ASSIGNMENT-1

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Code:

```
//

C++cod

eintt=2;

inte=3;

voidset

up()

{

        Serial.begin(9600);pin

        Mode(t,OUTPUT);pin

        Mode(e,INPUT);pinMo

        de(12,OUTPUT);

}

voidloop()

{

  //ultrasonic

        sensordigitalWrite(t,LO

        W);digitalWrite(t,HIGH)

        ;delayMicroseconds(10;
```

```arduino
    digitalWrite(t,LOW);
    float
    dur=pulseIn(e,HIGH);float
    dis=(dur*0.0343)/2;Serial.
    print("Distanceis:");Serial.
    println(dis);
//LEDON

if(dis>=60)        //(intermsofcentimeter)
{

    digitalWrite(8,HIGH);digitalWri
    te(7,HIGH);
}
//BuzzerForultrasonicS
ensorif(dis>=60)
{
    for(inti=0;i<=5;i=i+1)
{
tone(12,i);d
elay(1000);n
oTone(12);d
elay(1000);
}
}
```

```
//Temperate
Sensordoublea=analogRe
ad(A0);
doublet=(((a/1024)*5)0.5)*100;
Serial.print("Temp Value:
");Serial.println(t);
delay(1000);

  //LEDON
 if(t>=20)          //(intermsofcelsius)
 {
      digitalWrite(8,HIGH);digitalWri
      te(7,HIGH);


 }
 //BuzzerforTemperature
 Sensorif(t>=20)
 {
      for(inti=0;i<=5;i=i+1)
 {
      tone(12,i);d
      elay(1000);n
      oTone(12);d
      elay(1000);
 }
```

```
  }
//LEDOFF
if(t<20)

{
      digitalWrite(8,
      LOW);digitalWrite(7,
      LOW);

      }
```