SPRINT -1

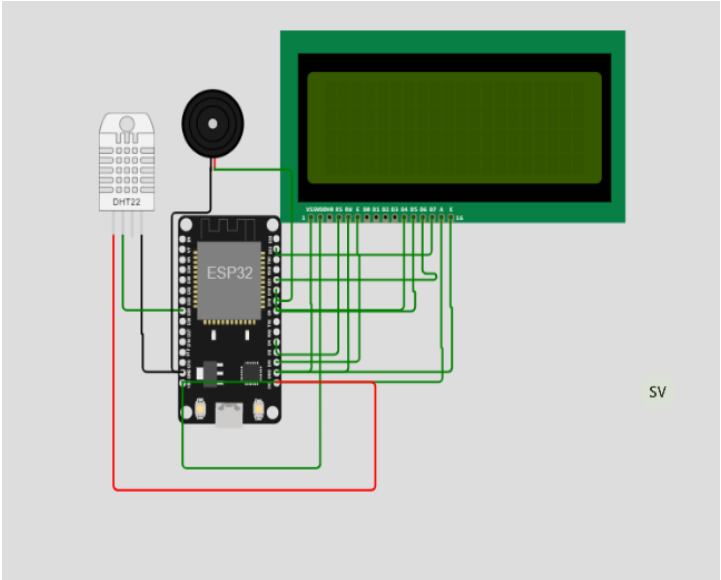
Date	8 NOV 2022
Team ID	PNT2022TMID35909
Project Name	Project - Gas Leakage Monitoring and Alerting Systems for Industries

SIMULATION :

```
#include <LiquidCrystal.h>
#include "DHTesp.h"

#define BUZZER_PIN 19  // define type of sensor DHT 11

const int DHT_PIN = 25;
DHTesp dhtSensor;
LiquidCrystal lcd(4,15,5,18,21,22);
int ThreshHold = 60;

void setup() {
  Serial.begin(9600);
  dhtSensor.setup(DHT_PIN, DHTesp::DHT22);
  lcd.begin(16,2);
  pinMode(BUZZER_PIN, OUTPUT);
}

void loop() {
  delay(2000);
  TempAndHumidity  data = dhtSensor.getTempAndHumidity();
  Serial.println("Temperature: " + String(data.temperature, 2) + "°C");
  Serial.println("Humidity: " + String(data.humidity, 1) + "%");

  int gassensor=random(0,100);
  Serial.print(F("Gas Concentration: "));
```

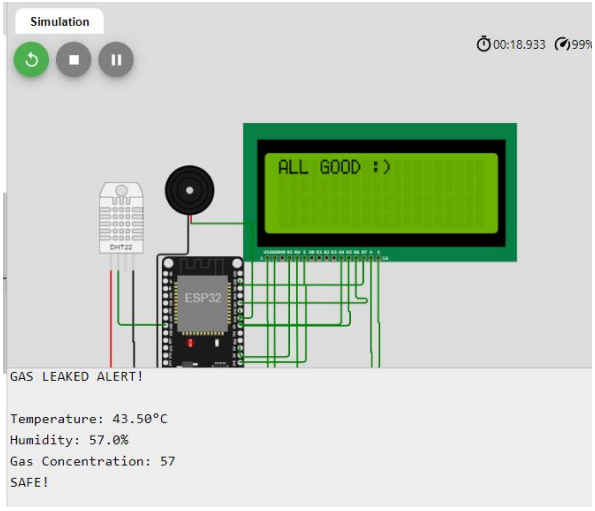
```
  Serial.println(gassensor);

  if (gassensor>ThreshHold)
  {
    Serial.println(F("GAS LEAKED ALERT!"));
    Serial.println();
    lcd.clear();
    lcd.print ("GAS LEAKAGE :(");
    tone(BUZZER_PIN,31);
    delay (1000);
    lcd.clear();
    lcd.print ("ALERT!!!");
    delay(1000);
    noTone(BUZZER_PIN);

  }

  else
  {
    Serial.println(F("SAFE!"));
    Serial.println();
    lcd.clear();
    lcd.print ("ALL GOOD :)");
    delay(1000);
    lcd.clear();
    lcd.print ("SAFE!");
    delay(1000);
  }
}
```

CIRCUIT DIAGRAM :

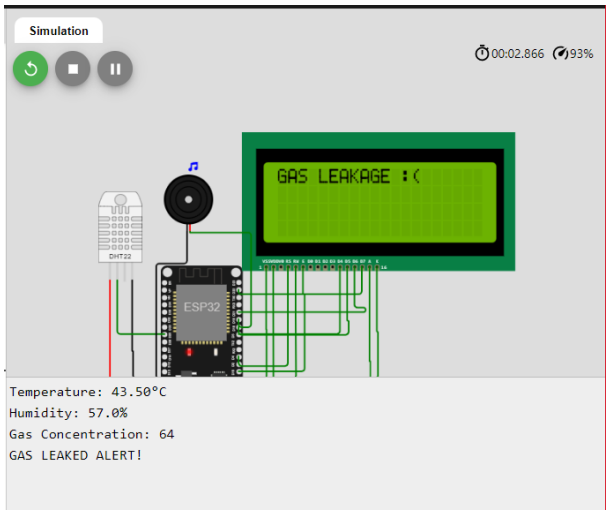


RESULT :

1)Normal mode:

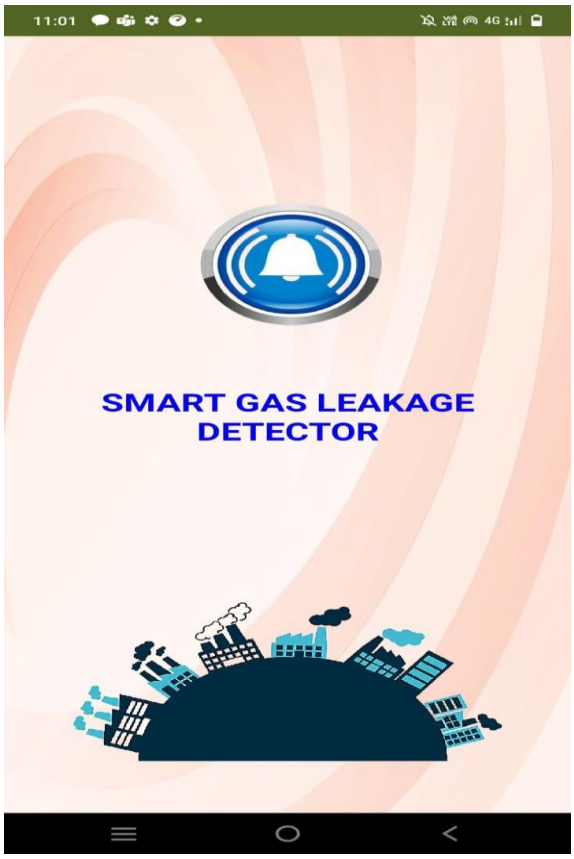


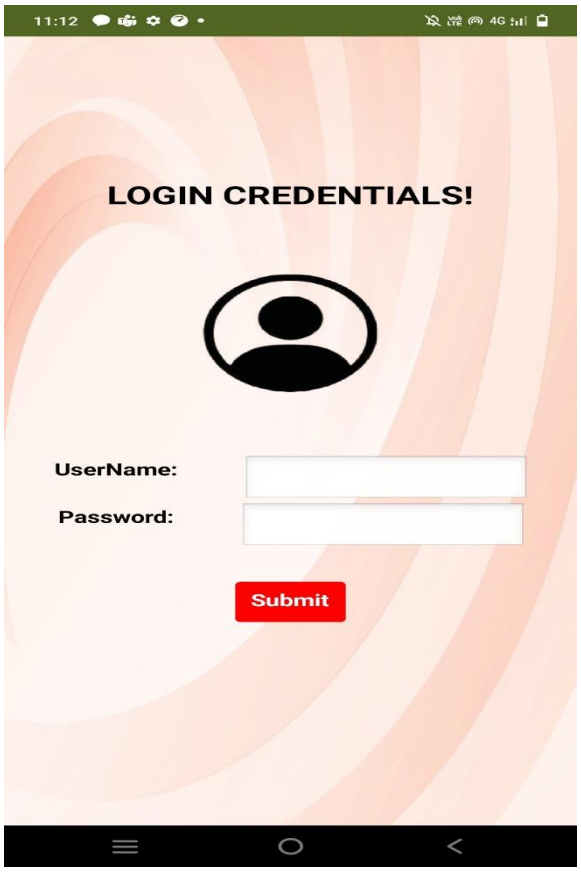
2)Alert mode:

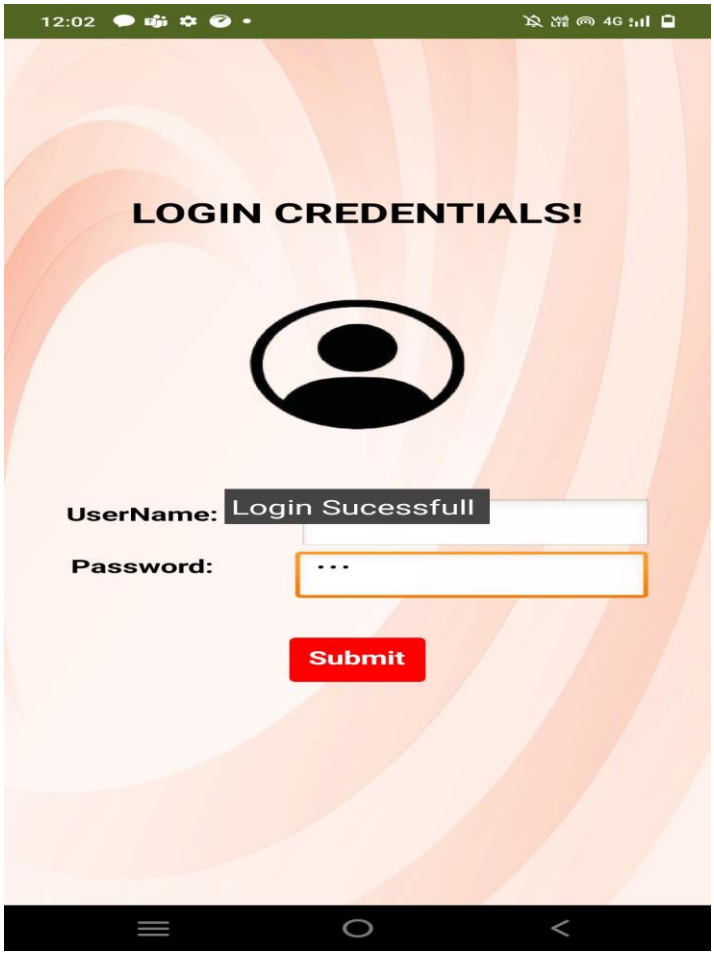


LINK: https://wokwi.com/projects/347851011636855378

MIT APP OUTPUT IN MOBILE PHONE






12:02
LOGIN CREDENTIALS!
UserName:
Login Sucessfull
Password:
Submit