Group Members: Max Xue, Elizabeth Zeng, Jinny Seo, Bonnie Qu, Kevin Van

[Requirements] Elicitation

Interviewer: Bonnie Qu Interviewee1: Wendy Park

Email: wendy.park4@education.nsw.gov.au

What tool do you currently use that has similar functionality to Seams?	Slack and Discord		
How often do you use the tool?	I use Slack every day for school and Discord everyday for Tutoring and my personal life.		
Comparing those tools, how would you say it affected your teamwork?	I find that Slack is more focused around teamwork which allows the communication to be driven efficiently and progressively. Whilst, I am also satisfied with Discord's functionality, its file size limit poses a flaw.		
What problems do you think you might face using Seams?	 Concerns about security issues such as no blocking functions are features No call features which might make working as a group hard 		
Any additional features you want?	 Reassuring notifs popping up whenever I want to delete as sometimes i accidentally delete a message Default emojis Voice messages Calendar functions 		

Interviewer: Jinny Seo Interviewee2: Peter Seo Email: jakehd@gmail.com

What tool do you currently use that has similar functionality to Seams?	I have used Microsoft Teams, Discord, Figma, Atlassian jira, and Kakaotalk
How often do you use the tool?	Pretty much every day for group work, projects, and chatting with friends
Comparing those tools, how would you say it affected your teamwork?	Using discord, the screen share functionality helped a lot. During team project, sharing screen helped a lot as it made a lot easier to share individuals' progress and codes
What problems do you	- Concerns about security issues such as where other users

Group Members: Max Xue, Elizabeth Zeng, Jinny Seo, Bonnie Qu, Kevin Van

think you might face using Seams?	can save individuals' profile pictures etc - Uncomfortable as there is no mobile app
Any additional features you want?	 Screen sharing Diagram drawing Showing password when typing in password in the field Dark mode Calendar functions

Interviewer: Jinny Seo Interviewee3: Jane Pavlovic

Email: janepavlovic89@gmail.com

What tool do you currently use that has similar functionality to Seams?	I use Microsoft Teams, wechat, and Discord		
How often do you use the tool?	I use them everyday for academic purposes and chatting with friends		
Comparing those tools, how would you say it affected your teamwork?	Teams has significantly boosted the efficiency of teamwork as it easily allowed all group members to join a call, send chats/images, mention and we could see who contributed and has not.		
What problems do you think you might face using Seams?	 Not being able to find password when I forgot the password Uncomfortable as there is no mobile app Being invited to channel directly, not being able to refuse to get invited 		
Any additional features you want?	 Simple logging in mode via google, apple etc Keeping user logged in for a long time Blocking features Dark mode Submitting files 		

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[Requirements] Analysis & Specification - Use Cases

Wendy Park

User story:

As a Year 12 student with the HSC coming up, I want to be able to stay on track with the workload from both school and tutoring so I want to create a new task in the to-do list for myself.

Use Case:

Focused Use case: Add tasks to-do list

Pre-requisites: The user must be a valid member of Seams and is active in at least one channel or dm.

Acceptance Criteria:

- Add tasks to to-do list
- Able to view already inserted tasks on to-do list
- Tasks will be updated on to-do list with each detail
- Tasks will be listed successfully in the to-do list

Valid Scenario:

- Step 1: User clicks on the button on the to-do list
- Step 2: User can view if already assigned tasks
- Step 3: Seams will ask user to enter their task description (context, due date)
- Step 4: Seams backend will verify if the user is valid in the channel or dm
- Step 5: Seams backend approves request successfully
- Step 6: Seams will update to-do list with the new task

Group Members: Max Xue, Elizabeth Zeng, Jinny Seo, Bonnie Qu, Kevin Van

Peter Seo

User story:

As a third-year UNSW student studying computer science, I want it to be easy to work as a group where I can easily track with other team members' progress to finish the assignment at an efficient pace.

Use Case:

Focused Use case: start voice/video call/screen share

Pre-requisites: The user must be a valid member of Seams and is active in at least one channel or dm.

Acceptance Criteria:

- Add a start call button
- User has the choice to start a video or voice call
- User can share screen on both video and voice call
- User can only end call after stopping their screen share
- User can choose what screen they want to share if they have multiple options

Valid Scenario:

- Step 1: User clicks on the button on the start voice/video call
- Step 2: User2 accepts the request to join a voice/video call
- Step 3: User can start to screen share
- Step 4: Seams will ask User2 is they want to view User's screen
- Step 5: User2 clicks on the button to accept to view User's screen
- Step 6: User2 can now view User's screen

Jane Pavlovic

<u>User story:</u>

As a second-year university student who is frustrated by the inability to send a file causing hinderments in the efficiency of group work.

Use Case:

Group Members: Max Xue, Elizabeth Zeng, Jinny Seo, Bonnie Qu, Kevin Van

Focused Use case: submitting a file

Pre-requisites: The user must be a valid member of Seams and is active in at least one

channel or dm.

Acceptance Criteria:

- Add a "Add file" button
- User can choose the files they want to be sent
- Other user can open the file that was sent
- Program makes sure that only certain types of files are able to be sent
- File successfully ends up in specified channel/DM chat

Valid Scenario:

- Step 1: User clicks on button to add a file
- Step 2: User chooses to add their specified file
- Step 3: User presses enter to send file
- Step 4: File is now sent in a channel or dm

[Requirements] Validation

Wendy Park Response:

The main problem I would have preferred Seams to solve is to better support learning or teaching through features such as calendars and voice messages so it's easier to track school/tutoring tasks as well as communicate. I feel like if all the features in the acceptance criteria were added, school work and tutoring work would be greatly supported as I am better able to track my tasks and due dates.

Peter Seo Response:

I really like the features that have been suggested in the acceptance criteria. If Seams is to be used as a tool for teamwork, the ability to draw shared diagrams and other data visualisation tools would greatly help team members communicate their ideas. The ability to share screens would also greatly help pair or team programming, which is something I find very useful as a Computer Science student.

Group Members: Max Xue, Elizabeth Zeng, Jinny Seo, Bonnie Qu, Kevin Van

Jane Pavlovic Response:

I really enjoyed all the quality of life features suggested in the acceptance criteria since a main problem I had with Seams' current state is I was not able to submit a file in a channel or direct message. To be able to send a file on the same platform would greatly boost my productivity as I wouldn't need to waste time sending it on another platform.

[Design] Interface Design

Name & Description	HTTP Method	Data Types	Exceptions
user/todolist/create Creates a to-do list for the given authorised user	POST	Parameters: { token, list_name } Return Type: { list_id }	InputError when: • length of name is less than 1 or more than 20 characters AccessError when: • token is invalid
user/todolist/add Adds an item to the given to-do list for the given authorised user	POST	Parameters: { token, list_id, task_descr, due_date } Return Type: {}	InputError when: Ilist_id does not refer to a valid to-do list Ilength of task_descr is less than 1 or over 100 characters AccessError when: token is invalid
user/todolist/remove Removes an item to the given to-do list for the given authorised user	POST	Parameters: { token, list_id, task_descr, due_date } Return Type: {}	InputError when: Iist_id does not refer to a valid to-do list Iength of task_descr is less than 1 or over 100 characters Itask_descr and due date does not match an existing task_descr and due date AccessError when: token is invalid
channel/call/create Creates a call for the	POST	Parameters: { token, channel_id }	InputError when: • channel_id does not refer to a valid

Group Members: Max Xue, Elizabeth Zeng, Jinny Seo, Bonnie Qu, Kevin Van

given channel		Return Type: { call_id}	channel
channel/call/join Joins a call of a given a call_id of an active call in a channel with given channel_id	POST	Parameters: { token, channel_id, call_id } Return Type: {}	InputError when:
channel/call/leave Leaves a call of a given a call_id of an active call in a channel with given channel_id	POST	Parameters: { token, channel_id, call_id } Return Type: {}	InputError when:
channel/call/video Allows the user to turn their camera on or off in the given call_id of an active call in a channel with given channel_id	POST	Parameters: { token, channel_id, call_id, is_video_on } Return Type: {}	InputError when:

Group Members: Max Xue, Elizabeth Zeng, Jinny Seo, Bonnie Qu, Kevin Van

			token is invalid
channel/call/screenshare Allows the user to turn their screen-share on or off in the given call_id of an active call in a channel with given channel_id	POST	Parameters: { token, channel_id, call_id, is_screenshare_on } Return Type: {}	InputError when:
dm/call/create Creates a call for the given dm	POST	Parameters: { token, dm_id } Return Type: { call_id}	InputError when:
dm/call/join Joins a call of a given a call_id of an active call in a dm with given dm_id	POST	Parameters: { token, dm_id, call_id } Return Type: {}	InputError when: dm_id does not refer to a valid dm authorised user is not a member of the dm call_id does not refer to an active call in dm AccessError when: token is invalid
dm/call/leave Leaves a call of a given a call_id of an active call in a dm with given dm_id	POST	Parameters: { token, dm_id, call_id } Return Type: {}	InputError when:

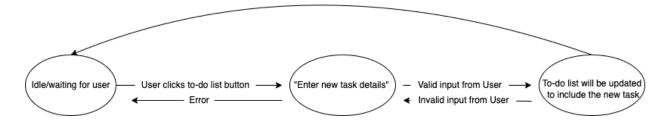
Group Members: Max Xue, Elizabeth Zeng, Jinny Seo, Bonnie Qu, Kevin Van

dm/call/video Allows the user to turn their camera on or off in the given call_id of an active call in a dm with given dm_id	POST	Parameters: { token, dm_id, call_id, is_video_on } Return Type: {}	InputError when:
dm/call/screenshare Allows the user to turn their screen-share on or off in the given call_id of an active call in a dm with given dm_id	POST	Parameters: { token, dm_id, call_id, is_screenshare_on } Return Type: {}	InputError when:
file/send Send a file from the authorised user to the channel specified by channel_id	POST	Parameters: { token, channel_id, file } Return Type: {}	InputError when:
file/senddm Send a file from the authorised user to the channel specified by cm_id	POST	Parameters: { token, dm_id, file } Return Type: {}	InputError when:

Group Members: Max Xue, Elizabeth Zeng, Jinny Seo, Bonnie Qu, Kevin Van

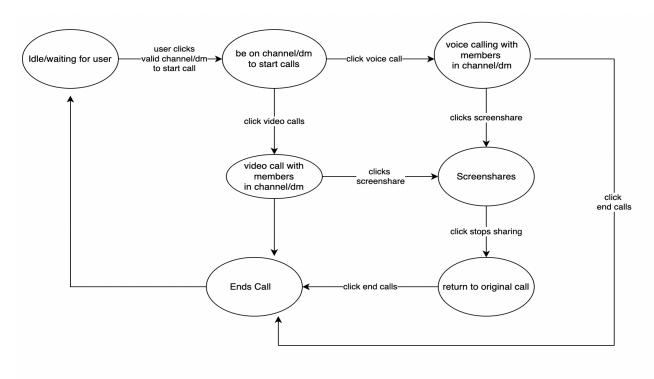
[Design] Conceptual Modelling (State)

State model for adding tasks to the to-do list:



State model for starting a voice/video call with screen share function:

Group Members: Max Xue, Elizabeth Zeng, Jinny Seo, Bonnie Qu, Kevin Van



State model for submitting a file:

