IBM ASSIGNMENT -1

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Smart Home Automation System Using IoT

Code:

```
int sensorReading = 0;


int inches = 0;
int cm = 0;
int triggerPin = 13;
int echoPin = 12;
int defult = 0;
long readUltrasonicDistance(int triggerPin,int echoPin)
{
  pinMode(triggerPin, OUTPUT);
  digitalWrite(triggerPin, LOW);
  delayMicroseconds(2);
  digitalWrite(triggerPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(triggerPin, LOW);
  pinMode(echoPin, INPUT);
  return pulseIn(echoPin, HIGH);
}


int adcPin = 0;
int adcValue = 0;
float v;
```

```
float rs,ppm;


int buttonState = 0;
void setup() {

        pinMode(8, OUTPUT);
        pinMode(A0, INPUT);

        Serial.begin(9600);

         pinMode(3, INPUT);
         pinMode(9, OUTPUT);



        pinMode(5, OUTPUT);
        pinMode(4, INPUT);
   pinMode(7, OUTPUT);
   pinMode(A1, INPUT);
}

void loop() {
        sensorReading = analogRead(A0);

   if(sensorReading < 900){
     digitalWrite(8, HIGH);
   }else{
     digitalWrite(8, LOW);
   }
```

```
        int value = digitalRead(3);
        if (value == 1)
        {
        tone(9, 440, 1000);
   }
        buttonState = digitalRead(4);
   if(buttonState == 1){
        digitalWrite(5,0);
   }
   else{
     digitalWrite(5,HIGH);
   }
  int sensor_gas = analogRead(A1);

  if(sensor_gas >= 400){
        digitalWrite(7,HIGH);
  }
  else{
    digitalWrite(7,LOW);
  }

  delay(1000);
}
```