**IOT ASSIGNMENT-7**

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Develop a mobile application that takes the user input and sends it to IoT device (ESP32). Display the received data on the OLED display.

CODE:-

#include <Wire.h>

#include <Adafruit\_GFX.h>

#include <Adafruit\_SSD1306.h>

#define SCREEN\_WIDTH 128 // OLED display width, in pixels

#define SCREEN\_HEIGHT 64 // OLED display height, in pixels

#include "BluetoothSerial.h"

BluetoothSerial SerialBT;

// Declaration for an SSD1306 display connected to I2C (SDA, SCL pins)

Adafruit\_SSD1306 display(SCREEN\_WIDTH, SCREEN\_HEIGHT, &Wire, -1);

void setup() {

Serial.begin(115200);

SerialBT.begin("ESP32test"); //Bluetooth device name

Serial.println("The device has started, now you can pair it with bluetooth!");

Serial.println("oled test");

if(!display.begin(SSD1306\_SWITCHCAPVCC, 0x3C)) {

Serial.println("SSD1306 allocation failed");

for(;;);

}

delay(2000);

display.clearDisplay();

display.setTextSize(1);

display.setTextColor(WHITE);

display.setCursor(0, 10);

// Display static text

display.println("Helloeveryone");

display.display();

}

void loop() {

if (Serial.available()) {

SerialBT.write(Serial.read());

}

while(SerialBT.available()) {

// Serial.write(SerialBT.read());

char a =SerialBT.read();

Serial.println(a);

delay(20);

display.clearDisplay();

display.setTextSize(1);

display.setTextColor(WHITE);

display.setCursor(0, 10);

// Display static text

display.print(a);

}

display.display();

}