PYTHON CODING

Date	19 November
Team ID	PNT2022TMID29937
Project name	Project – Smart Farmer-IoT Enabled smart Farming Application

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

#Provide your IBM Watson Device Credentials

orgId = "n1eaxk"
deviceType = "smartfarming"
deviceId = "TamilNadu"
Token = "q3(u4iv5-4L+OHy@wm"
authMethod = "use-token-auth"

# Initialize GPIO

def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="motoron":
        print ("motor is on")
    else:
        print ("motor is off")

    #print(cmd)

try:

  deviceOptions = {"org": orgId, "type": deviceType, "id": deviceId,
"auth-method": authMethod, "auth-token": Token}
  deviceCli = ibmiotf.device.Client(deviceOptions)
  #...............................................

except Exception as e:
  print("Caught exception connecting device: %s" % str(e))
  sys.exit()

# Connect and send a datapoint "hello" with value "world" into the cloud
as an event of type "greeting" 10 times
deviceCli.connect()

while True:
    #Get Sensor Data from DHT11
    temp=random.randint(-20,125)
```

```
    hum=random.randint(0,100)
    soil=random.randint(0,100)
    data = { 'temp' : temp, 'hum': hum , 'soil': soil}
    #print data def myOnPublishCallback( ):
    print (f"Published temp = {temp} C , hum = {hum} , soil = {soil} deg
c to IBM Watson")
    success = deviceCli.publishEvent("IoTSensor", "json", data,
qos=0,on_publish=myOnPublishCallback)
    if not success:
        print("Not connected to IoTF")
        time.sleep(10)
    deviceCli.commandCallback = myCommandCallback
    # Disconnect the device and application from the cloud
    deviceCli.disconnect()
```