SPRINT 1

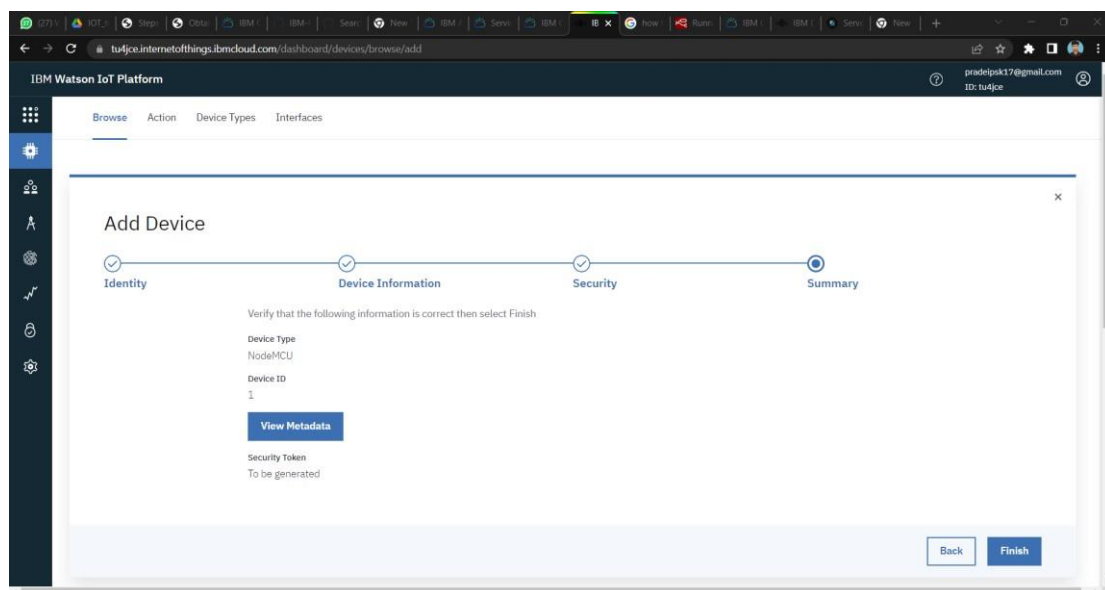| Date	29 October 2022
Team ID	PNT2022TMID26330
Project Name	Smart Farmer – IoT Enabled Farming Application
Maximum Marks	8 Marks

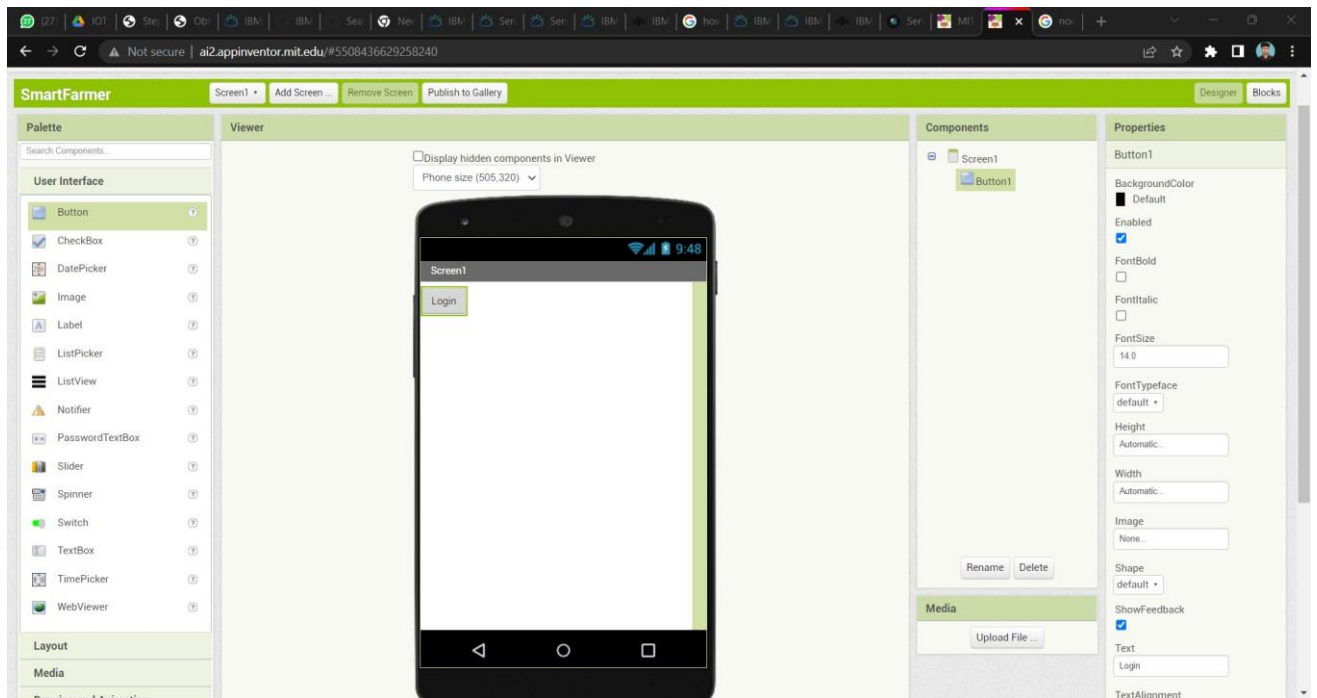**An account has been created on the respective platforms like IBM Cloud, IBM Watson, Node-Red, MIT App Inventor.**
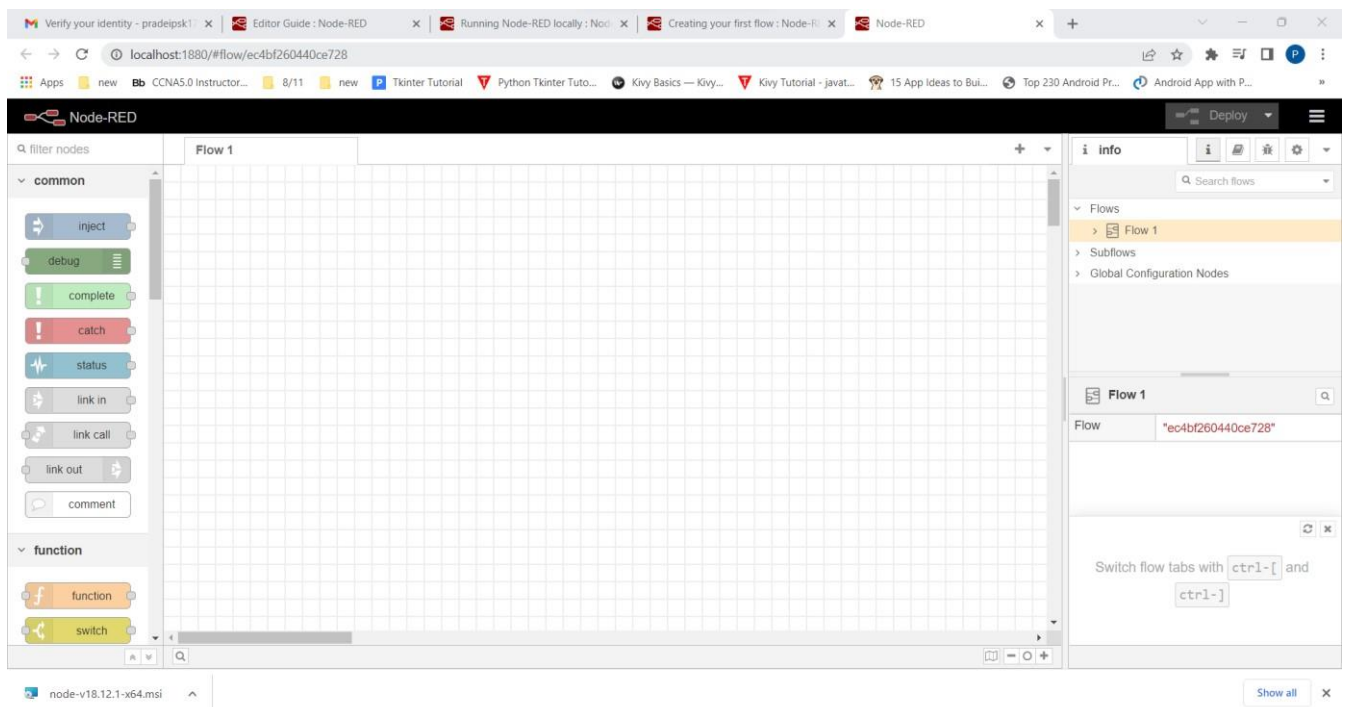
IBM CLOUD DASHBOARD:
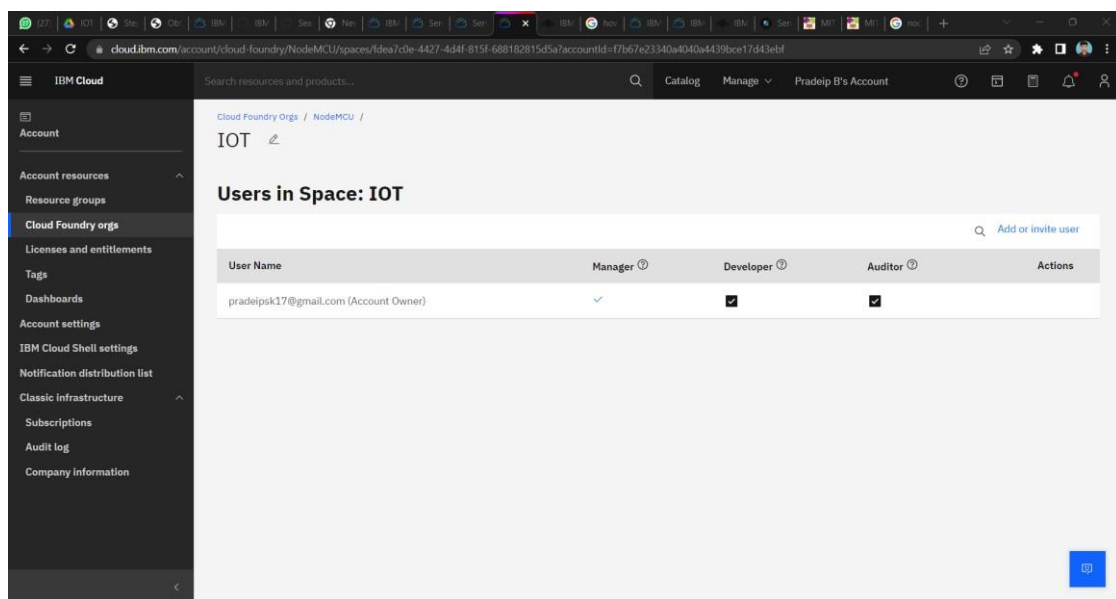
IBM WATSON IOT PLATFORM:

MIT APP INVENTOR:

NODE-RED:

MEASURING TEMPERATURE AND HUMIDITY VALUES WITH ESP 32:

Program:

```cpp
#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() { 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("%"));
    }
  }
```