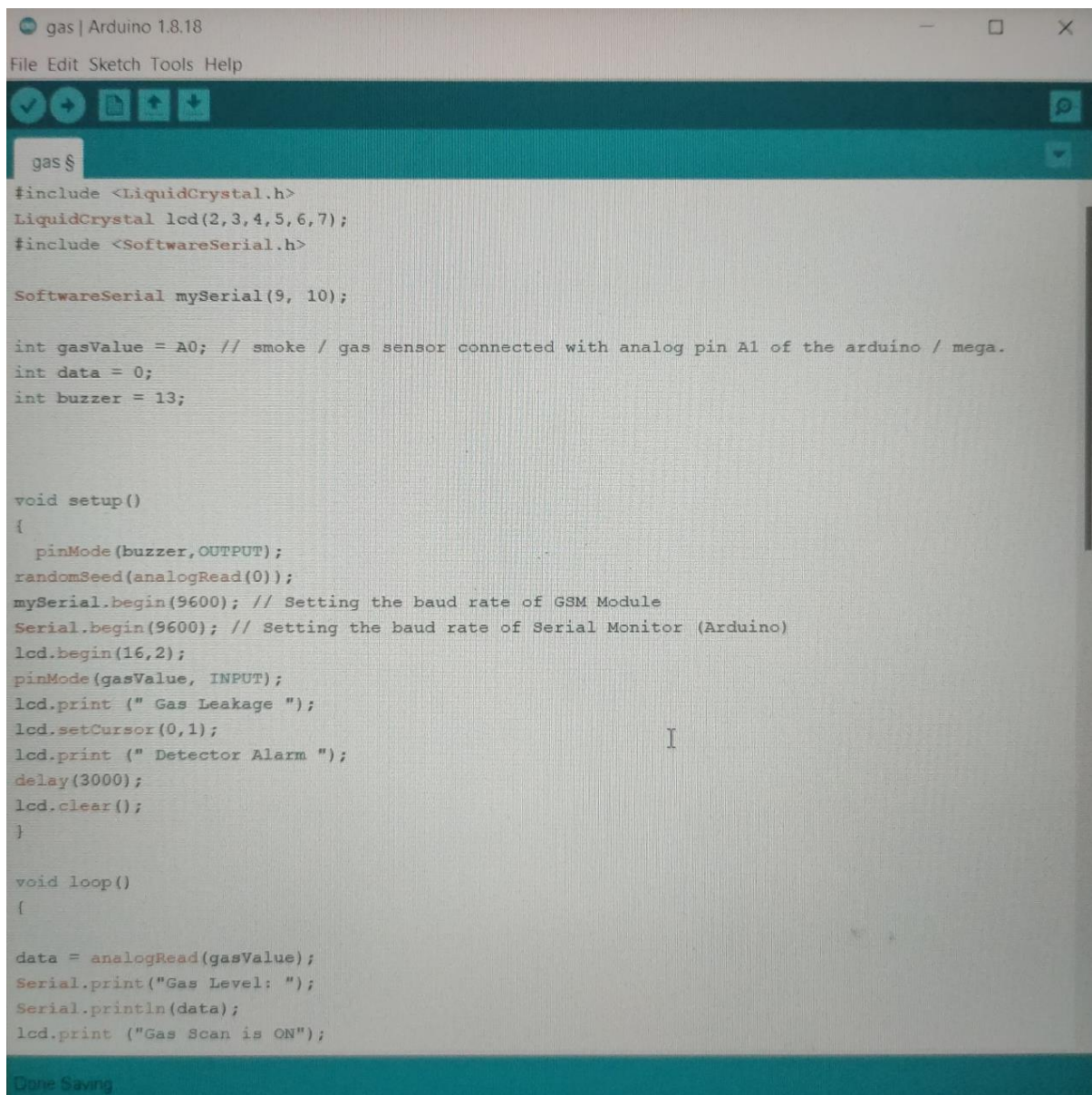


Sprint-2

Project planning phase

Date	04 November 2022
Team ID	PNT2022TMID49514
Project Name	Project – Gas Leakage Monitoring and Alerting System



The screenshot shows the Arduino IDE interface with a sketch titled "gas". The code is written in C++ and includes the following components:

- Headers:** `<LiquidCrystal.h>` and `<SoftwareSerial.h>` are included.
- Hardware Setup:** A `LiquidCrystal` object is initialized with pins 2, 3, 4, 5, 6, and 7. A `SoftwareSerial` object named `mySerial` is initialized with pins 9 and 10.
- Variables:** `gasValue` is set to A0 (commented as smoke/gas sensor), `data` is an integer set to 0, and `buzzer` is an integer set to 13.
- Setup Function:** Configures the buzzer pin as output, seeds the random number generator, sets the baud rate for the GSM module (9600) and Serial Monitor (9600), initializes the LCD (16x2), configures the gas sensor pin as input, and prints "Gas Leakage" and "Detector Alarm" to the LCD with a 3000ms delay.
- Loop Function:** Reads the gas value from A0, prints "Gas Level:" followed by the value to the Serial Monitor, and prints "Gas Scan is ON" to the LCD.

```
gas $
#include <LiquidCrystal.h>
LiquidCrystal lcd(2,3,4,5,6,7);
#include <SoftwareSerial.h>

SoftwareSerial mySerial(9, 10);

int gasValue = A0; // smoke / gas sensor connected with analog pin A1 of the arduino / mega.
int data = 0;
int buzzer = 13;

void setup()
{
    pinMode(buzzer, OUTPUT);
    randomSeed(analogRead(0));
    mySerial.begin(9600); // Setting the baud rate of GSM Module
    Serial.begin(9600); // Setting the baud rate of Serial Monitor (Arduino)
    lcd.begin(16,2);
    pinMode(gasValue, INPUT);
    lcd.print (" Gas Leakage ");
    lcd.setCursor(0,1);
    lcd.print (" Detector Alarm ");
    delay(3000);
    lcd.clear();
}

void loop()
{
    data = analogRead(gasValue);
    Serial.print("Gas Level: ");
    Serial.println(data);
    lcd.print ("Gas Scan is ON");
}
```

```
gas | Arduino 1.8.18
File Edit Sketch Tools Help

gas $
lcd.setCursor(0,1);
lcd.print("Gas Level: ");
lcd.print(data);
delay(1000);

if ( data > 90) //
{
    digitalWrite(buzzer, HIGH);
    SendMessage();
    Serial.print("Gas detect alarm");
    lcd.clear();
    lcd.setCursor(0,0);
    lcd.print("Gas Level Exceed");
    lcd.setCursor(0,1);
    lcd.print("SMS Sent");

    delay(1000);
}
else
{
    digitalWrite(buzzer, LOW);
    Serial.print("Gas Level Low");
    lcd.clear();
    lcd.setCursor(0,0);
    lcd.print("Gas Level Normal");

    delay(1000);
}

lcd.clear();
}
```