Project Design Phase-I – Solution Fit Template

PROJECT TITLE	A GESTURE BASED TOOL FOR STERILE BROWSING OF RADIOLOGY IMAGES
TEAM ID	PNT2022TMID39067

1. CUSTOMER SEGMENT(S)

- Deaf and dumb
- Drivers and passengers

6. CUSTOMER CONSTRAINTS

- Limited image recognition due poor gestures given as input
- Object or image recognition problems due to ineffectivenessin the devices used for detectionwhich will lead to bad accuracy.

5. AVAILABLE SOLUTIONS

- People can easily express the idea by gesture.
- Gestures are naturally used by many people and especially are the major and nature interaction way for deaf people.
- the effects from lighting, environment and camera can be greatly used to detect gestures which is given as input to depict the desired output.

2. JOBS-ÏO-BE-DONE / PROBLEMS

J&P

customer should contain error free and accurate devices for effective recognition of input(gestures) to provide

9. problem root

- Effective and reliable devices is not used by the customers while providing gestures as input to the system.
- Poor effect of lighting and complex background from the side of customer can lead to inaccurate image recognition.

7.

When the customer is not aware oí unclear of providing the gestures as input in an effective manner in order to reach the desired accuracy.

3. Triggers **TR**

- proper awareness and knowledge should be given for the customer to enrich the knowledgeabout recognition and input processing.

4. EMPLIONS: BOFORE / AFTER **EM**

Before:
- not clear about the functionality or procedures when the input gestures is given to the system

After:
- Confident in providing the gestures in a clear and accurate manner.

10. YOUR SOLUTION **SL**

- The first stage is the image detection. The target of this stage is to detect hand gestures in the digital images or videos. Many environment and image problems are needed to solve at this stageto ensure that the hand contours or regions can be extracted precisely to enhance the recognitionaccuracy.

- Common image problems contain unstable brightness, noise, poor resolution and contrast. The better environment and camera devices can effectively improve these problems. Hence, the image processing method is a better solution tosolve these image problems to construct an adaptive and robust gesture recognition system.

- The second stage is object recognition. The detected hand objects are recognized to identifythe gestures. The third stage is to analyze sequential gestures to identify user gesture and provide output.

8. CHANNELS OЇ BEHAVIOUR **CH**

8.1   ONLINE

- Online applications
- Online Websites

8.2 ONLINE

- Customer provide feedback and suggestions.