SPRINT-3

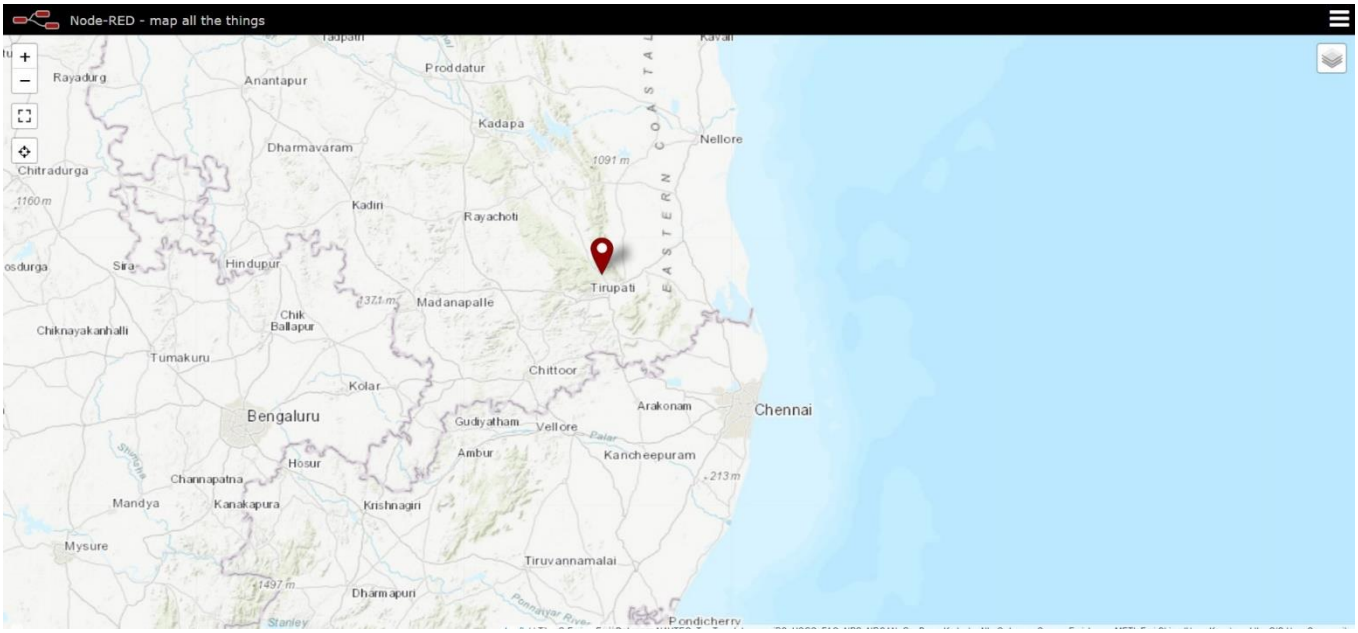
Date	12 November 2022
Team ID	PNT2022TMID44878
Project Name	SMART SOLUTIONS FOR RAILWAYS

Develop a python script for publishing the location(Latitude & Longitude) data to the IBM IOT platform.

```
import wiotp.sdk.device
import time
# Provide your IBM Watson Device Credentials
myConfig = {      "identity": {                   "orgId": "ie9ki3",
                              "typeId": "mydevice",
                              "deviceId":"mydeviceid"},
              "auth": {                    "token": "bW(_2O((aRG8E6fij6"}}

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:

   ######____TRAIN ROUTE FROM_____MUMBAI ----> CHENNAI____######

   myData = {'name': 'MUMBAI--->CHENNAI EXPRESS', 'lat': 13.913128, 'lon': 79.360651}
   pub(myData)
   time.sleep(3)
   myData = {'name': 'MUMBAI--->CHENNAI EXPRESS', 'lat': 13.729034,'lon': 79.472997}
   pub(myData)
   time.sleep(3)
   myData = {'name': 'MUMBAI--->CHENNAI EXPRESS', 'lat': 13.478878, 'lon': 79.541901}
   pub (myData)
   time.sleep (3)
```

```
    myData = {'name': 'MUMBAI--->CHENNAI EXPRESS', 'lat': 13.216907,'lon': 79.592364}
    pub(myData)
    time.sleep(3)
    myData = {'name': 'MUMBAI--->CHENNAI EXPRESS', 'lat': 13.093835,'lon': 79.683645}
    pub(myData)
    time.sleep(3)
    myData = {'name': 'MUMBAI--->CHENNAI EXPRESS', 'lat': 13.128028,'lon': 79.932913}
    pub(myData)
    time.sleep(3)
    client.commandCallback = myCommandCallback
client.disconnect()
```

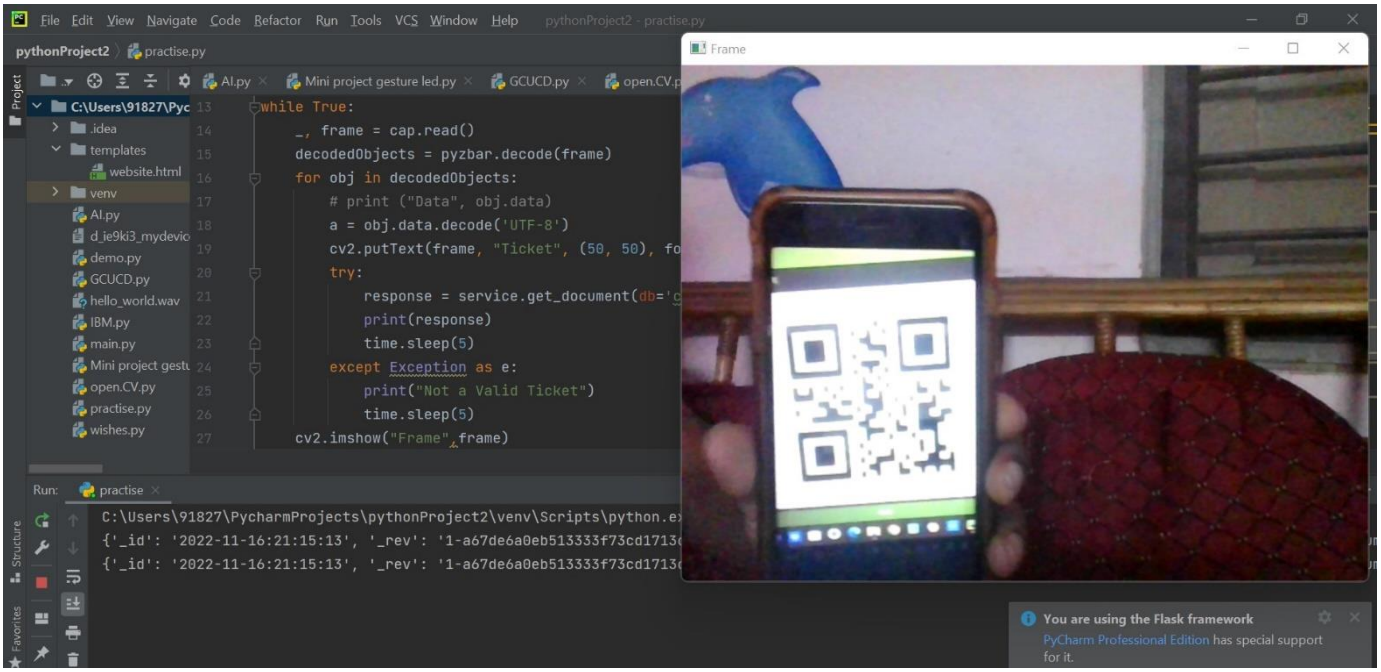
OUTPUT:



python code to read the QR code and fetch the data from cloudant DB:

```
import cv2
import time
import pyzbar.pyzbar as pyzbar
from ibmcloudant.cloudant_v1 import CloudantV1
from ibm_cloud_sdk_core.authenticators import BasicAuthenticator
authenticator = BasicAuthenticator('apikey-5fa841dab9544e31b6a1b6f9ba432422',
'591f8ef66aac6f9bc779c8e7bf4a670f4058cf13')
service = CloudantV1(authenticator=authenticator)
service.set_service_url('https://c14dc572-82d6-4b8b-9e6f-01fc8aedecb0-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)
        try:
            response = service.get_document(db='crendentials',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()
```

OUTPUT:


File Edit View Navigate Code Refactor Run Tools VCS Window Help
pythonProject2 - practise.py
pythonProject2 › practise.py
AI.py
Mini project gesture led.py
GCUCD.py
open.CV.p
C:\Users\91827\Pyc
.idea
templates
website.html
venv
AI.py
d_ie9ki3_mydevic
demo.py
GCUCD.py
hello_world.wav
IBM.py
main.py
Mini project gestu
open.CV.py
practise.py
wishes.py
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), fo
try:
response = service.get_document(db='c
print(response)
time.sleep(5)
except Exception as e:
print("Not a Valid Ticket")
time.sleep(5)
cv2.imshow("Frame", frame)
Run:
practise
C:\Users\91827\PycharmProjects\pythonProject2\venv\Scripts\python.ex
{'_id': '2022-11-16:21:15:13', '_rev': '1-a67de6a0eb513333f73cd1713
{'_id': '2022-11-16:21:15:13', '_rev': '1-a67de6a0eb513333f73cd1713
Frame
You are using the Flask framework
PyCharm Professional Edition has special support for it.