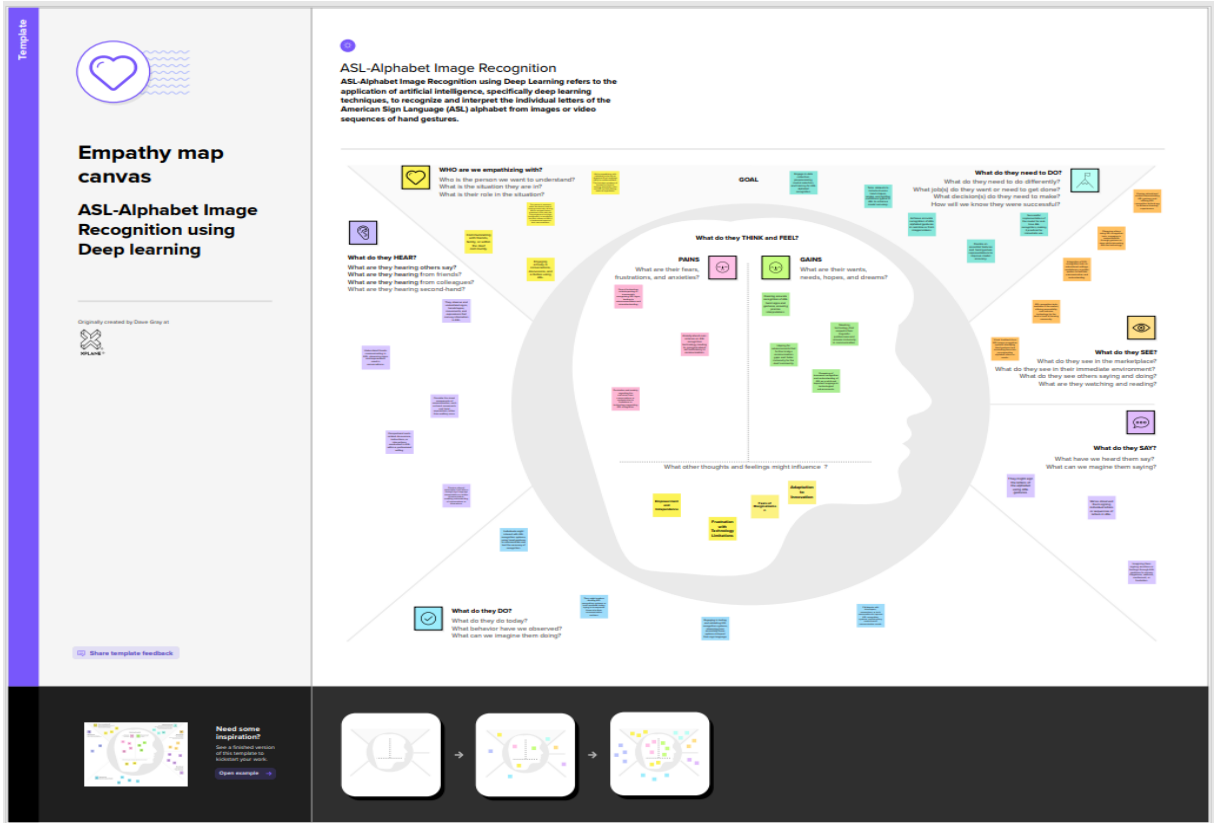
Ideation Phase
Empathize & Discover

Date	01 November 2023
Team ID	Team-591587
Project Name	ASL- Alphabet Image Recognition
Maximum Marks	4 Marks

Empathy Map Canvas:

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviors and attitudes.

It is a useful tool to help teams better understand their users.
Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.



WHO are we empathizing with?

Who is the person we want to understand?
What is the situation they are in?
What is their role in the situation?

We're empathizing with individuals who rely on American Sign Language (ASL) for communication. This includes members of the deaf or hard-of-hearing community, who use ASL as their primary mode of expression.

This person is someone within the deaf or hard-of-hearing community, utilizing ASL to navigate various situations in their daily life. They might be of any age, background, or occupation, but their reliance on ASL is a fundamental aspect of their communication.

Communicating with friends, family, or within the deaf community.

Engaging actively in conversations, discussions, and activities using ASL.

What do they HEAR?

What are they hearing others say?
What are they hearing from friends?
What are they hearing from colleagues?
What are they hearing second-hand?

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They observe and understand signs, handshapes, movements, and expressions that convey information in ASL.

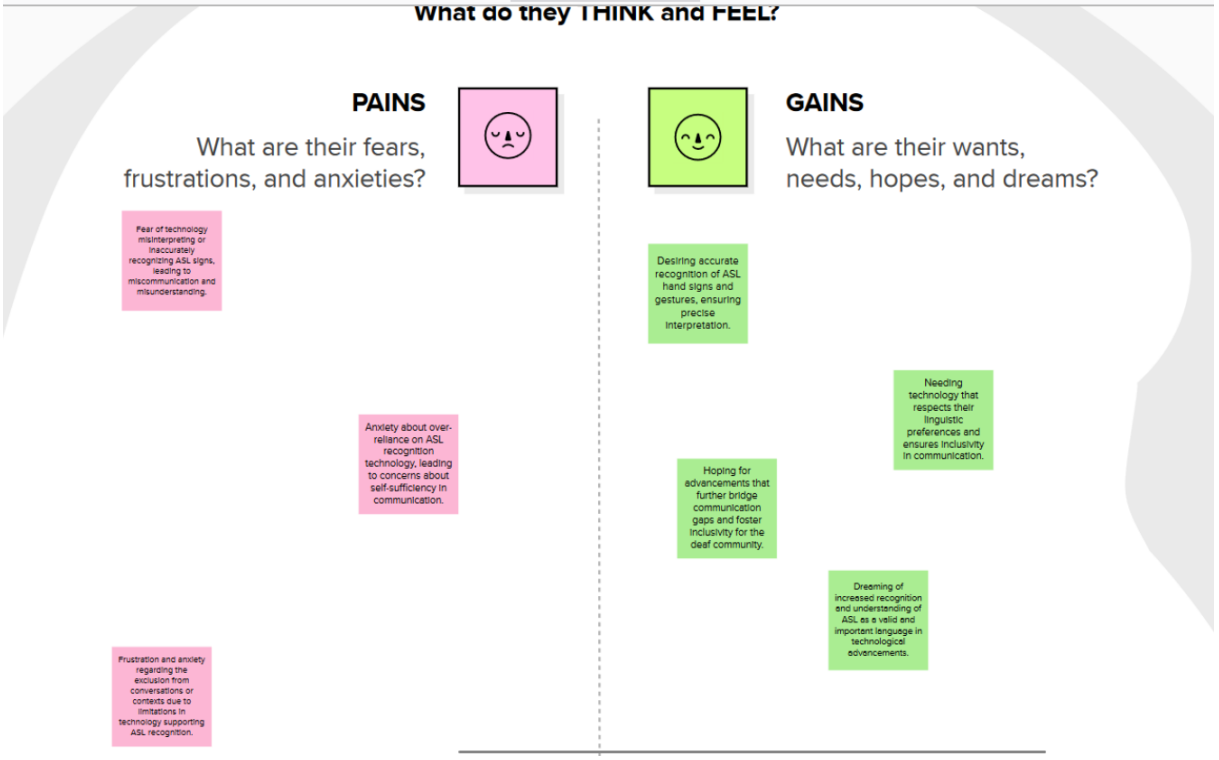
Understand friends communicating in ASL, observing signs and expressions used in conversations.

Consider the visual components of communication, such as hand movements and facial expressions, rather than auditory cues.

Comprehend work-related discussions, instructions, or interactions conducted in ASL within a professional setting.

Receive relayed information from others through sign language interpretation or written communication, enabling understanding of conversations or discussions.

GOAL
Engage in data collection, preprocessing, model selection, and training for ASL alphabet recognition.
Tailor datasets to include diverse hand shapes, angles, and lighting conditions typical in ASL to enhance model accuracy.
What do they need to DO?
What do they need to do differently?
What job(s) do they want or need to get done?
What decision(s) do they need to make?
How will we know they were successful?
Achieve accurate recognition of ASL alphabet gestures in real-time or from images/videos.
Successful implementation of the model for real-time ASL recognition, making it practical for immediate use.
Viewing educational content demonstrating ASL gestures and utilizing ASL recognition technology to enhance learning experiences.
Observing others using ASL recognition tools, engaging in communication through gestures or signs while interacting with the technology.
Decide on essential features and hand gesture representations to improve model accuracy.
Integration of ASL recognition tools in educational platforms, assistance, or public spaces to facilitate communication and understanding.
What do they THINK and FEEL?
PAINS
What are their fears, frustrations, and anxieties?
GAINS
What are their wants, needs, hopes, and dreams?
Fear of technology misinterpreting or inaccurately recognizing ASL signs, leading to miscommunication and misunderstanding.
Desiring accurate recognition of ASL hand signs and gestures, ensuring precise interpretation.
Needing technology that respects their linguistic preferences and ensures inclusivity in communication.
Anxiety about over-reliance on ASL recognition technology, leading to concerns about self-sufficiency in communication.
Hoping for advancements that further bridge communication gaps and foster inclusivity for the deaf community.
Dreaming of increased recognition and understanding of ASL as a valid and important language in technological advancements.
AR recognition tools available in the market, offering accessibility and inclusivity, contributing to the deaf or hearing community.
Visual feedback from ASL image recognition systems identifying hand gestures and translating them into corresponding alphabet letters or words.
What do they SEE?
What do they see in the marketplace?
What do they see in their immediate environment?
What do they see others saying and doing?
What are they watching and reading?


What do they THINK and FEEL?
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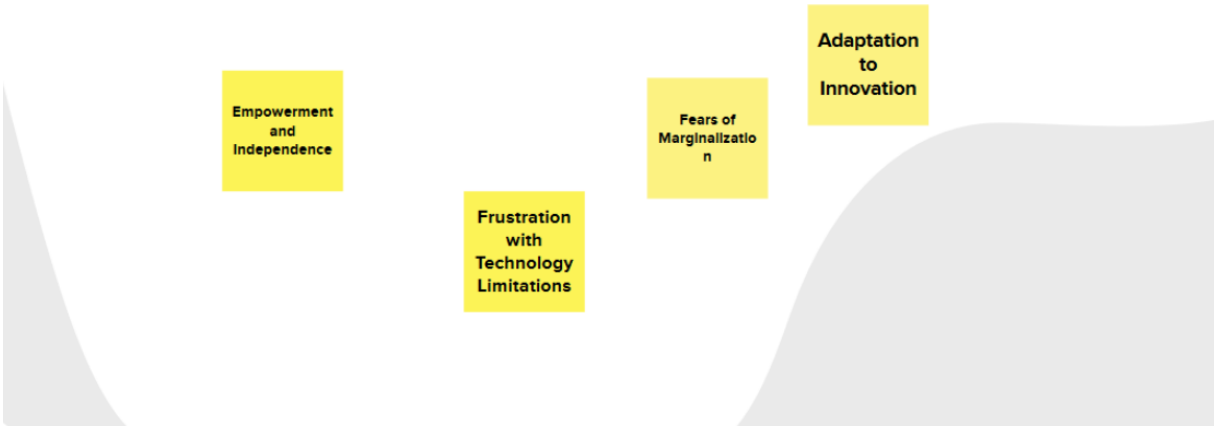
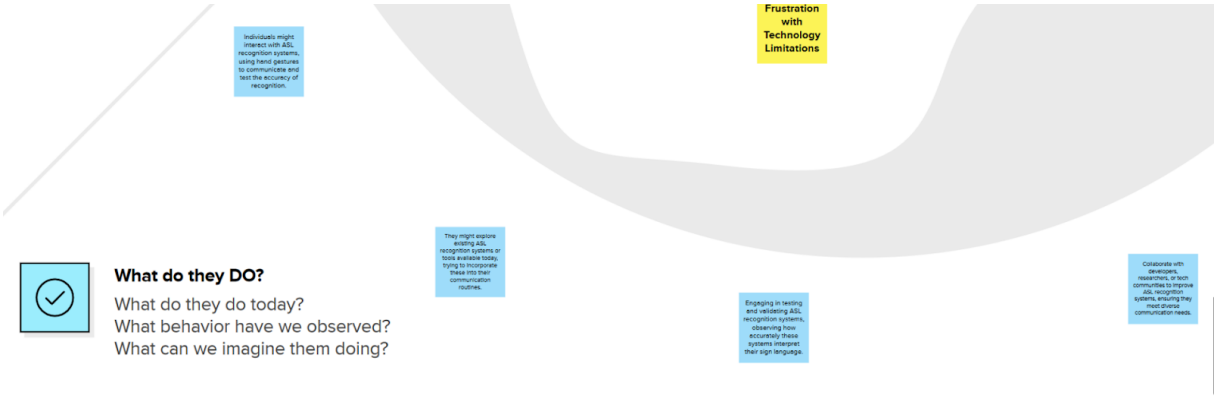
What are their wants, needs, hopes, and dreams?
Fear of technology misinterpreting or inaccurately recognizing ASL signs, leading to miscommunication and misunderstanding.
Anxiety about over-reliance on ASL recognition technology, leading to concerns about self-sufficiency in communication.
Frustration and anxiety regarding the exclusion from conversations or contexts due to limitations in technology supporting ASL recognition.
Desiring accurate recognition of ASL hand signs and gestures, ensuring precise interpretation.
Needing technology that respects their linguistic preferences and ensures inclusivity in communication.
Hoping for advancements that further bridge communication gaps and foster inclusivity for the deaf community.
Dreaming of increased recognition and understanding of ASL as a valid and important language in technological advancements.

What other thoughts and feelings might influence ?





What do they DO?

What do they do today?
What behavior have we observed?
What can we imagine them doing?

Reference:
https://app.mural.co/t/aslalphabetimagerecognition3499/m/aslalphabetimagerecognition3499/1699615299640/944e22df95e0e540287ec99e562602161bc16771?sender=u9383748118863ca197d48116