

Topic : Assignment on smart home automation using Arudino and Sensors

Code:-

```
int t=2;
int e=3;
void setup()
{
    Serial.begin(9600);
    pinMode(t,OUTPUT);
    pinMode(e,INPUT);
    pinMode(12,OUTPUT);
}
void loop()
{
    digitalWrite(t,0);
    digitalWrite(t,1);
    delayMicroseconds(10);
    digitalWrite(t,0);
    float dur=pulseIn(e,1);
    float dis=(dur*0.0343)/2;
    Serial.print("Distance is: ");
    Serial.println(dis);
    if(dis>=100)
    {
        digitalWrite(8,1);
        digitalWrite(7,1);
    }
    if(dis>=100)
    {
        for(int i=0; i<=30000; i=i+10)
        {
            tone(12,i);
```

```
    delay(1000);
    noTone(12);
    delay(1000);
}
}
double a= analogRead(A0);
double t=((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(t);
delay(1000); if(t>=100)
{
    digitalWrite(8,1);
    digitalWrite(7,1);
}
if(t>=100)
{
    for(int i=0; i<=30000; i=i+10)
    {
        tone(12,i);
        delay(1000);
        noTone(12);
        delay(1000);
    }
}
if(t<100)
{
    digitalWrite(8,0);
    digitalWrite(7,0);
}
}
```

Output:-

