

Project Design Phase - I

Problem – Solution Fit

Date	19 September 2022
Team ID	PNT2022TMID09233
Project Name	Real-Time Communication System Powered by AI for Specially Abled
Maximum Marks	4 Marks

Define CS, fit into CL	1. CUSTOMER SEGMENT(S) CS The primary target audience for our project are: 1. Individuals who want to communicate with deaf and mute people. 2. Deaf and mute individuals who want to interact with others.	6. CUSTOMER LIMITATIONS CL <small>EG. BUDGET, DEVICES</small> Not every person grasps the gesture based communication. Thus, it becomes challenging for the impaired to communicate in everyday life. Communication through signing is a boon for the speech and hearing impaired individuals to offer their viewpoints and feelings.	5. AVAILABLE SOLUTIONS AS <small>PROS & CONS</small> The input for perceiving the signs given by the user. The significant inconvenience of the current framework is the intricacy of involving sensors for gesture recognition. The user is supposed to be wearing the gloves each time they need to give an input and it is very costly and challenging to utilize.	Explore AS, differentiate
	2. PROBLEMS / PAINS PR <small>+ ITS FREQUENCY</small> 1. Correspondence during the hour of crisis. 2. Everyone can't stand to have human interpreters of sign language. 3. Speech and hearing impaired individuals might lose a ton of chances since they can't talk or offer their viewpoints verbally in circumstances like a meeting.	9. PROBLEM ROOT / CAUSE RC At present, the innovative headways maneuver everybody into the computerized way of life. Subsequently, bringing about the issue of correspondence through the web, for the speech and hearing impaired individuals, who are comfortable just with the communication via gestures they know. Here comes the need to construct a gesture based communication recognition framework, through which the computer can be made to perceive and decipher gesture based communication and interpret it for the necessary task.	7. BEHAVIOR BE <small>+ ITS INTENSITY</small> Directly related: D-Talk, communication through signing, hand motion, mental harm, trouble to communicate. Indirectly related: Enabled innovation, completely paralyzed, honorable goal, involving sensors in everyday life, ecological dangers influence their life trouble in the public eye.	
Focus on PR, tap into BE, understand RC	3. TRIGGERS TO ACT TR Speech and hearing impaired individuals can without much of a stretch fall into discouragement as they can only with significant effort express their sentiments. Likewise, their relatives go through a ton of stress to grasp them.	10. YOUR SOLUTION SL Individuals with disabilities stand to benefit fundamentally from AI-powered solutions, which will assist them with day to day errands and give them the opportunity to acquire new abilities. The project aims to foster a framework that changes over the gesture based communication into a human hearing voice in the ideal language to pass a message on to ordinary individuals, as well as convert speech into reasonable communication via gestures for the speech and hearing impaired individual.	8. CHANNELS of BEHAVIOR CH ONLINE Giving them specialised equipment to supplement educational programmes would help them become more mentally and emotionally healthy.	Extract online & offline CH of BE
	4. EMOTIONS EM <small>BEFORE / AFTER</small> Before: Weakness, Absence of Certainty, Dependent After Secured, Certainty, Independent		OFFLINE Their lives are mostly impacted by entering our direct society, which includes schools, colleges, and workplaces.	
Identify strong TR & EM				