Smart Farmer - IoT Enabled Smart Farming Application

ASSIGNMENT -1

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Build a smart home in Thinker cad with 2 sensors, an Led, buzzer and submit it

Code:

```
int t=2;
int e=3;


void setup()
{
Serial.begin(9600);
pinMode(t,OUTPUT);
pinMode(e,INPUT);
pinMode(12,OUTPUT);
}


void loop()
{
  //ultrasonic sensor
digitalWrite(t,LOW);
digitalWrite(t,HIGH);
delayMicroseconds(10);
digitalWrite(t,LOW);
  float dur=pulseIn(e,HIGH);
  float dis=(dur*0.0343)/2;
Serial.print("Distance is: ");
Serial.println(dis);
```

```
   //LED ON
  if(dis>=100)
  {
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
  }

  //Buzzer For ultrasonic Sensor
  if(dis>=100)
  {
for(int i=0; i<=30000; i=i+10)
  {
  tone(12,i);
delay(1000);
noTone(12);
delay(1000);
  }
  }
```

```
   //Temperate Sensor
  double a= analogRead(A0);
  double t=(((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(t);
delay(1000);
```

```
  //LED ON
  if(t>=100)
  {
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
  }

  //Buzzer for Temperature Sensor
  if(t>=100)
  {
for(int i=0; i<=30000; i=i+10)
  {
  tone(12,i);
delay(1000);
noTone(12);
delay(1000);
  }
  }

   //LED OFF
  if(t<100)
  {
digitalWrite(8,LOW);
digitalWrite(7,LOW);
  }
}
```

OUTPUT: