VIDEO ANALYSIS

OPEN CV FOR VIDEO PROCESSING

```
[ ] pip install twilio

    Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/public/simple/
    Collecting twilio
      Downloading twilio-7.15.2-py2.py3-none-any.whl (1.4 MB)
        |████████████████████████████| 1.4 MB 5.2 MB/s
    Requirement already satisfied: pytz in /usr/local/lib/python3.7/dist-packages (from twilio) (2022.6)
    Collecting PyJWT<3.0.0,>=2.0.0
      Downloading PyJWT-2.6.0-py3-none-any.whl (20 kB)
    Requirement already satisfied: requests>=2.0.0 in /usr/local/lib/python3.7/dist-packages (from twilio) (2.23.0)
    Requirement already satisfied: idna<3,>=2.5 in /usr/local/lib/python3.7/dist-packages (from requests>=2.0.0->twilio) (2.10)
    Requirement already satisfied: chardet<4,>=3.0.2 in /usr/local/lib/python3.7/dist-packages (from requests>=2.0.0->twilio) (3.0.4)
    Requirement already satisfied: urllib3!=1.25.0,!=1.25.1,<1.26,>=1.21.1 in /usr/local/lib/python3.7/dist-packages (from requests>=2.0.0->twilio) (1.24.3)
    Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.7/dist-packages (from requests>=2.0.0->twilio) (2022.9.24)
    Installing collected packages: PyJWT, twilio
    Successfully installed PyJWT-2.6.0 twilio-7.15.2
```

```
[ ] pip install playsound

    Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/public/simple/
    Collecting playsound
      Downloading playsound-1.3.0.tar.gz (7.7 kB)
    Building wheels for collected packages: playsound
      Building wheel for playsound (setup.py) ... done
      Created wheel for playsound: filename=playsound-1.3.0-py3-none-any.whl size=7035 sha256=1174df3785342b00c9f5b5d4a515a849acd7b795c04ec87a88c895604f8aa1a8
      Stored in directory: /root/.cache/pip/wheels/ba/f8/bb/ea57c0148b664dca3a0ada4199b0ecb5f9dfcb7b7e22b65ba2
    Successfully built playsound
    Installing collected packages: playsound
    Successfully installed playsound-1.3.0
```

```
[ ] #import opencv librariy
    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
    #imort playsound package
    from playsound import playsound

    WARNING:playsound:playsound is relying on another python subprocess. Please use `pip install pygobject` if you want playsound to run more efficiently.
```

```
[ ] #load the saved model
    model = load_model(r'/content/forest1.h5')
    #define video
    video = cv2.VideoCapture('/content/No fire video testing.mp4')
    #define the features
    name = ['forest','with forest']
```

```
[ ]  account_sid = 'AC2d64cab0606f25324a644047ba0cbb34'
     auth_token = '615fd973852e30c1fffe52fad572d250'
     client = Client(account_sid, auth_token)

     message = client.messages \
         .create(
             body='Forest fire is detected , stay alert',
             from_='+13148485411',
             to='+919500269540'
         )

     print(message.sid)
     print('Fire Detected')
     print('SMS sent!')
```

```
SMe5c22057e505ead1ebbae53dda624868
Fire Detected
SMS sent!
```

OUTCOMES

8:16 AM

Sent from your Twilio trial account – Forest Fire is detected, stay alert

Sent from your Twilio trial account – Forest Fire is detected, stay alert

Sent from your Twilio trial account – Forest Fire is detected, stay alert