DEVELOP A PYTHON SCRIPT

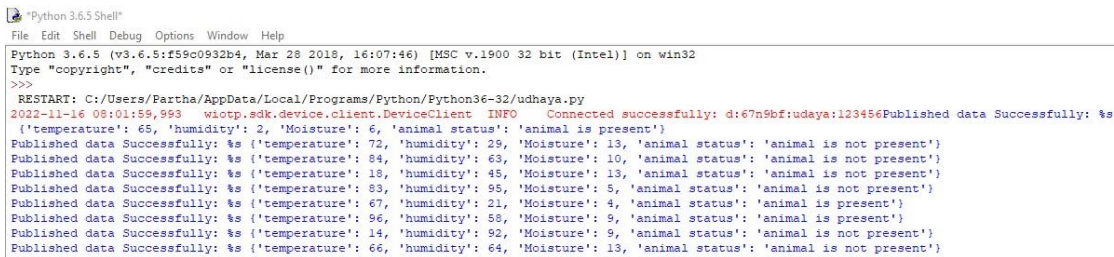| Date	12 September 2022
Team ID	PNT2022TMID41966
Project Name	IOT Based Smart Crop Protection For Agriculture
Maximum Marks	4 Marks

Python Code :

```python
import wiotp.sdk.device
import time
import random
myConfig={
 "identity": {
 "orgId": "67n9bf",
 "typeId": "udaya",
 "deviceId":"123456"},
 "auth": {
 "token": "622519106052"
}}
def myCommandCallback(cmd):
 print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
 m=cmd.data['command']
 if(m=="motoron"):
  print("Motor is switched on")
 elif(m=="motoroff"):
  print("Motor is switched off")
  print(" ")
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()
while True:
 temp=random.randint(-20,125)
 hum=random.randint(0,100)
 moist=random.randint(0,14)
 animal=random.randint(0,1)
 if(animal>0.5):
  an="animal is present"
 else:
  an="animal is not present"
 myData={'temperature':temp, 'humidity':hum, 'Moisture':moist,"animal status":an}
 client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
 print("Published data Successfully: %s", myData)
 client.commandCallback = myCommandCallback
 time.sleep(2)
client.disconnect()
```

program:

```python
import wiotp.sdk.device
import time
import random
myConfig={
 "identity": {
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 "typeId": "udaya",
 "deviceId":"123456"},
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```

OUTPUT:

```
Python 3.6.5 (v3.6.5:f59c0932b4, Mar 28 2018, 16:07:46) [MSC v.1900 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
 RESTART: C:/Users/Partha/AppData/Local/Programs/Python/Python36-32/udhaya.py
2022-11-16 08:01:59,993   wiotp.sdk.device.client.DeviceClient  INFO    Connected successfully: d:67n9bf:udaya:123456Published data Successfully: %s
 {'temperature': 65, 'humidity': 2, 'Moisture': 6, 'animal status': 'animal is present'}
Published data Successfully: %s {'temperature': 72, 'humidity': 29, 'Moisture': 13, 'animal status': 'animal is not present'}
Published data Successfully: %s {'temperature': 84, 'humidity': 63, 'Moisture': 10, 'animal status': 'animal is not present'}
Published data Successfully: %s {'temperature': 18, 'humidity': 45, 'Moisture': 13, 'animal status': 'animal is not present'}
Published data Successfully: %s {'temperature': 83, 'humidity': 95, 'Moisture': 5, 'animal status': 'animal is not present'}
Published data Successfully: %s {'temperature': 67, 'humidity': 21, 'Moisture': 4, 'animal status': 'animal is present'}
Published data Successfully: %s {'temperature': 96, 'humidity': 58, 'Moisture': 9, 'animal status': 'animal is present'}
Published data Successfully: %s {'temperature': 14, 'humidity': 92, 'Moisture': 9, 'animal status': 'animal is not present'}
Published data Successfully: %s {'temperature': 66, 'humidity': 64, 'Moisture': 13, 'animal status': 'animal is not present'}
```

IBM Watson IoT Platform

622519106052@smartinternz.com
ID: 67n9bf

Browse | Action | Device Types | Interfaces

Add Device ⊕

	Device ID	Status	Device Type	Class ID	Date Added
123456	● Connected	udaya	Device	Nov 16, 2022 7:39 AM	→ ...

Identity | Device Information | **Recent Events** | State | Logs ✕

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
status	{"temperature":8,"humidity":92,"Moisture":13,"a...	json	a few seconds ago
status	{"temperature":117,"humidity":39,"Moisture":0,"...	json	a few seconds ago
status	{"temperature":2,"humidity":52,"Moisture":6,"an...	json	a few seconds ago
status	{"temperature":74,"humidity":59,"Moisture":4,"a...	json	a few seconds ago
status	{"temperature":108,"humidity":23,"Moisture":4,"...	json	a few seconds ago

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Identity | Device Information | Recent Events | **State** | Logs ✕

√ **Showing Raw Data** | No Interfaces Available

Property	Value	Type	Event	Last Received
temperature	124	Number	status	a few seconds ago
humidity	62	Number	status	a few seconds ago
Moisture	6	Number	status	a few seconds ago
animal status	animal is not present	String	status	a few seconds ago