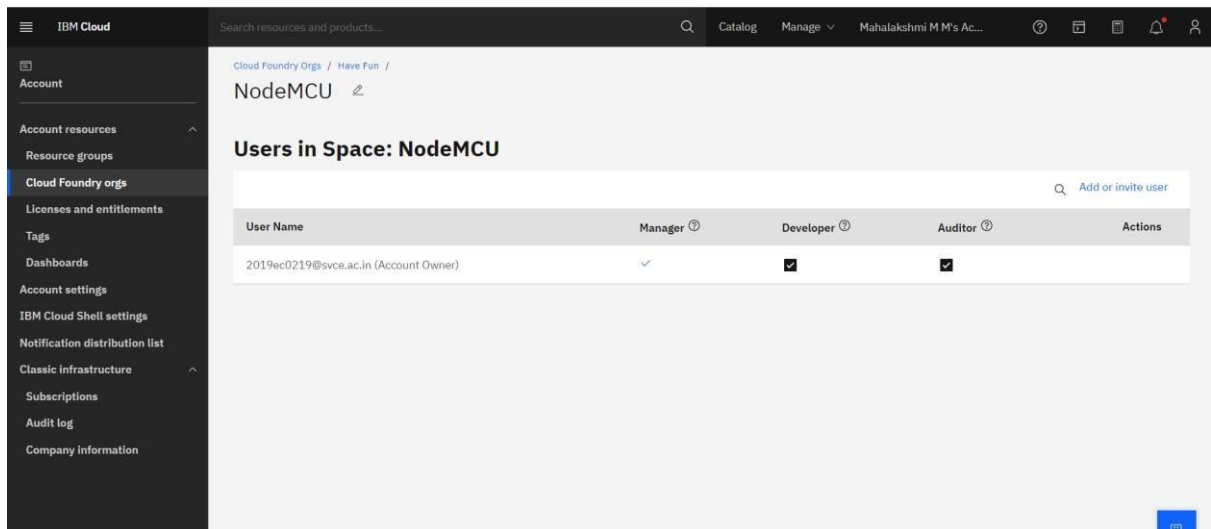


SPRINT 1

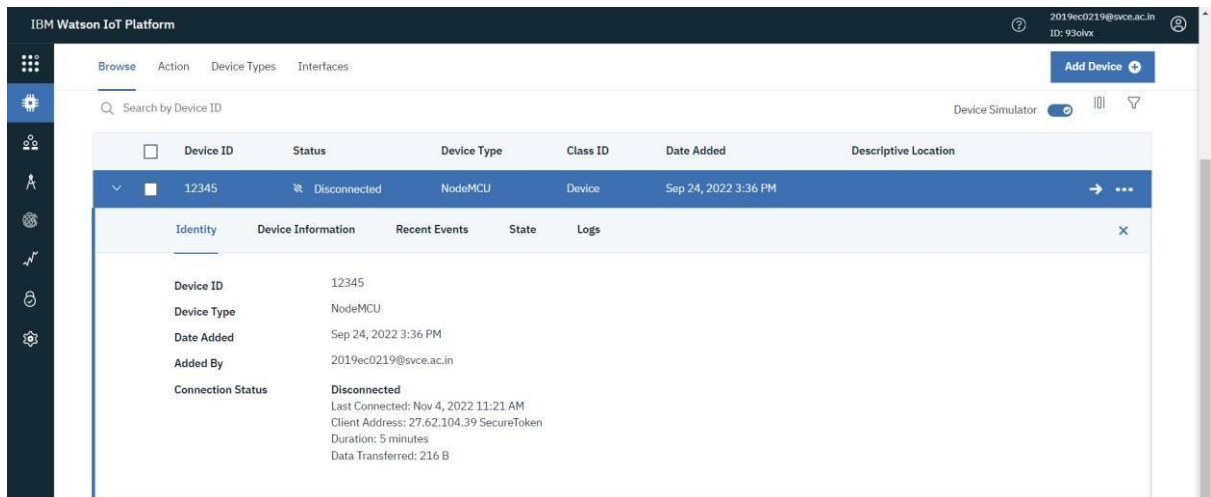
Team ID	PNT2022TMID28746
Project Name	Smart Farmer – IOT Enabled Smart Farming Application

Configuration:

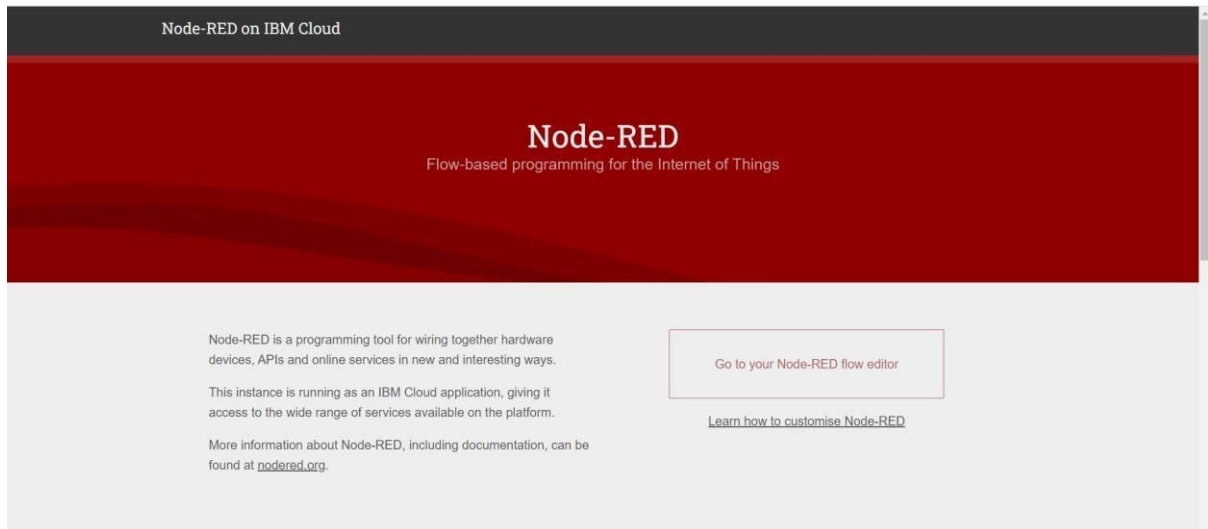
An account has been created on the required platforms (IBM Cloud, IBM Watson, NodeRed, MIT App Inventor) **IBM Cloud:**



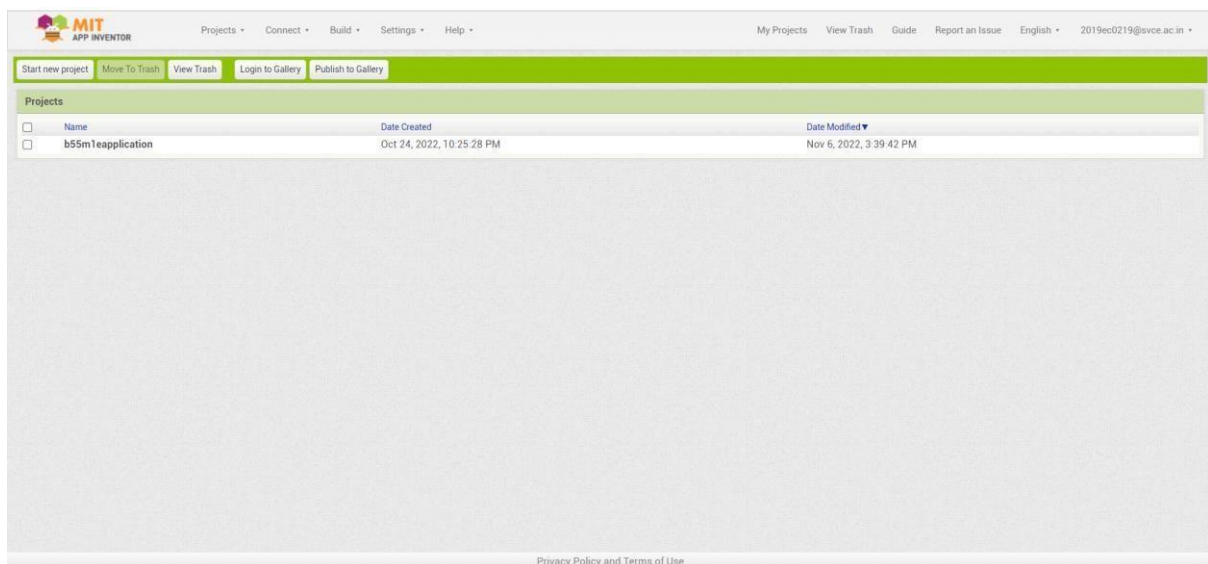
IBM Watson:



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(9600
```

```

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:

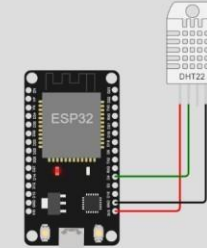
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sketch.ino diagram.json libraries.txt Library Manager

```
1 #include <Adafruit_Sensor.h>
2 #include <DHT.h>
3 #include <DHT_U.h>
4
5 #define DHTPIN 4
6 #define DHTTYPE DHT22
7
8 DHT_Unified dht(DHTPIN, DHTTYPE);
9
10 uint32_t delayMS;
11
12 void setup() {
13   Serial.begin(9600);
14   // Initialize device.
15   dht.begin();
16   Serial.println("DHTxx Unified Sensor Example");
17   sensor_t sensor;
18   dht.temperature().getSensor(&sensor);
19   Serial.println("--------------------------------");
20   Serial.println("Temperature Sensor");
21   Serial.print(sensor.resolution);
22   Serial.println("°C");
23   Serial.println("--------------------------------");
24   dht.humidity().getSensor(&sensor);
25   Serial.println("Humidity Sensor");
26   Serial.print(sensor.resolution);
27   Serial.println("%");
28   Serial.println("--------------------------------");
29   delayMS = sensor.min_delay / 1000;
30 }
31
32 void loop() {
33   ...
```

Simulation

00:26.883 65%



Humidity: 40.00%
Temperature: 24.00°C
Humidity: 40.00%
Temperature: 24.00°C
Humidity: 40.00%
Temperature: 24.00°C
Humidity: 40.00%