

Ideation Phase

Brainstorm & Idea Prioritization Template

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| Date | 30 September 2022 |
| Team ID | PNT2022TMID51088 |
| Project Name | Real-Time Communication System Powered by AI for specially abled |
| 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.

The image displays a brainstorming session organized into four columns, each with a title and several ideas:

- Define the problem**
 - To develop sign language recognition system for specially abled.
- Reverse the problem**
 - How could we develop an erroneous language for the specially abled?
- Collect ideas**
 - Aims at a sign language recognition system that converts sign language into text and then speech for the user, at the other end to convert speech to text for the disabled person. (LINGESH S)
 - This app enables deaf and dumb people to convey their information using signs which get converted to human-understandable language and speech is given as output.
 - We aim to tackle this problem but instead of using high end technology like gloves or kinect for gesture recognition (Kavin Kumar)
 - We aim at recognition from images(which can be obtained from devices say webcam) and then use cv and ML techniques for extracting relevant features and subsequent classification to build the advanced mobile application for disabled persons.
- Reverse the ideas**
 - Gesture recognition and sign language recognition has been a well researched topic for American Sign Language but has been rarely touched for its Indian counterpart. (Kamalesh S)
 - The sign language into a human hearing voice in the desired language to convey a message to normal people.
 - It convert speech into understandable sign language for the deaf and dumb (Kashava Mugesh Kumar)
 - We are making use of a convolution neural network to create a model that is trained on different hand gestures.
- Identify solutions**
 - Millions of people across the globe suffer from either hearing or speaking ability. This large number causes us to consider the importance of developing a sign language recognition system that converts sign language into text and then speech for the user, at the other end to convert speech to text for the disabled person.
 - We aim to tackle this problem but instead of using high end technology like gloves or kinect for gesture recognition, we aim at recognition from images (webcam) and then use CV and ML techniques for extracting relevant features and subsequent classification to build the advanced mobile application for disabled persons.

A brainstorming session by the team produced these solutions and greater clarity was induced.