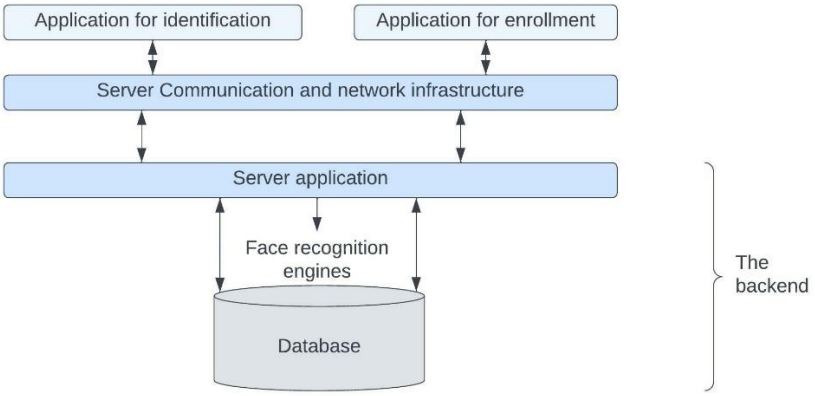
TARP

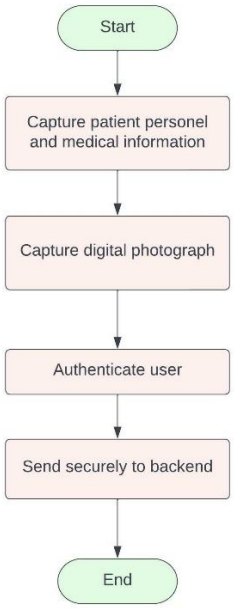
DIGITAL ASSIGNMENT – 3

TEAM MEMBERS:

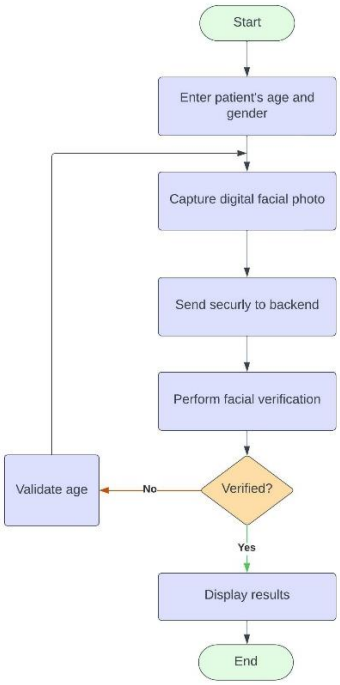
- ADRIJA MUKHOPADHYAY 19BDS0159
- MANDIRA HAWALDAR 19BCT0052
- TARANG GARG 19BCE0053
- VISHAKHA KUMARESAN 19BCE2678

PROPOSED ARCHITECTURE:





Patient enrolling system



Patient identification systen

PROPOSED METHODOLOGY:

The face detection implementation can be divided into 4 modules namely main, person info, train and face detector. The main module consists mainly of the GUI which gets displayed once the code is run. The person info module consists of all the fields that are required to be filled by the person for them to get registered with the database, it also consists of an important function 'harcascade_frontalface_default' which is used to detect and train the frontal face of a person. The training module trains the dataset using the 'LBPH face recognition' it uses pattern histogram to recognize facial features, this proves to be useful in situations where the face is injured, has scars, birthmarks or has some accessories on it. Moreover, the face detection module uses the same function 'harcascade_frontalface_default' to detect the frontal face of a person.

After the face gets detected their details get displayed on the screen through a green rectangle box, if a face is not recognized then it is marked as unknown in a red rectangular box.