PROJECT DEVELOPMENT PHASE

SPRINT-1

Team ID	PNT2022TMID31383
Project Name	Industrial Specific Fire Management System

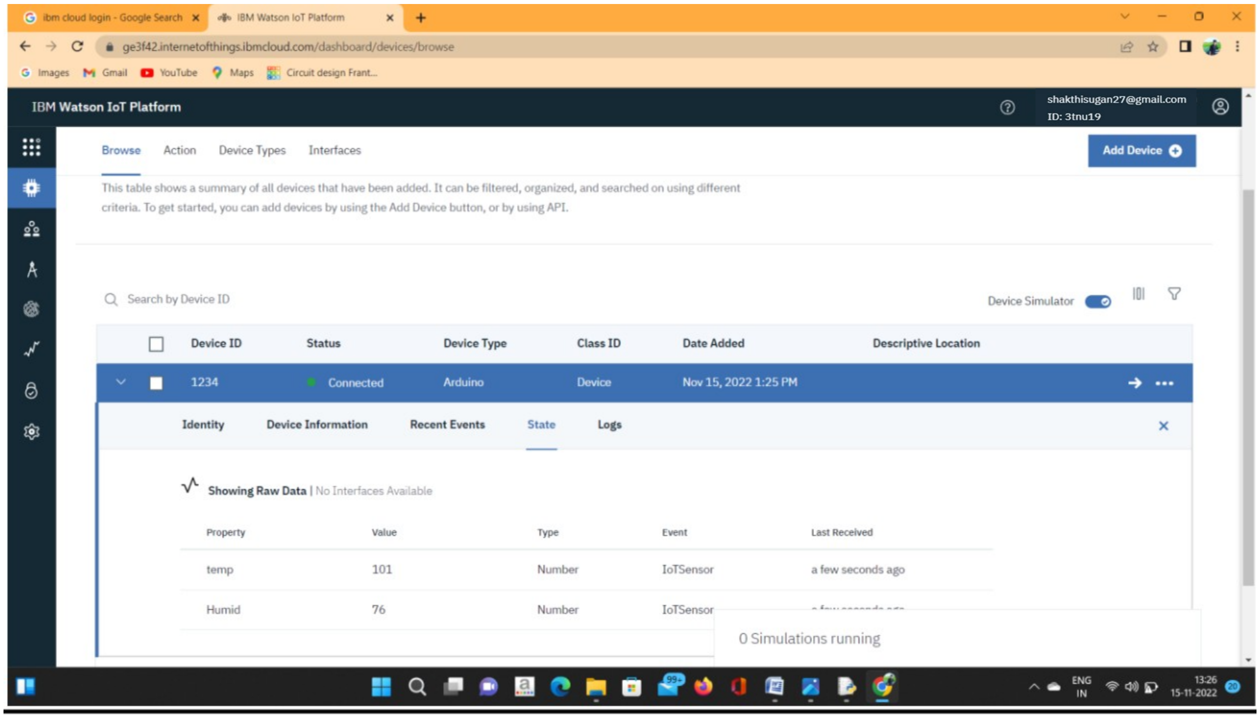
PYTHON CODE:

```
import time

import sys

import ibmiotf.application

import ibmiotf.device

import random


#Provide your IBM Watson Device Credentials

organization = "ge3f42" deviceType =

"Arduino"

deviceId = "1234"

authMethod = "token"

authToken = "FfR(Gr?Vsx?4c-*k45"


# 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:



This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.

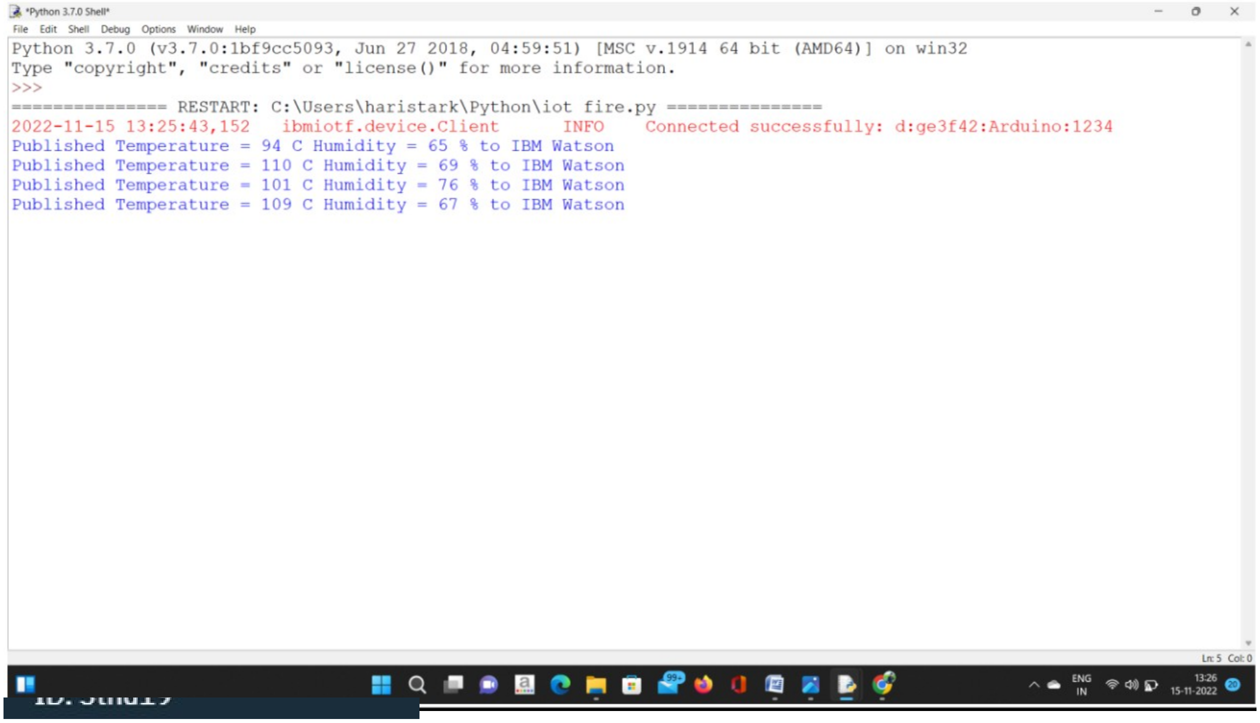
	Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
□	1234	● Connected	Arduino	Device	Nov 15, 2022 1:25 PM	

Identity · Device Information · Recent Events · State · Logs

Showing Raw Data | No Interfaces Available

Property	Value	Type	Event	Last Received
temp	101	Number	IoTSensor	a few seconds ago
Humid	76	Number	IoTSensor	a few seconds ago

0 Simulations running



```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
=============== RESTART: C:\Users\haristark\Python\iot fire.py ===============
2022-11-15 13:25:43,152   ibmiotf.device.Client      INFO    Connected successfully: d:ge3f42:Arduino:1234
Published Temperature = 94 C Humidity = 65 % to IBM Watson
Published Temperature = 110 C Humidity = 69 % to IBM Watson
Published Temperature = 101 C Humidity = 76 % to IBM Watson
Published Temperature = 109 C Humidity = 67 % to IBM Watson
```

RESULT: The python code is executed successfully.