Planning for the next problems to solve

[Requirements] Elicitation

Target User 1

Name: James Waddington
Email: jameswaddington@optusnet.com.au
Age: 19
Program Name: teams

What do you use the program for?
Uni Work
- Lectures
- Group projects

How often do you use the program?
Daily

What would you rate it out of 10?
7

Have you had any issues with this program so far? If so, what was the problem?
- Yes, recorded lectures take a while to load.
- Not well organised for student use.

What is one feature you wish it had? Why?
- A to do list, to be more organised and to keep track of multiple group members' progress in the channel

What is your favourite feature?
Chat

Does this program make working in teams easier or difficult?
- Easier – because it can create breakout groups
- You can share your screen.

Would you recommend this program to someone else?
No

Target User 2

Name: Kate Waddington
Email: katewaddington@optusnet.com.au
Age: 52
Program Name: teams

What do you use the program for?
- Communicating with work mates
- Meeting
- Presentations

How often do you use the program?
5 days a week

What would you rate it out of 10?
9

Have you had any issues with this program so far? If so, what was the problem?
Not really

What is one feature you wish it had? Why?
- Easier to navigate, more instructions on how to use effectively.
- People in your call can access your screen remotely.

What is your favourite feature?
- Chat, because it is easy to use.
- Setting up meetings at predetermined times.
- Blurring background
- Links to outlook diary.

Does this program make working in teams easier or difficult?
Easier, ease of communication

Would you recommend this program to someone else?
Yes.

Target User 3

Name: Anushka Agarwal
Email: anushka.agarwal766@gmail.com
Age: 19
Program Name: Discord

What do you use the program for?
- Group projects
- Talking to friends

How often do you use the program?
4-5 times a week

What would you rate it out of 10?
9

Have you had any issues with this program so far? If so, what was the problem?
Yes, the layout of discord is a bit confusing. It has a lot of functionalities but not sure how to use some of them

What is one feature you wish it had? Why?
Voice recognition, it would make it easier to send messages, edit messages etc

What is your favourite feature?
Chat

Does this program make working in teams easier or difficult?
Easier – because it can allow me to share screen, talk and assign people in different channels

Would you recommend this program to someone else?
Yes

Summary

Issues raised by target users:
- Disorganised Layout
- More information on how to use the program

Wanted Features:
- Voice Recognition
- To-Do List
- Access to other users' screens when screen sharing

Favourite Features:
- Chat
- Ease of communicating

To conclude, the top issue raised by our target users was layout and how to use all the functionalities provided. These are issues that Seams currently also faces. A proposed solution to these problems include creating a more viable environment through an introduction to the program on registration. This means whenever a new user registers, the first screen they are guided to is a tutorial on how to use Seams and information on certain functionalities. However, it won't be too detailed, but enough to get the user started. If the user desires to learn more, they can be reguided to a more extensive tutorial. This should be available all times to the user. Alternatively, if the user is already a common visitor of Seams, however is just registering another account, they should have the option to skip the tutorial.

[Requirements] Analysis & Specification - Use Cases

User Story 1: As a university student, I want to be able to create a to-do list and have members in my group add and tick off tasks that are due for our assignments to know where we are as a group.

Acceptance Criteria:
- Display icon on a toolbar for to create a to-do list
- Ensure user is able to add tasks
- Ensure user is able to tick off (remove tasks)
- Ensure user is able to edit tasks (task description)

User Story 2: As a member of the workforce, I want to be able to use and know about all the features of Teams because it will help me in my presentations, meetings and conversations.

Acceptance Criteria:
- Ensure there is an icon with a heading 'Guide' on a toolbar that is visible to the user.
- Display all features, their use and how to use them in a readable format.
- Ensure all functions are listed and explained in simple format.
- Ensure there is a search engine for questions that the user can ask about features.
- Ensure the search engine returns keywords that are provided in a simple format.

User Story 3: As a university student, I want a voice recognition feature on Discord because it will allow me to multitask when completing work.

Acceptance Criteria:
- Ensure there is a visible icon of a microphone on a toolbar that is visible to the user.
- Ensure that the system is able to understand commands by the user coherently.
- Ensure that the system is able to take those commands and perform that according to the user.
- In the case that user is not understood, ensure that the system returns a prompt audio message asking the user to repeat their command.

Success Use Case Attempt (To-do list):

Primary Actor: Student (Member of group)
Trigger: A user creates a channel, forming a to-do list for it

Scenario:
1. An authorised user creates a channel.
2. A to-do list is now available to all the members of the group project invited to the channel.
3. A user is now presented with an option to add a task to the to-do list.
4. The user then proceeds to create a task to insert in the to-do list
   - If the user is an invalid member of the channel, an error message is shown
   - If the length of the characters in the task is less than 1 character or greater than 1000 characters, the user is presented with an error message.
5. The other users in the channel have the choice to:
   - Remove tasks from the to-do lists
   - Edit tasks in the to-do lists
   - Insert tasks in the to-do lists
6. If the user leaves the channel, their previously added tasks are deleted.

Success Use Case Attempt (Guide):

Primary Actor: Student
Trigger: User clicks on link/icon to guide which is either presented to them or can be located in a toolbar

Scenario:
1. If the user is a returning user, the book icon can be located on the left toolbar titled "Guide".
2. A new User is presented with a prompt message "Read our guide to Seams and how to use it" and proceeds to click on the attached hyperlink.
   - If the User ID is unrecognised, an error message is provided.
3. User is then taken to an index of the Guide where all the specific functionalities have hyperlinks attached to it. The user clicks on the specified functionality to see if this suits their needs.
4. The user is now presented with an in-depth tutorial on the specified functionality.
5. If the user is still confused they can click on the "ask a question" button.
6. This takes the user to a search engine where they can type their question.
7. The search engine then returns the guide_ids of hyperlinks that match keywords from the user's question.
   - If there is no match, an error message is displayed showing no matched guide ID's.

[Requirements] Validation

The following are feedback comments from the 2 users:

User 1:

"Yeah these cases pretty much sum up the problem I've been having. I wished there was a feature to create a to-do list. Since my schedule is really busy and I am on teams a lot, It will help me a lot in being productive and staying on top of my tasks. If this problem were to be solved, I think I would be able to be more productive and organised. The cases represent my problem to a great extent."

User 2:

"The cases really do summarise the problems I've had using Teams very well. I never really know what type of things I can do with this tool and I don't really have a way of finding out how I can learn either. There should be some sort of guide or book to learn the tools (Laughs)."

[Design] Interface Design

Design for to-do list:

Name	Description	HTTP Method	Data Types	Exceptions
/todolist/addtask/v1 Authorised users can insert their task into a to-do list. Only authorised users that are members of the channel have permissions to edit the to-do list for their channel.	POST	Parameters: {token, task_desc} Return: {task_id}	Input Error: -channel_id does not refer to a valid channel -length of task_desc is greater than 1000 characters Access Error: -channel_id is valid and the authorised user is not a member of the channel they are trying to create the task in.
/todolist/removetask/v1 Given the task_id of its assigned to-do list, allows the authorised user that is a member of the channel to remove a task from the to-do list	DELETE	Parameters: {token, task_id} Return: {}	Input -task_id does not refer to a valid task Access Error: -task_id is valid and the authorised user is not a member of the channel containing the task they are trying to create the to-do list in.

/todolist/edittask/v1	PUT	Parameters: {token, task_id, task_desc} Return: {}	Input Error: -channel_id does not refer to a valid channel -length of task_desc is greater than 1000 characters Access Error: -channel_id is valid and the authorised user is not a member of the channel they are trying to create the task in.
/todolist/edittask/v1 Given the task_id of its assigned to-do list, allows the authorised user that is a member of the channel to edit a task in the to-do list			

Design for Guide:

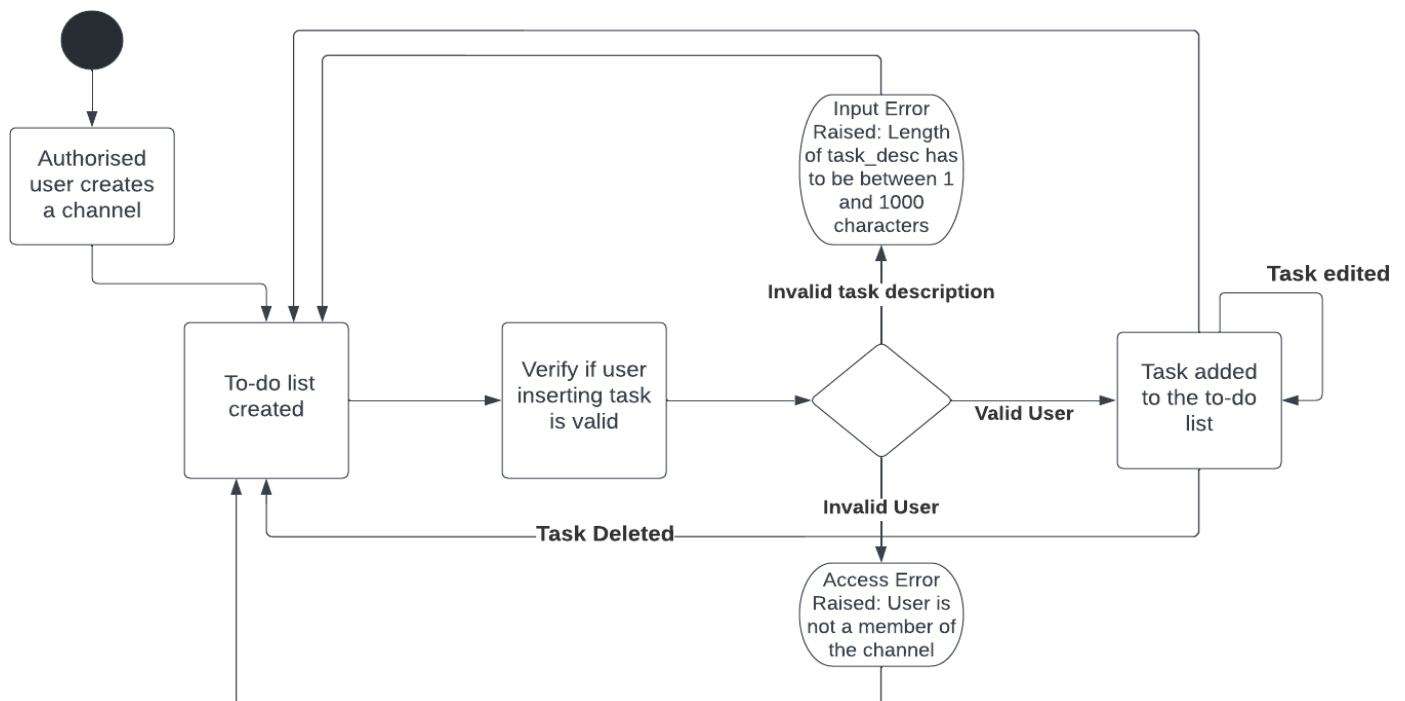| Name/Description	HTTP Method	Data Types	Exceptions
guide/existinguser/ v1 Given the auth_user_id, enables the system to see whether it is a new user or an older user.	GET	Parameters: {auth_user_id} Return: {}	Input Error: - Auth_user_id does not refer to a valid user.
guide/prompt/v1 If auth_user_id is of a new user, a message is prompted to follow the guide on how to use Seams	POST	Parameters: {auth_user_id} Return: {guide_id}	Input Error: - Auth_user_id does not refer to a valid user.
guide/show/v1 Given guide_id and auth_user_id, returns a guide specified for the user	POST	Parameters: {auth_user_id, guide_id} Return: {}	Input Error: - Guide_id does not refer to valid guide - Auth_user_id does not refer to a valid user.
guide/search/v1 Given auth_user_id, question and guide_id, returns a	POST	Parameters: {auth_user_id, question, guide_id} Return:	Input Error: - Auth_user_id does not refer to a valid user. - Length of

different guide with new_guide_id and saves the question with question_id		{new_guide_id, question_id}	question is greater than 1000 characters - Guide_id does not refer to valid guide

[Design] Conceptual Modelling (State)

Solutions

(1)

The Diagram below describes the process of the creation, editing and removal of tasks on a to-do list that is formed automatically when an authorised user creates a channel.This is useful in solving the problems of user 1.

(2)
The Diagram attached below solves the problem of users that are unaware of functions that the program is able to do. It gives them an access to understand all the functions of the program. This is aimed at the problems of users 1 & 2.
Modelling for Guide Solution: