PROJECT DEVELOPMENT PHASE

SPRINT-1

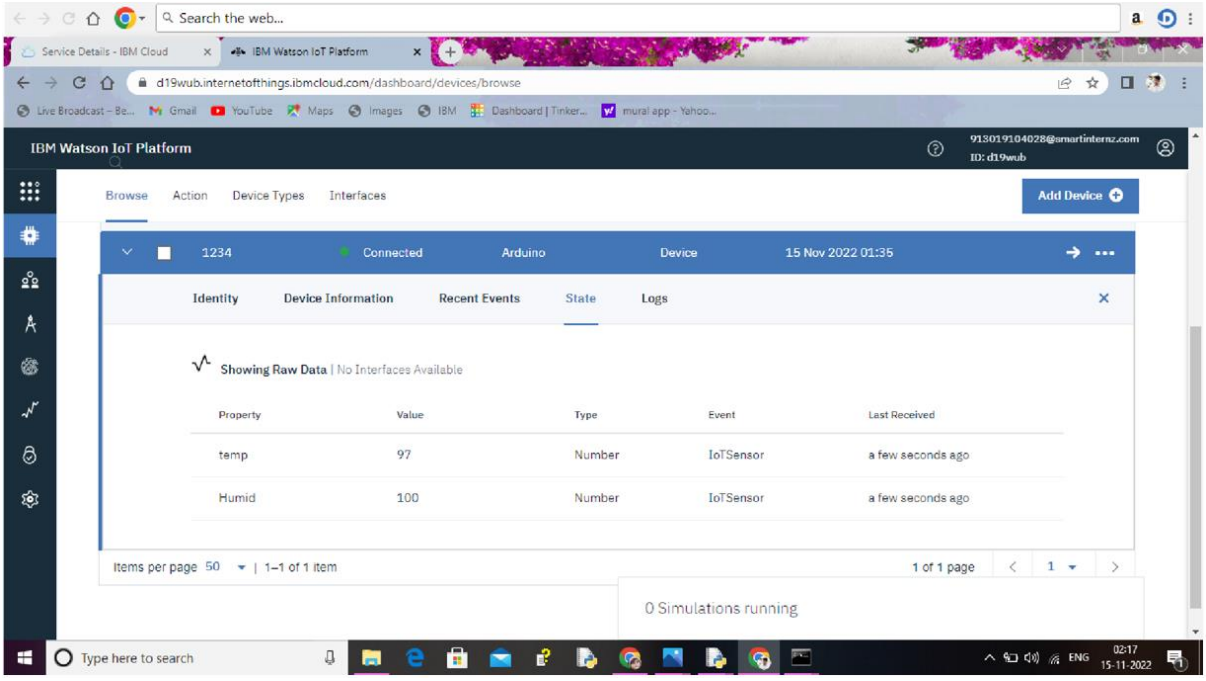
Team ID	PNT2022TMID31403
Project Name	Gas Leakage Monitoring And Alerting System

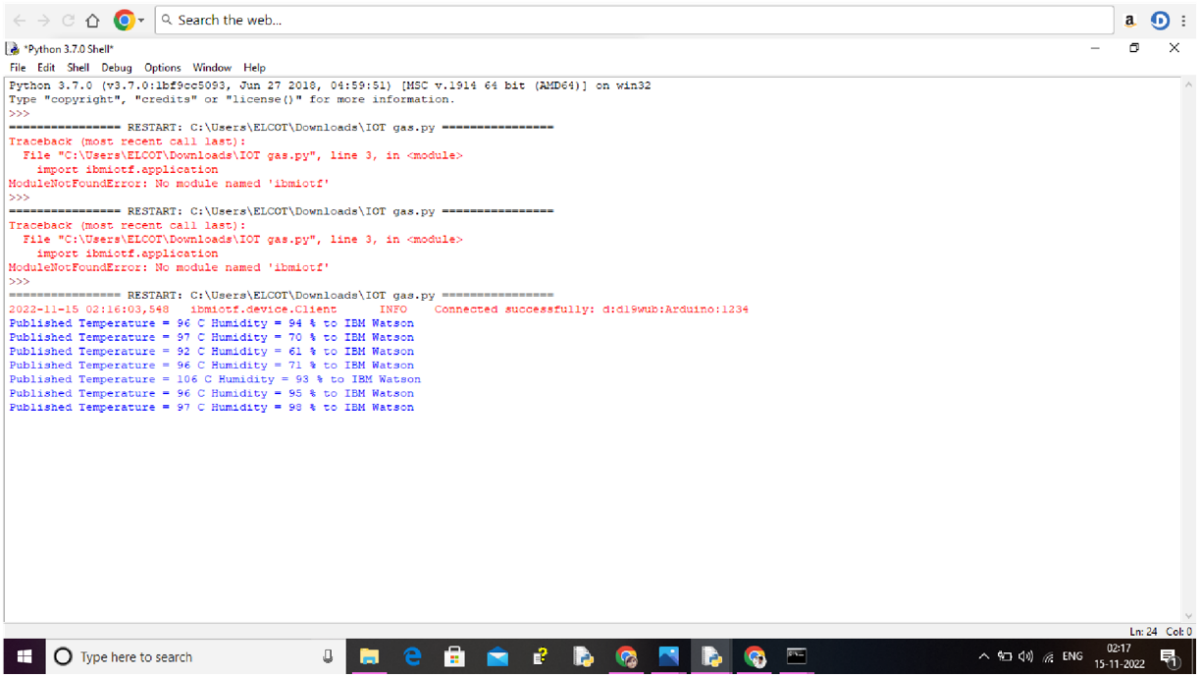
PYTHON CODE:

```
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 = "cfspzFCmWpFIaA*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 Arduino with python code is connected successfully.