**Project Development Phase**

**Sprint -4**

Python Script

|  |  |
| --- | --- |
| Date | 17 November 2022 |
| Team Id | PNT2022TMID48513 |
| Project Name | IOT based Smart Crop Protection System for Agriculture |

import ibmiotf.application

import ibmiotf.device

import time

import random

import sys

# watson device details

organization = "2s7yy7"

devicType = "project"

deviceId = "projectid"

authMethod= "token"

authToken= "projecttoken"

#generate random values for randomo variables (temperature&humidity)

def myCommandCallback(cmd):

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

print(cmd)

try:

deviceOptions={"org": organization, "type": devicType,"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 "temp" with value integer value into the cloud as a type of event for every 10 seconds

deviceCli.connect()

while True:

#get sensor data from DHT11

Temp= random.randint(0,100)

Humd= random.randint(0,100)

data= {'temp':Temp,'humid':Humd}

#print(data)

def myOnPublishCallback():

print("published Temperature = %s c" %Temp,"humidity:%s %%" %Humd)

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

if not success:

print("not connected to ibmiot")

time.sleep(1)

deviceCli.commandCallback=myCommandCallback

#disconnect the device

deviceCli.disconnect()