## **IBM ASSIGNMENT- 1**

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## Source code:

```
int var1=2;
int var2=3;
void setup() {
Serial.begin(9600);
pinMode(var1,OUTPUT);
pinMode(var2,INPUT);
pinMode(12,OUTPUT);
} void loop() {
digitalWrite(var1,LOW);
digitalWrite(var1,HIGH);
delayMicroseconds(10);
digitalWrite(var1,LOW);
float din=pulseIn(var2,HIGH);
float grad=(din*0.0343)/2;
Serial.print("Distance is: ");
Serial.println(grad);
if(grad>=100) {
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}
if(grad >= 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: "); S
Serial.println(t);
delay(1000);
if(t>=100) {
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}
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,LOW);
digitalWrite(7,LOW);
}
}
```

## **CIRCUIT DIAGRAM:**

