Arduino Code:

```
const int trigPin = 7;
const int echoPin = 6;
const int LEDlampRed = 11;
const int LEDlampYellow = 10;
const int LEDlampGreen = 9;
const int buzzer = 3;
int sound = 500;
long durationInDigit, distanceInCM;

void setup()

{
Serial.begin (9600);
pinMode(trigPin, OUTPUT);
pinMode(echoPin, INPUT);
pinMode(LEDlampRed, OUTPUT);
pinMode(LEDlampYellow, OUTPUT);
pinMode(LEDlampGreen, OUTPUT);
pinMode(buzzer, OUTPUT);
}

void loop()
{
digitalWrite(trigPin, LOW);
delayMicroseconds(2);
digitalWrite(trigPin, HIGH);
delayMicroseconds(10);
digitalWrite(trigPin, LOW);
durationInDigit = pulseIn(echoPin, HIGH);
distanceInCM = (durationInDigit * 0.034) / 2;
```

```
if (distanceInCM > 300)
{

digitalWrite(LEDlampGreen, LOW);
digitalWrite(LEDlampYellow, LOW);
digitalWrite(LEDlampRed, LOW);
noTone(buzzer);
}
else if (distanceInCM <= 300 && distanceInCM > 250)
{

digitalWrite(LEDlampGreen, HIGH);
digitalWrite(LEDlampYellow, LOW);
digitalWrite(LEDlampRed, LOW);
noTone(buzzer);
}
else if (distanceInCM <= 250 && distanceInCM >200)
{

digitalWrite(LEDlampYellow, HIGH);
digitalWrite(LEDlampGreen, HIGH);
digitalWrite(LEDlampRed, LOW);
noTone(buzzer);
}
else if (distanceInCM <= 200 && distanceInCM >150)
{

digitalWrite(LEDlampYellow, HIGH);
digitalWrite(LEDlampGreen, HIGH);
digitalWrite(LEDlampRed,HIGH);
noTone(buzzer);
}
```

```
else if (distanceInCM <= 150 && distanceInCM >100)
{

digitalWrite(LEDlampYellow, HIGH);
digitalWrite(LEDlampGreen, HIGH);
digitalWrite(LEDlampRed, HIGH);
tone(buzzer,1047);
}
else if (distanceInCM <= 100 && distanceInCM >50)
{

digitalWrite(LEDlampYellow, HIGH);
digitalWrite(LEDlampGreen, HIGH);
digitalWrite(LEDlampRed, HIGH);
tone(buzzer, 8000);
}
else
{

digitalWrite(LEDlampGreen, HIGH);
digitalWrite(LEDlampYellow, HIGH);
tone(buzzer, 5000);
digitalWrite(LEDlampRed, HIGH);
delay(300);
digitalWrite(LEDlampRed, LOW);
tone(buzzer, 10000);
delay(300);
}
Serial.println("Someone is in the frontdoor in the distance of");
Serial.print(distanceInCM);
Serial.println(" cm");
}
```