

# **IOT Based Smart Crop Protection System for Agriculture .**

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## **DEVELOPING PYTHON SCRIPT**

### **LOCATION DATA:**

```
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-
16u3crmdpkgghxefdikvpssoh5fwezrmuup5fv5g3ubz',
'b0ab119f45d3e6255eabb978

service Cloudant V1 (authenticator-authenticator)
service.set_service_url('https://apikey-
v216u3crmdpkgghxefdikvpssoh5fwezrmuup5fv5g3ubz:b0ab
119 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()
```