**ARDUINO CODE**

#include <SPI.h>

#include <MFRC522.h>

#include "SoftwareSerial.h"

#define SS\_PIN 10

#define RST\_PIN 9

#define led 7

#define redled 6

MFRC522 mfrc522(SS\_PIN, RST\_PIN); // Create a MFRC522 object.

SoftwareSerial ser(2,3); // RX, TX

void setup()

{

pinMode(led,OUTPUT);

pinMode(redled,OUTPUT);

Serial.begin(9600); // Initiate the serial communication

ser.begin (115200);

SPI.begin(); // Initiate the SPI bus

mfrc522.PCD\_Init(); // Initiate MFRC522

Serial.println("PLEASE PUT RFID TAG IN FRONT OF THE SCANNER...");

Serial.println();

}

void loop()

{

// Look for new cards

if ( ! mfrc522.PICC\_IsNewCardPresent())

{

return;

}

// Select one of the cards

if ( ! mfrc522.PICC\_ReadCardSerial())

{

return;

}

//Show UID on serial monitor

String content= "";

byte letter;

for (byte i = 0; i < mfrc522.uid.size; i++)

{

Serial.print(mfrc522.uid.uidByte[i] < 0x10 ? " 0" : " ");

Serial.print(mfrc522.uid.uidByte[i], HEX);

content.concat(String(mfrc522.uid.uidByte[i] < 0x10 ? " 0" : " "));

content.concat(String(mfrc522.uid.uidByte[i], HEX));

}

Serial.println();

Serial.print("Roll No./Name: ");

content.toUpperCase();

if (content.substring(1) == "BA 96 7B 82" ) //change here the UID of the card

{

Serial.println("1-Vivek Garg");

digitalWrite(led,HIGH);

delay(1500);

digitalWrite(led,LOW);

ser.write(1);

Serial.println();

delay(3000);

}

if (content.substring(1) == "AA 8A C9 25" ) //change here the UID of the card

{

Serial.println("2-Liza");

digitalWrite(led,HIGH);

delay(1500);

digitalWrite(led,LOW);

ser.write(2);

Serial.println();

delay(3000);

}

/\* if (content.substring(1) == "D7 63 6D B5" ) //change here the UID of the card

{

Serial.println("3-Yashika");

digitalWrite(led,HIGH);

delay(1500);

digitalWrite(led,LOW);

ser.write(3);

Serial.println();

delay(3000);

}\*/

else

{

Serial.println("RFID NOT RECOGNISED");

digitalWrite(redled,HIGH);

delay(1500);

digitalWrite(redled,LOW);

}

}

**NODE MCU 12 MODULE**

#include <ESP8266WiFi.h>

#include "Adafruit\_MQTT.h"

#include "Adafruit\_MQTT\_Client.h"

// WiFi parameters

#define WLAN\_SSID "One plus Nord Abi"

#define WLAN\_PASS "a.b.i@123"

// Adafruit IO

#define AIO\_SERVER "io.adafruit.com"

#define AIO\_SERVERPORT 1883

#define AIO\_USERNAME "Abi35"

#define AIO\_KEY "aio\_CMCl64fYI8L1nmaEpRL9V9YQuyqm"

WiFiClient client;

// Setup the MQTT client class by passing in the WiFi client and MQTT server and login details.

Adafruit\_MQTT\_Client mqtt(&client, AIO\_SERVER, AIO\_SERVERPORT, AIO\_USERNAME, AIO\_KEY);

Adafruit\_MQTT\_Publish Attendance = Adafruit\_MQTT\_Publish(&mqtt, AIO\_USERNAME "/feeds/rfid-attendance");

char ID;

void setup() {

Serial.begin(115200);

Serial.println(F("Adafruit IO Example"));

// Connect to WiFi access point.

Serial.println(); Serial.println();

delay(10);

Serial.print(F("Connecting to "));

Serial.println(WLAN\_SSID);

WiFi.begin(WLAN\_SSID, WLAN\_PASS);

while (WiFi.status() != WL\_CONNECTED) {

delay(500);

Serial.print(F("."));

}

Serial.println();

Serial.println(F("WiFi connected"));

Serial.println(F("IP address: "));

Serial.println(WiFi.localIP());

// connect to adafruit io

connect();

}

// connect to adafruit io via MQTT

void connect() {

Serial.print(F("Connecting to Adafruit IO... "));

int8\_t ret;

while ((ret = mqtt.connect()) != 0) {

switch (ret) {

case 1: Serial.println(F("Wrong protocol")); break;

case 2: Serial.println(F("ID rejected")); break;

case 3: Serial.println(F("Server unavail")); break;

case 4: Serial.println(F("Bad user/pass")); break;

case 5: Serial.println(F("Not authed")); break;

case 6: Serial.println(F("Failed to subscribe")); break;

default: Serial.println(F("Connection failed")); break;

}

if(ret >= 0)

mqtt.disconnect();

Serial.println(F("Retrying connection..."));

delay(5000);

}

Serial.println(F("Adafruit IO Connected!"));

}

void loop() {

// ping adafruit io a few times to make sure we remain connected

if(! mqtt.ping(3)) {

// reconnect to adafruit io

if(! mqtt.connected())

connect();

}

if ( Serial.available() ) { // Update and send only after 1 seconds

char a = Serial.read();

ID = a;

if (! Attendance.publish(ID)) { //Publish to Adafruit

Serial.println(F("Failed"));

} else {

Serial.println(F("Sent!"));

}

}

}