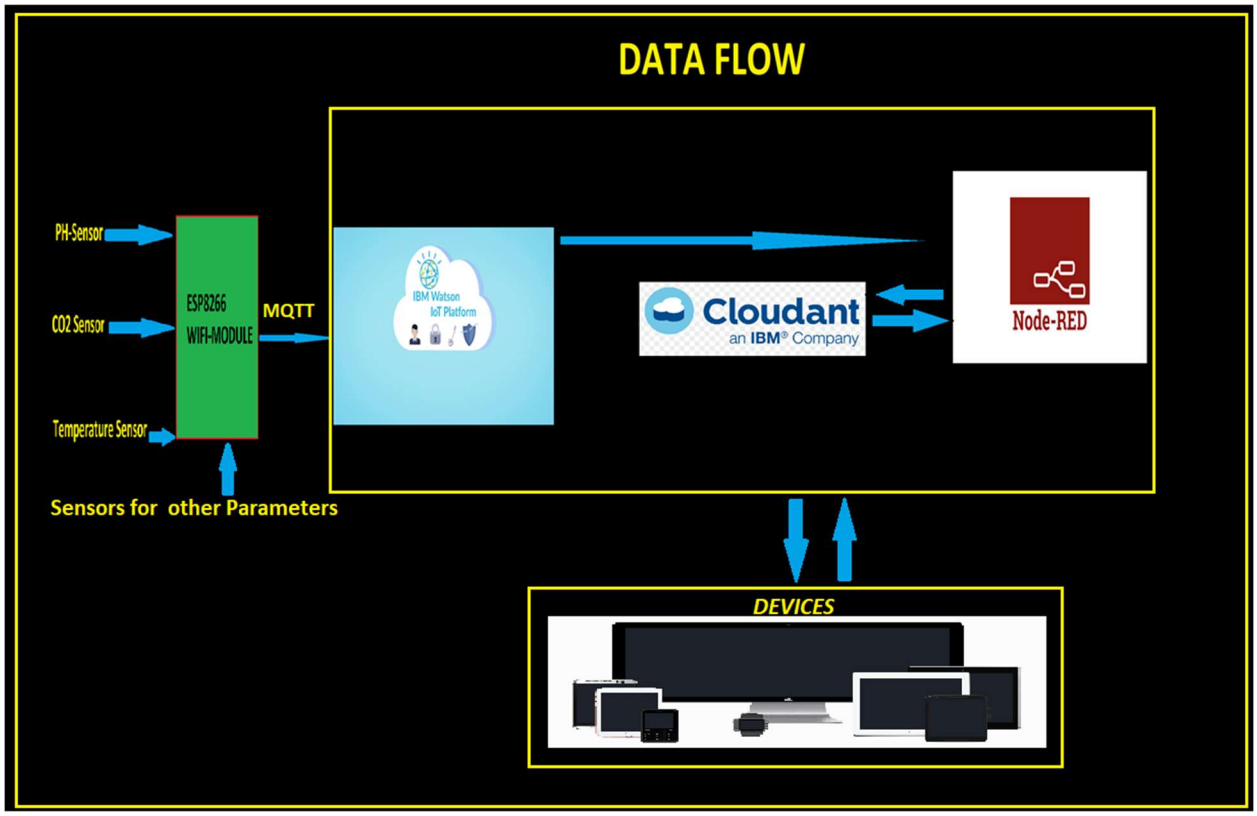
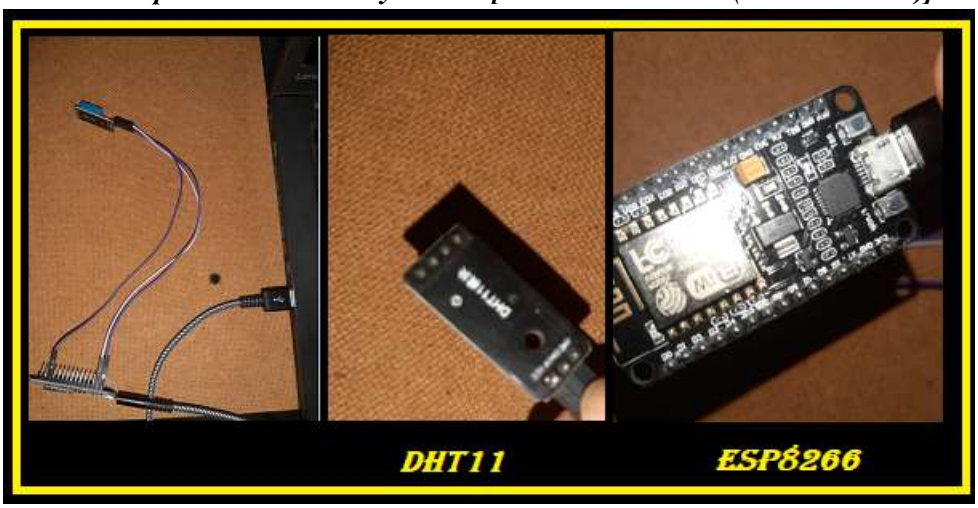
Starting with KSHETRIK-MITRA



1) Preparing the Device:

Hardware Required:

- ***ESP8266: The ESP8266 can connect to a 2.4GHz network supporting 802.11 b/g/n.***
- ***DHT11 Temperature / Humidity Sensor [DHT11 or DHT22(more accurate)]***



2) Create an IoT app and IBM Cloudant Instance in the IBM Cloud

a) ***create a Node-RED and Watson IoT Platform starter app in IBM Cloud.***

3) Add/Register the device that will send MQTT messages to the IBM Watson IoT Platform

4) Configure the device to connect with IBM Watson IOT

```
// Watson IoT connection details
#define MQTT_HOST "z53u40.messaging.internetofthings.ibmcloud.com"
#define MQTT_PORT 8883
#define MQTT_DEVICEID "d:z53u40:ESP8266:dev01"
#define MQTT_USER "use-token-auth"
#define MQTT_TOKEN "password"
#define MQTT_TOPIC "iot-2/evt/status/fmt/json"
#define MQTT_TOPIC_DISPLAY "iot-2/cmd/display/fmt/json"
#define CA_CERT_FILE "/rootCA_certificate.pem"
#define KEY_FILE "/SecuredDev01_key_nopass.pem"
#define CERT_FILE "/SecuredDev01_crt.pem"
```

Update the configuration file with the details of cloud credentials

5) Define the structure of data to be sent to IBM Watson IOT

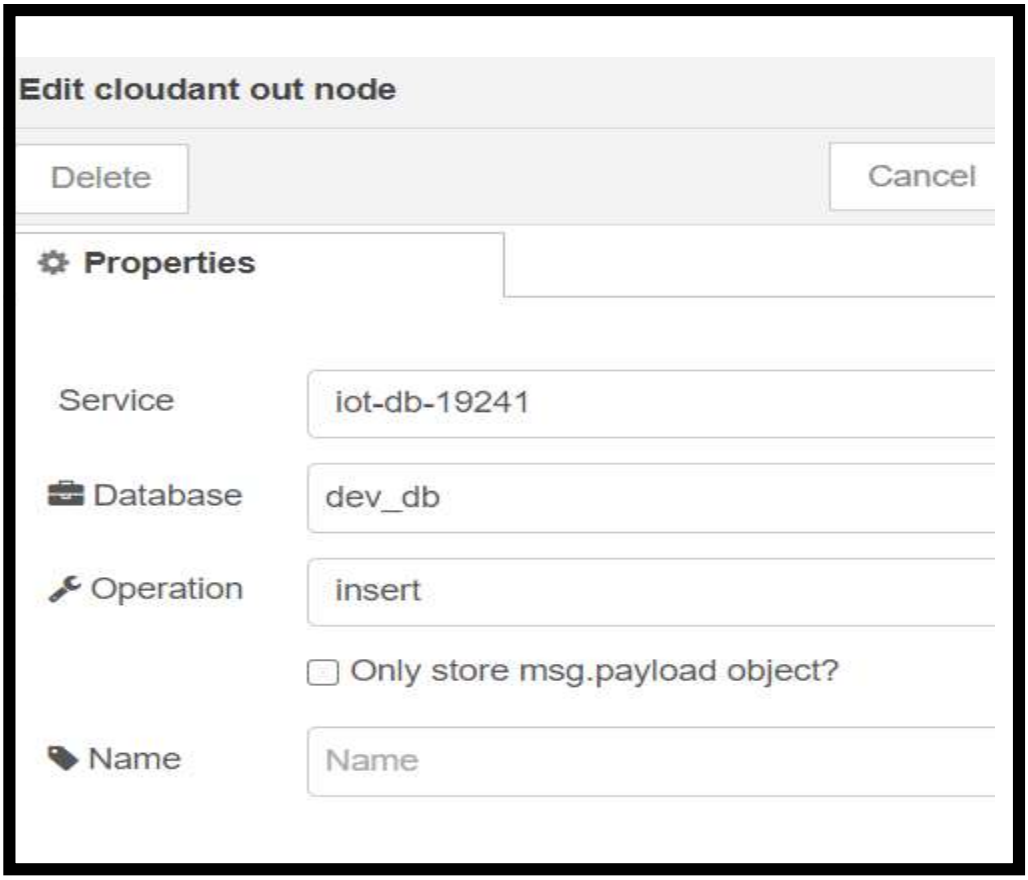
```
  // Send data to Watson IoT Platform
  status["temp"] = t;
  status["humidity"] = h;
  serializeJson(jsonDoc, msg, 50);
  Serial.println(msg);
  if (!mqtt.publish(MQTT_TOPIC, msg)) {
    Serial.println("MQTT Publish failed");
  }
}
```

6)Open your node-red Application that you created in step-2

a) Download the flow.json file from [This link](#).

b) Import the json file into your node-red Application.

c)In Node-red flow update details in cloudant node as per name your cloudant database and IBM Cloud Instance.



Now all of IBM Cloud Services are working of KSHETRIK-MITRA.Start the Device ,Real Monitoring Dashboard will show data coming.