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.c
om";
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(960
     0); 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_percenta
 ge; delay(1000);
 }
 digitalWrite(pin_out,LOW);    //closepump
```

```
}
```

```
  if(c>=0)
  {
  mySerial.begin(960
  0); 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);
    }
}
```