

## DEVELOP A PYTHON SCRIPT

Date	7th November 2022
Team ID	PNT2022TMID12354
Project Name	Smart Solutions For Railways
Maximum Marks	4 Marks

### Python Script for Scan QR Code:

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

authenticator = BasicAuthenticator('apikey-v2-
125rwcp4ifi6zz2ly1cq0kakyjn98du2ysgc72h53lzi', 'af693938842290ec2c254461754447b5')

service = CloudantV1(authenticator=authenticator)

service.set_service_url('https://apikey-v2-
125rwcp4ifi6zz2ly1cq0kakyjn98du2ysgc72h53lzi:af693938842290ec2c254461754447b5@8
2d87499-4395-4f46-a190-6a186bee5051-bluemix.cloudantnosqldb.appdomain.cloud')

cap= cv2.VideoCapture(0)

font = cv2.FONT_HERSHEY_PLAIN

while True:

    _, frame = cap.read()

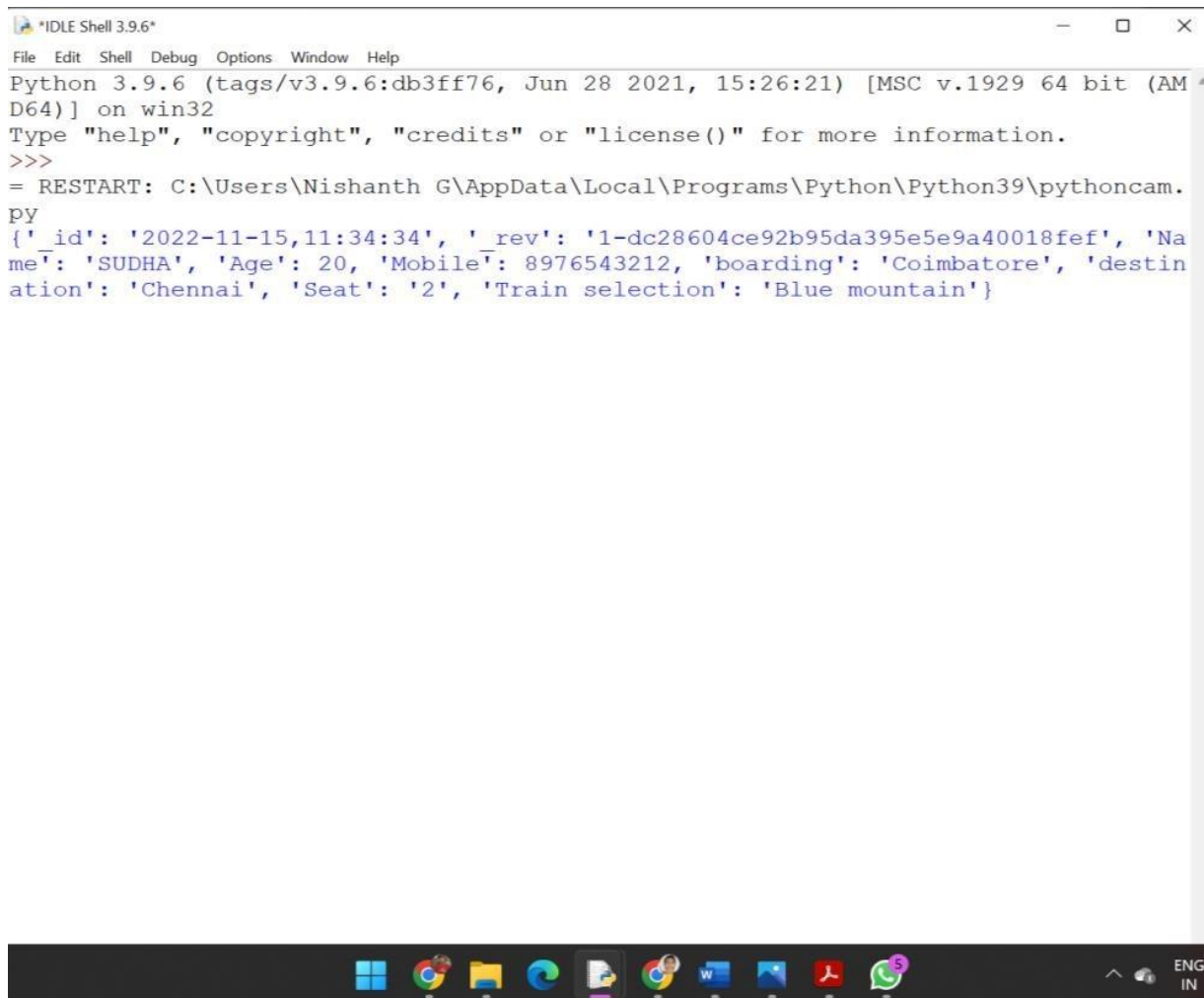
    decodedObjects = pyzbar.decode(frame) for obj in decodedObjects:
    #print ("Data", obj.data) a=obj.data.decode('UTF-8')
    cv2.putText(frame, "Ticket", (50, 50), font, 2, (255, 0, 0), 3) #print (a)
    try:

    response = service.get_document(db='booking',doc_id = a).get_result() print(response)
    time.sleep(5)

    except Exception as e: print("NOT A VALID TICKER")
    time.sleep(5)
```

cap.release() cv2.destroyAllWindows() client.disconnect()





The screenshot shows a Python IDLE Shell window titled "IDLE Shell 3.9.6". The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The shell displays the following text:

```
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\Nishanth G\AppData\Local\Programs\Python\Python39\pythoncam.py
{'_id': '2022-11-15,11:34:34', '_rev': '1-dc28604ce92b95da395e5e9a40018fef', 'Name': 'SUDHA', 'Age': 20, 'Mobile': 8976543212, 'boarding': 'Coimbatore', 'destination': 'Chennai', 'Seat': '2', 'Train selection': 'Blue mountain'}
```

The Windows taskbar is visible at the bottom, showing icons for the Start menu, Chrome, File Explorer, Edge, IDLE, Word, PowerPoint, and a notification icon for WhatsApp.

### **PYTHON CODE FOR GPS:**

```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": " s91n0t",
        "typeId": " MyDeviceType",
        "deviceId": " 12345"
    },
    "auth": {
        "token": " @)fRE3fdiTS!MaT3F_"
    }
}

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':13.08363 , 'lon': 80.27080}
```

```
    pub (myData)
    time.sleep (2)
    myData={'name': 'Train2', 'lat': 12.40797, 'lon': 79.81410}
    pub (myData)
    time.sleep (2)
```

```
    myData={'name': 'Train1', 'lat': 11.83331, 'lon': 79.37465}
    pub(myData)
    time.sleep(6)
```

```
    myData={'name': 'Train1', 'lat': 11.59664, 'lon': 78.69899}
    pub (myData)
    time.sleep (6)
```

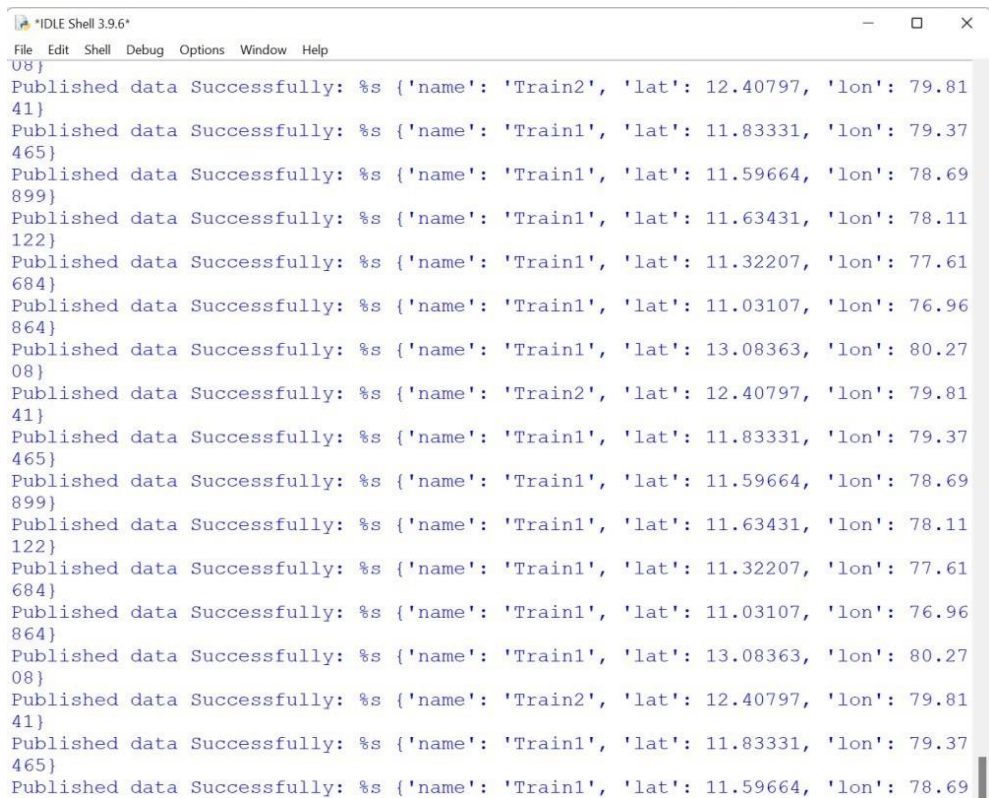
```
    myData={'name': 'Train1', 'lat': 11.63431, 'lon': 78.11122}
    pub (myData)
    time.sleep (6)
```

```
    myData={'name': 'Train1', 'lat': 11.32207, 'lon': 77.61684}
    pub (myData)
    time.sleep (6)
```

```
    myData={'name': 'Train1', 'lat': 11.03107, 'lon': 76.96864}
    pub (myData)
    time.sleep (6)
```

```
    client.commandCallback = myCommandCallback
client.disconnect ()
```

## OUTPUT:



```

IDLE Shell 3.9.6
File Edit Shell Debug Options Window Help
U8}
Published data Successfully: %s {'name': 'Train2', 'lat': 12.40797, 'lon': 79.81
41}
Published data Successfully: %s {'name': 'Train1', 'lat': 11.83331, 'lon': 79.37
465}
Published data Successfully: %s {'name': 'Train1', 'lat': 11.59664, 'lon': 78.69
899}
Published data Successfully: %s {'name': 'Train1', 'lat': 11.63431, 'lon': 78.11
122}
Published data Successfully: %s {'name': 'Train1', 'lat': 11.32207, 'lon': 77.61
684}
Published data Successfully: %s {'name': 'Train1', 'lat': 11.03107, 'lon': 76.96
864}
Published data Successfully: %s {'name': 'Train1', 'lat': 13.08363, 'lon': 80.27
08}
Published data Successfully: %s {'name': 'Train2', 'lat': 12.40797, 'lon': 79.81
41}
Published data Successfully: %s {'name': 'Train1', 'lat': 11.83331, 'lon': 79.37
465}
Published data Successfully: %s {'name': 'Train1', 'lat': 11.59664, 'lon': 78.69
899}
Published data Successfully: %s {'name': 'Train1', 'lat': 11.63431, 'lon': 78.11
122}
Published data Successfully: %s {'name': 'Train1', 'lat': 11.32207, 'lon': 77.61
684}
Published data Successfully: %s {'name': 'Train1', 'lat': 11.03107, 'lon': 76.96
864}
Published data Successfully: %s {'name': 'Train1', 'lat': 13.08363, 'lon': 80.27
08}
Published data Successfully: %s {'name': 'Train2', 'lat': 12.40797, 'lon': 79.81
41}
Published data Successfully: %s {'name': 'Train1', 'lat': 11.83331, 'lon': 79.37
465}
Published data Successfully: %s {'name': 'Train1', 'lat': 11.59664, 'lon': 78.69

```