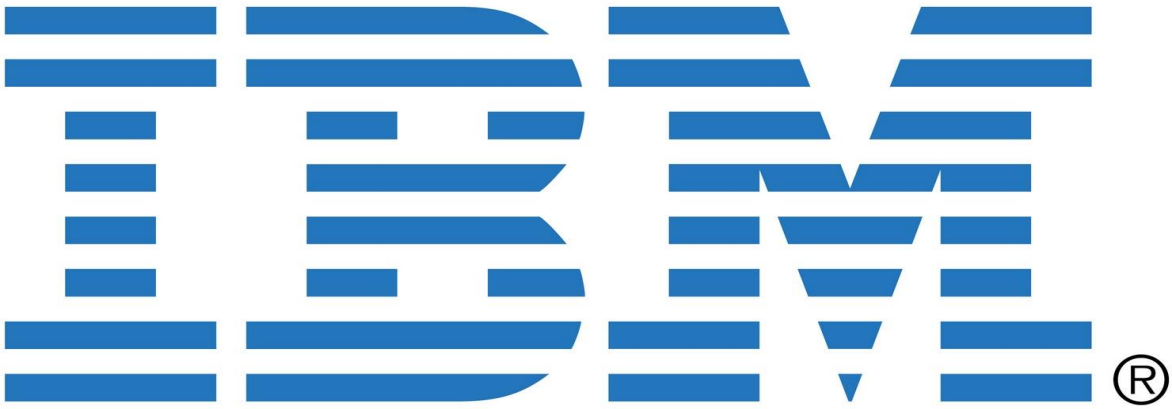
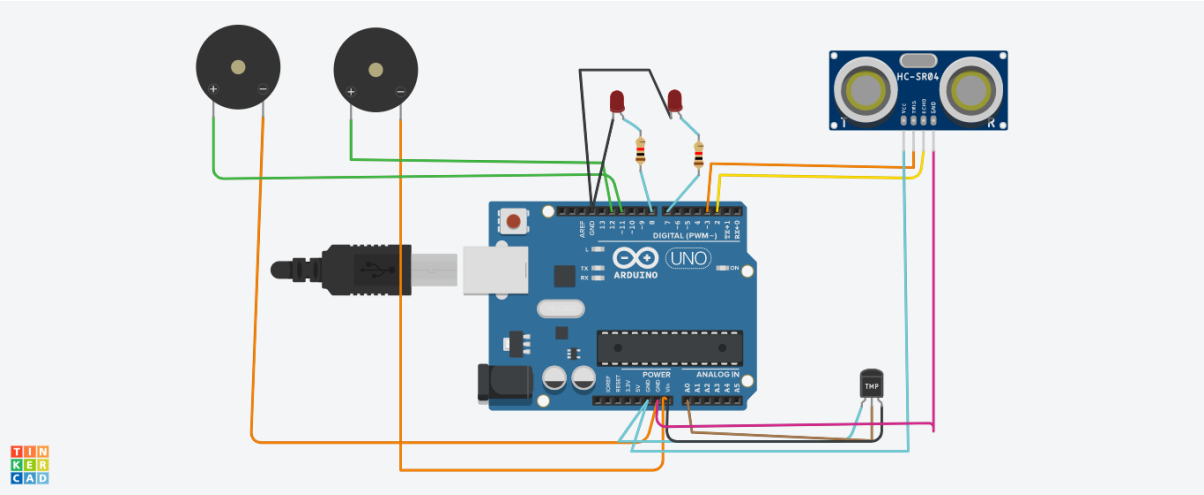


ASSIGNMENT 1

DOMAIN : IOT

TITTLE: SMARTHOME

SMARTHomeCircuitConnection:



Components Used:

i)2 Piezo Buzzers

ii)Temperature Sensor

iii)Ultrasonic Sensor

iv)LED -2

v)Resistor-2

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)//(in terms of centimeter)
 {
 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)//(in terms of celsius)
{
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);
 }
}
```