Develop a code to publich in IBM IoT Platform

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Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application

Connecting Sensors with Arduino using C++ code

```
#include "Arduino.h"

#include "dht.h"

#include "SoilMoisture.h"

#define dht_apin A0


#define organization = "mmbh4c"

#define deviceType = "smartfarmer"

#define deviceId = "smartfarmer_1"

#define authMethod = "use-token-auth"

#define authToken = "123456789"


char server[] = ORG
".messaging.internetofthings.ibmcloud.com";

char publishTopic[] = "iot-2/evt/abcd_1/fmt/json";

char topic[] = "iot-2/cmd/home/fmt/String";

char authMethod[] = "use-token-auth";

char token[] = TOKEN;

char clientId[] = "d:" ORG ":" DEVICE_TYPE ":"
DEVICE_ID;
```

```
const int sensor_pin = A1;  //soil moisture
int pin_out = 9;
dht DHT;
int c=0;
void setup()
{
pinMode(2, INPUT); //Pin 2 as INPUT
pinMode(3, OUTPUT); //PIN 3 as OUTPUT
pinMode(9, OUTPUT);//output for pump
}
void loop()
{
  if (digitalRead(2) == HIGH)
  {
  digitalWrite(3, HIGH);   // turn the LED/Buzz ON
  delay(10000);  // wait for 100 msecond
  digitalWrite(3, LOW);   // turn the LED/Buzz OFF
  delay(100);
  }
   Serial.begin(9600);
     delay(1000);
    DHT.read11(dht_apin); //temprature
  float h=DHT.humidity;
```

```
 float t=DHT.temperature;
  delay(5000);
  Serial.begin(9600);
  float moisture_percentage;
 int sensor_analog;
 sensor_analog = analogRead(sensor_pin);
 moisture_percentage = ( 100 - ( (sensor_analog/1023.00) *
100 ) );
 float m=moisture_percentage;
 delay(1000);
 if(m<40)//pump
 {
 while(m<40)
 {
 digitalWrite(pin_out,HIGH);      //open pump
 sensor_analog = analogRead(sensor_pin);
 moisture_percentage = ( 100 - ( (sensor_analog/1023.00) *
100 ) );
 m=moisture_percentage;
 delay(1000);
 }
 digitalWrite(pin_out,LOW);     //closepump
 }
```

```
  if(c>=0)
  {
  mySerial.begin(9600);
  delay(15000);
  Serial.begin(9600);
  delay(1000);
  Serial.print("\r");
  delay(1000);

  Serial.print((String)"update-
>"+(String)"Temprature="+t+(String)"Humidity="+h+(String
)"Moisture="+m);
  delay(1000);
    }
}
```