**Assignment -1**

Python Programming

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| Assignment Date | 30 October 2022 |
| Student Name | Sneha S |
| Student Roll Number | 910019106040 |
| 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);

}

}

