

## SPRINT – 4

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### Twilio Connection & Play Sound:

```
from twilio.rest import Client
from playsound import playsound
model=load_model('forest1.h5')
video=cv2.VideoCapture(0)
name=['forest','with fire']
account_sid='ACca0e8bb11699d2957d67c979ca84b68a'
auth_token='bcb5f3850ef4b7ed263f60efc9acecdb'
client =Client(account_sid,auth_token)
message=client.messages \
.create(
body='-----Forest Fire is detected,Stay Alert !!!-----',
    from_='+19457581434',to='+919943435141')
print(message.sid)
print("Alert Message sent")
```

### Output:

```
Smb8a51eaeb987fbc8d5eced2dab56300a
Alert Message sent
```

### Testing Model :

```
import cv2
import numpy as np
from keras.preprocessing import image
from keras.models import load_model
from twilio.rest import Client
from playsound import playsound
model=load_model('forest1.h5')
video=cv2.VideoCapture(0)
name=['forest','with fire']
while(True):
    ret,frame=video.read()
    cv2.imshow('frame',frame)
    cv2.imwrite('image.jpg',frame)
    img=image.load_img('train_set/forest/NoFire (1).bmp',target_size=(64,64))
    x=image.img_to_array(img)
    x=np.expand_dims(x,axis=0)
    pred=model.predict(x)
    index=np.argmax(pred)
    if index==0:
        account_sid='ACca0e8bb11699d2957d67c979ca84b68a'
        auth_token='bcb5f3850ef4b7ed263f60efc9acecdb'
        client =Client(account_sid,auth_token)
        message=client.messages \
            .create(body='-----Fire is detected,Stay Alert !!!-----',
```

```

        from_='+19457581434',to='+919943435141')
    print(message.sid)
    print('Fire detected')
    print("Alert Message sent!")
    playsound('tornado-siren.mp3')

else:
    print('No Danger')
    cv2.imshow("image.jpg",frame)
    if cv2.waitKey(2)&0xff == ord('q'):
        break
video.release()
cv2.destroyAllWindows()

```


## Output:

```

cv2.imshow('frame',frame)
cv2.imwrite('image.jpg',frame)
img=image.load_img('image.jpg',target_size=(64,64))
x=image.img_to_array(img)
x=np.expand_dims(x,axis=0)
pred=model.predict(x)
index=np.argmax(pred)
if index==1:
    account_sid='ACca0e8bb11699d2957d67c979ca84b68a'
    auth_token='bcb5f3850ef4b7ed263f60efc9acecdb'
    client =Client(account_sid,auth_token)
    message=client.messages \
        .create(body='-----Fire is detected,Stay Alert !!!-----'
                from_='+19457581434',to='+919943435141')
    print(message.sid)
    print('Fire detected')
    print("Alert Message sent!")
    playsound('tornado-siren.mp3')

else:
    print('No Danger')
    cv2.imshow("image.jpg",frame)
    if cv2.waitKey(1) & 0xff == ord('a'):
        break
video.release()
cv2.destroyAllWindows()

```



```

No Danger
No Danger
No Danger
No Danger
No Danger
No Danger
No Danger

```