PROBLEM STATEMENT

The pandemic has had adverse effects on health of people.Unfortunately, heart attack, cardiac arrest and cardiovascular diseases have become quite common in the younger population, and a significant global concern.The lockdown has led to us being stuck in an Unhealthy, inactive, sedentary lifestyle these days. Leading a sedentary lifestyle with risks of obesity and diabetes, makes one susceptible to having a heart attack. Cardiac arrests happen very quickly in a span of 2-3 minutes and need immediate medical care.We came up with an idea of an app that can detect cardiac arrest before you have one,so that more time is available for response and the patient can be treated.

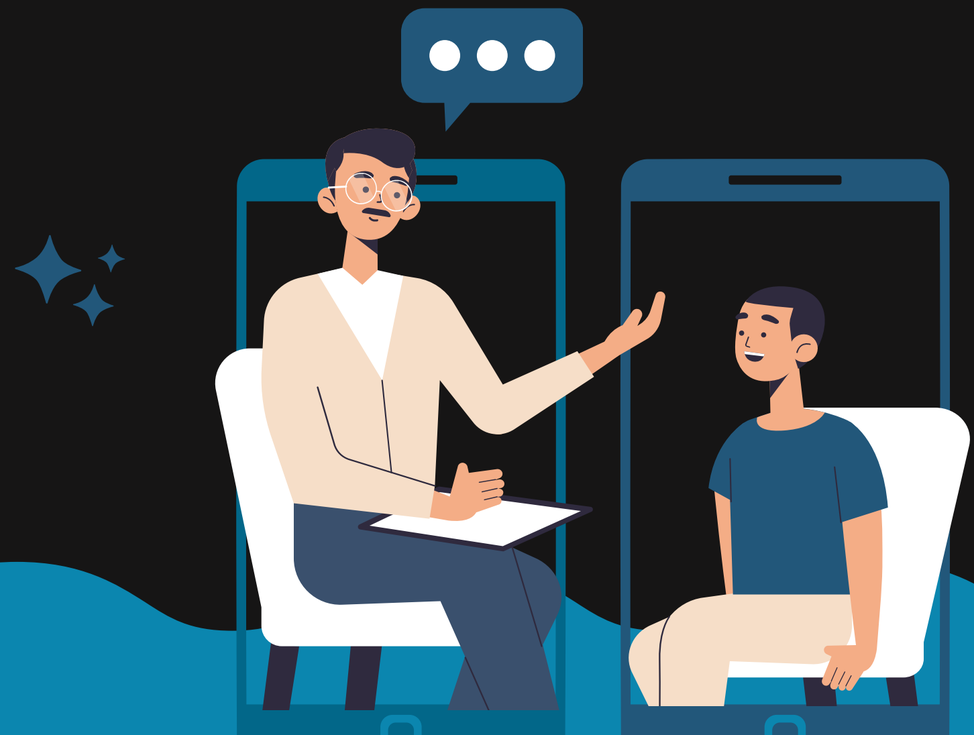
OUR APP CAN MEASURE THE FOLLOWING VITALS

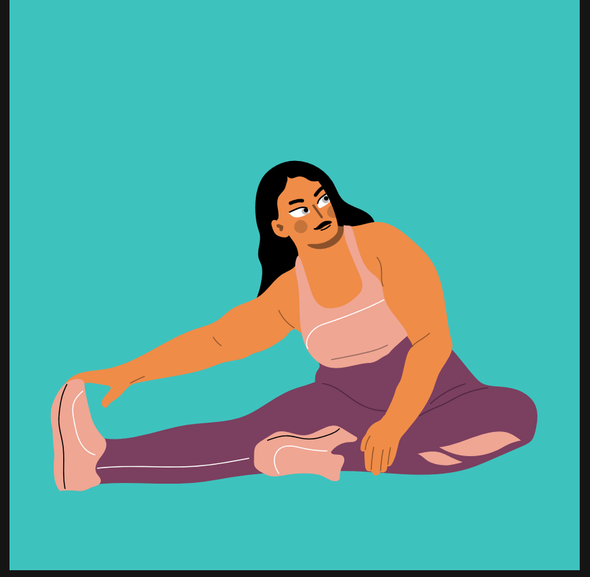
->HEART RATE

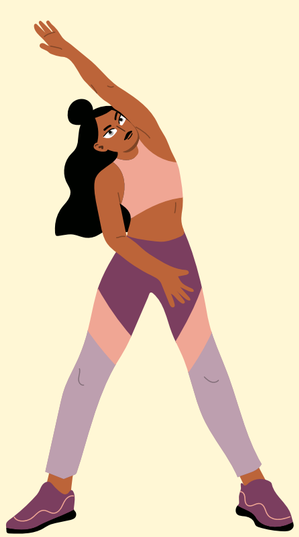
->O2 SATURATION

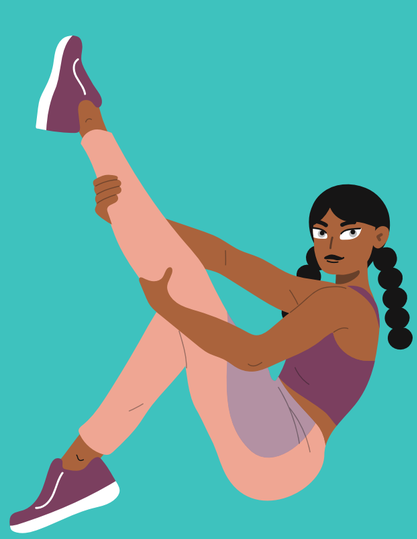
->BLOOD PRESSURE

->RESPIRATION RATE

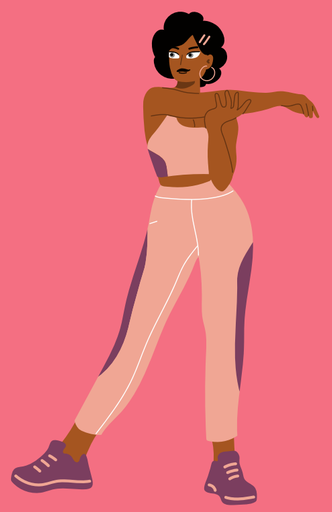


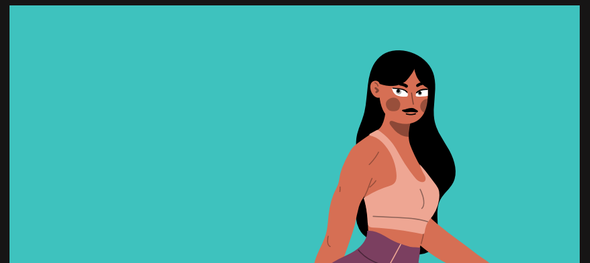






BASED ON THE BMI AND HEART RATE THE APP PERSONALISED EXERCISES





Problems faced:

Setting up the camera field
Image processing
Integration of api of model with android studio

On the basis of the vitals measured the app can predict the risk the patient is at.
The parameters percieved are then passes on to a 2 layers CNN classifier which will predict the whether the user has higher risk of having a cardiac arrest at that instance of time or not.The implemenation is done using a Jupyter Notebook and the API is coded using flask framework.
The app then hits the API and returns the result back which then displayed by the app.