Project Design Phase-I
Solution Fit Canvas

Date	28 October 2022
Team ID	PNT2022TMID42702
Project Name	Real-Time Communication System Powered by Al for Specially Abled
Maximum Marks	2 marks

1. CUSTOMER SEGMENT(S) CS

- Normal People, Who needs to communicate with specially abled.
- Deaf People
- Dumb People

6. CUSTOMER CONSTRAINTS

Artificial Intelligence technology solutions, discover how accessibility for people can be enhanced.

5. AVAILABLE SOLUTIONS AS

- Voice Conversion system with hand gestures recognition and translation will be very useful to have a proper conversation between a normal people and an impaired person in any language.
- An app is built which enables deaf and dumb people to convey their information using signs.

2. JOBS-TO-BE-DONE / PROBLEMS J&P

To predict the delay of the flight

- Input is given as Hand gestures image, which undergoes image preprocessing and voice recognition.
- In Neural network, the hand gestures are trained by Convolution Neural Network.

9. PROBLEM ROOT CAUSE RC

- Communication between deaf-mute and a normal people has always been a challenging task.
- It is very difficult for mute people to convey their message to normal people.
- Normal people are not trained on hand sign language, and in emergency times it is very difficult.

7. BEHAVIOUR BE

What do to address the problem

- Artificial Intelligence model that converts sign language into a speech that can be understood by normal people.
- An application built for efficient usage.

3. TRIGGERS TR

- The benefit of the system that

  converts the sign language into a human hearing voice in the desired language to convey a message to normal people.

- As well as convert speech into understandable sign language for the deaf and dumb.

4. EMOTIONS: BEFORE / AFTER EM

BEFORE: Normal people are not aware of hand signs and Communication is difficult between the normal people and specially abled.

AFTER: Communication is good and efficient between the normal people and specially abled and Normal people can learn sign language.

10. YOUR SOLUTION SL

- An application for deaf and dumb people to convey their information using signs.

- By using voice conversion system with hand gesture recognition and translation will be very useful to have a proper conversation.

8.CHANNELS of BEHAVIOR CH

8.1 ONLINE

- A simple and beautiful user interface is used and supports different languages.

- Accurate prediction and used speech to text & text to speech.

8.2 OFFLINE

- Communication is made between the normal people and specially abled.

- Normal people used to learn sign language.