

IOT BASED SMART POULTRY FARMING FOR AGRICULTURE

Develop The Python Script

Develop A Python Script

```
import time

import sys

import ibmiotf.application

import ibmiotf.device

import random\


#Provide your IBM Watson Device Credentials

organization ="8osflk"

deviceType = "cropprotection99"

deviceId = "cropprotection99"

authMethod="token"

authToken ="duiH-8z@4u@JXTmx20"

# InitializeGPIO

def myCommandCallback(cmd):

    print("Command received: %s" %cmd.data['command'])

    status =cmd.data['command']

    if status=="lighton":

        print("led on")

    else:

        print("led off")

    #print(cmd)

try:
```

```
deviceOptions={"org": organization,"type":deviceType,"id": deviceId,"auth-method":  
authMethod, "auth-token": authToken}
```

```
deviceCli=ibmiotf.device.Client(deviceOptions)
```

```
#.....
```

```
except Exception as e:
```

```
print("Caught exception connecting device:%s" %str(e))
```

```
sys.exit()
```

```
#Connectandsendadatapoint"hello"withvalue"world"intothecloudasaneventoftype"greeting  
"10times
```

```
deviceCli.connect()
```

```
while True:
```

```
#GetSensorDatafromDHT11
```

```
temp=random.randint(0,100)
```

```
humid=random.randint(0,100)
```

```
data={'temperature':temp,'humidity':humid}
```

```
#printdata
```

```
def myOnPublishCallback():
```

```
print("Published Temperature=%s C" %temp,"Humidity=%s %" % humid,"to  
IBMWatson")
```

```
success=deviceCli.publishEvent("IoTSensor","json",data,qos=0,on_publish=myOnPublishCallb
```

ack)

if not success:

```
print("NotconnectedtoIoT")
time.sleep(1)
```

deviceCli.commandCallback=myCommandCallback

#Disconnectthedeviceandapplicationfromthecloud

deviceCli.disconnect()



```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (tags/v3.7.0:bfccf5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright()", "credits()" or "license()" for more information.
>>>
== RESTART: C:/Users/Leitha/AppData/Local/Programs/Python/Python37/Shell.py ==
2022-11-15 22:01:48,939 INFO: IoTWatson.device.Client INFO Connected successfully! deviceid:iotcogprotection99;icogprotection99
Published Temperature=9 C Humidity=50 % to IoTWatson
Published Temperature=37 C Humidity=55 % to IoTWatson
Published Temperature=94 C Humidity=40 % to IoTWatson
Published Temperature=4 C Humidity=11 % to IoTWatson
Published Temperature=47 C Humidity=49 % to IoTWatson
Published Temperature=79 C Humidity=13 % to IoTWatson
Published Temperature=55 C Humidity=7 % to IoTWatson
Published Temperature=48 C Humidity=70 % to IoTWatson
Published Temperature=69 C Humidity=40 % to IoTWatson
Published Temperature=41 C Humidity=94 % to IoTWatson
Published Temperature=20 C Humidity=74 % to IoTWatson
Published Temperature=3 C Humidity=55 % to IoTWatson
Published Temperature=41 C Humidity=94 % to IoTWatson
Published Temperature=31 C Humidity=94 % to IoTWatson
Published Temperature=78 C Humidity=22 % to IoTWatson
Published Temperature=45 C Humidity=75 % to IoTWatson
Published Temperature=14 C Humidity=59 % to IoTWatson
Published Temperature=37 C Humidity=95 % to IoTWatson
Published Temperature=7 C Humidity=35 % to IoTWatson
Published Temperature=17 C Humidity=55 % to IoTWatson
Published Temperature=32 C Humidity=74 % to IoTWatson
|
```