PYTHON CODE FOR WEB APPLICATION

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```
import cv2
import numpy as np
import time
import pyzbar.pyzbar as pyzbar
from ibmcloudant.cloudant_v1 import CloudantV1
from ibmcloudant import CouchDbSessionAuthenticator
from ibm_cloud_sdk_core.authenticators import BasicAuthenticator

authenticator = BasicAuthenticator('apikey-267fe83f32ec443b804f3c76d688d2e3',
'b1456cbe3c712c2d555623fe092c074478521354')
service = CloudantV1(authenticator=authenticator)

service.set_service_url('https://4f470103-dd2c-4f50-94e8-3439395a7935-bluemix.cloudant.com')

cap= cv2.VideoCapture(0)
font = cv2.FONT_HERSHEY_PLAIN

while True:
        _, frame = cap.read()
        decodedObjects = pyzbar.decode (frame)
        for obj in decodedObjects:
                #print ("Data", obj.data)
                a=obj.data.decode('UTF-8')
                cv2.putText(frame, "Ticket", (50, 50), font, 2,      (255, 0, 0), 3)

                #print (a)
```

```
                try:
                        response = service.get_document(
                                db='booking',
                                doc_id = a
                        ).get_result()
                        print (response)
                        time.sleep(5)
                except Exception as e:
                        print ("Not a Valid Ticket")
                        time.sleep(5)


        cv2.imshow("Frame",frame)
        if cv2.waitKey(1) & 0xFF ==ord('q'):
                break
cap.release()
cv2.destroyAllWindows()
client.disconnect()
```

PYTHON CODE FOR TRAIN LOCATION

```
import wiotp.sdk.device
import time
import random
myConfig = {
        "identity": {
                "orgId": "ojhlri",
                "typeId": "GPS",
                "deviceId":"12345"
        },
        "auth": {
                "token": "12345678"
        }
}

def myCommandCallback (cmd):
        print ("Message received from IBM IoT Platform: %s" % cmd.data['command'])
        m=cmd.data['command']

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

def pub (data):
        client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
        print ("Published data Successfully: %s", myData)

while True:
        myData={'name': 'Train1', 'lat': 17.6387448, 'lon': 78.4754336}
```

```
        pub (myData)
        time.sleep (3)
        #myData={'name': 'Train2', 'lat': 17.6387448, 'lon': 78.4754336)
        #pub (myData)
        #time.sleep (3)
        myData={'name': 'Train1', 'lat': 17.6341908, 'lon': 78.4744722}
        pub(myData)
        time.sleep(3)
        myData={'name': 'Train1', 'lat': 17.6340889, 'lon': 78.4745052}
        pub (myData)
        time.sleep (3)
        myData={'name': 'Train1', 'lat': 17.6248626, 'lon': 78.4720259}
        pub (myData)
        time.sleep (3)
        myData={'name': 'Train1', 'lat': 17.6188577, 'lon': 78.4698726}
        pub (myData)
        time.sleep (3)
        myData={'name': 'Train1', 'lat': 17.6132382, 'lon': 78.4707318}
        pub (myData)
        time.sleep (3)
        client.commandCallback = myCommandCallback
client.disconnect ()
```