SMART SOLUTIONS FOR RAILWAYS

Develop a Python Script:

```python
1)import wiotp.sdk. device

import time

import random

myConfig = {

    "identity": {

        "orgId": "gagtey",

        "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()
```

```python
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}
```

```python
        pub (myData)
        time.sleep (3)
        client.commandCallback = myCommandCallback
client.disconnect ()


2)
from ibmcloudant import CouchDbSessionAuthenticator
from ibm_cloud_sdk_core.authenticators import BasicAuthenticator


authenticator = BasicAuthenticator('apikey-v2-16u3crmdpkghhxefdi
kvpssoh5fwezrmuup5fv5g3ubz', 'b0ab119f45d3e6255eabb978')
service = CloudantV1(authenticator=authenticator)


service.set_service_url('https://apikey-v2-
16u3ermdpkghhxefdikvpssoh5fwezrmuup5fv5g3ubz:b0ab119145d3e6255eabb978e7e2f0')


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(
```

```python
                    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()
```