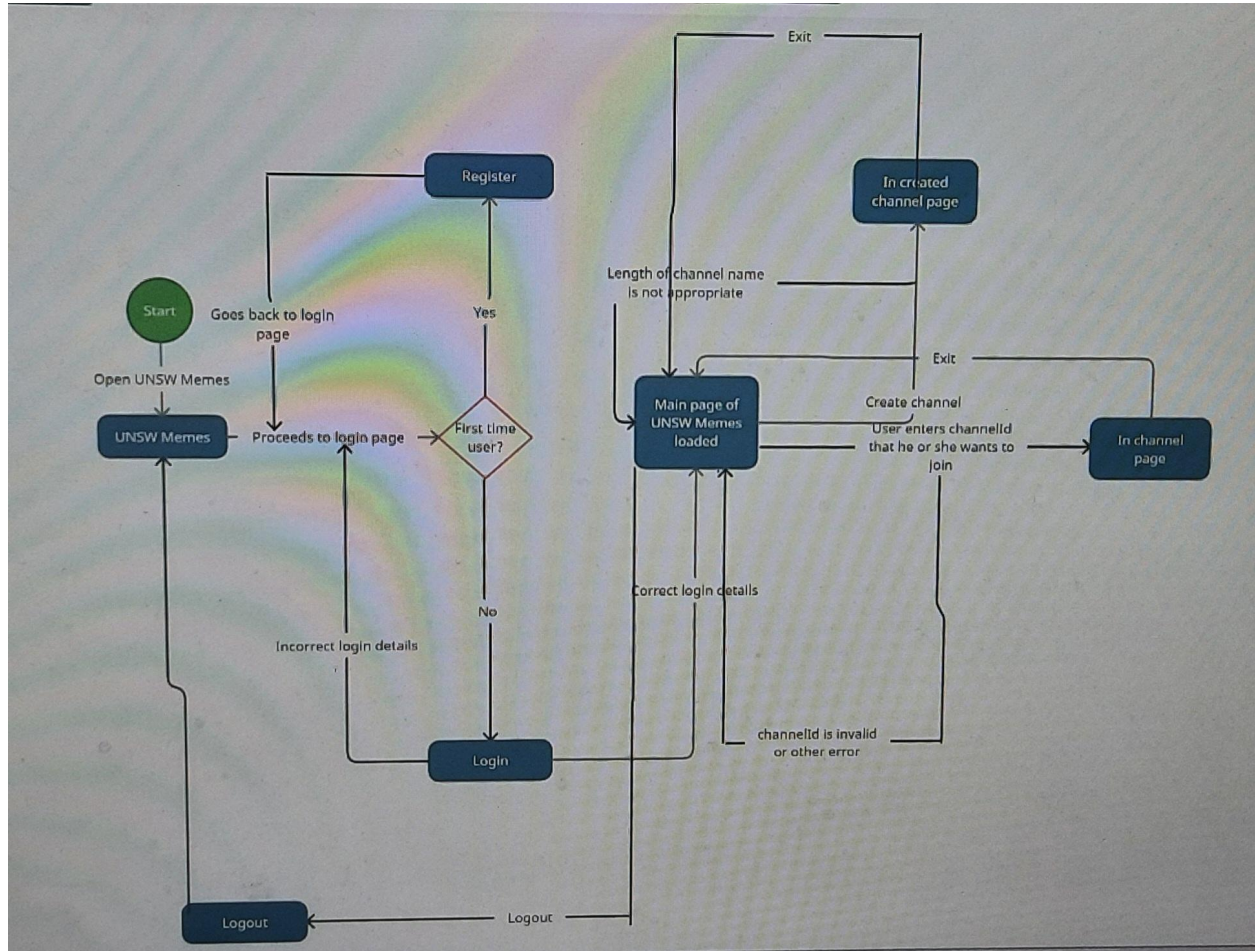
- “The point of two-factor authentication is so that you cannot log in with purely an email address and a password.”
- “So for part 2, I suggest changing it to ‘authenticate with email’ so that when you try to login, it will send the authentication to a previously-selected email address so you can then go there to verify if it’s you.”

[Design] Interface Design

Name & Description	HTTP Method	Data Types	Exceptions
<p>files/all/v1</p> <p>Returns all of the files in each channel that the user is a part of.</p>	GET	<p>HTTP Header: (token)</p> <p>Query parameters: ()</p> <p>Return type if no error: { files }</p>	<p>403 Error when:</p> <ul style="list-style-type: none">- token is invalid
<p>files/access/v1</p> <p>Returns the file that the user wants to access.</p>	GET	<p>HTTP Header: (token)</p> <p>Query parameters: ()</p> <p>Return type if no error: { file }</p>	<p>403 Error when:</p> <ul style="list-style-type: none">- token is invalid
<p>auth/email/v1</p> <p>Returns isVerified boolean variable once u have gone to your previously selected email address and verified that it is you who is trying to log into UNSW Memes.</p>	POST	<p>HTTP Header: (token)</p> <p>Body parameters: (authUserId)</p> <p>Return type if no error: { isVerified }</p>	<p>400 Error when:</p> <ul style="list-style-type: none">- authUserId does not belong to a user <p>403 Error when:</p> <ul style="list-style-type: none">- token is invalid
<p>notifications/permissions/v1</p> <p>Returns isGranted boolean variable if the host has granted you permission to share your screen/adjust the meeting duration through the</p>	GET	<p>HTTP Header: (token)</p> <p>Query Parameters: (permissionType)</p> <p>Return type if no error: { isGranted }</p>	<p>400 Error when:</p> <ul style="list-style-type: none">- permissionType is invalid <p>403 Error when:</p> <ul style="list-style-type: none">- token is invalid

notification that was sent to him/her.			
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[Design] Conceptual Modelling - State Diagrams



Above is the State Diagram for UNSW Memes