

PROJECT DEVELOPMENT PHASESPRINT-2

ALGORITHM:

- Import Packages
- Create 'myConfig' location
- Implement the wiotp.sdk.device.DeviceClient
- Run a while Loop
- Get temperature and humidity sensor readings
- Display data

CODE:

```
#IBM Watson IOT Platform#pip
install wiotp-sdk import
wiotp.sdk.device import time
import randommyConfig
= {
    "identity": {
        "orgId": "hj5fmy",
        "typeId": "NodeMCU",
        "deviceId":"12345"
    },
    "auth": {
        "token": "12345678"
    }
}

def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True: temp=random.randint(-
    20,125)
```

```

hum=random.randint(0,100)
myData={'temperature':temp,
'humidity':hum}
client.publishEvent(eventId="status", msgFormat="json", data=myData,
qos=0,onPublish=None)
print("Published data Successfully: %s",
myData) client.commandCallback =
myCommandCallbacktime.sleep(2)
client.disconnect()

```

SENSOR CODE:

```

#include <dht.h>

#define dht_apin A0           // Analog Pin 0 is connected to DHT sensor
#define mqt_apin A1           // Analog Pin 1 is connected to MQT 135
sensor dht DHT;
int

sensorValue;

void setup(){

  Serial.begin(9600);           //Serial port to communicate with Python
  codeSerial1.begin(9600);      //Serial port to communicate with Wearable
  device through Bluetooth (HC-05)

  delay(500);                   //Delay to let system boot
}

void loop(){

  DHT.read11(dht_apin);         // read analog input pin
  0(DHT11)sensorValue = analogRead(mqt_apin); // read analog input
  pin 1(MQ135)

  //Send Humidity status to Python Code

  Serial.print("Current humidity
  = ");
  Serial.print(DHT.humidity);
  Serial.print("% ");

  //Send Temperature status to Python Code

```

```
Serial.print("temperature =  
");  
Serial.print(DHT.temperatur  
e);Serial.println("C ");
```

```
//Send AirQuality sensor value to Python code
```

```
Serial.print("AirQua=");  
Serial.print(sensorValue,  
DEC);Serial.println(" PPM");
```

```
//Send signals to the Wearable
```

```
Serial1.println("H T A");  
Serial1.println(DHT.humidity);  
Serial1.println(DHT.temperatur  
e); Serial1.println(sensorValue,  
DEC);
```

```
delay(100);                      // wait 100 milliseconds for next  
reading  
}
```