Ideation Phase
Brainstorm & Idea Prioritization
Template

Date	18 October 2023
Team ID	Team-592632
Project Name	Asl- Alphabet Image Recognition
Maximum Marks	4 Marks

Brainstorm & Idea Prioritization Template:

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

Reference: https://www.mural.co/templates/empathy-map-canvas

Step-1: Team Gathering, Collaboration

Step-2: Select the Problem Statement ,Brainstorm and Idea Listing

1

Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

🕐 5 minutes

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

🕐 10 minutes

Who: ASL users and their accessibility to communication technology.

When: Issue occurs during ASL sign recognition; ongoing improvement is essential.

Where: The issue arises in recognizing ASL signs in images.

What: The project's scope includes recognizing static ASL signs accurately

Why: Crucial for inclusive communication, empowering the ASL community.

PROBLEM

How can we develop real-time ASL recognition for inclusivity while empowering the deaf and hard of hearing in various settings, including education and employment

Person 1

Investigate the potential of transfer learning to adapt pre-trained models for ASL recognition, potentially accelerating the model development process.

Implement specialized techniques to optimize the model for real-time performance on various platforms, including mobile devices and web applications

Testing phase that includes real-world scenarios and challenges, such as various lighting conditions and sign speed, to ensure robustness.

Person 2

Create an intuitive and user-friendly interface for the ASL recognition system, focusing on clear sign feedback, accessible settings, and user customization.

Prioritize accessible design, including keyboard shortcuts, screen reader compatibility, and customizable sign size and speed settings to cater to diverse user needs.

Design an integrated feedback mechanism allowing users to provide input on recognition accuracy and user experience, ensuring continuous improvements.

Person 3

Investigate and address variations in ASL signs, including regional dialects and differences, by building a robust dataset to encompass diverse signing styles

Develop a linguistic module that can recognize nuances and emotional aspects of signs, enabling more expressive communication.

Collaborate with ASL experts and the deaf community to ensure that the recognition system respects ASL's cultural nuances and ethical considerations.

Person 4

Establish partnerships with educational institutions and organizations to incorporate the ASL recognition system into the curricula and offer training resources.

Create gamified learning modules and educational tools that integrate with the recognition system, helping ASL learners improve their skills.

Explore the development of ASL certification programs that use the recognition system to assess proficiency and provide formal recognition of signing abilities.

Step-3: Grouping

3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

🕐 20 minutes

User-Centric Approach: Maintain a relentless focus on the user, actively involving ASL users, educators, and the deaf community to guide system development and enhancements.

Iterative Development: Embrace an iterative development process, integrating user feedback and continuous testing to refine the ASL recognition system for accuracy and usability

Data Privacy and Security: Implement rigorous data privacy and security measures to protect ASL images and user data, ensuring trust and compliance with regulations

Accessibility and Inclusivity: Ensuring the system is accessible to a wide range of users, including those with disabilities, and promoting inclusivity.

Collaboration: Fostering collaboration among team members, ASL experts, educators, and users to collectively drive the development of the ASL recognition system.

Step-4: Idea Prioritization

Link to our Mural:
**https://app.mural.co/t/dheekshithkumargaliveedu6517/m/dheekshithkumargal
iveedu6517/1697632451283/ac6ad6b1cabe5a0478a79d09666aa8b77b5da7af?s
ender=uf9992513daa9ff4e2d935144**