PROJECT DEVELOPMENT PHASE

SPRINT-3 CODING

Date	08 November 2022
Team ID	PNT2022TMID20020
Project Name	Real Time River Water Quality Monitoring and Control System
Maximum Marks	8 Marks

CODING:

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random


#Provide your IBM Watson Device Credentials
organization = "mw0wqj"
deviceType = "real"
deviceId = "realtime"
authMethod = "token"
authToken = "Jayanth"

# Initialize GPIO


def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="motoron":
        print ("motor is on")
    else :
        print ("motor is off")

    #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

      ph=random.randint(0,14)
      turb=random.randint(0,100)



      data = { 'ph' : ph, 'turb': turb }
      #print data
      def myOnPublishCallback():
         print ("Published PH Level = %s C" % ph, "Turbidity = %s C" % turb, "to IBM
Watson")

      success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
on_publish=myOnPublishCallback)
      if not success:
         print("Not connected to IoTF")
      time.sleep(5)

      deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud
deviceCli.disconnect()
```