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Project Name	Hazardous Area Monitoring for Industrial Plant
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ASSIGNMENT-1

QUESTION

Make a smart home with 2-3 sensors LED, Buzzer in single code and connections.

CODE:

```
int LED1 = 12;
int LED2 = 11;
int buzzer = 10;
int smoke = A5;
int bulb = 2;
int fan = 3;
int smokeThreshold = 500;
int inputPir = 9;
int baselineTemp = 0;
int celsius = 0;
int val = 0;

void setup() {
  pinMode(LED1, OUTPUT);
  pinMode(LED2, OUTPUT);
  pinMode(buzzer, OUTPUT);
  pinMode(smoke, INPUT);
  pinMode(inputPir, INPUT);
  pinMode(bulb, OUTPUT);
  pinMode(fan, OUTPUT);
  Serial.begin(9600);
}
```

```
void loop() {  
    int analogSensor = analogRead(smoke);  
  
    val = digitalRead(inputPir);  
  
    baselineTemp = 40;  
  
    celsius = map(((analogRead(A0) - 20) * 3.04), 0, 1023, -40, 125);  
    Serial.print(" TEMP: ");  
    Serial.print(celsius);  
    Serial.print(" C, ");  
  
    if (celsius < 25) {  
        digitalWrite(fan, LOW);  
    }  
    if (celsius > 25) {  
        digitalWrite(fan, HIGH);  
    }  
    Serial.print("Co2: ");  
    Serial.print(analogSensor);  
  
    if (analogSensor > smokeThreshold)  
    {  
        digitalWrite(LED1, HIGH);  
        digitalWrite(LED2, LOW);  
        tone(buzzer, 1000, 350);  
    }  
    else  
    {  
        digitalWrite(LED1, LOW);  
        digitalWrite(LED2, HIGH);  
    }  
}
```

```

    noTone(buzzer);
}
delay(100);
Serial.print(" PIR: ");
Serial.println(val);
if(val == HIGH)
{
    digitalWrite(bulb, HIGH);
    delay(2000);
}
else
{
    digitalWrite(bulb, LOW);
    delay(300);
}
}

```

OUTPUT

