

## Project Design Phase-I Problem Solution Fit

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|---------------|-------------------------------------------------------------------------|
| Date          | 01 October 2022                                                         |
| Team ID       | PNT2022TMID30121                                                        |
| Project Name  | Project - A Gesture Based Tool For Sterile Browsing Of Radiology images |
| Maximum Marks |                                                                         |

### Problem Solution Fit:

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| <b>CUSTOMER SEGMENTS(S)</b><br>News image editor, Doctors, Analyst, Designer etc..                                                                                                                                                                                                                                                                                                                                                                           | <b>CUSTOMER LIMITATIONS</b><br>The tool can be quite expensive as it requires cameras and other expensive devices to capture images and process it.                                                                                                                   | <b>AVAILABLE SOLUTIONS (PROS AND CONS)</b><br><i>The "Gibson" image browser is a 3D visualization medical tool that enables examination of images, such as: MRIs, CT scans and X-rays.</i> |
| <b>PROBLEMS/ PAINS (ITS FREQUENCY)</b><br><i>Humans can recognize body and sign language easily. This is possible due to the combination of vision and synaptic interactions that were formed along brain development. In order to replicate this skill in computers, some problems need to be solved: how to separate objects of interest in images and which image capture technology and classification technique are more appropriate, among others.</i> | <b>PROBLEM ROOT/ CAUSE</b><br>Computers to recognize the human signs language easily. Performing some tasks based on a sign by the humans by Browsing through the images obtained using radiology using hand gestures rather than using mouse, keyboard.              | <b>BEHAVIOR ITS INTENSITY</b><br>Research for variations in the Hand gestures, Search for the solutions and seek the suggestions on hand variations from others.                           |
| <b>TRIGGERS TO ACT</b><br>Takes quite a long time to handle certain process manually.                                                                                                                                                                                                                                                                                                                                                                        | <b>YOUR SOLUTION</b><br>We are going to solve this problem using Convolutional Neural Network (CNN) algorithm using Open Source Computer Vision Library (Open CV) which are mainly used for image processing, video capture and analysis with Python Flask framework. | <b>CHANNELS OF BEHAVIOR (ONLINE)</b><br>Social Media , Blogs, Forums.                                                                                                                      |
| <b>EMOTIONS (BEFORE/ AFTER)</b><br>Before - Large volume of images to be edited so it makes Tired and Incapable.<br>After - Relaxed                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                       | <b>OFFLINE</b><br>Friends, Colleagues, and Image Analysts.                                                                                                                                 |