

DEVELOPING PYTHON SCRIPT

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PROJECT NAME: IOT - BASED SMART CROP
PROTECTION SYSTEM FOR AGRICULTURE

PYTHON CODE:

```
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()
```

```
def pub (data):
```

```
client.publishEvent (eventId="status", msgFormat="json",  
data=myData, qos=0, 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()
```

QR SCANNER 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-
16u3crmdpkghhxefdikvpssoh5fwezrmuup5fv5g3ubz',
'b0ab119f45d3e6255eabb978
service Cloudant V1 (authenticator-authenticator)
service.set_service_url('https://apikey-v2-
```

16u3crmdpkghhxefdikvpssoh5fwezrmuup5fv5g3ubz:b0ab119
f45d3e6255eabb978e7e2f0

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()
```