

Youtube Video Link:-

https://www.youtube.com/watch?v=9uxh_z6QnA4&feature=youtu.be

Github Link-

<https://github.com/ganeshkharad2/Real-time-face-recognition>

Methodology-

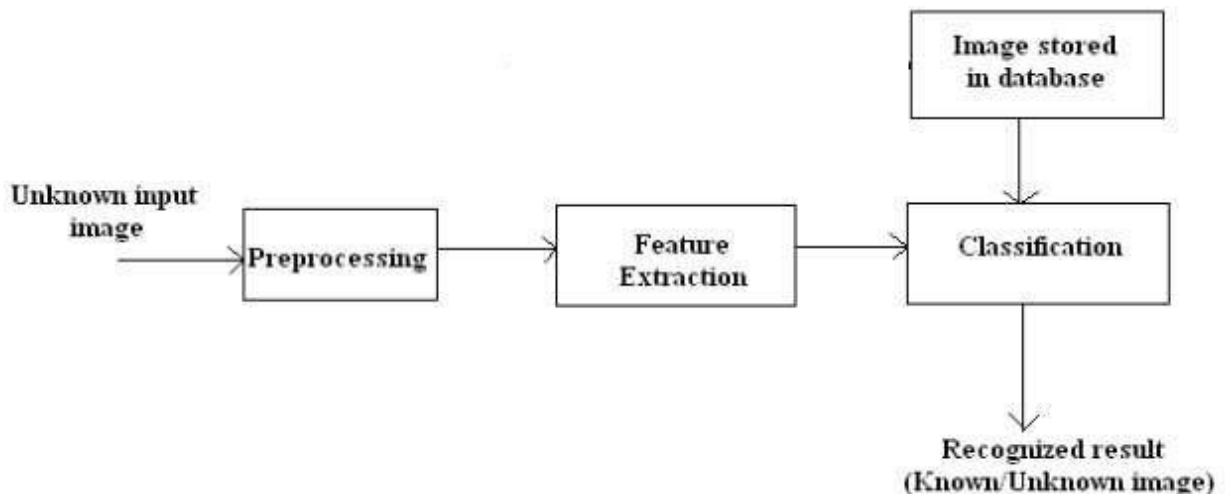
This project is build with the help of Open Source Computer Vision Library, the OpenCV and Python. OpenCV was designed for computational efficiency and with a strong focus on real-time applications. So, it's perfect for real-time face recognition using a camera.

It contains pre-trained models for Face, eye and other facial recognition so this was the main advantage behind selecting this Library.

To create a complete project on Face Recognition the program is done in 3 phases:

1. Face Detection and Data Gathering
2. Train the Recognizer
3. Face Recognition

The below block diagram dhowes the process:



Resources -

Python 3.6

Jupyter Notebook

Libraries-Numpy,os,cv2,PIL.

References Used -

https://docs.opencv.org/3.3.0/d7/d8b/tutorial_py_face_detection.html

<https://www.youtube.com/watch?v=QuxwAPuQDNo>

<https://readthedocs.org/projects/opencv-python-tutroals/downloads/pdf/latest/>

http://opencv-python-tutroals.readthedocs.io/en/latest/py_tutorials/py_tutorials.html

Step by step guide to reproduce the result:-

Requirements :-

- 1- install python
- 2- install opencv
- 3- make folders "datasets" & "trainer" in current directory make sure all the paths mentioned in code & libraries are available.

Let's Run the program By following Process given below-

- 1- check if camera is working & detecting face with opencv
- 2- collect samples of face from camera to train.

Enter Id number(used to store training images by ID number)

3- Train the model It will train all the training images using Opencv.

4- Test the model add the name for the new face ID names related to ids:

example ==> Ganesh for: id=1, & run the code.

Now you can see it recognizes the faces you trained & tagged.