

## Project Development Phase

### Sprint 4

Date	11 November 2022
Team ID	PNT2022TMID20420
Project Name	Industry Specific-Intelligent Fire Management System
Maximum Marks	2

```
#include<SoftwareSerial.h>
```

```
#include<TinyGPS.h>
```

```
SoftwareSerial gsm(7,8);
```

```
#define BLYNK_TEMPLATE_ID "TMPL-uhc59_T"
```

```
#define BLYNK_DEVICE_NAME "Fire alert"
```

```
#define BLYNK_AUTH_TOKEN "jkfkhu5fzDC9_PBdtssloT9OmXq3THwb"
```

```
#define BLYNK_FIRMWARE_VERSION "0.1.0"
```

```
#define BLYNK_PRINT Serial
```

```
//#define BLYNK_DEBUG
```

```
#define APP_DEBUG
```

```
#include <ESP8266WiFi.h>
```

```
#include <BlynkSimpleEsp8266.h>
```

```
#include "DHT.h"
```

```
#define DHTPIN 5
```

```
#define DHTTYPE DHT22
```

```
DHT dht(DHTPIN, DHTTYPE);
```

```
char auth[]=BLYNK_AUTH_TOKEN;
```

```
char ssid[]="OPPO A52";
```

```
char pass[]="6380604277";
```

```
int Gas=A0;
```

```
int Flame=4;
```

```
int buzz=2;
```

```
int redLight=3;
```

```
int greenLight=4;
```

```
float sensorvalue;
```

```
int flamevalue;
```

```
void setup() {
```

```
    pinMode(Gas, INPUT);
```

```
    pinMode(Flame, INPUT);
```

```
    pinMode(buzz,OUTPUT);
```

```
    pinMode(redLight,OUTPUT);
```

```
    pinMode(greenLight,OUTPUT);
```

```
    Serial.begin(115200);
```

```
    Blynk.begin(auth,ssid,pass);
```

```
    dht.begin();
```

```
    gsm.begin(9600);
```

```
}
```

```
void loop() {
```

```
    sensorvalue = analogRead(Gas);
```

```
    flamevalue= digitalRead(Flame);
```

```
    Blynk.run();
```

```
    Blynk.virtualWrite(V0,sensorvalue);
```

```
    Blynk.virtualWrite(V1,!flamevalue);
```

```
    Serial.print("Gas value:");
```

```
    Serial.println(sensorvalue);
```

```
    Serial.print("flame state:");
```

```
Serial.println(!(flamevalue));
```

```
float h = dht.readHumidity();
```

```
float t = dht.readTemperature();
```

```
if (isnan(h) || isnan(t)) {
```

```
    Serial.println("Failed to read from DHT sensor!");
```

```
    return;
```

```
}
```

```
Serial.print("Humidity: ");
```

```
Serial.print(h);
```

```
Serial.print(" %\t");
```

```
Serial.print("Temperature: ");
```

```
Serial.print(t);
```

```
if(flamevalue==0){
```

```
    tone(buzz,1000,200);
```

```
    digitalWrite(redLight,HIGH);
```

```
    digitalWrite(greenLight,LOW);
```

```
gsm.println("AT+CMGF=1\r");
```

```
delay(1000);
```

```
gsm.print("AT+CSMP=17,167,0,0\r");
```

```
delay(1000);
```

```
gsm.println("AT+CMGS=\"+916380604277\"\r");//replace x by your number
```

```
delay(1000);
```

```
gsm.write("Fire alert\n");
```

```
delay(100);
```

```
gsm.write("location:Latitude:13.0663,Longitude:80.1112
```

```
currentlocation:http://maps.google.com/maps?&z=15&mrt=yp&t=k&q=13.0663,80.1112");
```

```
delay(100);
```

```

    gsm.println((char)26);
    delay(1000);
}
else{
    noTone(buzz);
    digitalWrite(redLight,LOW);
    digitalWrite(greenLight,HIGH);
}

if(sensorvalue>500){
    tone(buzz,1000,200);
    digitalWrite(redLight,HIGH);
    digitalWrite(greenLight,LOW);

    gsm.println("AT+CMGF=1\r");
    delay(1000);
    gsm.print("AT+CSMP=17,167,0,0\r");
    delay(1000);
    gsm.println("AT+CMGS=\"+916380604277\"\r");//replace x by your number
    delay(1000);
    gsm.write("Gas has Leaked\n");
    delay(100);
    gsm.write("location:Latitude:13.0663,Longitude:80.1112
currentlocation:http://maps.google.com/maps?&z=15&mrt=yp&t=k&q=13.0663,80.1112");
    delay(100);
    gsm.println((char)26);
    delay(1000);
}
else{
    noTone(buzz);
    digitalWrite(redLight,LOW);
    digitalWrite(greenLight,HIGH);
}

```

