**Project Development Phase**

**Delivery of Sprint 3**

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| --- | --- |
| Date | 12 November 2022 |
| Team ID | PNT2022TMID47483 |
| Project Name | Project –Gas leakage monitoring and alerting system for industries |
| Marks | 20 marks |

**Code:**

import time

import sys

import ibmiotf.application

import ibmiotf.device

import random

#Provide your IBM Watson Device Credentials

organization = "vq4nsy"

deviceType = "PNT2022TMID47483"

deviceId = "PNT2022TMID47483DEVICEID"

authMethod = "token"

authToken = "0vZoxRf8LrhADWKjb!"

# Initialize GPIO

def myCommandCallback(cmd):

print("Command received: %s" % cmd.data['command'])

status=cmd.data['command']

if status=="alarmon":

print ("Alarm is on")

elif (status == "alarmoff") :

print ("Alarm is off")

elif status == "sprinkleron":

print("Sprinkler is OFF")

elif status == "sprinkleron":

print("Sprinkler is ON")

#print(cmd)

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 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(0,100)

Humid=random.randint(0,100)

gas=random.randint(0,100)

data = { 'temp' : temp, 'Humid': Humid, 'gas' : gas }

#print data

def myOnPublishCallback():

print ("Published Temperature = %s C" % temp, "Humidity = %s %%" % Humid, "Gas\_Level = %s %%" %gas, "to IBM Watson")

success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on\_publish=myOnPublishCallback)

if not success:

print("Not connected to IoTF")

time.sleep(1)

deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud

deviceCli.disconnect()



