

SPRINT - 1

Team ID	PNT2022TMID11108
Project Name	Project – A low cost cloud-Based IoT System for Real-Time Monitoring and Controlling for Smart Farming

OBJECTIVE:

Connecting Sensors with Arduino.

PYTHON CODE:

```
import time import random
#import ibmiotf.application
import ibmiotf.device
import sys

config={
"org":"nq4lh2",
  "type" : "abcd",
  "id": "123",
  "auth-method": "token",  "auth-token": "123456789"
}
client= ibmiotf.device.Client (config) client.connect()

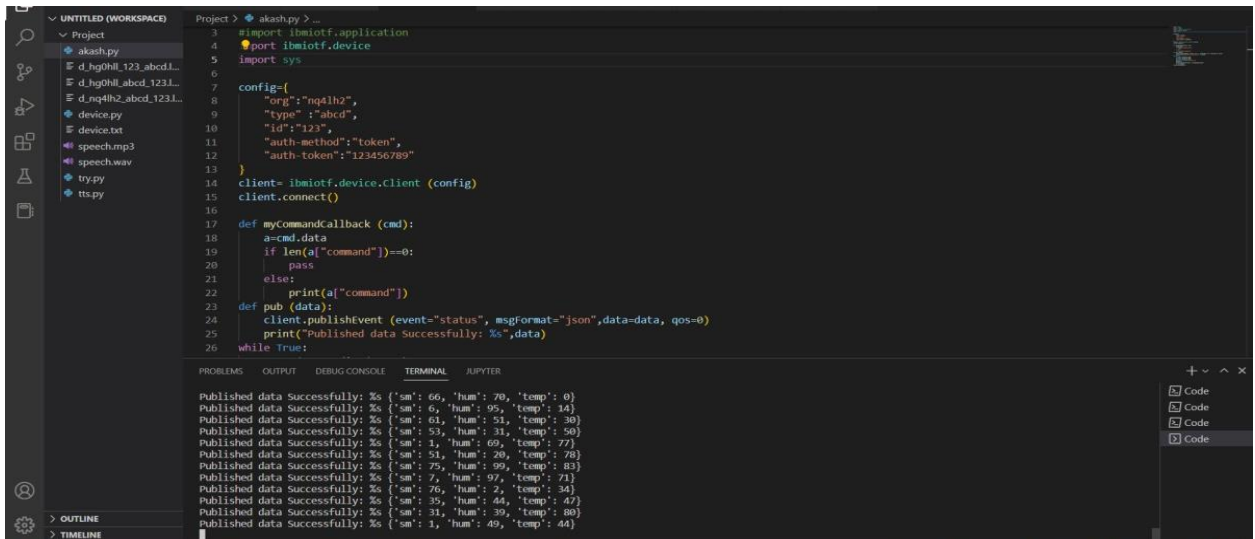
def myCommandCallback (cmd):
    a=cmd.data    if
len(a["command"])==0:
```

```

        pass    else:
print(a["command"
]) def pub (data):
client.publishEvent
(event="status",
msgFormat="json"
,data=data, qos=0)
print("Published
data Successfully:
%s",data) while
True:
s=random.randint(
0,100)
h=random.randint(
0,100)
t=random.randint(0
,100)
data={"sm":s,"hum
":h,"temp":t}
pub(data)
    client.commandCallback = myCommandCallback
client.disconnect()

```

OUTPUT:



The screenshot displays an IDE with a project named 'akash.py'. The code in the editor is as follows:

```
1 import ibmiotf.application
2
3 port ibmiotf.device
4
5 import sys
6
7
8 config={
9     "org":"nq4lh2",
10    "type":"abcd",
11    "id":"123",
12    "auth-method":"token",
13    "auth-token":"123456789"
14 }
15 client= ibmiotf.device.Client (config)
16 client.connect()
17
18 def myCommandCallback (cmd):
19     a=cmd.data
20     if len(a["command"])==0:
21         pass
22     else:
23         print(a["command"])
24
25 def pub (data):
26     client.publishEvent (event="status", msgformat="json",data=data, qos=0)
27     print("Published data Successfully: %s",data)
28
29 while True:
```

The terminal output shows the following messages:

```
Published data Successfully: %s {'sm': 66, 'hum': 70, 'temp': 0}
Published data Successfully: %s {'sm': 6, 'hum': 95, 'temp': 14}
Published data Successfully: %s {'sm': 61, 'hum': 51, 'temp': 30}
Published data Successfully: %s {'sm': 53, 'hum': 31, 'temp': 50}
Published data Successfully: %s {'sm': 1, 'hum': 69, 'temp': 77}
Published data Successfully: %s {'sm': 51, 'hum': 20, 'temp': 78}
Published data Successfully: %s {'sm': 75, 'hum': 99, 'temp': 83}
Published data Successfully: %s {'sm': 7, 'hum': 97, 'temp': 71}
Published data Successfully: %s {'sm': 76, 'hum': 2, 'temp': 34}
Published data Successfully: %s {'sm': 35, 'hum': 44, 'temp': 47}
Published data Successfully: %s {'sm': 31, 'hum': 39, 'temp': 80}
Published data Successfully: %s {'sm': 1, 'hum': 49, 'temp': 44}
```