Ideation Phase
Empathize and Discover

Date	26 October 2022
Team ID	PNT2022TMID18715
Project Name	Project - A Gesture-based Tool for Sterile Browsing of Radiology Images
Maximum Marks	4 Marks

In this project we have used Convolutional Neural Network to first train the model on the images of different hand gestures, like showing numbers with fingers as 0,1,2,3,4,5. Then we made a web portal using Flask where the user can input any image on which he wants to perform the operations. After uploading the image, our portal uses the integrated webcam to capture the video frame using OpenCV. The gesture captured in the video frame is compared with the Pre-trained model and the gesture is identified. If the prediction is 0 - then the image is converted into rectangle, 1 - image is blurred, 2 - the image is rotated by -45°, 3 - the image is resized in (400,400) , 4 - the image is Resized in (200,200) , 5 -image is converted into grayscale, but in real-time we use of doctor-computer interaction devices in the operation room (OR) requires new modalities that support medical imaging manipulation while allowing doctors' hands to remain sterile, supporting their focus of attention, and providing fast response times.