Assignment 1

Name	C.Binish
Register number	963519106016

CODE:

```
int sensorValue = 0;

int greenled = 6;

int redled = 8;

int buzzer_pin = 11;

int sen1Value = 0;

int A;


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);

}

void setup()

{

  Serial.begin (9600);

  pinMode(11, OUTPUT);

  pinMode(6, OUTPUT);

  pinMode(8, OUTPUT);
```

```
  pinMode(4, INPUT);

  pinMode(12, OUTPUT);

  pinMode(13, OUTPUT);

  pinMode(A1, INPUT);

}


void loop()

{

  //-----Gas Sensor-----//

//-------------------------------

  int sensorValue = analogRead(A0);

  Serial.println(sensorValue);


  if(sensorValue > 100)

  {

   digitalWrite (buzzer_pin, HIGH);

   digitalWrite (redled, HIGH);

  }

  else

  {

   digitalWrite (buzzer_pin, LOW);

   digitalWrite (redled, LOW);

  }

  delay(1000);


//-----------------------------------------  //---------UltrasonicDistance----------//

//-----------------------------------------

  sen1Value = 0.01723*readUltrasonicDistance(3,2);


  if(sen1Value<10)

  {
```

```arduino
    Serial.print(" ||Door Open! ; Distance = ");

    Serial.print(sen1Value);

    digitalWrite (buzzer_pin, HIGH);

    digitalWrite (greenled, HIGH);

  }

  else

  {

    Serial.print(" ||Door Closed! ; Distance = ");

    Serial.print(sen1Value);

    digitalWrite (buzzer_pin, LOW);

    digitalWrite (greenled, LOW);

  }

  delay(1000);


//-----------------------------------------------

  //-------------PIR sensor----------------// //-------------------------------------------------

  if (digitalRead(4)==1)

  {

    digitalWrite(12,HIGH);

    delay(1000);

  }

  else

  {

    digitalWrite(12,LOW);

    delay(100);

  }

}
```