

Assignment -1
Python Programming

Assignment Date	30 October 2022
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Student Roll Number	910019106019
Maximum Marks	2 Marks

Question-1:

Build a smart home in Thinker cad with 2 sensors, an Led, buzzer and submit it.

Solution:

```
if(dis>=100) { 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);
}
```

```
//Buzzer For ultrasonic Sensor
```

```
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(12,i);  
delay(1000);  
noTone(12);  
delay(1000);  
}  
}
```

```
//LED OFF
```

```
if(t<100) {  
digitalWrite(8,LOW);  
digitalWrite(7,LOW);  
}  
}
```

