Project Design Phase-I
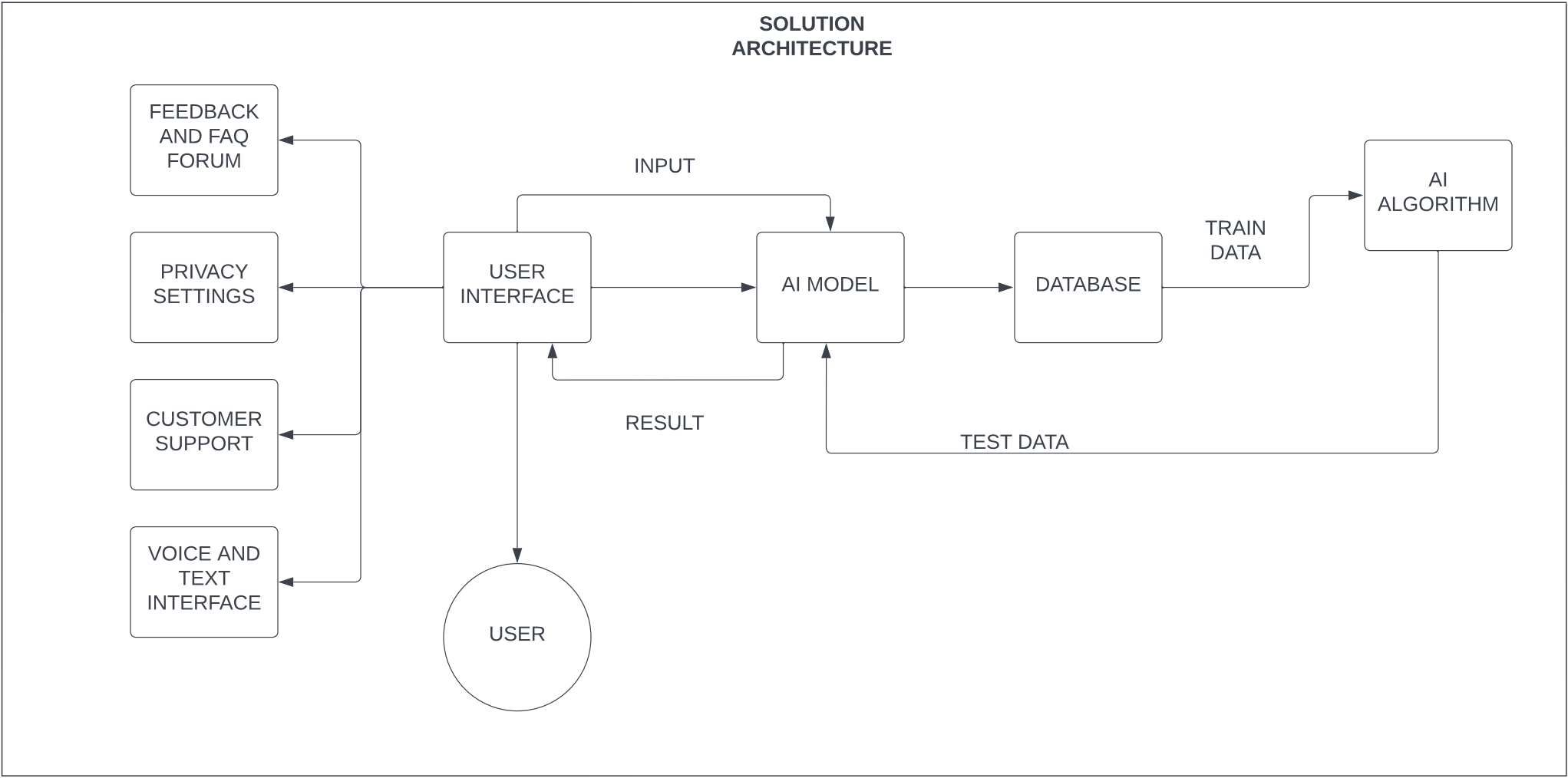**Solution Fit Document and Solution Architecture**

Date: 19 September 2022
Team ID: PNT2022TMID10160
Project Name: Real Time Communication System Powered by AI for Specially able

SOLUTION
ARCHITECTURE

FEEDBACK AND FAQ FORUM

PRIVACY SETTINGS

CUSTOMER SUPPORT

VOICE AND TEXT INTERFACE

USER INTERFACE

USER

INPUT

RESULT

AI MODEL

DATABASE

TRAIN DATA

AI ALGORITHM

TEST DATA

Problem-Solution fit canvas 2.0

1. CUSTOMER SEGMENT(S) — CS

The impaired people(Speak & Hear) could only communicate through sign language. But not all normal people know to communicate with the specially abled people

Both the normal and impaired people can make use of it.Children who are specially abled shall be guided to communicate through this platform with the help of the adults.

6. CUSTOMER CONSTRAINTS — CC

It is hard for the people who could not able to convey what they feel. This led anxiety and insecure to live in the society. Thus, preventing them from all the barriers to move along with the society.

5. AVAILABLE SOLUTIONS — AS

The mode of communication is through digital platform. Capturing the data of hand sign and converting them as a text output and vice versa. So, this both users to understand each other.

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

Impaired users are dependent to live in this society and find it difficult when there is no one to help. Communication is the only way that connects the people. Having an AI based application that can even translate to the appropriate language which can be understood between persons/users..

9. PROBLEM ROOT CAUSE — RC

This can be very effective if all the users knows to use the application, but if a person is not educated to operate the device to communicate will be a problem to utilise this solution. Thus, all users should be aware or be guided to use the applications.

7. BEHAVIOUR — BE

The user can interact with the application to report for the cause of failure. They can raise a complaint or request for emergency situations.

3. TRIGGERS — TR

Opportunities for the specially abled people is affected because of the communication.
They are not able to reveal their talent and skills.

4. EMOTIONS: BEFORE / AFTER — EM

BEFORE: Every individual people find it difficult to communicate and connect with people and become anxious.
AFTER: They become confident and could able to convey what they feel, which helps them to achieve things in many way.

10. YOUR SOLUTION — SL

The solution is to use a AI based application system that detects the sign language which is then recognized and convert them into text, vice versa. The AI model is trained to detect the hand signs with the help of camera and then processess with the datas fed in the system.

8. CHANNELS of BEHAVIOUR — CH

8.1 ONLINE

Some users are not aware to use the application and it's process to follow for proper communication

8.2 OFFLINE

Users need a person who know to speak in sign language and be dependent always.

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