

Project Design Phase-I

Problem – Solution Fit Template

Date	19 September 2022
Team ID	PNT2022TMID08592
Project Name	Real-Time Communication System Powered by AI for Specially Abled
Maximum Marks	2 Marks

Problem – Solution Fit Template:

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why

Purpose:

- ☐ Solve complex problems in a way that fits the state of your customers.
- ☐ Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- ☐ Sharpen your communication and marketing strategy with the right triggers and messaging.
- ☐ Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- ☐ **Understand the existing situation in order to improve it for your target group.**

Template:

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) The person who are physically abled like not able hear and speak. CS	6. CUSTOMER CONSTRAINTS Customer should know how to use the application and the options that are provided for them. CC	5. AVAILABLE SOLUTIONS A simple sign language detection web app built using Next.js and TensorFlow.js. AS	Explore AS, differentiate
	2. JOBS-TO-BE-DONE / PROBLEMS Due to not able to hear the things other say it will be <u>be</u> difficult for them to communicate. JB	9. PROBLEM ROOT CAUSE For a <u>specially</u> abled person it will hard to make others understand what they intend to say. RC	7. BEHAVIOUR The <u>behavior</u> of the available system is based on <u>TensorFlow</u> and <u>Next</u> library using <u>Javascript</u> . Here the input video stream splits into several tensors and detected using <u>tensorflow</u> model. BE	
Identify strong TR & EM	3. TRIGGERS 1. Some of the will humiliate the physical abled person. 2. Some people will <u>resented</u> because they cannot understand what they are trying to say. TR	10. YOUR SOLUTION Simple sign language <u>recognizer</u> using Python, <u>opencv</u> and <u>tensorflow</u> for training Inception model (CNN classifier). SI	8. CHANNELS of BEHAVIOUR This software works based on the convolutional neural networks. This CNN involves multiple layers which takes input as several video frames through camera and processes it through several layers of CNN and gives the desired output. CH	Identify strong TR & EM
	4. EMOTIONS: BEFORE / AFTER Before: <u>sad</u> , <u>confident</u> After: Happy, confident EM			