**ASSIGNMENT-7**

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

/Taking user input and displaying on the OLED display/

#include <Wire.h>

#include <Adafruit\_GFX.h>

#include <Adafruit\_SSD1306.h>

#define SCREEN\_WIDTH 128

#define SCREEN\_HEIGHT 64

#include "BluetoothSerial.h"

BluetoothSerial SerialBT;

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

void setup()

{

Serial.begin(115200);

SerialBT.begin("ESP32");

Serial.println("Device is started pair it with bluetooth");

Serial.println("OLED");

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

{

Serial.println("SSD1306 allocation failed");

for(;;);

}

delay(1000);

display.clearDisplay();

display.setTextSize(1);

display.setTextColor(WHITE);

display.setCursor(0, 10);

display.println("Hello");

display.display();

}

void loop()

{

if (Serial.available())

{

SerialBT.write(Serial.read());

}

while(SerialBT.available())

{

char a =SerialBT.read();

Serial.println(a);

delay(10);

display.clearDisplay();

display.setTextSize(1);

display.setTextColor(WHITE);

display.setCursor(0, 10);

display.print(a);

}

display.display();

}