**Assignment -1**

Python Programming

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| Assignment Date | 16 September 2022 |
| Student Name | Mr.R.Purushothaman |
| Student Roll Number | 422119104019 |
| Maximum Marks | 2 Marks |

**Question:**

**To Build a any Type of Home Appliance with Program and Circuit.**

**program:**

**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);**

**}**

**//ultrasonic Sensor Buzzer**

**if(dis>=100)**

**{**

**for(int i=0; i<=30000; i=i+10)**

**{**

**tone(12,i);**

**delay(1000);**

**noTone(12);**

**delay(1000);**

**}**

**}**

**//Temperature Sensor**

**double a= analogRead(A0);**

**double t=(((a/1024)\*5)-0.5)\*100;**

**Serial.print("Temperature 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);**

**}**

**}**

**Circuit Design:**

