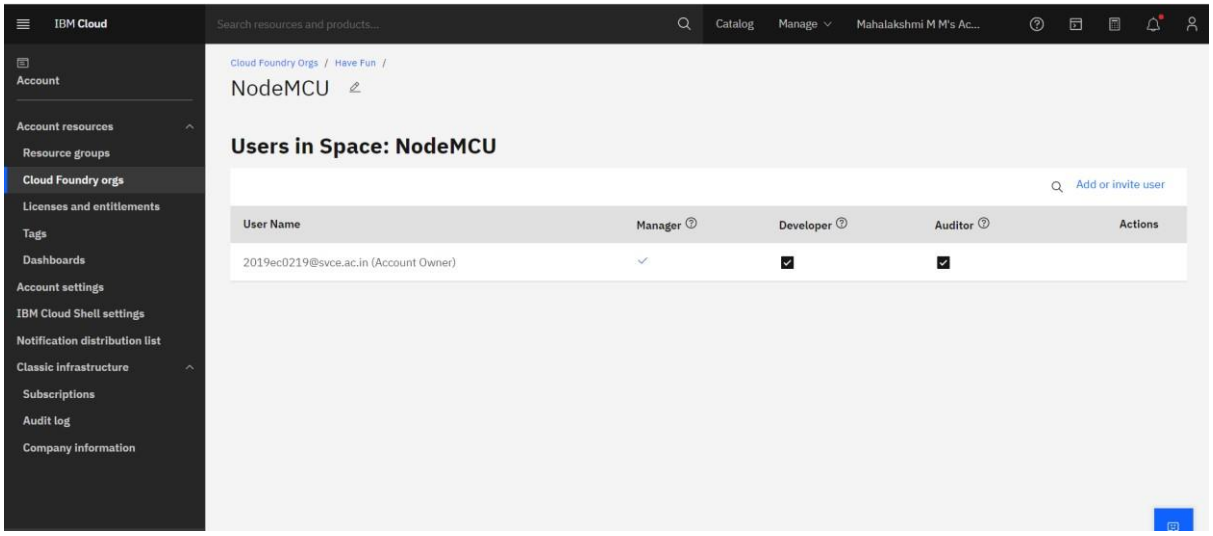
SPRINT 1

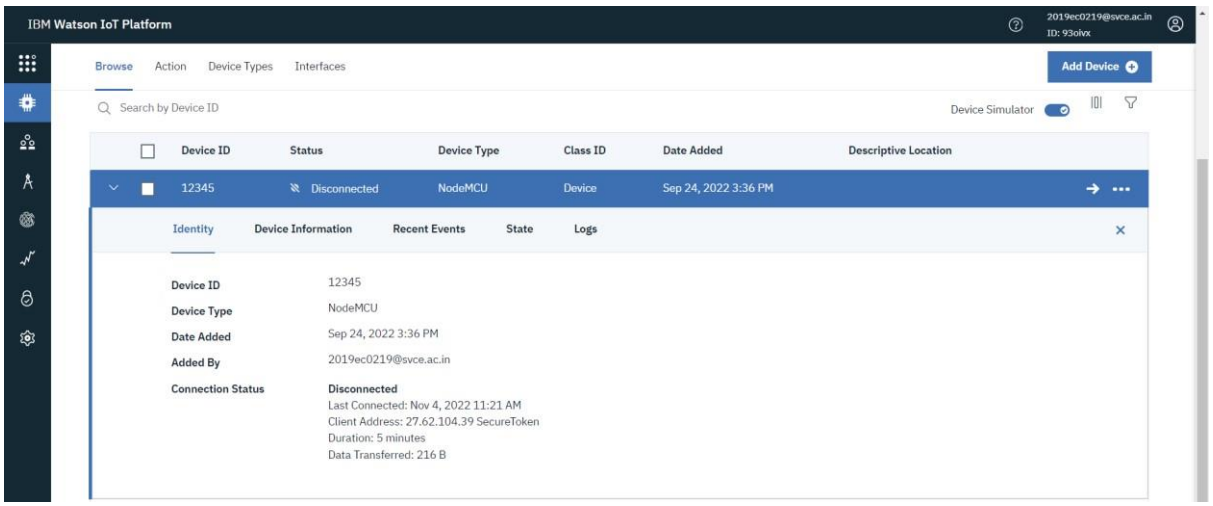
Date	29 October 2022
Team ID	PNT2022TMID10157
Project Name	Smart Farmer – IOT Enabled Smart Farming Application

Configuration:

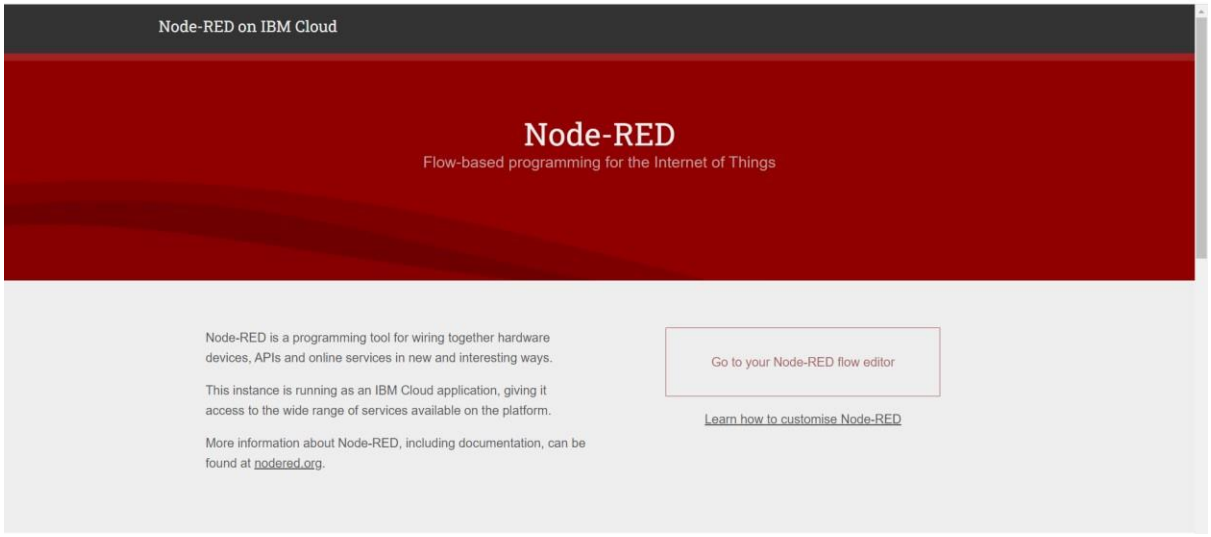
An account has been created on the required platforms (IBM Cloud, IBM Watson, NodeRed, MIT App Inventor) **IBM Cloud:**



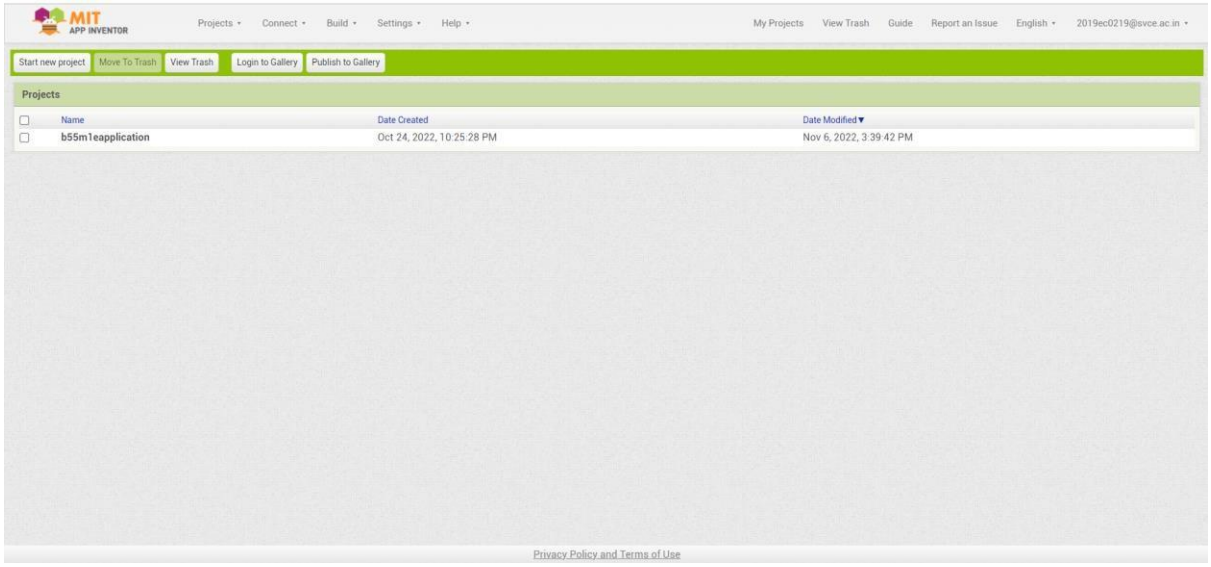
IBM Watson:



Node-Red:



MIT App Inventor:



Simulation:

Program:

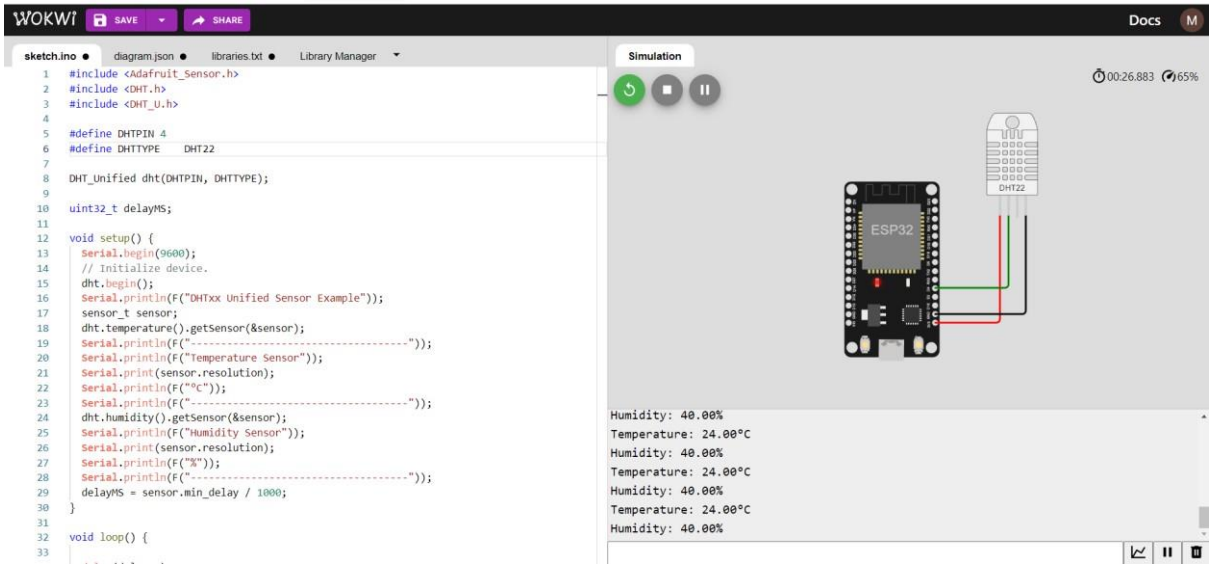
```
#include <Adafruit_Sensor.h>
#include <DHT.h>
#include <DHT_U.h>

#define DHTPIN 4
#define DHTTYPE    DHT22

DHT_Unified dht(DHTPIN, DHTTYPE);
 uint32_t
delayMS; void
setup() {
Serial.begin(960
```

```
0);   //
Initialize
device.
  dht.begin();
  Serial.println(F("DHTxx Unified Sensor Example"));
sensor_t sensor;
  dht.temperature().getSensor(&sensor);
  Serial.println(F("------------------------------------"));
  Serial.println(F("Temperature Sensor"));
  Serial.print(sensor.resolution);
  Serial.println(F("°C"));
  Serial.println(F("------------------------------------"));
dht.humidity().getSensor(&sensor);
Serial.println(F("Humidity Sensor"));
  Serial.print(sensor.resolution);
  Serial.println(F("%"));
  Serial.println(F("------------------------------------"));
delayMS = sensor.min_delay / 1000;
}  void loop() {    delay(delayMS);
sensors_event_t event;
dht.temperature().getEvent(&event);
if (isnan(event.temperature)) {
    Serial.println(F("Error reading temperature!"));
  }
else {
    Serial.print(F("Temperature: "));
    Serial.print(event.temperature);
    Serial.println(F("°C"));
  }   dht.humidity().getEvent(&event);
if (isnan(event.relative_humidity)) {
    Serial.println(F("Error reading humidity!"));
  }
else {
    Serial.print(F("Humidity: "));
    Serial.print(event.relative_humidity);
    Serial.println(F("%"));
  }
}
```

OUTPUT:


WOKWi
SAVE
SHARE
Docs
sketch.ino
diagram.json
libraries.txt
Library Manager
#include <Adafruit_Sensor.h>
#include <DHT.h>
#include <DHT_U.h>
#define DHTPIN 4
#define DHTTYPE DHT22
DHT_Unified dht(DHTPIN, DHTTYPE);
uint32_t delayMS;
void setup() {
Serial.begin(9600);
// Initialize device.
dht.begin();
Serial.println(F("DHTxx Unified Sensor Example"));
sensor_t sensor;
dht.temperature().getSensor(&sensor);
Serial.println(F("------------------------------------"));
Serial.println(F("Temperature Sensor"));
Serial.print(sensor.resolution);
Serial.println(F("°C"));
Serial.println(F("------------------------------------"));
dht.humidity().getSensor(&sensor);
Serial.println(F("Humidity Sensor"));
Serial.print(sensor.resolution);
Serial.println(F("%"));
Serial.println(F("------------------------------------"));
delayMS = sensor.min_delay / 1000;
}
void loop() {
Simulation
00:26.883
65%
ESP32
DHT22
Humidity: 40.00%
Temperature: 24.00°C
Humidity: 40.00%
Temperature: 24.00°C
Humidity: 40.00%
Temperature: 24.00°C
Humidity: 40.00%