PROJECT DEVELOPMENT PHASE
SPRINT-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 random myConfig = {

"identity": {

"orgId": "hj5fmy",

"typeId": "NodeMCU", "deviceId":"12345"

},

"auth": {

"token": "12345678"

}

}
```

```python
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 = myCommandCallback time.sleep(2)

client.disconnect()
```

SENSOR CODE:

```c
#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 code
Serial1.begin(9600); //Serial port to communicate with Wearable
device through Bluetooth (HC-05)

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

}
```

```arduino
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.temperature);
Serial.println("C ");

//Send AirQuality sensor value to Python code

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