Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	03October 2022
Team ID	PNT2022TMID26243
Project Name	Real-Time Communication System Powered By AI For Specially Abled
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form
FR-2	User Confirmation	Confirmation via mail
FR-3	User Login	Enter Login id & password to enter into the application
FR-4	Dashboard User Interface	Main Screen to give the image input
FR-5	User Input	Input image representing sign language can be given
FR-6	Display Sign Language Gallery	User can easily select from the gallery for immediate communication
FR-7	Hand Gesture Recognition	Sub Task1: Collect dataset Sub Task2: Train the Model Sub Task3: Fit , Evaluate Model Sub Task4: Test the Model
FR-8	Translation Process	Option available to convert to English Text or Speech.
FR-9	Output Process	Based on the option selected either text output or Audio output is given
FR-10	Admin Console	Admin can maintain the app , login credentials , language for translation, uploading images in gallery

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	User Interface designed to provide easy mechanism to give sign image and get the text or audio output.
NFR-2	**Security**	When this app installed , login details are approved. Thus allowing Only Authorised persons to use this app.
NFR-3	**Reliability**	Sign Language used in this app is universally accepted one , so deaf and dumb people can use this app confidently. Even if a bug does exist, this application has strong fault tolerance and recovers quickly.

NFR-4	**Performance**	This app can process the input image quickly to predict the sign language using ML algorithm which is of high accuracy.
NFR-5	**Availability**	This app can be made available in Google app store to give accessibility to all people who require this
NFR-6	**Scalability**	Since this app is running as standalone application with its own dataset , any number of users can install this app and get the services.