

# Alpaca Iteration 4 Plan

## 1.Requirements

### 1.1 Elicitation

#### 1.1.1 UNSW Student

*Name: Dean Stoupis*

*Email: deano\_trex@gmail.com*

What is a challenge you face when using apps such as Microsoft Teams in an education environment?

When I use these apps I do not feel like they are integrated with the course that I am doing. I often find myself jumping from the uni website to the application, back and forth trying to access the information that I need at the time.

Why is this a problem that impacts your learning environment?

It has created a lot of confusion for me in various courses, such as am I in the right tutorial? Where are the documents that I need for this exercise? Where are the recordings for this lecture? And so on. Once I missed out on an important announcement for one of my assignments because it was made in Teams and I missed it because the course's announcements did not have a clear online space where they would all be posted.

What is something that these apps do successfully that makes your life as a student easier?

Well this one is easy, the ability for anyone to share their screen in an online call to share what they are working on in real time. Discord does this really well and I use it often.

How has this been a positive feature in aiding your education?

Without this ability many help sessions and team assignments would have been impossible as it is vital for me to show my work in real time so the other person in the call can effectively help me.

### **1.1.2 Potential student user**

*Name: Christian Langlaver*

*Email: therealchristianbale2342@gmail.com*

So you are about to start uni, what do you think is going to be a challenge when using apps such as Microsoft Teams for your first year at Uni?

I reckon that the biggest challenge that I will face is being able to learn and figure my way around the app. I have been told multiple times that you are on your own at uni, no one is going to remind you of anything, you can easily miss out on important information if you are not paying attention. Therefore figuring things out in the app quickly and having a way to keep myself alert on what is happening in the course is going to be a challenge for me to overcome with the new apps I will have to use at Uni.

Why is this challenge something that worries you?

I want to have the best results I can possibly get in university, therefore I am worried about a silly mistake such as missing an announcement about some vital information, to jeopardise my results at university.

In high school did you use any sort of application or online resources similar to Microsoft Teams and if so what was something that you enjoyed from that application?

We used Google's resources for anything online, they were simple, easy to use and accessible which is something that I liked. I especially liked Google Classroom as I could use it anywhere, therefore being able to get posts and information quite easily. It was very intuitive in how it organised information and it was well integrated with gmail to notify me when any of my teachers posted something.

If you were to change anything from your experience in high school with online communication resources what would it be?

For online classes I would have preferred to have used another application, other than Google Hangouts for the classes. This is because I felt that Google Hangouts was limited in its ability to interact with the teacher and other students.

Why is this something that you felt was important to be changed?

I felt like I could not have the same interactions I could have with teachers in a face to face class. It was harder to ask questions and for them to answer them. Making the whole online experience painful and limiting.

### **1.1.3 Tutor**

*Name: Joshua Pentecost*

*Email: joshua\_pentecost34@gmail.com*

As a tutor what is a problem that you often face when using applications such as Microsoft Teams when interacting with students?

I find that often resources and information that I post to my students gets lost in the GUI of applications such as Microsoft Teams as there is so much going on in them.

How would you change the way students access this information?

Students access information daily and keep up to date with the online world through the frontpages of Instagram, Youtube and Reddit therefore I would mimic those frontpages as students have an intuitive knowledge on how to use those frontpages. So just as they check their Instagram notifications daily, they could check their tutor's notifications daily as well and never miss any important information.

Why is it meaningful to you that students can access class information differently to how it is currently provided at your courses?

Well, I think we have a responsibility as educators to make accessing information for students as easy as possible and not make it an obstruction to learning. We all already have a lot of things that need to be done at Uni, finding course information should not get in the way of learning.

### **1.1.4 The proposed feature**

A frontpage that uses chronological pagination to display information posted by tutors and lecturers.

- There would be a front page for each course;
- a main page with all the courses that the students are enrolled in.
- Students can react to the posts.
- Tutors and lecturers can pin posts.
- The lecturers and tutors send notifications in app as well as email notifications
- Posts can include pictures, text, documents, videos or a combination of these

## 1.2 Analysis & Specification

### 1.2.1 Dean Stoupis

#### *User Story 1*

**As** a university student, **I want to** access an online space for course announcements **so that** I can easily view all important course information from a single platform.

#### *Acceptance Criteria (Scenario based)*

- **Given:** The tutor/lecturer posts a course announcement and I am not logged into Streams
- **When:** I log into Streams
- **Then:** The course announcement is posted in a 'Course Announcements' section with previous course announcements displayed underneath it.

#### *User Story 2*

**As** a university student, **I want** to be able to share my screen, **so that** I can show others what I am working on during help sessions and group meetings.

#### *Acceptance Criteria (Scenario based)*

- **Given:** I am in a call in Streams
- **When:** I navigate to my toolbar and click on the share screen option
- **Then:** I am able to select the application or screen I wish to share
- **And:** The selected application or screen is then shared to all participants in the call.

### 1.2.2 Christian Langlaver

#### *User Story 3*

**As** an incoming first-year university student, **I want** to receive notifications for important university announcements through email and a platform like Google Classroom, **so that** I do not miss out on any crucial course information.

### *Acceptance Criteria (Scenario based)*

- **Given:** The tutor/lecturer posts a course announcement and I am not logged into Streams
- **When:** I log into my email.
- **Then:** I have an email in my inbox notifying me of the post the tutor uploaded with a short preview of the uploaded post and a link to the post.
- **Given:** The tutor/lecturer posts a course announcement
- **When:** I log into Streams
- **Then:** In the notification section of Streams, I receive a notification for the post the tutor uploaded detailing the course channel it was posted in.
- **And:** When I click on the notification I am redirected to the post.

### **1.2.3 Joshua Pentecost**

#### *User Story 4*

**As** a tutor, **I want** to be able to upload important resources and information to a frontpage, **so that** finding course information does not get in the way of students' learning experience.

### *Acceptance Criteria (Scenario based)*

- **Given:** I upload information onto the course channel
- **When:** Students log into Streams and enter my course channel
- **Then:** Students immediately see the latest uploaded information displayed at the top of the screen
- **And:** When students scroll down the front-page they see other posts from myself and other tutors, ordered from most recent to least recent.

### **1.2.4 Use Case**

This use case demonstrates when a tutor uploads and pins a post onto the home-page of the course channel, and the students part of the channel then receive a notification of the post:

- **Step 1:** Tutor uploads information to the course channel
- **Step 2:** Tutor pins post.
- **Step 3:** Streams sends a notification to all students part of the channel via email and to their Streams account
- **Step 4:** Student receives a notification from their email displaying the first 50 characters of the post

- **Step 4a:** Student clicks on link in the email and is redirected to the uploaded post
- **Step 5:** Student logs into Streams and receives a notification informing them of the recent post.
  - **Step 5a:** Student clicks on the notification and is redirected to the uploaded post that is displayed on the home-page of the course channel.
  - **Step 5b:** Student navigates to the course channel and is redirected to the home-page of the course channel, which clearly displays the tutor's post at the top of all course announcements.
- **Step 8:** Tutor unpins post once no longer relevant.
- **Step 9:** Post is unpinned from the top of course announcements.

## 1.3 Validation

From the surveys conducted to some of our potential users, we realized that users need a way to easily upload, receive and view important information. That is why we have decided to implement a homepage into channels, for easy access and visibility of important course information through in-app and email notifications for users.

Then we reached out again to our previous survey participants to confirm whether the new features help solve their problems.

We received the following responses:

### 1.3.1 Dean Stoupis (UNSW student):

I mentioned previously that it is difficult for me to differentiate between important course announcements and the less important messages in the channels.

I can see that this new homepage feature in Streams centralises all the important posts that tutors and lecturers upload in a clear format. I think this is a really great feature that'll help students find information easily. I also really like how important posts are pinned at the top of the homepage because it makes the really important announcements hard to miss.

Despite these ideas, there is no proposed plan to add screen share in a video call, and that is a huge deal breaker for me with any education app, I guess I am going to have to use Discord again.

### **1.3.2 Christian Langlaver (incoming uni student)**

I liked that courses have their own homepage, it is a good idea for having access to vital information about deadlines and tests. Also the idea for post notifications sent through email when I'm logged out solves one of my concerns which was losing marks just for missing an important announcement given by our tutors. However, there is no ability to ask or comment on these posts, really limiting my interaction with tutors and lecturers online. I think adding that to the proposal would be good for me.

### **1.3.3 Joshua Pentecost (tutor):**

If I were to use Streams, I would feel relieved knowing that my students will waste less time trying to figure out where the important announcements are since they can easily click on the notification and have access to the homepage of our course channel. Moreover, with the pin/unpin post option I'm even able to pin posts on the 'pinned' section at the top of the homepage so I make sure that my students are not missing any information that may affect their learning experience.

## 2. Design

### 2.1 Interface Design

Function Name	HTTP method	Parameters	Return Type	Exceptions	Description
post/upload/v1	POST	{token, channel_id, post}	{post_id}	<b>AccessError</b> when user does not have user permissions to post	Upload a post from the authorised user to the channel specified by channel_id.
post/get/v1	GET	{token, channel_id, start}	{post, start, end}	<b>InputError</b> when any of: <ul style="list-style-type: none"><li>channel_id does not refer to a valid channel</li><li>start is greater than the total number of posts in the channel</li></ul> <b>AccessError</b> when: <ul style="list-style-type: none"><li>channel_id is valid and the authorised user is not a member of the channel</li></ul>	Given a channel with ID channel_id that the authorised user is a member of, return up to 10 posts between index "start" and "start + 10". Post with index 0 is the most recent post in the channel. This function returns a new index "end" which is the value of "start + 10", or, if this function has returned the least recent posts in the channel, returns -1 in "end" to indicate there are no more posts to load after this return.
post/pin/v1	POST	{token, post_id}	{}	<b>InputError</b> when any of: <ul style="list-style-type: none"><li>post_id is not a valid post within a channel that the authorised user has joined</li></ul>	Given a post within a channel, mark it as "pinned"



				<ul style="list-style-type: none"> <li>the post is already pinned</li> </ul> <b>AccessError</b> when: <ul style="list-style-type: none"> <li>post_id refers to a valid post in a joined channel and the authorised user does not have owner permissions in the channel</li> </ul>	
post/unpin/v1	POST	{token, post_id}	{}	<b>InputError</b> when any of: <ul style="list-style-type: none"> <li>post_id is not a valid post within a channel that the authorised user has joined</li> <li>the post is not already unpinned</li> </ul> <b>AccessError</b> when: <ul style="list-style-type: none"> <li>post_id refers to a valid post in a joined channel and the authorised user does not have owner permissions in the channel</li> </ul>	Given a post within a channel, remove its mark as pinned.
post/email/v1	POST	{email, post_id}	{}	N/A	Given a member of the channel and a post has been sent, an email with the first 50 characters of the post is sent to channel members as well as a link to the post on streams
post/notifications/get/v1	GET	{token}	{post_notifica tion, link}	N/A	Return the user's most recent 5 post_notifications, ordered from most recent to least recent as well as their associated links

## 3. Design

### 3.1 Conceptual Modelling (State)

