OpenCV For Video Processing

Task 1: Capture Video from Camera

In many cases, it is necessary to capture a live stream with a camera. OpenCV provides a very simple interface for this. Capture video from your camera (using your laptop's built-in webcam), convert it to grayscale video, and display it.
To capture video, you need to create a VideoCapture object. Its argument is either the device index or the name of the video file. A device index is a number that indicates which camera it is. It usually has a camera attached (like in my case). So just pass 0 (or -1). You can select the second camera by passing 1 and so on, and then capture frame by frame. But don't forget to share your recording at the end. A code will be displayed to read the webcam.Task 2: Importing the required libraries.

```
#import opencv library
import cv2
#import numpy
import numpy as np
#import image function from keras
from keras.preprocessing import image
#import load_model from keras
from keras.models  import load_model
#import Client from twilio API
from twilio.rest import Client
#import playsound package
from playsound import playsound
```

Install the twilio library and run the following command "pip install twilio" at the anaconda prompt**.**

Task 3: Loading our saved model file using load_model from Keras library

```
#load the saved model
model = load_model(r'forest1.h5')
#define video
video = cv2.VideoCapture(0)
#define the featues
name = ['forest','with fire']
```