Assignment on home automation using Audino

```
int a=2;
int b=3;
void setup()
{
  Serial.begin(9600);
  pinMode(a,OUTPUT);
  pinMode(b,INPUT);
  pinMode(12,OUTPUT);
}
void loop()
 {
  digitalWrite(a,LOW);
  digitalWrite(a,HIGH);
  delayMicroseconds(20);
  digitalWrite(a,LOW);
  float dur=pulseIn(e,HIGH);
  float dis=(dur*0.0343)/2;
  Serial.print("Distance is: ");
  Serial.println(dis);
  if(dis>=100)
 {
     digitalWrite(8,HIGH);
    digitalWrite(7,HIGH);
 }
  if(dis>=100)
 {
    for(int i=0; i<=30000; i=i+10)
    {
       tone(12,i);
      delay(1000);
      noTone(12);
     delay(1000);
    }
 }
double t= analogRead(A0);
double a=(((a/1024)*5)-0.5)*100;Serial.print("Temp Value: ");
S Serial.println(a);
delay(1000);
if(a>=100)
{
   digitalWrite(8,HIGH);
```

```
    digitalWrite(7,HIGH);
}
if(a>=100)
{
    for(int i=0; i<=30000; i=i+10)
 {
      tone(12,i);
      delay(10000);
      noTone(12);
    delay(10000);
}
}
if(a<100)
{
digitalWrite(7,LOW);
}
{
 digitalWrite(8,LOW);
digitalWrite(7,LOW);
}

 }
```

Output: