

Planning for the next problems to solve - W13A_BEAGLE

[Requirements] Elicitation - Jordan Terzian and Zeal Liang

Interviewee's

Name: Jackson Robb

Age: 19 years

Position: Macquarie University Marketing & Media Student

Email : 15robbj@sec.nsw.edu.au

Name: Michael Terzian

Age: 48 years

Position: Federal Agent

Email: mikeaska@tpg.com.au

Question 1: What is one feature you wish was more universal in teamwork-driven communication tools?

Jackson: *"Being able to set your online and offline status manually as you please is something I wish was more universal. I love being able to appear offline or away in old-school skype and what not. It especially helps visually communicate to others in the chat my current availability"*

Michael: *"Being able to play games in down time such as hangman, 8-ball, chess, etc. I find this is a good way to have some fun with your fellow employees especially when working from home. This is especially true when these games are integrated into the app itself."*

Question 2: In terms of how most teamwork-driven communication tools are presented visually, is there anything in particular that is a massive selling point when considering new products?

Jackson: *"Dark mode is always a must, but I have to say I do like when certain applications show that a user is sitting in the chat but not saying anything. It allows me to keep track of who has actually seen my messages, as I find a lot of people go into chats to get rid of notifications but never actually read it."*

Michael: *"Very very simple answer for this question. Dark mode! It needs to become a standard for all applications, period. Even better if this happens manually based on if your web browser is in dark mode or not."*

Question 3: When communicating with others in a group or channel, are there any features that make you feel more connected to these people personally, or make using these types of applications more enjoyable?

Jackson: *“Having the ability to assign nicknames to people in group chats as well as having a photo representing the chat definitely allows me to feel more connected to the people I’m working with even though we aren’t physically together. I also find that changing the group chats photo/icon helps me keep better track of all my chats.”*

Michael: *“I think being able to see when other employees in a mutual chat are currently active elsewhere (in other chats, in a call, etc) it certainly allows me to feel more connected as I know to not bother them while they’re busy, it also reassures me that I’m not being ignored. Also, being able to assign nicknames is always good for producing a laugh.”*

Question 4: Some teamwork-driven communication programs are able to display user statistics, in the case that an application has this, is there a particular way you typically like this to be displayed? E.g. List, graph, etc.

Jackson: *“Personally, I always find that applications which include this feature tend to do it in all different ways. It would be nice to be able to display these statistics in whatever way I choose, such as a drop down menu with the option to display it as a list, line-graph, bar graph etc.”*

Michael: *“While I don’t necessarily always use the statistics features on teamwork-driven communication applications, I prefer when it is displayed as a bar graph instead of a line, much more easier to read. Lists are great too but I’m definitely more of a visual person”*

Question 5: In terms of meeting project or team deadlines, is there a feature that could potentially help ease this process?

Jackson: *“Definitely having a calendar be present as an integral part of the chat/channel itself is a huge help. In the case of university, the inclusion of a feature like this allows me to visually keep track of what is due in group assignments and when. It also helps keep everyone accountable.”*

Michael: *“I think having the ability to have a bot in the chat that reminds people every couple of hours/days/weeks when each particular thing is due is a big help. I especially find that as the deadline approaches, sometimes people simply just forget to press send.”*

Solutions to interviewees common problems:

1. Implement the ability to set activity status in streams (offline, appear offline, online, away, do not disturb)
2. Integrate games into streams itself such as 8ball, tic-tac-toe. Have this option be present under the message textbox.
3. Implement dark mode to streams.
4. Show when a user is currently in the chat, even when they aren’t typing. Have the user’s profile photo float at the bottom or side of the screen as a visual representation of this.

5. Allow users to assign nicknames to people in mutual channels. This should update the users display name to the whole chat.
6. Allow users to assign a group photo to channels. This should appear next to the name of the channel itself similar to a user's profile photo.
7. Show when a user is currently talking in another channel. Have this be represented by a red circle in the right corner of a user's profile photo.
8. Allow users to choose from a drop down menu how they'd like statistics to be displayed. Should be able to be displayed by list, line-graph, or bar-graph.
9. Implement a calendar into the channels feature of streams in order to allow users to keep track of deadlines. This could be present just under the members portion of the main channel screen.
10. Have the calendar notify people of due dates at user set time intervals.

[Requirements] Analysis & Specification - Use Cases - Vinoshan Parathan

User stories and acceptance criteria

User Story

As a Streams user, I want the ability to change my own activity status in streams to 'away', 'appear offline' and 'do not disturb' so that other users can visually see my current availability.

Acceptance Criteria

Example 1

Scenario: User does not want to be disturbed/notified

- Given the user is logged in
- And their activity status is set on 'online'
- When the user changes activity status from 'online' to 'do not disturb'
- Then a visual representation of 'do not disturb' will appear on the user's profile visible by all users.
- And notification including @ tags will be muted

User Story

As a Streams user, I want to be able to play games such as hangman, 8-ball, chess, etc within a channel so that I am able to pass time by enjoying some fun games with fellow users.

Acceptance Criteria

Scenario: User plays a game within a channel

- Given the user is logged in
- And connected/added to a channel
- When the user clicks on a specified game under the textbox for the specific channel
- Then a bot prints the game within the channel
- And other users in the channel are able to accept the game request
- And the user is able to play the game with other users

User Story

As a Streams user, I want the ability to change the application's display to 'Dark Mode' so that I can reduce the strain on my eyes.

Acceptance criteria

Scenario: User changes applications display to "Dark Mode"

- Given the user is logged in
- And user is on profile/account settings tab
- When the user clicks on 'dark mode' to be turned on
- Then Streams' display changes from 'light mode'/'default mode' to 'dark mode'
- And if user logs out and logs back in, the Streams' display stays in 'dark mode'

User Story

As a Streams user, I want to see when a user is currently in the chat but not responding, so that I can keep track of which users have actually seen my messages.

Acceptance criteria

Scenario: user1 sees user2 currently in the channel chat even though User2 is not typing

- Given user1 is logged in
- And user1 creates/is added to a channel
- And user2 is logged in
- And user2 is connected/added to the same channel
- And user2 has the channel open
- When user1 views/opens the channel
- Then user1 will visually see user2's profile photo at the bottom of the screen

User Story

As a Streams user, I want to have the ability to assign nicknames to people, so that I can feel more connected to other users whom I am talking to.

Acceptance criteria

Scenario: user1 assigns a nickname to user2

- Given user1 is logged in
- And user1 creates/is added to a channel
- And user1 has the channel open
- And user2 is logged in
- And user2 is connected/added to the same channel
- And user1 has clicked on user2's profile viewing their profile details
- When user1 types in a nickname for user2
- Then user2 will be renamed as the given nickname for only user1 to see
- And if user1 logs out and logs back in, user2 will still display the nickname
- And if user2 logs out and logs back in, user1 will still see user2 as the given nickname

User Story

As a Streams user, I want to have the ability to assign group chats or channels a photo/icon, so that I can keep better track of all my chats.

Acceptance criteria

Scenario: user assigns a channel a channel photo

- Given user is logged in
- And user creates/opens a channel
- And user is the channel owner
- And the user clicks the the empty channel picture
- When the user edits and assigns a new channel picture
- Then the user and other users will be able to see the new assigned channel picture
- And if any user logs out and logs back in, the channel picture will stay the same for that channel

User Story

As a Streams user, I want to have the ability to see when a user is currently talking in another channel, so that I know not to bother them while they're busy and so that I know that I am not being ignored.

Acceptance criteria

Scenario: user1 is in dms with user2 and visually sees that user2 is currently talking somewhere else in Streams

- Given user1 is logged in
- And user1 creates/opens dms with user2
- And user2 is logged in
- And user2 opens a channel that user1 does not have open
- When user2 texts in their channel
- Then user1 will visually see a small red circle appears on the right of user2's profile photo
- And notifies user1 that use2 is typing elsewhere in Streams

Different types of statistics graphs

As a Streams user, I want to be able to view user statistics as different types of graphs so that I can visually understand the data shown.

Acceptance criteria

Scenario: user views 'user statistics' as different types of graphs

- Given user is logged in
- And user clicks on profile
- And user clicks on the 'user statistic' graph type drop down menu
- When user selects line graph
- Then the 'user statistic' graph changes from a bar graph to a line graph

User Story

As a Streams user, I want to view and edit a calendar within the chat/channel, so that I can easily keep track of deadlines.

Acceptance criteria

Scenario: user edits a calendar in which a new event is added on wednesday within the channel.

- Given user is logged in
- And user creates a new channel
- And opens the new channel
- And clicks to view the calendar for the specific channel
- When user edits the wednesday tab on the calendar
- Then a new event is created on wednesday
- And other users within the channel are able to view the new event
- And if a user logs out and logs back in, the event is still saved on the calendar.

User Story

As a Streams user, I want to be notified every couple of hours/days/weeks when a particular event/deadline is due so that I don't forget about the event/deadline.

Acceptance criteria

Scenario: User gets notified once every week about an event

- Given user is logged in
- And user creates a new channel
- And opens the new channel
- And clicks to view the calendar for the specific channel
- And user edits the calendar where a new event is added
- When the user clicks for notifications to be enabled
- And chooses weekly
- Then a new event is created on wednesday
- And every user added to the channel gets notified

Use cases

Change activity status

1. User registers using email address, first name, last name and password
2. User logs into Streams
3. User clicks on profile
4. User changes activity status within profile details

Change channel photo

1. User registers using email address, first name, last name and password
2. User logs into Streams
3. User creates a channel
4. User clicks on empty channel profile
5. User uploads a .jpeg file

Editing Channels Calendar

1. User registers using email address, first name, last name and password
2. User logs into Streams
3. User creates a channel
4. User views calendar
5. User edits calendar
6. User creates an event with notifications turned on

[Requirements] Validation - Jordan Terzian

Jackson: *"All these use cases would adequately solve the problems I outlined during your elicitation phase. To be specific user case 1 and 2 (activity status and change channel group photo) both follow similar processes which are commonly found on other teamwork-driven communication platforms, meaning that I and other users of these types of products will be able to translate skills over to your Streams app. As for user case 3 (channels calendar), it sounds similar to the way in which you can interact with calendar apps on smartphones, which I think is the perfect way to go about it as not only does it translate well over to the application you guys are developing, but it is also extremely efficient and easy to pick up."*

Michael: *"I really like the sounds of your potential calendar implementation, from a first glance it looks like a good mix between Apple's calendar and reminders merged into one feature that is integrated into a teamwork-driven communication program. I personally think it is the perfect way to go about it. User case 2 is also a no brainer, in the applications that allow you to upload photos to channels and groups, this is the most popular way to go about doing it and I mean if it's not broken, don't fix it right? However, as for user case 1, while this does largely solve the problem at hand, I would prefer it if a user were able to change their activity status via a dropdown menu from whatever part of the application. As opposed to going into their profile page, while it isn't that big of a deal I think that this makes the process even simpler and less tedious."*

[Design] Interface Design - Raf Hughes

Name and Description	HTTP Method	Data Types	Exceptions
<p><u>user/profile/setstatus/v1 :</u> The user has an activity status which is displayed publicly on their profile. A user's status alters how they interact with Streams and the notifications that they receive.</p> <p>By default, when the user logs out, their status is changed to offline.</p> <p>Statuses are set indefinitely unless otherwise specified by the user. The status' duration is indefinite if -1 is passed as an argument for duration.</p>	POST	<p>Parameters : {token, status_id, duration}</p> <p>Return : {}</p>	<p>InputError - when the status_id invalid (i.e a status other than online (1), do not disturb (2), away (2), invisible (3) or offline (4))</p> <p>InputError - the duration value is invalid (i.e a negative integer aside from -1)</p> <p>AccessError - the given token does not refer to an authenticated user</p>
<p><u>dm/uploadphoto/v1:</u> Any user with the given permission(s) or the original creator of the dm can upload a photo to set as the profile picture.</p> <p>Given a url of the image, it is cropped to fit the given image bounds specified by the user when the picture is being set.</p>	POST	<p>Parameters : {token, dm_id, image_url, start_x, start_y, end_x, end_y}</p> <p>Return : {}</p>	<p>InputError - The image url returns a status code of anything other than 200.</p> <p>InputError - The bounds specified by the user are not valid (i.e less than 0, or do not fit the dimensions of the image)</p> <p>InputError - the file associated with the image_url is not a JPG</p> <p>AccessError- the token does not refer to an authenticated user</p> <p>AccessError - the user is not a member of the given dm that they are trying to change the photo of</p> <p>AccessError - the user does not have the correct permissions (i.e is not a</p>

			global owner or creator of the dm) to change the profile photo
<p><u>channel/uploadphoto/v1:</u> Any user with the given permission or who is the owner of the channel can upload a photo to set as the profile picture.</p> <p>Given a url of the image, it is cropped to fit the given image bounds specified by the user when the picture is being set.</p>	POST	<p>Parameters : {token, dm_id, image_url, start_x, start_y, end_x, end_y}</p> <p>Return : {}</p>	<p>InputError - The image url returns a status code of anything other than 200.</p> <p>InputError - The bounds specified by the user are not valid (i.e less than 0, or do not fit the dimensions of the image)</p> <p>InputError - the file associated with the image_url is not a JPG</p> <p>AccessError- the token does not refer to an authenticated user</p> <p>AccessError - the user is not a member of the given dm that they are trying to change the photo of</p> <p>AccessError - the user does not have the correct permissions (i.e is not a global owner or creator of the dm) to change the profile photo</p>
<p><u>calendar/create/v1:</u> Given a channel id, create a calendar for the associated channel.</p> <p>From here, events can be added, edited, viewed and removed by users in the channel.</p>	POST	<p>Parameters : {token, channel_id}</p> <p>Return : {calendar_id}</p>	<p>InputError - channel_id does not refer to a valid channel</p> <p>AccessError - the given token does not refer to an authorised user</p> <p>AccessError - the user is not a member of the channel that they are trying to create a calendar for</p>
<p><u>calendar/viewstate/v1:</u> Change the view state of the channel (i.e set it to see either the current day, week, month or year)</p>	GET	<p>Parameters : {token, channel_id, calendar_id, view_option}</p> <p>Return : {}</p>	<p>InputError - the channel_id does not refer to a valid channel</p> <p>InputError - the calendar_id does not refer to a valid calendar</p> <p>InputError - the view_option is</p>

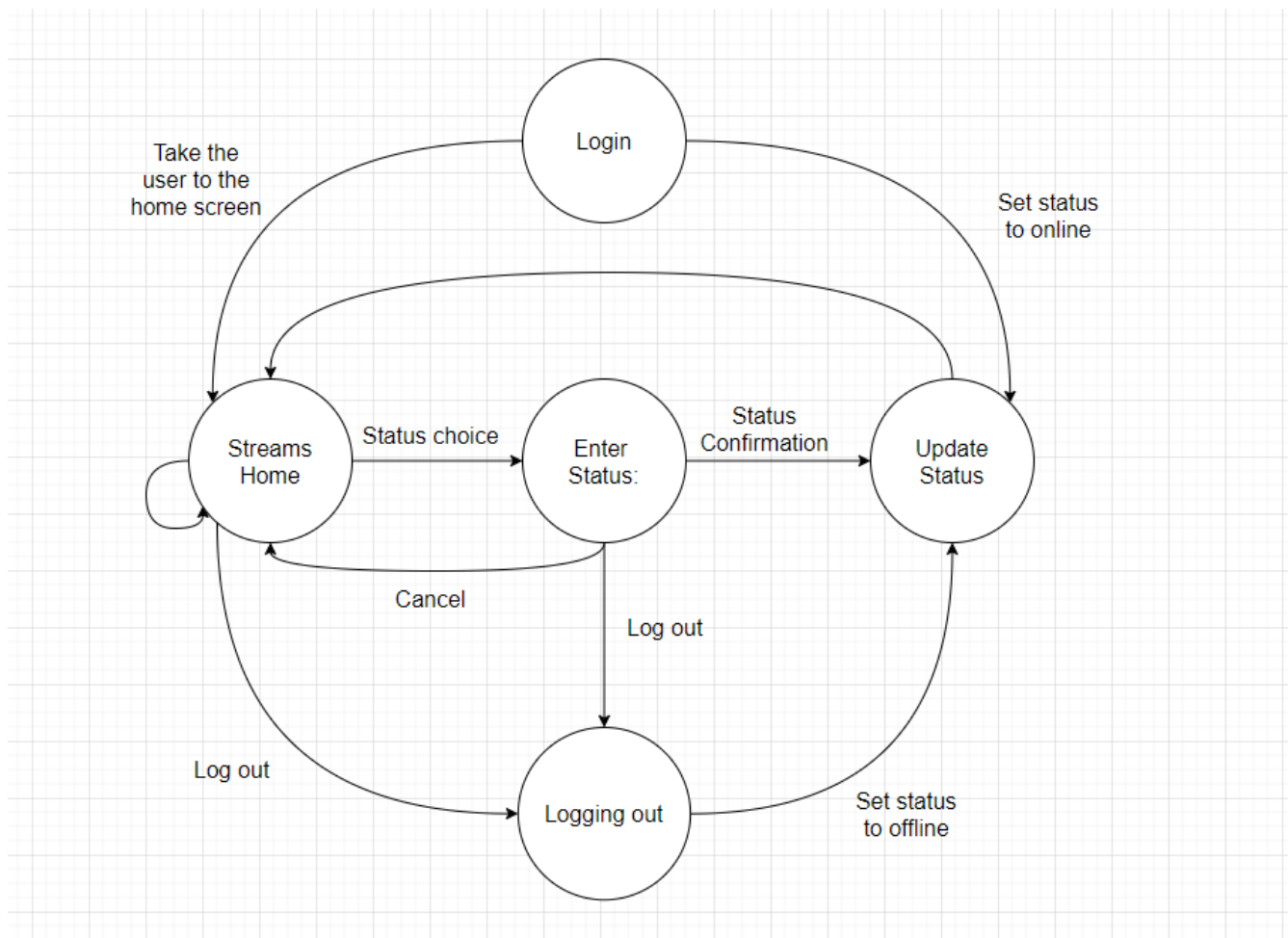
			<p>invalid (i.e not one of the options specified in the description)</p> <p>AccessError - the given token does not refer to a authorised user</p> <p>AccessError - the given user is not a member of the channel that the calendar is a part of</p>
<p><u>calendar/event/create/v1:</u> Given a calendar associated with a channel, create an event with a name, duration and description for others to see that are all specified by the user. The id of the newly created event is returned</p>	POST	<p>Parameters : {token, channel_id, calendar_id, event_name, event_duration, u_ids, event_description}</p> <p>Return : {event_id}</p>	<p>InputError - channel_id does not refer to a valid channel</p> <p>InputError - calendar_id does not refer to a valid calendar in the given channel</p> <p>InputError - event_name is less than 0 characters or greater than 1000</p> <p>InputError - event_description is greater than 1000 characters</p> <p>InputError - any user id in u_ids does not refer to a valid user</p> <p>AccessError - the given token does not refer to an authorised user</p> <p>AccessError - the user is not a member of the channel that they are accessing</p>
<p><u>calendar/event/edit/v1:</u> Given a valid event, edit information based on specified values. Details including the event name, duration, description and participants can be updated.</p> <p>The new details must still adhere to the input rules that apply to event creation.</p>	POST	<p>Parameters : {token, channel_id, calendar_id, event_id, new_name, new_duration, new_description, new_u_ids}</p> <p>Return : {}</p>	<p>InputError - channel_id does not refer to a valid channel</p> <p>InputError - calendar_id does not refer to a valid calendar in the given channel</p> <p>InputError - event_id does not refer to a valid event in the given calendar</p> <p>InputError - new_event_name is less than 0 characters or greater than 1000</p>

			<p>InputError - new_event_description is greater than 1000 characters</p> <p>InputError - any user id in u_ids does not refer to a valid user</p> <p>AccessError - the given token does not refer to an authorised user</p> <p>AccessError - the user is not a member of the channel that they are accessing</p>
<p><u>calendar/event/remove/v1:</u> Remove an event from the calendar given a valid event_id. This can only be done by the original creator of the event.</p>	DELETE	<p>Parameters : {token, channel_id, calendar_id, event_id}</p> <p>Return : {}</p>	<p>InputError - the channel_id does not refer to a valid channel</p> <p>InputError - the calendar id does not refer to a valid calendar</p> <p>InputError - the event id does not refer to a valid event</p> <p>AccessError - the given token does not refer to an authorised user</p> <p>AccessError - the user is not a member of the channel</p> <p>AccessError - the user is not the original creator of the event</p>
<p><u>calendar/events/get/v1:</u> Given a channel id and calendar id, return a list of events which occur during a specified period of time.</p> <p>The start and end date can be manually specified by the user or will be automatically generated based on the current view state of the calendar.</p> <p>If both start and end date are -1, then the time period is automatically generated based</p>	GET	<p>Parameters : {token, channel_id, calendar_id, start_date, end_date}</p> <p>Return : {events}</p>	<p>InputError - channel_id does not refer to a valid channel</p> <p>InputError - calendar_id does not refer to a valid calendar in the given channel</p> <p>InputError - the time period specified by start_date and end_date is invalid.</p> <p>AccessError - the given token does not refer to an authorised user</p>

on the current view state of the calendar.			AccessError - the user is not a member of the channel that they are accessing
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[Design] Conceptual Modelling (State) - Dev Chopra

Status update state diagram:



Calendar state diagram:

