

Elicitation

User 1

Name: Justin Chang

Email: justin.chang@live.com.au

Q1.

What is your preferred platform for online teamwork communication (e.g. Microsoft teams, Discord, Messenger)?

Teams

Q2.

Why have you chosen that specific tool? What specific features do you find the most useful/valuable?
professional, file management, good team communication (group chat and calls)

Q3.

What is one issue you experience when communicating online?
somewhat hard to manage group, such as server layout, adding files

Q4.

After using the example Treats platform (<http://treats-unsw.herokuapp.com/>), would you use this platform for future communications? Why or why not? Mention specific features Treats has or lacks.
No would not use Treats as not many people actively use the platform. When i first logged in, i noticed It doesn't link to other accounts like google or facebook for easy login. This annoyed me a bit ahahah

User 2

Name: Casey Ly

Email: caseyly@hotmail.com

Q1.

What is your preferred platform for online teamwork communication (e.g. Microsoft teams, Discord, Messenger)?
Messenger

Q2.

Why have you chosen that specific tool? What specific features do you find the most useful/valuable?
Most people have it. Easy to use with functions such as video chat

Q3.

What is one issue you experience when communicating online?
Sometimes difficult to get the message across without typing out a massive paragraph. I've found some people aren't as active as others and that makes it hard to get a group consensus on tasks. When doing a group activity, hard to find a time that suits everyone.

Q4.

After using the example Treats platform (<http://treats-unsw.herokuapp.com/>), would you use this platform for future communications? Why or why not? Mention specific features Treats has or lacks.

I would not use the Treats platform as it does not have the option to send through files/photos/videos. Without this feature, it makes it difficult to share information (sending google drives, websites etc)

User 3

Name: Christine Chang

Email: thechristinechang@gmail.com

Q1.

What is your preferred platform for online teamwork communication (e.g. Microsoft teams, Discord, Messenger)?

Teams

Q2.

Why have you chosen that specific tool? What specific features do you find the most useful/valuable?

Work is based on teams meetings. We use text messaging, group messaging, share screens and external meetings. Faster and easier than email to reply with short questions and discussion. Can add links within work platform, send screenshots etc

Q3.

What is one issue you experience when communicating online?

Teams need to be open to communicating with work colleagues. Otherwise great.

Q4.

After using the example Treats platform (<http://treats-unsw.herokuapp.com/>), would you use this platform for future communications? Why or why not? Mention specific features Treats has or lacks.

I wouldn't use Treats as it does not contain a video call option for meetings, nor the ability to share screens. I need to emulate a meeting remotely and can't do that without video.

Analysis and Specifications

User Story 1

As a user, I want to log in to Treats using my existing Google account so that I can save time and effort.

- Google login option is visible on Treats login page
- User can either log in using "Sign in with Google" or use One-Tap-Sign-In pop-up
- On the first time using, a successful Google login will register the user to Treats
- On subsequent uses, a successful Google login will log in user

User Case 1

Use Case: Logging-in and registering using pre-recorded data from Google account

Goal in Context: Users can quickly login using their existing Google account instead of manually entering information in Treat's log-in.

Preconditions: The user has a valid Google account

Success End Condition: User is registered (if first time using Treats) or is logged into Treats (subsequent uses) using their known information from their Google account

Failed End Condition: Error and user will be denied login

Primary Actor: User

Trigger: Clicking "Sign in with Google" on the Treats Log-in page

User Story 2

As a user, I want to send photos in channel messages and dms so that I communicate better and share visual ideas.

- Any user apart of the channel or dm can send a photo to the channel or dm
- “Send Image” button is clearly shown
- User is prompted to upload a photo when the “Send Image” button is pressed
- All users in channel/dm can view photo as a message

User Case 2

Step 1: User opens channel/dm

Step 2: User clicks “Send Image” button

Step 3: User is prompted to upload an image from computer

Step 4: User selects an image from their computer’s files

Step 5: Photo is sent in channel/dm where all members can view it as a message

User Story 3

As a user, I want to hold video calls in channels so that I can host synchronous meetings with my team members.

- Any member of the channel can start a video call. Only members of that channel can join the video call
- “Video call” button is under the channel’s name for easy access
- Once the video call button is clicked, a new window will appear prompting user for camera and microphone permissions
- Video call initiates with given permissions
- Other users in channel are notified and invited to join call, and asked permissions
- Video call window will show users’ cameras so that all users can see and hear each other synchronously, with respective permissions
- Video call ends once all users have left the call

User Case 3

Step 1: User opens channel

Step 2: User clicks video call button

Step 3: Other members of the channel are notified to join the call

Step 4: New window opens and asks users who joined/answered for audio and camera permissions

Step 5: User joins video call with given permissions

Step 6: Active video call in session

Step 7: User leaves video call and window closes

Step 8: Video call is inactive once last user leaves video call

Validation

Google Login/Register

Justin Chang

This is really good since other websites use something similar and familiarity makes the feature easier to use. I also like how I don’t need to tell the program if I’m logging in or registering, it figures it out for me. Because sometimes I forget if I’ve already made an account.

Send Photos & Video Chat

Casey Ly

Sending photos option seems easy and simple to use. But I was also looking for a way to send files (e.g. .docs, .pdf) and pre-recorded videos too.

Video calls always help and are much more efficient methods of communication when working in teams online. I'm glad there's a clear option to set permissions as sometimes, I don't want to enter a call with my mic or camera on and get very paranoid about that. I think it's pretty good.

Video Chat

Christine Chang

Great to see a video call feature as its such a necessity for team communication. I think opening the call in a new window is also helpful, because then you can continue reading messages or details in the previous window. But is there any way to decline a call? Other platforms also have features like screensharing. This is really helpful when sharing files or diagrams during meetings. I mentioned it before.

Interface Design

Google Login/Register

Name & Description	HTTP Method	Data Types	Exceptions
/google/login/v1 Given a valid email and password for a Google account, register the user if it's their first time using Treats or log in user for subsequent uses of Treats. Return their unique authUserId and a session specific token.	POST	Body Parameters: { email, given_name, family_name, picture } Return type if no errors: { token, authUserId }	Note: Exceptions handled on the front end

Send Photos

Name & Description	HTTP Method	Data Types	Exceptions
/send/image/v1 Given a valid dmId or channelId that the authorised user is a member of, upload imgFile from user's local computer. Send the image via dm or channel messages.	POST	Body Parameters: { token, authUserId, channelId, dmId, filename } Header Parameters: { token } Return type if no errors: { messageId }	400 Error: <ul style="list-style-type: none">Invalid File datadmId does not refer to a valid dm or channelId does not refer to a valid channel 403 Error: <ul style="list-style-type: none">Invalid token or authUserIddmId or channelId is valid and authorised user is not a member of the dm or channel

Video Call

Name & Description	HTTP Method	Data Types	Exceptions
/initiate/videoCall/v1 Start a video call in the given channel Id. Return a unique video link.	POST	Body Parameters: { channelId } Header Parameters: { token } Return type if no errors: { videoLink }	400 Error: <ul style="list-style-type: none"> channelId does not refer to a valid channel 403 Error: <ul style="list-style-type: none"> Invalid token channelId is valid and authorised user is not a member of the channel
/notify/videoCall/v1 Notify all members of the channel that the authorised user is starting a video call. The user can either answer or hang up the call.	POST	Body Parameters: { videoLink, channelId } Header Parameters: { token } Return type if no errors: { callStatus }	400 Error: <ul style="list-style-type: none"> channelId does not refer to a valid or active channel videoLink does not refer to a valid video call 403 Error: <ul style="list-style-type: none"> Invalid token channelId is valid and authorised user is not a member of the channel
/join/videoCall/v1 Given a videoLink that the authorised user can join, adds them to the video call. Only members who have answered the call can join.	POST	Body Parameters: { videoLink, callStatus } Header Parameters: { token } Return type if no errors: {}	400 Error: <ul style="list-style-type: none"> videoLink does not refer to a valid or active video call callStatus is not answered 403 Error: <ul style="list-style-type: none"> Invalid token
/setCallPermissions/v1 Set audio and camera permissions for the user when joining the video call.	POST	Body Parameters: { videoLink, isAudio, isCamera } Header Parameters: { token } Return type if no errors: {}	400 Error: <ul style="list-style-type: none"> videoLink does not refer to a valid or active video call 403 Error: <ul style="list-style-type: none"> Invalid token
/leave/videoCall/v1 Given a videoLink, the user leaves the video call. Call ends when last user	POST	Body Parameters: { videoLink } Header Parameters: { token }	400 Error: <ul style="list-style-type: none"> videoLink does not refer to a valid or active video call <ul style="list-style-type: none"> User has already left or has never joined the call

leaves.		Return type if no errors: {	403 Error: ● Invalid token
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Conceptual Modelling

Google Login/Register State Diagram

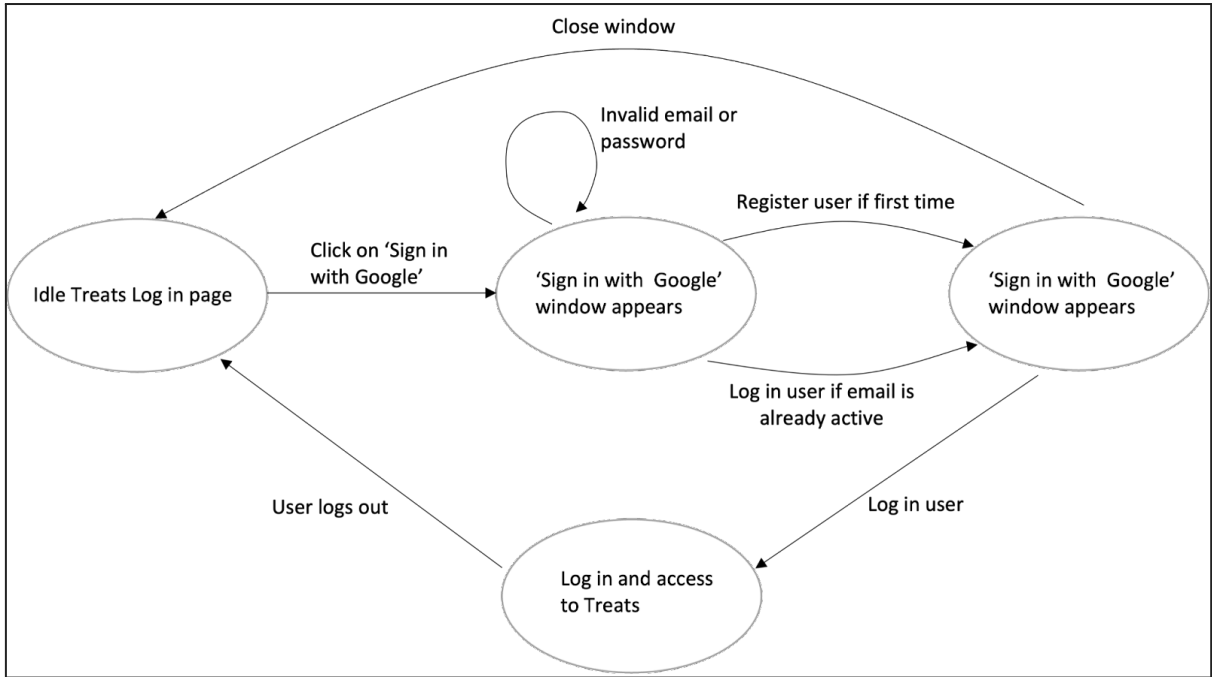
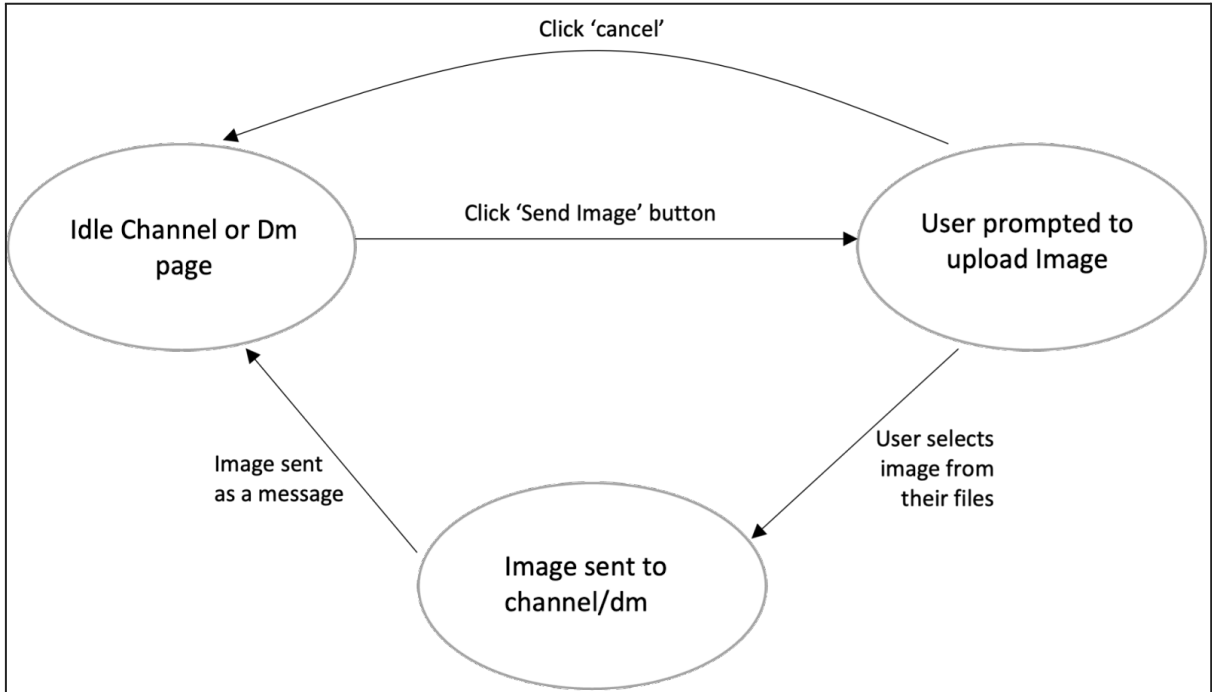


Photo Send State Diagram



Video Call State Diagram

