**Assignment -1**

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| Assignment Date | 15 september 2022 |
| Student Name | R.Sona |
| Student Roll Number | 710619106004 |
| Maximum Marks | 2 Marks |

**Question-1:**

Build a smart home in Tinkercad use atleast 2 sensors,led,buzzer in a circuit.Simulate in a single code

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| **Solution:** |
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|  | 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  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)  {  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);  } |
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