Program code

**Live Face detection:**

import cv2

# Load the cascade

face\_cascade = cv2.CascadeClassifier('haarcascade\_frontalface\_default.xml')

# To capture video from webcam.

cap = cv2.VideoCapture(0)

# To use a video file as input

# cap = cv2.VideoCapture('filename.mp4')

while True:

# Read the frame

\_, img = cap.read()

# Convert to grayscale

gray = cv2.cvtColor(img, cv2.COLOR\_BGR2GRAY)

# Detect the faces

faces = face\_cascade.detectMultiScale(gray, 1.1, 4)

# Draw the rectangle around each face

for (x, y, w, h) in faces:

cv2.rectangle(img, (x, y), (x+w, y+h), (255, 0, 0), 2)

# Display

cv2.imshow('img', img)

# Stop if escape key is pressed

k = cv2.waitKey(30) & 0xff

if k==27:

break

# Release the VideoCapture object

cap.release()

**Face detection using image**

import cv2

# Load the cascade

face\_cascade = cv2.CascadeClassifier('haarcascade\_frontalface\_default.xml')

# Read the input image

img = cv2.imread('nalu.jpg')

# Convert into grayscale

gray = cv2.cvtColor(img, cv2.COLOR\_BGR2GRAY)

# Detect faces

faces = face\_cascade.detectMultiScale(gray, 1.1, 4)

# Draw rectangle around the faces

for (x, y, w, h) in faces:

cv2.rectangle(img, (x, y), (x + w, y + h), (255, 0, 0), 2)

# Display the output

cv2.imshow('img', img)

cv2.waitKey()

**Haar cascade frontal face**

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