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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