**ASSIGNMENT-1**

int trig=3;

int echo=2;

int buzzer=10;

int temp=A1;

int led=6;

int time;

int p;

int distance;

void setup()

{

pinMode(temp,INPUT);

pinMode(led,OUTPUT);

pinMode(trig,OUTPUT);

pinMode(echo,INPUT);

pinMode(buzzer,OUTPUT);

Serial.begin(9600);

}

void loop()

{

p=analogRead(temp);

p=p\*0.488;

Serial.print("temp");

Serial.println(p);

if(p<50)

{

digitalWrite(led,HIGH);

}

else

{

digitalWrite(led,LOW);

}

delay(500);

digitalWrite(trig,HIGH);

delayMicroseconds(10);

digitalWrite(trig,LOW);

time=pulseIn(echo,HIGH);

distance=time\*0.034/2;

if(distance<=10)

{

Serial.println("Door Open");

Serial.print("Distance");

Serial.println(distance);

digitalWrite(buzzer,HIGH);

delay(500);

}

else

{

Serial.println("Door Close");

Serial.print("Distance");

Serial.println(distance);

digitalWrite(buzzer,LOW);

delay(500);

}

}