IBM TASK : 1

CODE:

```
int
        t=2;
         int e=3;
         void setup()
         {
          Serial.begin(9600);
          pinMode(t,OUTPUT);
          pinMode(e,INPUT);
          pinMode(12,OUTPUT);
          pinMode(11,OUTPUT);

         }

         void loop()
         {
          //ultrasonic sensor
          digitalWrite(t,LOW);
          digitalWrite(t,HIGH);
        delayMicroseconds(10);
          digitalWrite(t,LOW);
      float dur=pulseIn(e,HIGH);
```

```
float dis=(dur*0.0456)/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)
    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(11,i);
         delay(1000);
```

```
 noTone(11);
 delay(1000);
  }
}
//LED OFF
if(t<=100)
{

digitalWrite(8,LO
W);
digitalWrite(7,LO
W); }
  }
```