TEAM ID-PNT2022TMID53972

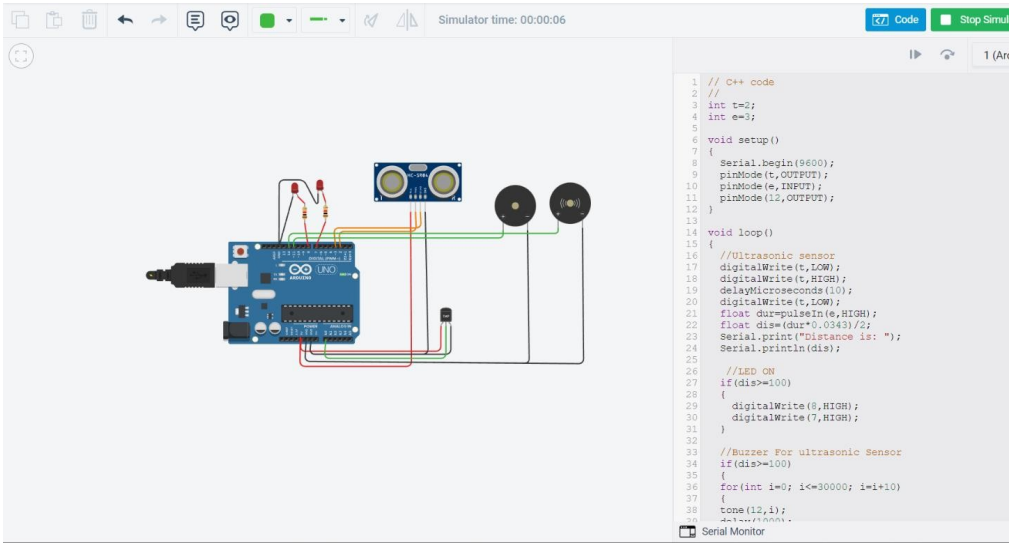
ASSIGNMENT 1

Question: Home Automation

Code:

```
//
C++
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);
  }
}
```


Simulator time: 00:00:06
Code
Stop Simul
1 (Ar
// C++ 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);
Serial Monitor