

TEAM ID	PNT2022TMID47359
DATE	10 NOVEMBER 2022
PROJECT NAME	SMART SOLUTIONS FOR RAILWAYS
MARKS REQUIRED	4 MARKS

CODE

```

import wiotp.sdk.device

import time

import random

myConfig = {
    "identity": {
        "orgId": "njd5v1",
        "typeId": "GPS",
        "deviceId": "1234"
    },
    "auth": {
        "token": "Prems@1428"
    }
}

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)

```

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#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 ()

```

QR CODE

```

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-v2-16u3crmdpkgghxefdi  
kvpssoh5fwezrmuup5fv5g3ubz', 'b0ab119f45d3e6255eabb978')  
  
service = CloudantV1(authenticator=authenticator)  
  
service.set_service_url('https://apikey-v2-  
16u3ermdpkgghxefdikvpssoh5fwezrmuup5fv5g3ubz: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(  
                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()
```