## PROJECT DEVELOPMENT PHASE

## **SPRINT-1**

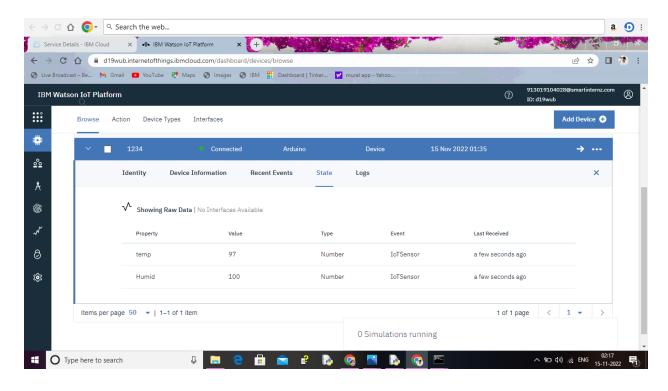
Team ID	PNT2022TMID48300
Project Name	Gas Leakage Monitoring And Alerting System

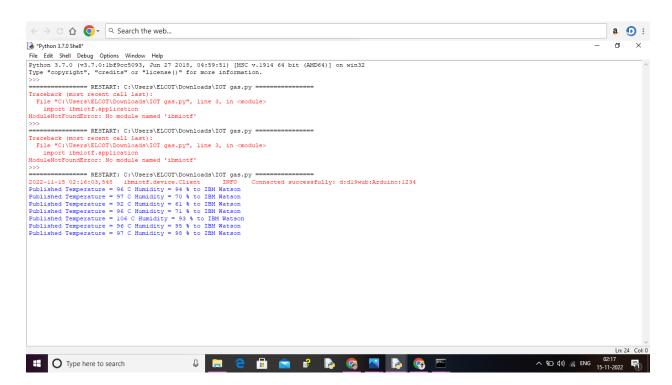
## **PYTHON CODE:**

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random
#Provide your IBM Watson Device Credentials
organization = "d19wub"
deviceType = "Arduino"
deviceId = "1234"
authMethod = "token"
authToken = "cfspzFCmWpFlaA*aWR"
# Initialize GPIO
def myCommandCallback(cmd):
  print("Command received: %s" % cmd.data['command'])
  status=cmd.data['command']
  if status=="lighton":
    print ("led is on")
  elif status == "lightoff":
    print ("led is off")
  else:
     print ("please send proper command")
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: %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(90,110)
    Humid=random.randint(60,100)
    data = { 'temp' : temp, 'Humid': Humid }
    #print data
    def myOnPublishCallback():
       print ("Published Temperature = %s C" % temp, "Humidity = %s %%" % Humid, "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()
```

## **OUTPUT:**





**RESULT:** The sensor Aruduino with python code is connected successfully.