PROJECT DEVELOPMENT PHASE
SPRINT-3

Date	12 November 2022
Team ID	PNT2022TMID49939
Project Name	Smart farmer- IoT based smart farming application.

Code:

```
#include <ESP8266WiFi.h>
#include <ESP8266HTTPClient.h>
 String thingSpeakAddress= "http://api.thingspeak.com/update?";
 String writeAPIKey;
 String tsfield1Name;
 String request_string,request_string1;
 HTTPClient http;
 #include <DHT.h>
 #include <ESP8266WiFi.h>
 String apiKey = "77921LPMGM2OAGQE";
 char *ssid = "DESKTOP";
 char *pass = "asdfghjkl";
 char* server = "api.thingspeak.com";
 #define DHTPIN 0
 dht(DHTPIN, DHT11);
 WiFiClient client;
 void setup()
 {
 dht.begin();
 Serial.begin(115200);
 delay(3000);
 WiFi.disconnect();
 Serial.println("START");
 WiFi.begin("DESKTOP","asdfghjkl");
 while ((!(WiFi.status() == WL_CONNECTED)))
{
 delay(300);
 Serial.println("...");
 }
 Serial.println("I AM CONNECTED");
}
 void loop()
 {
 if (client.connect("api.thingspeak.com",80))
 {
 request_string = thingSpeakAddress;
 request_string += "key=";
```

```
 request_string += "77921LPMGM2OAGQE";
 request_string += "&";
 request_string += "field3";
 request_string += "=";
 request_string += analogRead(A0);
 http.begin(request_string);
 http.GET();
 http.end();
 }
 delay(10);
 float h = dht.readHumidity();
 float t = dht.readTemperature();
 if (isnan(h) || isnan(t))
{
 Serial.println("Failed to read from DHT sensor!");
 return;
 }
 if (client.connect(server,80))
 {
 String postStr = apiKey;
 postStr +="&field1=";
 postStr += String(t);
 postStr +="&field2=";
 postStr += String(h);
 postStr += "\r\n\r\n";
 client.print("POST /update HTTP/1.1\n");
 client.print("Host: api.thingspeak.com\n");
 client.print("Connection: close\n");
 client.print("X-THINGSPEAKAPIKEY: "+apiKey+"\n");
 client.print("Content-Type: application/x-www-form-urlencoded\n"); client.print("Content-
Length: ");
 client.print(postStr.length());
 client.print("\n\n");
 client.print(postStr);
 Serial.print("Temperature: ");
 Serial.print(t);
 Serial.print(" degrees Celcius, Humidity: ");
 Serial.print(h);
 Serial.print(" Soil Sensor ");
 Serial.print(A0);
 Serial.println("%. Send to Thingspeak.");
 }
 client.stop();
 Serial.println("Waiting...");
 delay(10);
 }
```