Ideation Phase
Brainstorm & Idea Prioritization Template

Date	01 November 2023
Team ID	Team-591587
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.

Reference:
https://app.mural.co/t/hariharapidikitigmailcom6929/m/hariharapidikitigmailcom6929/1700153072242/5a229717c4b0a3c056e3494de646d80407f100bc?sender=u4714fdcfe99c4c196b582404

Step-1: Team Gathering, Collaboration and Select the Problem Statement

Brainstorm & idea prioritization

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.

- 10 minutes to prepare
- 1 hour to collaborate
- 2-8 people recommended

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

⏱ 10 minutes

Team gathering
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

Set the goal
Think about the problem you'll be focusing on solving in the brainstorming session.

Learn how to use the facilitation tools
Use the Facilitation Superpowers to run a happy and productive session.

Open article →

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

PROBLEM

Develop a deep learning model to accurately recognize ASL alphabetic gestures from images, addressing challenges such as gesture complexity, variable lighting, and limited datasets. Optimize the model for real-time processing and explore user interface integration, aiming for seamless communication for individuals with hearing impairments. Success will be measured by high accuracy, real-time efficiency, and practical application viability.

Challenges

- Gesture Complexity
- Variable Lighting and Backgrounds
- Limited Dataset
- Real-time Processing
- User Interface Integration

Step-2: Brainstorm, Idea Listing and Grouping

Brainstorm

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

⏱ 10 minutes

TIP
You can select a sticky note and hit the pencil (pen)icon to sketch icon to start drawing!

Person 1

Collaboration with ASL Experts: Partner with experts in American Sign Language (ASL) to gain insights into the nuances of gestures, ensuring the model aligns closely with authentic signing practices.

Gamification for Training: Develop a gamified application to make learning and practicing ASL alphabetic gestures enjoyable, fostering user engagement and contributing to improved model performance.

Cross-cultural Considerations: Account for variations in ASL gestures across different regions and communities, promoting inclusivity and accommodating diverse signing styles within the model's training data.

Person 2

Mobile Application Development: Create a mobile application that integrates the ASL alphabetic gesture recognition model, providing a user-friendly interface for on-the-go communication and learning.

Accessibility Features: Ensure the model and application include accessibility features, such as voice feedback for recognized gestures, to enhance usability for individuals with varying levels of hearing impairment.

Open Source Collaboration: Foster an open-source community around the project, encouraging collaboration, contributions, and the development of complementary tools for ASL communication.

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

TIP
Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

Investigate the potential of transfer learning with pre-trained models to enhance recognition accuracy.

Engage the ASL community in dataset expansion, addressing the challenge of limited data.

Develop a gamified mobile application with accessibility features, creating an enjoyable learning and practice experience.

Implement edge computing for real-time processing, reducing latency in ASL gesture recognition.

Foster an open-source community for collaborative development and knowledge sharing.

Collaborate with educational institutions to integrate ASL recognition technology into curricula, promoting awareness and accessibility.

Step-3: Idea Prioritization

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

⏱ 20 minutes

Importance
If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

Feasibility
Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)

User Interaction and Gamification

Dataset Enhancement and Cultural Considerations

Model Optimization

Real-time Processing and Interface

Continuous Improvement and Educational Integration

Collaboration and Open Source

After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

Quick add-ons

Share the mural
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.

Export the mural
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

Keep moving forward

Strategy blueprint
Define the components of a new idea or strategy.
Open the template →

Customer experience journey map
Understand customer needs, motivations, and obstacles for an experience.
Open the template →

Strengths, weaknesses, opportunities & threats
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.
Open the template →