

**Project Design Phase-I**  
**Proposed Solution Template**

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|---------------|-------------------------------------------------------------------------------|
| Date          | 19 September 2022                                                             |
| Team ID       | PNT2022TMID00995                                                              |
| Project Name  | Project - Real-Time Communication System<br>Powered by AI for Specially Abled |
| Maximum Marks | 2 Marks                                                                       |

**Proposed Solution Template:**

Project team shall fill the following information in the proposed solution template.

| S.No. | Parameter                                | Description                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.    | Problem Statement (Problem to be solved) | <ul style="list-style-type: none"><li>For the deaf people the problem can be solved by creation of a new system that helps convert sign language to text.</li><li>For the dumb people problem can be solved like speech for easier communication with audience.</li></ul>                                                                                                                                          |
| 2.    | Idea / Solution description              | <ul style="list-style-type: none"><li>An innovative approach for text to speech is implemented to provide a faster and convenient approach for mute to communicate through SAM (Speech Assisted for Mute).</li><li>Sign Language is the well-structured code, which uses hand gestures instead of sound to convey meaning, simultaneously combining hand shapes, orientations and movement of the hands.</li></ul> |
| 3.    | Novelty / Uniqueness                     | <ul style="list-style-type: none"><li>A dumb person is capable of expressing his thoughts through sign language.</li><li>A deaf person is capable of developing speech with the aid of a speech therapist.</li></ul>                                                                                                                                                                                               |
| 4.    | Social Impact / Customer Satisfaction    | <ul style="list-style-type: none"><li>ATDs (Assisting Technology Devices) help a person to hear and understand what is being said more easily.</li><li>The customers' satisfaction of ATDs is critical for independence and participation in society of individuals with disabilities.</li></ul>                                                                                                                   |

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| 5. | Business Model (Revenue Model) | <ul style="list-style-type: none"> <li>● Text to Speech Converter was implemented on both mobile and web apps with an accuracy upwards of 90% and along with the support of multiple languages. Speech to Text Converter was implemented on both mobile and web apps with an accuracy of around 85% and along with the support of multiple languages input.</li> <li>● Text to Speech Converter was implemented on both mobile and web apps with an accuracy upwards of 90% and along with the support of multiple languages. Speech to Text Converter was implemented on both mobile and web apps with an accuracy of around 85% and along with the support of multiple languages input.</li> <li>● Real-time captioning such as “Ava” has seen a huge increase in users. Riding the wave, the company just announced two new products and a \$4.5 million seed round. Ava previously made its name in the deaf community as a useful live transcription tool for real-life conversations.</li> <li>● D-talk is a system that allows people who are unable to talk and hear to be fully understood and for them to learn their language easier and also for the people that would interact and communicate with them.</li> </ul> |
| 6. | Scalability of the Solution    | <ul style="list-style-type: none"> <li>● All the deaf and dumb people cannot communicate with normal person so they have to depend on some sort of visual communication.</li> <li>● Gesture shows an expressive movement of body parts such as physical movements of head, face, arms, hand or body which convey some message.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |