Elicitation

Interview Questions

1. What online communication tools do you currently use?
2. Which tools do you use most often for teamwork?
3. How often do you use each of these tools? i.e. everyday, 2-3 times a week,
4. Is there a reason that you use some more than others?
5. What are some problems you've experienced when using these tools?
6. Do you currently do anything to circumvent these issues? If you do, what are your strategies for this?

Interview summaries

Full interview notes can be found in appendix A

1. James He (james.he2@student.unsw.edu.au), Male, aged 18-25:

Uses team communication tools most often for study, noted that an integrated calender/scheduling system between Outlook and Teams were helpful. Commented that the easy management of multiple channels for the same group of people was helpful in both Discord and Teams. Found there to be chat persistence issues in blackboard collaborate and problems when using Outlook to schedule meetings in Teams.

2. Jen Huang (jsuzou@yahoo.com.au), Female, aged 50+:

Used team communication tools for work, main issues were associated with the learning curve for using these tools.

3. Rebecca Gismondo (rebeccagismondo@gmail.com), Female, aged 18-25:

Most often used team communication tools for study and work. Found it difficult to handle when an organisation spread communication across different channels such as UNSW using moodle, teams, youtube, course specific websites, zoom, slack, ed, etc. Brought up some quality-of-life issues for specific platforms and general issues including device compatibility, notification management (may also be a matter of being unfamiliar with new systems). Also noted that a large struggle was finding the time to schedule meeting rather than the meeting process itself.

Main issues and proposed solutions

Finding a time for live meetups/calendar functionality → implement new routes where users can flag what times they are available in the week and see what times have been flagged by other users.

Learning curve associated with new systems → Have a well-documented system with clear help pages and FAQ sections. Possibly implement a tutorial stage which helps users become familiar with the system and interface.

Notification management → Have an easily accessible menu where users can toggle notifications and filter for only specific types of notifications.

Analysis and Specifications

User stories

As a student that is part of a larger class in Seams I should be able to mute unnecessary notifications to avoid distractions

Requirements:
- User can specifically select what events they would like to be notified for (tags, message reacts, added to new channel) and in which channels or mute notifications entirely.
- User can set how long of a session they would like to mute notifications for, if no time length is specified notifications are muted indefinitely by default.

As a new user to Seams I should be able to access a tutorial stage so that I can learn the basic functionality of Seams and be directed on where further documentation can be found.

Requirements:
- Newly registered users have the option to toggle a tutorial stage consisting of textboxes which direct them on how to use basic features such as creating a new channel, starting a stand-up and changing user permissions.
- Once completed the tutorial stage option is not automatically offered again but can be toggled manually within a help menu.
- New users are made aware of the help menu, /help routes and FAQ pages for Seams

As a tech savvy user of Seams I should be able to access further documentation on the intricacies of how Seams works in order to optimise my communication.
- User can access the /help route for channels, dms, standups, permissions, notifications and stats which describes how each function works (expected input/output, what may cause errors) or how they can be modified.

Use Case

1. New user registers and log into Seams for the first time
2. Seams automatically offers the user to view an integrated tutorial which introduces key features
3. User accepts
4. Seams guides the user through key features including creating a channel, sending messages, using standups, notifications, and stats through the medium of a visual overlay to the Seams frontend. Also introduces /help command and help menu.
5. User completes tutorial by clicking through
6. Seams exits tutorial mode and returns to normal operation
7. User wants to know how to mute a specific channel, uses the /help notifications command
8. Seams shows users a menu which directs users on how notifications work
9. User is now able to effectively mute all notifications indefinitely

Validation

Interviewee Comments

James
- Features would be helpful and make Seams a lot more user-friendly
- Seams would still not have a lot of the functionality that is expected from team communication tools such as video calling, scheduling meeting or file sharing.

Jen
- Having a tutorial mode would be a helpful introduction as long as it is well thought out and not confusing

Rebecca
- Some users may skip the tutorial out of boredom/frustration but having the /help command would be useful.
- Being able to manage notifications easily would be a useful feature.

Interface Design

Name and Description	HTTP Method	Data types	Exceptions
notifications/disable/v1 For a given user, changes their notification status for tags, msg reacts and new channel invites based on the given parameters. When notifications/get/v1 is called under this status notifications that are disabled are not returned. All notifications are still logged and stored in datastore.	POST	**Parameters:** {token, is_tag_enabled, is_react_enabled, is_new_channel_enabled} **Return type:** {}	**AccessError** when: Token is invalid
tutorial/active/v1 For a given user, returns whether they are currently in tutorial mode. Used by the frontend to determine if a tutorial overlay should be displayed.	GET	**Parameters:** {token} **Return type:** {is_active}	**AccessError** when: Token is invalid
tutorial/start/v1	POST	**Parameters:** {token}	**AccessError** when: Invalid token

For the given user, marks them as using Seams in tutorial mode.		**Return type:** { }	
tutorial/end/v1 For the given user, marks them as *not* using Seams in tutorial mode.	POST	**Parameters:** {token} **Return type:** { }	**AccessError** when: Invalid token
help/v1 Returns the help text associated with the specified key word. If no help_query is specified return a list of possible /help command keywords.	GET	**Parameters:** {token, help_query=None} **Return type:** {help_str}	**AccessError** when: Invalid token **InputError** when: help_query is not one of the specified valid keywords.

Depending on implementation help and tutorial routes may instead be handled exclusively by the frontend as data storage is not necessarily required for these routes.

Conceptual Modelling

Tutorial Mode State Diagram
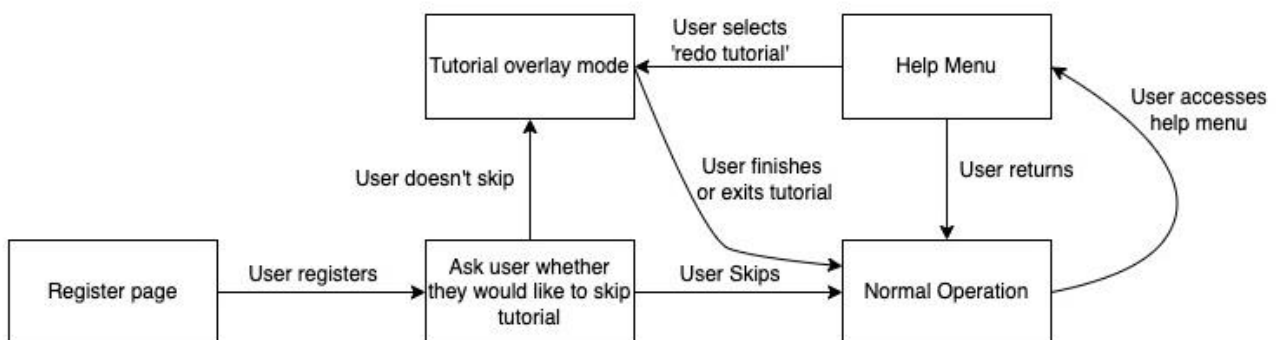
Appendices

Appendix A

James

1. What online communication tools do you currently use?
   - Outlook, Teams, Discord, Gmail, Blackboard Collaborate, Whatsapp, Facebook
2. Which tools do you use most often for teamwork?
   - Google drive (docs etc), Github, Outlook, Microsoft Teams, Discord
3. How often do you use each of these tools? i.e. everyday, 2-3 times a week,
   - Outlook: almost everyday
   - Discord: almost everyday
   - Teams: 3-4 times a week
   - Gmail: 2-3 times a week
   - Blackboard collaborate: 2-3 times a week
4. Is there a reason that you use some more than others?
   - Outlook
     - Integrated email, calender and contact options make scheduling meetings easy
     - A lot of control over the ability to categorise emails (by date, size, from, importance and subject)
     - Productivity stats via Microsoft viva
   - Teams:
     - Calender system good for scheduling meetings
     - Option of creating/joining multiply groups, all easily accessible
     - Option of video meetings and other useful features
     - Integrates nicely with outlook/drive/onenote
   - Discord
     - Easy to set up with each server supporting multiple channels allowing communication to be split down by team or project
     - Free to use
   - Blackboard collaborate
     - Mainly used for uni tutorials
   - Gmail
     - Mainly for personal account, not as effective as Outlook for teamwork
5. What are some problems you've experienced when using these tools?
   - Outlook: Can schedule Teams meetings through outlook but not which channel to have them in
   - Blackboard: If you leave a meeting and join back you can't see the previously sent messages. Annoying when crashing out
6. Do you currently do anything to circumvent these issues? If you do, what are your strategies for this?
   - Generally using tools in conjunction

Jen

1. What online communication tools do you currently use?
   - Wechat, Outlook
2. `Which tools do you use most often for teamwork?
   - Outlook
3. `How often do you use each of these tools? i.e. everyday, 2-3 times a week,
   - Outlook 3-4 times a week
4. `Is there a reason that you use some more than others?
   - Used for work
5. `What are some problems you've experienced when using these tools?
   - Difficulty adjusting to new systems
6. Do you currently do anything to circumvent these issues? If you do, what are your strategies for this?
   - Ask others who are more familiar with the system for help
   - Mostly use familiar features

Rebecca

1. What online communication tools do you currently use?
   - Messenger, Discord, Teams, Zoom, Slack, Outlook
2. Which tools do you use most often for teamwork?
   - Discord and teams for university
   - Slack/outlook for work
3. How often do you use each of these tools? i.e. everyday, 2-3 times a week,
   - Discord and messenger almost everyday
   - Teams most days
   - Check slack 2-3 times a week for part-time job
4. Is there a reason that you use some more than others?
   - Mostly dependant on work/uni demands
   - Teams and Outlook used for a lot of university work
   - Use messenger and discord more often as social media platforms rather than professional 'team communication tools'
5. What are some problems you've experienced when using these tools?
   - Having to move across different platforms is difficult, UNSW alone relies on moodle, teams, youtube, course specific websites, zoom, slack, ed, etc.
     - Learning curve on each new system can be frustrating and take time
   - Sometimes there's quality of life issues
     - Switching between profiles being buggy on teams
     - Accessibility on mobile devices and general compatibility across devices
     - File management system being weird in teams
     - Notifications being impossible to turn off/hard to find the right settings
   - Communication is usually 'click of a button' easy such as with vid calls but scheduling time for group projects in normally a larger issue
     - Generally use polling function to figure out a good time for a group meeting but can be difficult to use effectively

- o Chats can get 'buried,' better on threaded systems but still a hassle
- o When2meet is useful
6. Do you currently do anything to circumvent these issues? If you do, what are your strategies for this?
    - Mostly try to stick to programs that are already familiar
    - Googling for solutions to bugs/using features
    - Using different account on different devices to avoid having to log in/out when switching accounts.
    - Using When2meet