Project development phase

SPRINT-1

TEAM ID	PNT2022TMID47947
PROJECT NAME	SMARTFARMER - IOT ENABLED SMART FARMING APPLICATION

Program:

```
#include "Arduino.h"#include

"dht.h"

#include "SoilMoisture.h"

#define dht_apin A0 const int sensor_pin = A1; //soil moistureint pin_out = 9; dht DHT; int c=0; void setup() { pinMode(2, INPUT); //Pin 2 as INPUT pinMode(3, OUTPUT);

//PIN 3 as OUTPUTpinMode(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 OFFdelay(100);

}

Serial.begin(9600); delay(1000);

DHT.read11(dht_apin); //tempraturefloat 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);

}

}