

## Target User 1: Highschool student using Microsoft Teams at school.

Name: Vishal Alana

Email:

### Q1: When was your first encounter using a teamwork-driven communication tool, and was the transition difficult?

Since 2020, our class has adopted Microsoft Teams as our primary communications and collaboration platform; however, the transition didn't come smoothly. The school issues laptops to students, and most, if not all, studies are done under Microsoft 365 – a subscription service offered by Microsoft. Due to the reliance on Outlook in Office 365, problems arose with Teams' not addressing certain features. Currently, Teams do not support group calendars. Thus, students frequently switch between Outlook and Teams to look at upcoming events. Moreover, sending a share link could only be done by email during a group project and was impossible through Teams. These inconveniences made it initially difficult to adapt to the new platform.

### Q2: Was the transition the most problematic, or is it something else?

I primarily use Microsoft Teams at home, and the program's bandwidth is quite demanding on my network. During meetings with fellow peers, any variations on my network can cause disconnections, and it takes a long time for the program to load. Although an app exists for phone users, a dial-in feature would be helpful in such situations. This feature can also solve the inconvenience of adding multiple attendees to a meeting, as it is currently an unclear and confusing process.

### Q3: Is this an environmental issue, or have you tried any solutions to help with this issue?

These connectivity issues are rare inside a school environment due to proximity join. Otherwise, if these problems persist whilst at home, I try to limit the network usage by closing most applications or I attend the meeting through the phone app while using data.

### Q4: Are there any challenges you encounter at school that prevent you from doing your best work?

Each class is headed by its respective team, separated into various channels by their different engagements. However, there are challenges regarding the permission settings in private channels. One such instance is the inability to invite "guest users", such as after-school tutors, to selected channels. The guest user would only be able to view the public channels created; however, the private ones would remain hidden. This slows down workflow as information needs to be sent through email or seen through screen share.

## Target User 2: Staff using Microsoft Teams at school.

Name: Augustin Claudia

Email:

### Q1 A student mentioned their inability to communicate their channel's information outside the group. Is information hard to transfer, in your opinion?

Rather than transferring, the organisational ability of information in teams is minimal. Each file uploaded by staff or students in Microsoft Teams is stored in a dedicated folder in the Team's SharePoint library. The file structure is confusing as everything uploaded to conversations is dumped in the channel's root folder. Attempts to organise or move the files into adequately named folders result in the file path in conversations breaking. Although students don't care where they are physically stored – as a search function exists in the application – as a staff, I would like to know where they are stored on my computer and manipulate them as I please.

### Q2 Does this organisational issue persist in any other areas on Microsoft Teams?

An issue that has occurred frequently is the inability to duplicate channels across different teams. The solution of manual replication has severely wasted my time, and its monotony has severely destroyed any motivation to continue working. Two recurrent instances are:

1)

Teams for multiple classes of the same subject are taught of the same grade.

2)

Teams for marketing events and activities are created; as the event grows, another team needs to be created for additional members.

### Q3 Are there any other issues that arise from channels and teams?

Students can inadvertently create new groups with an already existing label, and Teams would not call my attention to it. This would result in two groups with the same name, leading to wasted time and resources wasted when searching. Thus, Teams provide insufficient notifications.

Notification issues also apply to the chat features. It's a common complaint that people do not receive the same message in Teams until hours later. Although signing out and signing in has been seen to resolve this problem, it has led to poor communication channels with the opportunity for missed messages regularly.

### Q4 Have you tried any solutions or alternative programs to the mentioned issues?

Slack has been an alternative that our workplace has explored. It has ease in functionality and richer platform integration. It prides itself in its sleek user interface, and in recent years it has doubled down on creating a natural onboarding process. Moreover, Slack has a comprehensive list of keyboard shortcuts and a “Slackbot” exists within every chat that automates workflow.

## Case 1

Since 2020, Vishal Alana has been working on Microsoft Teams as their primary communication platform at school.

Their task involved collaborating with peers and sharing information during group projects. Members would only see their private channel due to the permissions set by their teacher. These permissions reflect the user's ability to see specific private channels and all public channels.

Let's imagine that an after-school tutor or a tutoring service, such as Northshore, would like to view the information such that they can assist the student.

Problem: The product owner has a user story for Microsoft Teams "As a student, I should be able to give guest or limited permissions to others". Here the app is changed and updated accordingly to reflect the permissions.

As a QA, you must verify if the permissions granted to another user are reflected in their ability to read the information in only their specific private channel.

It is quite a simple solution. However, there are hidden requirements that exist:

- Does this oversee the scope of the teacher's status?
- After the limited time, will the guest be able to see the existing data still, or will it be erased?
- Do crashes and errors exist for such data?

Solution: When the individual permissions are updated to add these expiring permissions, the guest user should not be able to see anything and return to a default member. The teacher would also need to approve such permissions. This added feature must be handled cautiously, and breaking another function is undesirable.

Given/ When/ Then Acceptance Criteria:

Scenario: Student wants to grant guest permissions

Given: The user navigates to their private channel

When: The user selects the "temporary link" option

And: Enters the guest user's unique ID

Then: The owner will receive the message and approve or deny the request to give the guest user the temporary permissions

Given: The owner approves the request

When: The guest user will receive an expiration time of their permissions

Then: The system enables the user to view the private channel

## Case 2

Augustin Claudia has used Microsoft Teams to organise classes and delegate tasks within their classes.

Their task involves creating teams for different classes and dividing students into their respective groups. Members would also have the ability to create groups within the team with other students to discuss classes, assignments, exams, and their leisure.

Let's imagine that for a class, a student creates a group and mistakenly names it with an already existing label.

Problem: The product owner has a user story for Microsoft Teams "As a staff member, I should be able to prevent students from creating groups with the same name as existing groups". Here the app is changed and updated accordingly to reflect the channel naming system.

As a QA, you must verify if students granted permission to create individual channels within their team are unable to create channels with existing names.

It is quite a simple solution. However, there are hidden requirements that exist:

- Will it delete already pre-existing channels that violate the conditions?
- Will it impact both channels created by the student and the teacher?
- Do crashes and errors exist for such data?

Solution: Individuals should be met with an error message for future references. Pre-existing instances should have Asterix and be renamed to resolve issues. This added feature must be handled cautiously, and breaking another function is undesirable.

Given/ When/ Then Acceptance Criteria:

Scenario: Student wants to create a channel but mistakenly names it the same as an existing channel

Given: The user navigates to their teams and finds the channel to have an Asterix

When: The user selects the "rename" option

And: And enters an appropriate name

Then: The owner will receive the message and approve or deny the request to rename the channel

Given: The owner approves the request

When: The student will receive an email confirming the approval

Then: The system will change the name of the channel

## Validation:

### Case 1:

After presenting our solution to Vishal Alana he made these comments:

- I believe that user case 1 tackles the issue regarding permissions to a great extent. By having the ability to adjust the level of permissions, guests or other users are given is a great way to minimise the issue of other users being able to access sensitive data that is rightfully someone else's. Taking the example of a school with a group project, this method of setting user permissions not only benefits the students, but the teachers as well as they are able to view a group's progress and as such provide them with assistance if needed. Moreover, being able to update expiring permissions, without the guest realising, allows for a more hassle-free way to experience teams. As such, I am quite happy that this method addresses the issue and provides an approach to resolve it.

### Case 2:

After presenting our solution to Augustin Claudia these are the remarks they had:

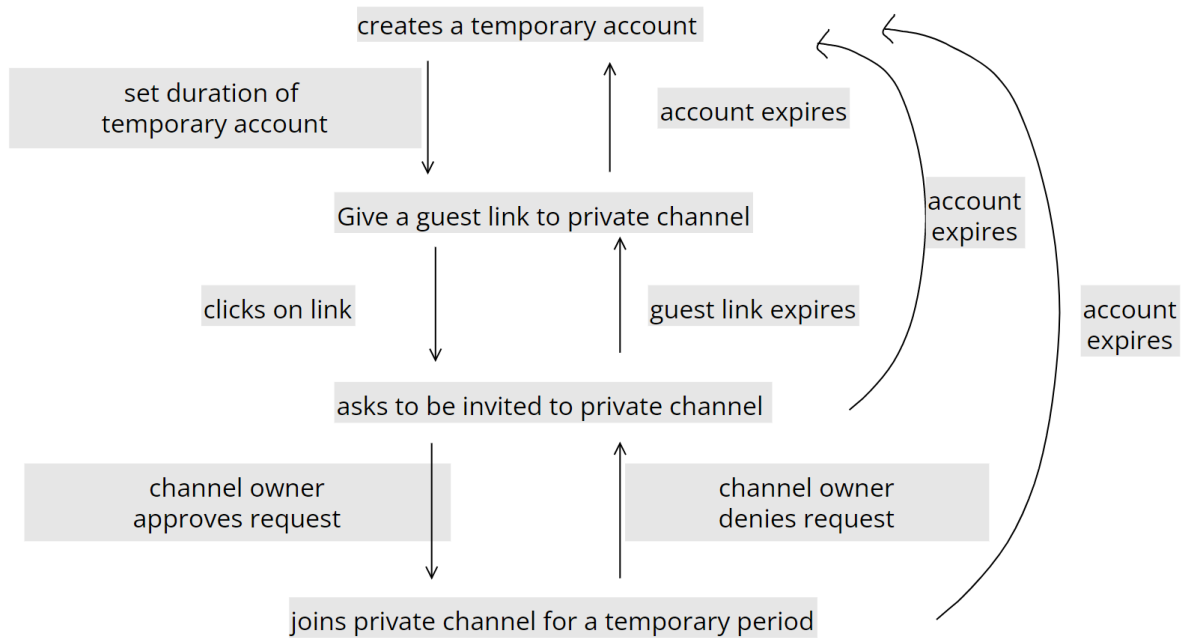
- I really like the concept of returning an asterisk near a channel name that already exists. By doing this this will allow the owner to go ahead and fix up this issue without having to undergo the hassle of having the same name for multiple channels, which in turn will allow users to not be confused as to which channel is which. Moreover, having an ongoing error message which reminds the user to rename their channel is a great idea, because it reminds them to fix this issue before proceeding, which in theory should have the issue fixed sooner. Overall, I believe this issue was addressed and overall I am quite happy that a good solution was given.

## Interface Design:

Name & Description	HTTP Method	Data Types	Exceptions
<p>auth/signupasguest/v1</p> <p>On the login page of the treats page, a user can choose to sign up as a guest and how long they want to join treats for. Guests are users except their account will expire if they log out or their time expires. The handle for the guest user will be generated as 'Guest'+ the number of guests right now e.g. if there are 3 active guests and a new guest signs up their handle will be Guest4</p>	POST	<p>Body</p> <p>Parameters: (expirationTime)</p> <p>Return type if no error: { token, authUserId }</p>	<p>400 error when any:</p> <ul style="list-style-type: none"><li>• expirationTime is a time in the past</li></ul>
<p>channel/tempinvite/v3</p> <p>A guest request access to a private channel by first getting a temporary invite from one of the members of that channel. This invite will be temporary and will expire.</p>	POST	<p>Body</p> <p>Parameters: ( channelId, uid, linkExpiry )</p> <p>Return type if no error: { channelId }</p>	<p>400 error when any:</p> <ul style="list-style-type: none"><li>• channelId does not refer to a valid channel</li><li>• uid does not refer to a valid user</li><li>• uid is already a member of the channel</li><li>• Guest link has expired</li></ul> <p>403 error when:</p> <ul style="list-style-type: none"><li>• channelId is valid and the authorised user does not have owner permissions in the channel</li></ul>
<p>channel/guestjoin/v3</p> <p>Given a private channel, a guest user can request to join the channel. When their request is approved by a channel owner, then the guest is added to that channel.</p>	POST	<p>Body</p> <p>Parameters: ( channelId )</p> <p>Return type if no error: { }</p>	<p>400 error when any:</p> <ul style="list-style-type: none"><li>• channelId does not refer to a valid channel</li><li>• The channelId does not refer to a private channel</li><li>• The authorised user is already a member of the channel</li></ul> <p>403 error when any:</p> <ul style="list-style-type: none"><li>• The user does not have</li></ul>

			<p>the guest permission</p> <ul style="list-style-type: none"> <li>• The guest's session is over</li> </ul>
<p>channel/guestapprove/v3</p> <p>When a guest requests access to a private channel, the owners of the channel will be notified that they want to join. They can choose to approve if the guest can join. If the user is approved they are added to the channel, but if they are not approved they are not added to the channel</p>	POST	<p>Body</p> <p>Parameters (channelId, uid)</p> <p>Return type if no error { }</p>	<p>400 error when any:</p> <ul style="list-style-type: none"> <li>• channelId does not refer to a valid channel</li> <li>• The channelId does not refer to a private channel</li> <li>• uid does not refer to a valid user</li> <li>• uid is already a member of the channel</li> <li>• uid is not a guest</li> <li>• The authorised user is not an owner of the channel</li> </ul> <p>403 error when any:</p> <ul style="list-style-type: none"> <li>• channelId is valid and the authorised user does not have owner permissions in the channel</li> </ul>

## State Diagrams:



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\*account expires accounts for both:

- Time expiry of the temporary account
- Logging out of the temporary account